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Grammatical relation in applicative construction of Asahan Malay language

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Abstract This study depicts the realization of grammatical relation found in applicative construction in the Asahan Malay Language (AML). This study departs from the theory of relational grammar. The design of this study is by using a qualitative approach. In collecting the data, a documentation technique was used. The informants were three people whose sub-ethnic is Malay, and AML is their first language. They were observed speaking AML to distinguish the informants' appropriateness. The distributional method was used, and the data were presented formally and informally. Referring to the data analysis, the conclusion can be drawn that in the basic construction, FN: DO changes the relation into *chomeur* relation. Then, FN: OBL in basic construction converts into DO or occupy (R2) because it is directly placed after the verb. In the passive construction, the two FNs behind P lose their relation, thus bringing the predicate as *chomeur*.

Keywords: relational grammar, core argument, non-core argument, *chomeur*

1. Introduction

Grammatical relations (GR) play an important role in the syntactic construction of natural language, namely human language (Bresnan 2001). It is seen as part or element of a sentence/clause categorized as subject (S), direct object (DO), and indirect object (IO) (Comrie 1989). This is also a point of attention for determining the grammatical typology of language, namely the accusative system, the ergative system, and the S-split system (active language). Then, it is also viewed as the relationship between arguments (Basaria 2013, 2018) and the predicate at the level of a structure free from semantic and pragmatic influences (Payne 2002). To conclude, GR is crucial in syntactic construction and seeing the relationship between arguments.

Grammatical relations serve as a reference for describing various aspects of clause structures and universal principles that govern the syntactic structure of natural language. These are important to achieve the three goals of language theory, namely (1) formulating language universality; (2) determining the characteristics of each grammatical construction that exists in natural languages; and (3) constructing a good grammar for each language. For this purpose, a grammatical theory must examine general language data, which is utilized in all languages, and language-specific data, which uses only in certain languages (Basaria 2018; Jufrizal 2008).

Grammatical relations cannot be separated from relational grammar. In this theory, grammatical relations are considered undefined primitive. Relative alliances are recognized, including subject, direct object, indirect object, and oblique, which include benefactive, locative, and instrumental (Blake 1990). The characteristics of grammatical behavior that determine grammatical relations are case markers, participant reference markers on verbs, and constituent order (Kulikov 2010). In RG, there are several important general terms, namely subject (S), direct object (DO), indirect object (IO), ergative (ERG), absolutive (ABS), and oblique (OBL), which refer to weak nominal grammatical relation towards predicate (Jufrizal 2008).

The three relations of subjects, objects, and indirect objects are collectively called **terms**, and oblique is **not a term** or between core and non-core (Blake 1990; Farrel 2005). The term relation is given numbers, such as number 1 for the subject (S), number 2 for the direct object (OL), and number 3 for the indirect object (OTL). Meanwhile, non-tribal relations are called ***chomeur*** (Cho) or unemployed. The term has a grammatical function, for example, in verbal congruence and the possibility of being an object in a passive construction. What is called a ***chomeur*** is a constituent that loses grammatical function in syntactic relations (Suparmin 2018).

1.1. Applicative Construction

Applicative construction is a universal linguistic phenomenon. Almost all languages in the world have an applicable construction structure. In applicative construction, the verb used is transitive (Valenzuela 2010). Verbs in the applicable

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construction can be classified as the verb of *giving* or belong to *action verbs*. Action verbs have three subtypes: agentive motion, speech, and displacement. The focus of applicative construction is agentive and speech verbs.

One example of this process can be seen in changes in the hierarchy of objects, such as the change in the grammatical function of the object. This change involves the transformation of the object (O) into the direct object (DO) and oblique (OBL) into the indirect object (IO), as in the following example:

(Ia)	Indah	mamboli	balon	tu	buat	adiknyo
	S	ACT. buy	DO	DET	PREP	OBL-brother-POSS
	1		2			
	‘Indah buys that balloon for her brother’					

(Ib)	Indah	boli-kan	adiknyo	balon
	S	Buy-Appl	DO-brother-POSS	IO
	1		2	3
	Ag		Ben	
	‘Indah buys her brother balloon’			

Example (1a) is the basic structure of applicative construction in the Asahan Malay Language (AML). The grammatical function in the construction is Indah ‘Indah’ functions as the subject (S), buys ‘*mamboli*’ in the construction functions as a predicate (P) which is classified as an action transitive verb. Balloons ‘*balon*’ functions as DO, and her brother 'adiknyo' in the above construction is not as O because it is not directly behind the verb. Her brother has functioned as oblique OBL, which is signaled by the attachment of a preposition FOR ‘*untuk*’. But, it can get GR change, such as presented in construction (1b).

The changes that occur in construction (1b) are visible in the addition of the suffix -*kan* to verbs that affect grammatical function construction. In construction (1b), Indah as S has a role as an agent (Ag), boli-kan ‘buy’ as P, followed by the addition of the suffix -*kan* as the main feature of the applicative construction. *Adiknyo* ‘her brother’ has a function as DO because it is right behind the transitive verb. In that construction, *adiknyo* is a type of object with a benefactive role (Ben) which is expressed by the action of the verb (V) performed by the agent and can be transformed into an S in the passive voice construction. The *balloon* functions as an IO as it is located behind DO. That is why construction (1b) is called *benefactive applicative construction*. The changes in basic structure and structure are an applicative construction accompanied by a change in the function of the two NPs behind the verb, namely NP: DO and NP: IO. The change is caused by the verb with the suffix addition *–kan.*

The applicative process is object creation or converting non-object functions into objects. The change process of applicative construction elevates the argument structure from *non-core arguments* to *core arguments*. The structure of the applicable construction forms a new argument which occupies the object function (Haspelmath 2002). In construction (1), the term relations are described as 1, 2; meanwhile, in construction (2), there is a term change into 1, 2, 3, which is a conversion of OBL into DO. The analysis is also presented in a different way compared to transformational grammar (TG). In TG, it uses a tree diagram, but in RG theory, it uses a different diagram. Construction (1) and (2) can be figured out as the following (Fugure 1):

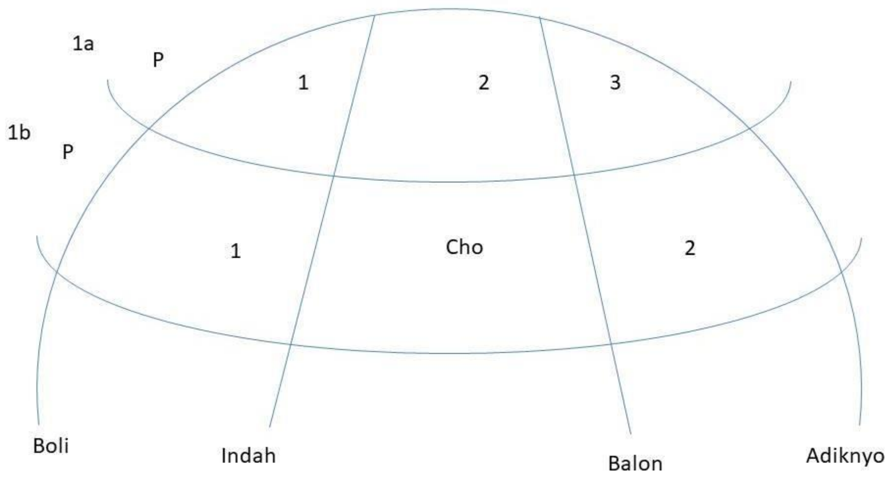

Figure 1 Diagram of construction (1a) and (1b).

Recent works have also been carried out by various experts dealing with this issue. Valenzuela (2010) explores applicative construction in Shipibo-Konibo. His study also explains that in Shipibo-Konibo, there is an interplay between transitivity and the different applicative construction types. This covers a limit on the dedicated malefactive in combining with transitive verbs only. Pacchiarotti (2017) attempts to explain applicative construction in the Bantu language. He concludes that there are four types of applicative construction. Another researcher, Guerrero (2019), summarizes several aspects of the grammatical relationship in Yaqui, namely the South Uto-Aztecan language spoken in northwestern Mexico. Yaqui is traditionally spoken by the Yoeme people living along the Rio Yaqui in Sonora, Mexico. He concludes that the main arguments are spelled out in the form of dependent marking, the agreement of supply verbs, passive voice, and another valency-change mechanism. In the ethnic language in Indonesia, Simanjuntak and Mulyadi (2019), in their research, reveal that grammatical relation and semantic role in the Batak Toba language (BTL) are S = A / P and S = P / A. The meaning of this point is that BTL makes the same relationship with S as A and S as P. The form of the relationship between grammar and semantic role proves that BTL has case markers in the form of nominative-accusative and ergative-absolute.

1.2. The aim of the study

In relation to the previous studies, the study of applicative construction in AML has not yet been observed by many researchers. So, this study aims to depict the grammatical relation of the applicative construction in AML. This study departs from the theory of relational grammar. Then, this study is expected to provide benefits to the development of syntactic analysis through a relational grammar perspective and also provide references for further research, especially in analyzing the Malay language and its variations in Indonesia and the world.

2. Materials and Methods

This study employed a qualitative approach through the documentation technique. The instrument was the researcher themselves. The research location was Tanjungbalai city, North Sumatra, Indonesia. The informants were purposively selected into three people whose sub-ethnic is Malay and AML is their first language. Those informants were chosen because they never left Tanjungbalai. Then, they were asked for their consent to participate in this research before being interviewed. This technique eases the data analysis. In collecting the data, the documentation technique was used. This study had two data sources, namely written and spoken data. Written data were obtained from documents related to applicative construction and spoken data were obtained from the native speakers of the Asahan Malay language (AML). In analyzing the data, the distributional method was used and the data were presented formally and informally before being interpreted to draw the conclusion. The validity of the data was gained by using the triangulation technique, and for the reliability, was achieved through cross-checking codes used in the analysis.

3. Results and discussion

Based on the analysis, the researcher only found two types of grammatical relation of applicative construction, namely benefactive and recipient type. The researchers asked informants about the other variation of applicative construction that has been stated by Nurcholidalia (2020). In her research related to Malay Langkat Language, she found three types of applicative construction, but our study only found two types. Those two types were explained as the following

3.1 Grammatical Relation of Applicative Construction: Benefactive type

This type of applicative construction has a subject who acts as an advantage to that object with a benefactive role (Kiyosawa and Gerdts 2010; Kurniasih 2009; Marten and Kula 2014; Tomioka and Kim 2017). This is indicated by the type of verb 'giving' (Iriantini 2019). Verbs in this applicative construction can be categorized into a benefactive verbs. The analysis of the grammatical relation of the applicative construction of AML is taken from the active construction below:

(2a)	Vira	Ngantar	lontong	ka	wak Butet
	Vira	Deliver	*lontong*	Preposition	Aunt Butet
	1	Predicate	2		Cho
	Agent				Beneficiary
	Vira delivers lontong to wak Butet				

(2b)	Vira	ngantarkan	wak Butet	lontong
	Vira	Deliver	aunt Butet	lontong
	1	Predicate	2	Cho
	Agent		Benefactive	
	Vira delivers wak Butet lontong			

(2c)	Wak Butet	diantarkan	lontong	oleh	Vira
	Aunt Butet	PASS. Deliver	lontong	Preposition	Vira
	Cho	P	Cho		1
	lontong is delivered by Vira to wak Butet				

Construction (2a) shows Vira functions as S (role 1), an s a role as an agent, *ngantar* 'deliver' functions as a predicate (R-P), lontong function as O (role 2), and *wak Butet* 'aunt Butet' 'is not as object because it is not directly placed after the verb. The function of *wak Butet* in this construction is Oblique (OBL), which is indicated by the presence of a preposition *ka* 'to'. This causes the role of *wak Butet* becomes non-term (benefactive). Dealing with relational grammar analysis, *wak Butet* is categorized as *chomeur* (cho).

Construction (2b) is an applicative construction in AML that undergoes a structural and grammatical change. The changes that occur are seen in the omission of a preposition. Vira is known as subject (role 1) and agent, *ngantarkan 'deliver'* is functioned as a predicate (R-P), *wak Butet* 'aunt Butet' functions as DO (role 2), which bears the role of the benefactive. In the passive voice form, *wak Butet* is the potential to be promoted as a subject because it is located directly behind the verb. The function of *lontong* is not as an object because it is not directly following the verb, and it is categorized as *chomeur* (cho).

It can be seen that construction (2c) is the passive form of construction (2b). Grammatical functions that occur in passive construction have changed, namely, *wak Butet* is defined as *chomeur* in the passive voice, *diantarkan* 'is delivered' functions as a predicate, lontong functions as *chomeur,* and Vira in relational grammar function as S (R-1). The grammatical relation can be seen in the following diagram (Figure 2):

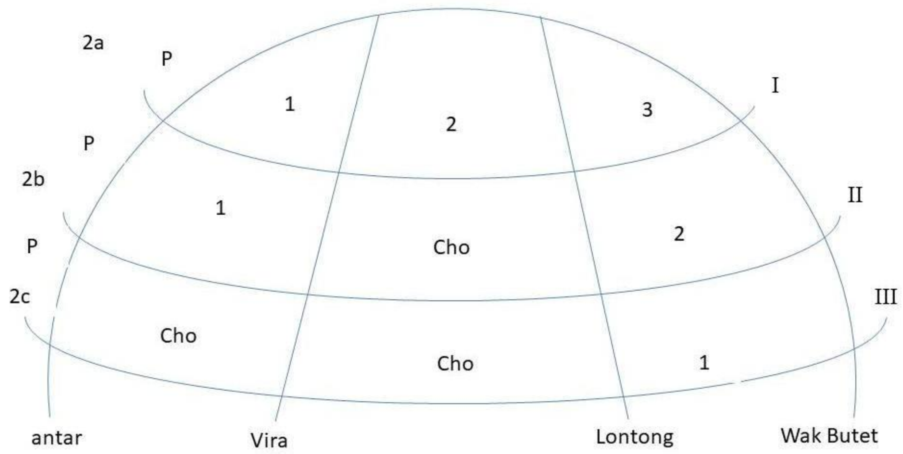

Figure 2 Grammatical relation of construction (2a), (2b), and (2c).

Grammatical relations in figure 2 show that Vira brings relation 1 to strata I and II, while level III presents the *chomeur* relationship. *Lontong* presents relations 2 at level I; on the other hand, at levels II and III, it brings *chomeur* relation. *Wak Butet* brings relation-3 at level I, bringing relations-2 at level II, and bringing relations-1 at level III. *Antar* 'deliver' brings the P-relation at levels I, II, and III.

3.2 Grammatical Relation of Applicative Construction: Recipient Type

This type is understood as the applicative construction whose object accepts something that is stated by the predicate. In the construction, the subject acts as giving something to the object that acts as a recipient. In this case, the actions performed by the subject provide no benefit to the recipient (Nurcholidalia 2020). The example is presented as the following:

(3a)	Sangkot	kasi	duit	ke	bandaharo sakolah
	Sangkot	give	money	Preposition	school treasurer
	1	Predicate	2		Cho
	Agent				Recepient
	Sangkot gives money to school treasurer				

(3b)	Sangkot	kasi	bandaharo sakolah	duit
	Sangkot	give	school treasurer	money
	1	Predicate	2	Cho
	Agent		Recepient	
	Sangkot gives school treasurer money			

(3c)	Bandaharo sakolah	dikasi	duit	sama	Sangkot
	School treasurer	PASS. give	Money	Preposition	Sangkot
	1	P	cho		cho
	Agent				Recepient
	School treasurer is given money by Sangkot				

In construction (3a), it is observable that *Sangkot* functions as subject (role 1) and has the role of agent, *kasi* 'give' is positioned as a predicate (P), *duit* 'money' as DO (role 2). *Bandaharo Sakolah* 'school treasurer' is not as DO because it is not directly behind the verb, on the other hand, it is defined as oblique since it is signaled by the use of the preposition 'to'. Then, it also has a recipient role. There is a grammatical change from construction (3a) to construction (3b) signaled by the omission of the preposition 'to' in construction (3b). The grammatical relation of construction (3b) can be observed that *Sangkot* functions as subject (S) who occupies role 1 as well as acts as an agent. *kasi* 'give' function as predicate occupying (R-P). Then, *bandaharo sakolah* 'school treasurer' is positioned as a direct object (DO) or role 2, and also as a recipient. In this case, *duit* 'money' becomes *chomeur* (cho). In construction (3c), it is observable that *Bandaharo sakolah* is positioned as a subject (role 1), as well as an agent. Sangkot in construction 8 occupies the role of recipient. *Dikasi* 'is given' is functioned as a predicate (R-P), and *duit* 'money' is a *chomeur* (unemployed). The relations carried out in constructions (6), (7), and (8) are realized in the following diagram (Fugure 3):

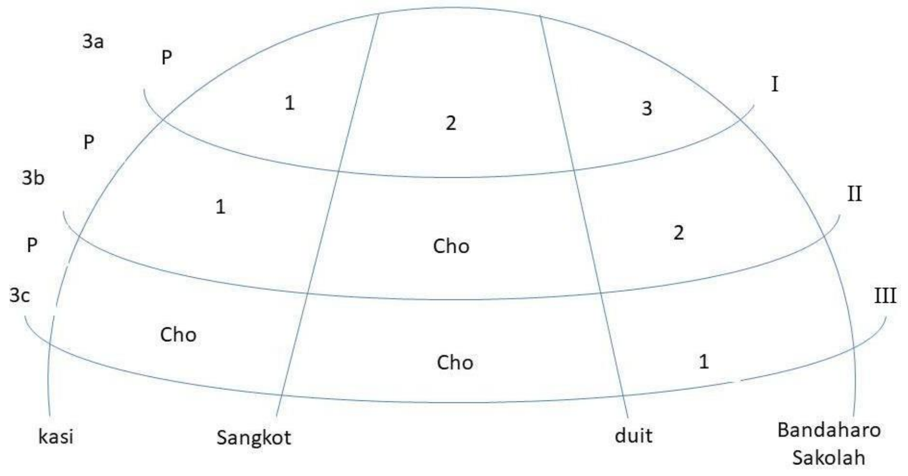

Figure 3 Grammatical relation of construction (3a), (3b), and (3c).

Figure 3 shows that *Sangkot* brings relation 1 to strata I and II. Conversely, at level III, it presents the chomeur relation. *Duit* 'money' is acknowledged as having relation 2 at the level I, while at levels II and III, it brings *chomeur* relation. *Bandaharo sakolah* 'school treasurer' 'brings relation 3 at level I, bringing relation 2 at level II, and bringing relation 1 at level III

4. Conclusions

From the data analysis, it can lead to the conclusion the omission of a preposition causes the applicative construction relation. It can be seen in the benefactive and recipient construction in AML applicative construction. In the basic construction, FN: DO changes the relation into *chomeur* relation. Then, FN: OBL in basic construction converts into DO or occupy (R2) because it is directly placed after the verb. In the passive construction, the two FNs behind P lose their relation, thus bringing the predicate as *chomeur*. Due to the limitless study in the typology of AML, further research is suggested to explore other parts of AML, such as the verb valence, passive construction, and other analysis based on syntactic or semantic typology.

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Conflict of Interest

The authors declare no conflicts of interest.

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A study on the relationship between the disorganization of labor and precarization

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Abstract Working relations have experienced significant changes in post-industrial societies compared to traditional periods. Today, atypical employment models shape the labor market, including flexible employment formats, outsourcing, and various agency work such as staffing. The part or full-time employment model not dependent on a specific employer, described as "precarization," is becoming widespread and is the primary focus of this study. With precarization, unionized and organized labor is replaced by precarious working models, including working styles, mobile jobs, flexible working hours, and fixed-term employment contracts. These changes are reshaping labor relations in many countries globally, especially under the pressure of neoliberal theses. Precarization has caused a significant decrease in unionized employees, especially since the 1970s, which continues today. As a result of de-unionization, a new precarious class of precarious is emerging. The primary purpose of this study is to show the effects of the strategy of disorganization of labor on the "precariat" class, which has been described in recent years as the new social class. This is an empirical study based on secondary data sources. The secondary sources' findings show that a relationship between "precarization" and "disorganization of labor" can be established.

Keywords: labor, disorganization of labor, precarization, precariat class

1. Introduction

In the last thirty years, social, economic, and technological changes have profoundly impacted working life, industrial relations, and other spheres of life. In addition to the structural changes in economic activities and workforce that have caused unions to lose their power significantly, the efforts of upper and middle-level managers in the workplaces to prevent the organization of employees and the widespread use of atypical employment models such as part-time, invited work and flexible working have contributed to the disorganization of labor. The decrease in unionized employees since the 1970s can be explained by the prevalence of *precarization* that has become widespread with atypical employment models. Two main phenomena drove the differences in work relationships during this period. The *first* was strengthening the neoliberal ideology, which increased international regulatory institutions such as the WTO (World Trade Organization), the World Bank, and the IMF. T*he second* was the so-called democratization wave, emerging in Europe (Spain, Portugal, and Greece) in the 1970s, spreading to Latin America and Southeast Asia, and later affecting the former Soviet Union and Central and Eastern European countries (Cradden and Hall-Jones 2005). These two developments generally led to the deterioration of the managing-managed and employer-employee relations against the latter.

Today, the main reason for the de-unionization and the "de-organizing" of labor is the ineffectiveness of the trade unions against central governments and the inadequate intrinsic motivation resulting from it. Guided by the ideology of neo-liberalism, employees tend to behave more individually than in the past, and therefore their willingness to join trade unions has decreased significantly. However, it is difficult to list all the factors that shape such individualization through ideological orientation. The basic parameters of individualization are giving primacy, not to the general public but to the individual and the subjective, aiming to make the individual rely on him/herself, not any union, the belief that only the single and subjective will ensure individual independence and aiming to get rid of all traditional thought patterns in which the universal (social) is merely an illusion. According to the assumption of *individualization*, society has no goal on its own, nor has it a goal above the individuals who realize themselves. The ideological perspective that the individual should be independent and unconnected from all kinds of restrictive authority to achieve his/her goal significantly undermines employees' drive to participate in organized labor. Another reason for de-unionization is that many potential union members, who buy into the arguments for individualization, think they can deal directly with their managers individually instead of relying on the union representative as an intermediary.

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Further, associated with individualization is the belief that unions are not an organizational model that suits the specific needs of the potential member (Waddington 2005). Another reason for the disorganization of labor is that unions have lost their belief that they would contribute to their industrial position and professional development (employee). In addition, the form of organization of the "new economy" or "digital economy," which is based on information and communication technologies and needs the employment of the information worker, affects the labor relations and causes "atypical" employment, thus disorganization and precarization of labor.

Just as no problem arising from the self is unsolvable, nor is the problem of precarization. For example, against precarization, the Netherlands has adopted the *Flexibility and Stability* (1999) law, allowing enterprises to change their working conditions (Lyutov 2009) unilaterally, and regulatory institutions, the state ombudsman, and internal audit. Likewise, Germany adopted the *Employment Agency Act* (1972) and the *Flexibility Act* (2003) and implemented a labor reform (2004) to increase the flexibility of labor relations. Such reforms can be revised and amended by introducing regulations in favor of the employee. Indeed, in response to the Covid-19 pandemic, states worldwide have announced various support packages to prevent unemployment and contribute to employment and support businesses. The same policies can be implemented not only in times of crisis but also in times of stability. Governments can take measures that protect both the public and labor sectors without choosing between them.

Many reasons were other than those stated above can be mentioned in the disorganization of labor and precarization. In addition to economic, technological, managerial, and organizational reasons, the change in the labor force structure and the transition from labor to knowledge work are essential factors affecting precarization. All these reasons cause employees to shift from permanent and secure working relationships to insecure employment, insufficient wages, deprivation of paid leave, loss of their social and working rights, including sick leave and other social benefits, and the emergence of a new class called "precariat."

In this study, the relationship between the strategy of disorganization of labor and *precarization* is analyzed within the "labor process theory" framework, which examines the relationships among the use of labor, wage policies, and work organization under capitalist working conditions together. The primary purpose of this research is to answer the question *of the main reasons for the disorganization of labor in capitalist countries.*

2. Conceptual Framework

2.1. The Strategy of Disorganizing the Labor

In the 1990s, with the acceleration of technological progress, the globalization of the economy, and the increasing competition in all sectors, the Human Resources Management (HRM) field in public or private workplaces began to get famous with an ideological understanding and as a trendy concept without a tangible equivalent. Through suggestions like "you do not need a union or any solidarity organization; you are the most valuable asset for this workplace," employees' interest in organizing was weakened first, and then these people found themselves dismissed at the slightest hint of a crisis. Losing their jobs, these people had to continue their lives by precarization. Especially in capitalist countries, the increasing influence of governments on the economy caused the relations between employees and employers to deteriorate against the employee. In the meantime, various reforms were made to liberalize social insurance and security systems, and with these developments, unions in North America and Japan started to lose members, and the power of organized labor weakened significantly (Dudin et al 2016). The collapse of communism was, for some trade union officials, the final phase of the "loss of utopia" that had been expected to materialize some time. The trade unions no longer had the function of defining a "political and social vision" in the world and adding "meaning" to life. This led to a growing mistrust of the union's role in organizing class struggle, actively structuring society and service organization. With the disappearance of the vision of a social order based on socialism liberated from the opposition between capital and labor, the concept of "union legalism" has lost its critical significance (Mückenberger et al 1995). Thus, union executives were concerned about holding onto their positions rather than protecting the members' interests they represented.

The *Wagner Act*, also known as the *National Labor Relations Act*, was enacted in 1935 to reorganize U.S. labor law and labor relations in the United States. This act secured private sector workers' rights and regulated their union and collective bargaining (Nelson 1988). In the early 1940s, 36% of the U.S. workforce had union membership. In the early 1970s, many unionized workers, especially the private sector, joined the middle-class ranks due to the unions' success at the bargaining table. This was usually achieved through taxes or laws supporting the trade union movement rather than addressing ideological and social issues. However, labor movements, public and federal sector workers, African-Americans, and immigrant influxes disrupted this positive atmosphere in the United States. In the 1970s, dominant in the American economy, the production sector gradually gave way to the service sector (David et al 2010). Apart from the areas where unions were not organized before, with the beginning of a steady decline in organized work since the late 1970s (David et al 2010), union movements in the USA began to lose significant power. The decline in union membership was observed in the USA and many other countries (Cradden and Hall-Jones 2005). The main reason for this can be cited as the inability of the unions to protect workers' rights.

In the 1980s and early 1990s, a more dramatic decline in union membership and power began. The cumulative effects of the factors in the 1970s had worsening consequences for the following fifteen years. Employers' efforts to prevent their workers from joining the union were no longer a temporary problem for employees (David et al 2010). However, trade unions introduced many reforms to reverse the decline in union membership. Some attempts to have union mergers and unions use ICT technologies to provide services to members were ineffective, and attempts to reform collective bargaining agendas also failed. Avoiding union membership, horizontal organizational structures, downsizing, conditional labor, and reserve workers are among the other issues that cause labor disorganization. Union membership, around 36% in the early 1940s and 70% in the 1970s declined to 12% in 2009 with neoliberalism's successful strategy to disorganize labor. Stagnant worker wages, union dues and other deductions, and dissatisfaction with various union practices are other significant factors discouraging union membership (David et al 2010).

Waddington (2005) lists three challenges for unions. *First,* the problem is often too complex to be explained simply by a drop in membership. Changes and transformations in the economic and social structure make being a union member no longer an advantage. The *second* is the employment problem. Practices such as "ombudsmanship" and "internal audit" that meet the interests of potential union members, in particular, reduce the interest in unionism. *Third*, practices such as distributed and diversified service delivery, employee hiring, and purchasing services are other reasons that reduce unions' interest. While businesses demand their employees to use all their talents (under various names such as emotional labor, brainpower, positive psychological capital, etc.) for the workplace, they continue to see employees as cost factors. Even if they are unionized, they are made a matter of bargaining for their labor, and they continue to be de-unionized and disorganized so that they lose their power. The main reason for de-unionization policies is that unions are seen as an obstacle to the interests of the new capitalist economic system. All over the world, practices such as the disorganization of labor, increasing unemployment, subcontracting, failure to improve the quality of the labor force, deregulation, informatization, downsizing, and fragmentation are paid by the workers for this process (Tutar and Sarkhanov 2020).

There are several ideological reasons for the disorganization of labor and non-unionization. These include:

Individualism: Some individuals may prioritize their interests over collective action. They may believe that they can negotiate better terms and conditions of employment on their own without the need for collective bargaining through a union.

Free-market ideology: Some individuals and companies may believe in the principles of free-market capitalism and feel that the market should determine wages and working conditions rather than through collective bargaining.

Anti-socialism: In some cases, opposition to unions may stem from a broader ideological opposition to socialism and collective action. Some individuals and companies may view unions as socialist or communist organizations and therefore oppose their existence.

Pro-business ideology: Some individuals and companies may prioritize the interests of businesses over those of workers. They may view unions as threatening business profitability and growth and oppose their existence.

Anti-regulation: Some individuals and companies may view unions as a form of regulation and therefore oppose their existence. They may believe that unions restrict the freedom of businesses to operate as they see fit.

It is important to note that the reasons for the disorganization of labor and non-unionization are complex and can be influenced by various political, economic, and cultural factors. Ultimately, the decision to be unionized or non-unionized is a personal choice that various ideological beliefs and considerations can influence.

Unions have traditionally functioned as an integral part of the business life of the Keynesian economy, as they protect the rights of their members and are a requirement of organized working order. However, influenced by neoliberal theses' new industrial relations system, unions have been replaced by "workplace without union" or even "non-union working relations" approaches. From the prevalent conflicting approaches today, the interests of "labor" and "capital" are not seen as common but contradictory. Trade unions initially established to represent workers and derived their strength from the collective bargaining power and labor solidarity and function as pro-labor institutions (Nepgen 2008) have significantly lost their collective bargaining capabilities and political influence over time. "Union density," which refers to wage workers "covered by collective bargaining agreements" or "union members," has been gradually weakened and rendered powerless since they were perceived as obstacles to saving capitalism from the oil crisis of the 1970s (Addison 2014).

3. Materials and methods

3.1 Research design

Descriptive statistics is a branch of statistics that deals with explaining and summarizing data using numerical measurements, charts, and graphs. Descriptive Statistics is a type of academic writing that presents a detailed quantitative data analysis. The purpose of such articles is to explain and summarize the key characteristics of a dataset, such as significant trends, variability, distribution, and other related characteristics. The Descriptive Statistics article covers selecting a dataset, defining research questions, presenting conclusions, discussing inferences and limitations, and making suggestions for the future. Descriptive statistics provide an overview of the data, identify trends, and present them meaningfully (Tutar and Erdem 2022; Amrhein et al 2019; Choi et al 2020). Descriptive statistics include measures of variability such as range, variance, and standard deviation and central trend measures such as mean, median, and mode. It also involves the presentation of data using frequency distributions, histograms, box plots, scatter plots, and other graphical representations. When conducting descriptive statistics, the data analyzed are numerical (quantitative) and categorical (qualitative) data. Descriptive statistics are a research pattern suitable for summarizing, visualizing, and not explaining much data (Mondal et al 2022; Evans 2019; George and Mallery 2018; Tutar and Erdem 2022). Descriptive statistical research has been preferred because it is widely used in many fields of study, such as social sciences, natural sciences, economics, finance, psychology, and health sciences.

4. Results

From the 1970s to the 2010s, in about 40 years, union density levels declined from about 70% to 8% in 28 E.U. countries and Norway, Finland, Sweden, and Denmark. Union membership rates in other countries have also been falling steadily in recent years, and it has generally failed to keep up with the increase in employee numbers. Although the competing union confederations in European countries continue their activities today, they now see ideological differences as less critical than in the past. While they focus on protecting workers' rights as a common good, being a union member no longer appeals to workers. It should be noted that strengthening central governments and weakening non-governmental organizations play a role in this (Fulton 2015). In all countries applying the capitalist economic model, the intensity of unionization and unions' ability to use force have been significantly weakened. The union density rates of some OECD member countries for 1998-2018 are shown below.

The Board 1, prepared using the Organization for Economic Co-operation and Development (OECD) data (Board 1) shows that the unionization rates in OECD countries decreased from 1998 to 2018. The union density, which was 27.9% in 1998 in Australia, decreased to 13.7% in 2018 by decreasing 14.2%. The union density, 38.4% in 1998 in Austria, dropped to 26.3% in 2018. Belgium, which has a higher trade union density than other European countries, has experienced a relatively minor decrease in union membership. In the Czech Republic, a socialist republic for nearly 50 years in the last century, the decline in union membership is high. The union density in the Czech Republic, 32.1% in 1998, decreased to 11.5% in 2018. The decline continued in Denmark, another country of Europe with high union density, and the union density ratio, which was 76.3% in 1998, decreased to 66.5% in 2018. In Finland, the union density, 78.4% in 1998, declined to 60.3% in 2018, declining by 18.1%. The union density, already low in Japan, decreased significantly, from 22.4% in 1998 to 17% in 2018. Union density in Turkey was 18.9% in 1998 but declined by over 50% and dropped to 9.2% in 2018. United Kingdom union density, which was 29.9% in 1998, fell to 23.4% in 2018. In the USA, where the density of unions is relatively low, there was a decline as well, and the union density was 13.4% in 1998 and decreased to 10.1% in 2018.

Since the 1980s, in OECD countries applying the capitalist economic model, union density has decreased continuously, as shown in Board 1. On the other hand, union density in China increased to 30.2% in 2010. China All-Union Federation (ACFTU) is China's only legal union and had a union density of 80.1% in 2012 (Qi and Huang 2016). Some other Asian countries also have relatively high rates of trade union density. For example, Vietnam's union density rose to 60% in 2010, and Cuba's density was 81.4% in 2008. The union density in non-capitalist countries is observed to be higher. It should be noted that some countries, such as Korea and India, where trade union density is relatively low have strong union movements, although they do not have as high a union density as China and Vietnam (Qi and Huang 2016).

Unionization rates in developed Western countries continue to decline today. It is argued that the 1973 oil crisis, regarded as the turning point of neoliberalism and globalization in the 1970s, played a remarkable role in decreasing the density of United States trade unions. Adopting the Taft-Hartley Act in this period is seen as a great misfortune for the unions in the USA (Gunn 2018). In this period, unions initially created exciting opportunities, but those who developed the strategy that labor would not always remain a factor of production acted too quickly to weaken the organized workforce. They persuaded the unions to change their strategies and create visions for work in a global environment to achieve these goals. The globalization of production activities worldwide has led to increased trade flow and structural changes in trade patterns. The production model based on the classical division of labor began to be questioned. All this change, and even transformations at times, also gradually weakened the unions' quality of being a non-governmental organization that workers can trust. Today, in a dynamic global atmosphere where globalization has prompted strong impulses to develop the world economy, being tied down to a particular place by contract has begun to be questioned and has led to a "precarization" in the business world. Today, workforce mobility is experienced not only nationwide but also internationally. Eliminating restrictive regulations between countries, reducing tariffs and global agreements on non-tariff restrictions, and the availability of new options for industries have led to the spread of precarization worldwide.

4.1 The Problem of Precarization of the Workforce

The term "precariat" refers to new mobile workers whose financial and psychological status are negatively affected by not having job security and a fixed workplace. This term was coined by combining *precarious* and *proletariat* (Lunning 2010). Pierre Bourdieu first used precariat to describe a specific work model, and G. Standing introduced the concept to the sociology literature. The concept defines *working flexibility* during the global transformation that started in the 1980s. Guy Standing states that he uses the term *precariat* to draw attention to this new generation of proletarianization. The concept is used to describe both uninsured and unsecured workers, which, like the proletariat, is the combination of the Greek adjective "precarious," meaning "unsecured" and "unstable" (Kalleberg et al 2000). Unlike the proletariat, referring to exploited workers in the industrial period that had the consciousness of being a "worker," this newly emerging unstable, irregular, and insecure class without a class consciousness typical of postmodern times is defined by Standing as "precariat."

Board 1 Union Density Rates in OECD Member Countries (1998-2018).

Countries	1998	2003	2008	2013	2018
USA	13.4	12.4	11.9	10.8	10.1
Germany	25.9	23	19	18	16.5
Australia	28.1	23.2	18.8	17	13.7
Austria	38.4	34.6	29.6	27.8	26.3
Belgium	55.1	54.2	54.5	55.1	50.3
United Kingdom	30.1	28.5	27	25.4	23.4
Czech Republic	32.1	22.3	16.9	13.6	11.5
Denmark	76.3	72.4	67.6	67.8	66.5
Estonia	17.1	11.3	7	5.7	4.3
Finland	78.4	72.7	69.9	68.2	60.3
France	9.4	9.2	8.5	9	8.8
Netherlands	23.9	21.4	20	18.2	16.4
Ireland	40.5	34.9	30.1	30.5	..
Spain	17.9	16.7	17.5	17.9	13.6
Sweden	81.2	77.5	68.3	67.7	64.9
Swiss	21.5	19.9	17.5	16.6	..
Italy	35.3	33.2	33.4	36.8	34.4
Iceland	88.1	..	86.4	87.8	91.8
Japan	22.4	19.6	18	17.7	17
Canada	28.6	28.2	27	27.1	25.9
Korea	11.4	10.7	10.2	10.1	..
Latvia	..	20.9	15.1	12.8	11.9
Lithuania	..	13.6	8.9	8.4	7.1
Luxembourg	43.2	42.5	36.5	34.8	31.8
Hungary	27.2	17.7	14.4	11.1	7.9
Mexican	17	..	15.6	13.8	12
Norway	53.6	51.4	49.4	49.3	49.2
Turkey	18.9	16.6	10.7	6.3	9.2

Source: http://stats.oecd.org.

In this new model of proletarianization highlighted by Standing, on the one hand, there are a few wealthy global elites at the top; on the other hand, there is the tragedy of the poor who drifts from place to place to sell their labor, which, like the proletariat, is all they have. Standing draws attention to the tragic and dangerous situation of this new type of proletariat in his study titled "Precariat-The New Dangerous Class." Although the word *precariat* was subjected to a detailed analysis by Standing in this study, in the 1980s, French sociologists widely used this concept to describe "temporary and seasonal workers." This new class, working in dangerous and irregular jobs, differs from the "proletariat," whose labor is exploited under terrible conditions, in that they do not work by relying on certain land or bourgeois and do not have a fixed place familiar working environment. Today, a new social class called the "precariat" is emerging. In the 20th century, unlike the industrial worker "proletariat" who lacked their means of production and had nothing to sell other than their labor, the "precariat" partly differed from the proletariat regarding their participation labor force. However, the two have common aspects, such as exploiting their labor and being poor. In addition to constantly seeking work in such an employment model, the instability of constantly moving for short-term jobs shows how the precariat does business. Standing (2011) states that the precarious class's distinguishing features are intermittent employment, underemployment, and struggling for a precarious existence. Thus, he underscores the temporal nature of employment forms, although he does not provide a clear definition of the essence of the precariat.

According to Loginova (2016), the precariat is developing social and work relations in modern society. Precarization has distinctive features such as differentiation in classical business contracts, instability of business strategies and job insecurity, independent and unorganized work, social and financial fragility, loss of professional identity, and sub-stratification. Globalization is one of the reasons for the emergence of this new class; socio-economic changes, the flexibility of labor market regulation, wage flexibility, post-industrial revolution, intelligent and expert systems, and digital workforce structure have accelerated precarization. Among the other factors, the advances in the information industry and social conflicts at the global scale can be listed (WEF 2016). All of these played a part in the emergence of this new class called the "precariat." When the term became popular, it was expressed in different forms and meanings in different cultures. In Italy, *precariat* means more than ordinary labor and low-income people; it refers to people who make an "effort for precarious existence" as their everyday life (Grimm and Ronneberger 2007). In Germany, this term describes temporary and unemployed workers with no prospect of social integration. This is close to what is meant by "lumpenproletariat" in the Marxist jargon (Standing 2011).

Today, all regulations against the employee, such as flexible work, numerical flexibility, functional flexibility, new removal strategies, wage flexibility, and working time flexibility, are all used to define the working conditions of a large mass of workers and precariat, especially working in unstable and precarious conditions, are the geological definitions of the new working relations system (Standing 2014b). One of the factors that cause precarization today is that some large firms are given subcontractors that employ temporary workers with an unstable working model. These subcontractors accelerate precarization with working relationships such as flexible time working, shift working, working on-call, shifting working hours, compressed working weeks, compensatory working, and part-time working, whose distinctive characteristics are "instability" and "insecurity."

Rodgers (1989) states that insecurity, which is one of the essential hallmarks of precarization, has *temporal* reasons because of not allowing the continuity of employment and contract labor, *organizational* reasons in that workers have individual control over the work and no settled work environment, *economic* reasons because the pay is neither sufficient nor stable, *legal* reasons due to layoffs, discrimination and mobbing, and *social* reasons because there are no collective or traditional protection measures. However defined or explained, precarization does not mean anything other than instability, victimization, insecurity, and disorder (Lunning 2010). The "precariat class," deprived of its means of production and barely selling their labor to survive, refers to a poor class with only partial opportunities to participate in the labor force and is remembered when their labor is needed (O'Mahony et al 2014). These are people "tired of hoping" who drift from one place to another, hoping to find permanent employment in the order of insecure and unorganized working relations in a period of part-time, intermittent, or underemployment uncertain work prospects.

With rough, unstable working conditions, the number of victims and suffering precariat in the employees cannot be underestimated. The rate of "atypical employment," a type of precarization model, especially among women in Europe, is increasing daily. The proportion of flexible employees among the total employees in Europe increased from 12.7% in 1987 to 20.9% in 2009. This rate is higher for women (36.5%). Especially in France, the Netherlands, Luxembourg, and Austria, atypical employment rates are higher than 30% (Leschkei 2011). These rates represent more than one-third of the total workforce of the class defined as precariat. The orientation towards atypical employment in developed countries is the low growth rate caused by excessive international competition and inflationary policies. The low growth rate causes poor segments of society who supply their labor to fail to find full-time employment. These economic conditions and the search by employers and the state for alternative models to traditional full-time employment and unemployment bring up precarization as an alternative model (Cordova 1986).

Atypical employment in most of the 28 European Union member countries had a share of 43.2% of all employees in 2016. In these 28 E.U. member countries, 19.5% of the precariats work part-time, 12% work fixed-term, 10% are self-employed, and 1.7% perform temporary office work. Among the European Union countries, the rate of people called precariat is 82.5% in the Netherlands (which employs the most atypical employment), 51.2% in Spain, and 45.8% in Germany. This rate is 12.9% in Bulgaria, 18.8% in Estonia, and 19.2% in Hungary, which are relatively less developed. The percentage of part-time workers in total employment in Turkey was 9.4% in 2016 and 9.9% in 2000, and the proportion of part-time employees in the 2000-2016 period reached the lowest level (5.6%) in 2005 and the highest level (12.3%) in 2013. A striking point regarding this period is that the proportion of part-time workers in total employment increased after the 2008 Crisis. While the ratio was 8.5% in 2008, it increased to 12.3% in 2013 (OECD 2017a). Although the rate of temporary employment in total employment decreased between 2000 and 2012 (20.3% in 2000; 12.5% in 2012), it increased to 13.6% in 2016 (OECD 2017b) (see Board 2).

Looking at the rates, as the economies grow, precarization grows, and the precarious class helps to grow economies, but they cannot get a share from the growing economies, and they continue to be the cause of wealth, but the actors of poverty. This partially explains why the concept is associated with the proletariat, whose labor is exploited.

The question of which social groups constitute the "precariat" is controversial. Kastel (2009) argues that marginalized people have created a new working class in the business world. These are the chronically unemployed, disadvantaged suburban residents, welfare recipients, victims of industrial transformation, job seekers, and those who are drift from one probationary period to another and move from part-time to temporary employment. According to Standing (2014), a precariat is a group of people who do not have fully secure employment and stable earnings, have "low status," have a minimum trust relationship with the capital of the state, most without social and political rights and security, and are not socially settled. Their employment rates in OECD countries are given in Board 3.

Board 3 shows that most OECD countries had part-time employment, a form of precarization, between 1980 and 2019. All these figures show that the era of globalization has caused the working class to break apart. As inequalities grow and the world moves towards a flexible labor market, classes do not disappear, but new fragmented class structures like "precariat" emerge (Standing 2011). The precariat class is a new-generation class with insecure and unprotected employment. Being in its formation stage, this class does unfortunately not view itself as a class yet.

Board 2 The Proportion of Atypical Employees among all Employees in European Countries (15-64 Age Group, % 2011-2019).

Countries	2011	2012	2013	2014	2015	2016	2017	2018	2019
European Union - 27 countries (as of 2020)	38.8	38.9	38.6	38.6	38.5	38.2	37.9	37.3	37.2
European Union - 28 countries (2013-2020)	39.1	38.9	38.8	38.8	38.6	38.4	38.1	37.4	37.3
European Union - 15 countries (1995-2004)	39.4	39.2	39.0	39.1	39.1	38.9	38.7	38.1	38.1
Eurozone - 19 countries (as of 2015)	39.3	39.4	39.2	39.2	39.3	39.1	38.8	38.4	38.3
Belgium	29.0	28.8	29.4	29.9	29.5	29.6	29.4	29.3	29.8
Bulgaria	30.0	30.4	32.1	31.2	31.6	30.5	32.0	29.6	30.7
Czech Republic	36.9	35.4	34.5	34.6	35.7	34.0	33.3	32.5	32.2
Denmark	31.9	31.4	32.4	31.5	30.5	31.7	29.6	27.5	26.9
Germany	39.4	38.8	38.3	38.0	38.1	37.6	36.4	35.6	35.2
Estonia	33.0	32.8	32.1	33.0	31.8	32.6	32.6	33.0	31.9
Ireland	36.0	39.5	40.8	39.6	39.0	38.4	40.4	42.7	42.3
Greece	56.8	56.5	57.8	58.0	59.2	59.1	58.6	58.2	57.7
Spain	41.3	42.6	42.4	43.2	43.3	42.3	42.8	43.0	42.9
France	37.8	37.6	36.6	36.2	36.3	35.9	35.6	35.3	35.5
Croatia	43.5	42.0	40.6	41.8	42.9	43.5	42.1	41.7	39.5
Italy	40.6	41.6	41.4	41.8	41.8	42.5	43.1	42.5	42.9
Cyprus	36.9	37.8	38.2	38.7	39.2	37.9	39.2	37.4	38.3
Latvia	34.2	32.8	32.1	31.6	32.8	33.4	31.1	30.5	32.1
Lithuania	29.7	30.3	31.4	31.7	26.1	28.5	27.0	25.4	25.3
Luxembourg	28.3	26.8	26.8	29.7	41.9	35.8	32.5	31.1	30.9
Hungary	26.4	26.2	26.6	25.7	25.3	24.2	23.2	21.8	20.6
Malta	38.3	39.6	41.8	39.2	38.3	37.1	35.0	36.8	41.0
Netherlands	41.7	41.8	43.4	43.3	43.7	44.1	44.3	43.6	42.6
Austria	41.7	41.2	40.4	40.8	40.4	40.2	39.7	39.2	38.5
Poland	38.4	39.0	38.8	39.3	38.6	38.6	37.7	36.8	36.4
Portugal	26.7	28.3	30.0	29.5	29.3	30.3	30.8	30.3	30.9
Romania	47.2	46.8	45.4	44.9	41.4	41.4	41.3	40.8	41.1
Slovenia	40.0	39.2	41.4	41.0	40.4	40.0	40.6	41.1	40.4
Slovakia	37.1	37.3	37.8	37.5	37.7	37.6	36.6	35.2	34.3
Finland	37.5	37.4	37.4	38.6	39.0	39.8	38.7	39.0	38.2
Sweden	30.7	30.8	31.1	30.9	30.4	29.6	28.7	27.8	28.0
United Kingdom	41.4	39.5	39.6	40.1	39.6	39.4	39.3	38.0	38.4
Iceland	35.6	36.4	36.5	36.9	38.0	36.9	35.6	34.4	32.0
Norway	33.1	33.1	33.2	32.1	33.1	32.3	32.8	32.7	33.0
Swiss	41.1	40.7	41.1	41.0	40.8	40.5	39.8	40.2	39.7
Montenegro	61.0	61.7	62.1	60.2	63.7	64.4	65.3	64.1	65.9
North Macedonia	60.8	59.3	58.5	58.8	60.1	59.9	61.0	60.3	60.2
Serbia	62.2	60.4	57.0	56.5	59.8	59.7	59.3	59.5	58.5
Turkey	:	:	:	67.7	66.4	63.9	62.0	60.0	57.8

Source: https://appsso.eurostat.ec.europa.eu

Several reasons include the precarization of the labor market and the emergence of a new class in society. Among these reasons, Kotova (2017) underlines the implementation of employment flexibility and labor market regulation to create a global market economy (Wacquant 2014). Since 2008, with the onset of the economic crisis, the ratio of flexible workers to the total workforce increased to regulate the labor market, viewed as a requirement to overcome economic difficulties. In the globally competitive environment, firms seeking to reduce costs by using cheap outsourcing labor from China and India cause precarization (Kotova 2017). According to Bizyukov (2014), developments in expert systems, artificial intelligence, and industry 4.0 are the other factors leading to precarization. Another factor is the knowledge economy, which has led to a new generation (gold collar) of workers who organize their employment independently (Kotova 2017).

Precarization is characterized by social insecurity resulting from the lack of any employment assurances. This floating class of temporary and part-time workers, especially programmers in the field of ICT, is the new generation class of self-employed called "crowd workers," who are individual salaried members as conditional workers and new migrants. According to Loginova (2016), nonstandard (atypical) employment is a manifestation of precarization. Unfavorable business relations, low income, and inadequate social protection remain the main problems of precarization today.

The characteristics of "precariat" as a kind of social stratification are described by Shkaratan et al (2015) as precarious employment or lack of job security, labor instability, instability of average monthly wages and income, rapid change, low status in society, and the organization's power hierarchy, erosion of the labor market and social position, and long-term instability.

At the same time, the weak position before the employer due to the non-organization of labor in conflict of interest distinguishes the precariat from the employees in other forms of employment. Being close to power sources provides high income and protects against becoming a part of the "precariat" (Shkaratan et al 2015). Unfortunately, people whose working conditions have deteriorated with precarization and become insecure and unprotected have continued their low-status lives during retirement (Loginova 2016). Especially those who migrate from war zones to relatively stable regions of the world to accelerate precarization (Kotova 2017).

Board 3 Part-Time Employment Rate in OECD Member Countries, 1980-2019.

Countries	1980	1990	2000	2010	2019	Countries	1980	1990	2000	2010	2019
Australia	..	..	..	24.9	25.5	Japan	11.08	13.57	15.95	20.24	25.2
Austria	..		11.8	19.2	20	Korea	..	4.49	7.02	10.62	14
Belgium	..	13.5	19.3	18.3	16.9	Latvia	..	..	8.83	8.17	7.31
Brazil	..	..	..	..	..	Lithuania	..	..	10.62	6.53	5.82
Bulgaria	..		2.04	1.78	1.63	Luxembourg	..	7.61	12.97	15.78	11.6
Canada	14.3	17	18.1	19.6	19	Malta	..	..	6.77	10.52	9.55
Chile	..	..	4.72	17.4	18	Mexican	..	..	13.45	18.22	17.7
Colombia	..	..	..	16.3	16.3	Namibia	14.4	14.46	13.28	15.64	14.3
Costa Rica	..	..	..	15.4	19.1	Netherlands	..	28.15	32.07	37.15	37
Croatia	..	..	..	6.39	4.47	New Zealand	..	19.65	22.16	21.84	19.8
Cyprus	..	..	7.58	7.92	9.25	North Macedonia	..	..	..	4.41	3.19
Czech Rep.	..	..	3.23	4.32	5.34	Norway	..	21.78	20.21	20.45	20.1
Denmark	..	19.2	15.3	19.2	19.2	Poland	..		12.84	8.72	5.82
Estonia	..	..	7.25	8.82	9.6	Portugal	..	7.62	9.34	9.57	7.11
E.U. (28 countries)	..	13.3	14.7	16.6	16.5	Romania	..	..	7.5	4.75	3.46
Finland	..	7.59	10.4	12.5	14.6	Russia	..	..	7.36	4.25	4.03
France	..	12.2	14.3	13.7	13.4	Slovak rep.	..	..	1.85	3.66	4.83
G7	13.2	14.1	15.2	17.6	17.7	Slovenia	..	..	4.94	9.45	7.25
Germany	..	13.4	17.6	21.8	22	South Africa	..	..	..	7.74	9.34
Greece	..	6.7	5.34	8.91	10.5	Spain	..	4.64	7.54	12.16	13.2
Hungary	..	..	3.17	3.99	4.06	Sweden	..	14.48	14.04	14.5	13.7
Iceland	..	..	20.4	18.4	15.7	Swiss	..	..	23.04	26.14	26.9
Indonesia	..	..	27	26.3	..	Turkey	..	9.33	9.35	11.48	9.5
Ireland	..	9.99	18.1	24.9	20.6	United Kingdom	..	20.11	23.3	24.63	23.1
Israel	..	..	15.6	15.2	15.1						
Italy	..	8.88	11.7	16.4	18	**OECD - Total**	**13.21**	**13.15**	**13.89**	**16.67**	**16.7**

Source: https://data.oecd.org/.

The precarization of the working population is made possible by various mechanisms. For example, underemployment in times of crisis; replacement of indefinite or long-term employment contracts with fixed-term contracts; employing workers through private employment agencies by violating their labor and social rights; the transfer of labor relations to an informal regime (Bobkov and Veredyuk 2013) can be counted among other reasons for precarization. Especially in developed countries, people have more than one source of income; however, one is exceptionally reliable and stable. The precariat has neither sufficient income, many incomes, nor a secure income (Standing 2011). Unfortunately, this is the case not only in developing countries but also in relatively developed countries. The figures regarding temporary employment between 1980 and 2019 in OECD countries clearly show that precarization continues to be a significant employment problem today (see Board 4).

5. Discussion

By their very nature, all social phenomena have social, cultural, political, and economic implications. This is also the case with the phenomenon called *globalization*. In the new "economic global" order established to create the economic justifications of globalization, capitalist organizations (firms, businesses) aim to increase their competitiveness in the world market and to reduce production costs by breaking the organized power of labor (Jones 2000). In the globalization process, while global actors strengthen non-governmental organizations to break the power of nation-states, they aim to switch to non-union working relations to eliminate their ability to be a counter-power against the capital. Neoliberal policies aimed at eliminating unitary structures have been implemented, and institutions such as the IMF, the World Bank, and the World Trade Organization have begun to stand out as the main actors of the new global economic order.

In line with global neoliberal policies, trade unions are weakened by the organized power of labor and "states" that protect societies from global actors. The primary purpose of neoliberal policies with globalization is to "liquidate all kinds of public mechanisms," spread market economies, and establish the new global economic order, which aims to protect the interests of global firms as the new actors of globalization (Masceranhas 2003). As stated above, the neoliberal theses implemented with privatizations have increased poverty and unemployment rates. The role of employee de-unionization in all this cannot be ignored. For example, due to privatization between 2002 and 1989 in Turkey, 72% of 12 public institutions had to switch to a new de-unionized labor relations system. Pushing unions out of the industrial relations system, cutting wages, abandoning the social state approach, replacing international financial institutions with national institutions, and undermining unions representing the organized bargaining power of labor began to dominate business life (TÜRK-İŞ 1998). It is noteworthy that the Human Resources Movement, initiated to provide enterprise support to neoliberal theses in this process, was concurrent. Human resources approaches did not stem from theoretical, methodological, or practical reasons but from the strategy of facilitating the application of neoliberal theses through the disorganization of labor.

Board 4 Temporary Employment in OECD Member Countries, 1980-2019.

Countries	1980	1990	2000	2010	2019	Countries	1980	1990	2000	2010	2019
Australia	…	…	…	5.23	…	Korea	…	…	…	22.9	24.4
Austria	…	…	7.94	9.35	8.69	Latvia	…	…	6.56	7.1	3.19
Belgium	…	5.31	9.13	8.12	10.9	Lithuania	…	…	4.43	2.43	1.47
Bulgaria	…	…	…	4.51	4.36	Luxembourg	…	3.38	3.4	7.1	9.18
Canada	…	…	12.5	13.4	12.8	Malta	…	…	4.09	5.37	9.13
Chile	…	…	…	30.6	27	Mexican	…	…	20.5	…	…
Colombia	…	…	…	29.6	28.8	Namibia	7.97	7.97	7.64	7.4	7.08
Costa Rica	…	…	…	11.1	7.02	Netherlands	…	7.61	13.7	18.5	20.3
Croatia	…	…	…	12.8	18.3	New Zealand	…	…	…	…	7.79
Cyprus	…	…	10.7	14	13.6	North Macedonia	…	…	…	16.4	16.7
Czech Rep.	…	…	9.26	8.88	8.27	Norway	…	…	9.3	8.44	7.98
Denmark		10.8	9.74	8.43	10.9	Poland	…	…	…	27.3	21.8
Estonia	…	…	2.96	3.7	3.13	Portugal	…	18.3	19.9	22.8	20.8
E.U. (28 countries)	…	10.2	12.7	14	13.6	Romania	…	…	2.78	1.04	1.4
Finland	…	…	16.5	15.6	15.8	Russia	…	…	5.48	9.05	8.03
France		10.5	15.4	15.1	16.4	Slovak Rep.	…	…	4.84	5.76	8.2
G7	6.62	7.42	9.08	9.03	8.82	Slovenia	…	…	13.7	17.3	13.4
Germany	…	10.5	12.7	14.5	12	Spain	…	29.8	32.2	24.7	26.3
Greece	…	16.6	13.5	12.6	12.5	Sweden	…	…	15.2	16.4	16.6
Hungary	…	…	7.12	9.77	6.64	Swiss	…	…	11.5	13.1	12.7
Iceland	…	…	12.2	12.4	7.78	Turkey	…	14.4	20.3	11.4	11.6
Ireland	…	8.49	5.95	9.64	9.76	United Kingdom	…	5.24	6.96	6.11	5.18
Italy	…	5.22	10.1	12.7	17	USA	…	5.11	4.48	4.27	3.95
Japan	9.61	10.6	14.5	13.8	…	**OECD-Total**	**9.17**	**10**	**11.6**	**11.9**	**11.8**

Source: https://data.oecd.org/.

6. Conclusions

Most attention is paid to employment insecurity in modern labor insecurity debates - the lack of long-term contracts and protection against job loss, which is understandable. However, job insecurity is also a defining characteristic. The difference between employment security and job security is vital for the worker. Employees sign contracts with greater job security but agree to move to lower positions whenever their managers want. Under functional flexibility conditions, it is always possible for the employee to encounter the destructive nature of change (Standing 2011).

On the other hand, it should be noted that some do not always approach negatively to precarious work. Loginova (2016) states that being included in the precarious class can contribute to free self-realization. Although it is argued that in modern society, precarization allows more self-actualization and opportunities to gain control over time, this can only be the case for people not concerned about meeting their essential physiological needs.

This study is limited to focusing on disorganization and precarization of labor, with data from secondary sources. In further studies, precarization can be addressed by including poverty and individual indicators such as gender and education level. Further studies can also be carried out utilizing bibliometric analyses of other study populations and comparative analyses of precarization in European Union countries and OECD countries in specific periods.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Special Issue: Education in humanities in Asian countries

Innovative productive method of teaching foreign languages to foreign students

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Abstract This article describes an innovative productive method of teaching foreign languages foreign students. Increase quantity foreign students in Azerbaijan in recent years has led to changes in the content and structure of learning foreign languages. Communicative competence in the conditions of multilingualism becomes basis fundamental professional training foreign students. In this regard, a productive method of teaching foreign languages allows you to systematize the methodological foundations of integrated language learning by foreign students. In addition, the study of foreign languages based on the basic principles of productive method provides creative development and self-realization of students, reinforced with the help of the developed linguodidactic method of the Personal Multilingual Portfolio (PMP). An analysis of modern educational standards of higher education allows us to conclude that there is a trend towards a practical orientation. This methodological the direction determines the introduction of productive learning in the field of teaching foreign languages, providing a high quality of education. The article reveals the content of this linguodidactic technology in the system of professional training of foreign students. The article shows theoretical and practical methodological Aspects learning foreign languages foreign students, having a low level of knowledge of the Azerbaijani language and an average or low English proficiency level. To test this technology, the authors conducted an experiment using the methods of scientific and pedagogical research. AT result It was found out what English, Azerbaijani and native languages can interact and correlate with each other another in the process of learning foreign languages. The authors determined the dynamics formation communicative competence students, including linguistic and discursive aspects. The results of the experiment showed the effectiveness of the developed PMF technology and its successful implementation in training process.

Keywords: productive method, communicative, competence, multilingualism, linguodidactic technology, personal multilingual portfolio

1. Introduction

As technology has advanced, so has our way of life, and many issues that were once easily answered have to be revisited in light of our current day. Questions like “how” pupils learn and "what" schools should be like have new perspectives because to technological advancements (Scarnavack 2021). The fast advancement of technology has had a favourable effect on education as a consequence of the influence of progress in this sector (Mirza and Nasir 2019). As technology advances, it becomes more important that education be updated to reflect these changes. This requires governments to alter their educational policies (Karasu and Sarı 2019). In the 21st century, e-learning approaches are required due to the incorporation of technology advancements into educational institutions.

The improvement of the modern system of higher education stimulates the use of innovative teaching methods in the educational process, which develop the formation of students' independence, intellectual development, and encourages mental activity and practical activity. In the process of applying innovative teaching methods, the teacher creates conditions under which students become active. The teacher organizes, controls, and provides information and methodological means. The article analyzes the existing characteristics of the concept of "innovative teaching methods", offers the author's understanding of innovative teaching methods. The author considers innovative methods of theoretical training aimed at the formation of productive mental activity. These include: problematic lecture, heuristic conversation, educational discussions, group learning, contextual learning, social and educational impact, and intellectual games. Innovative methods of practical training aimed at the formation of students ' independent practical activities are considered. These include: business games, project-based learning, problem-search exercises, interactive learning, and simulation modeling. When choosing an innovative teaching method, the teacher needs to analyze the content of the educational program and most correctly use both theoretical and practical methods where it will be most effective, efficient, and aimed at the manifestation of mental, cognitive, and creative activity among students, at the formation of skills to adapt to the future and professional activities to encourage

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continuous learning and development. Innovative methods of theoretical and practical training are schematically presented. The results of the study are applicable to teachers of higher education, with the aim of comprehensive inclusion of innovative teaching methods in the educational process.

The ability to use foreign languages productively is recognized as one of the main professional competencies of students of higher education. However, in practice, teaching a foreign language at a university cannot provide a sufficient linguistic and intercultural basis for efficient professional communication. More difficult to teach foreign languages to foreign students who have a low level of knowledge of Azerbaijani and English. Teachers and students face the problem of optimizing professional training in foreign languages with the goal of efficient formation of professional language competence as the main goal of education in higher a school that "underlies all internationalization activity" (Almazova et al 2016). Moreover, the development of modern foreign language teaching is largely associated with the theory of intercultural communication as the basis of a productive methodological model of language teaching in various sociocultural contexts.

The research purpose of the article is to present an innovative productive method of teaching foreign languages to foreign students, which allows for the systematization of integrated language learning and the development of communicative competence. The article also aims to introduce the linguodidactic method of the Personal Multilingual Portfolio (PMP) and to demonstrate its effectiveness in the training process through an experiment using scientific and pedagogical research methods. Overall, the article aims to contribute to the improvement of the modern system of higher education by promoting the use of innovative teaching methods in foreign language education.

2. Productive learning theory and innovative teaching methods

The successful implementation of the goals and objectives of the modern education system of the Republic of Azerbaijan is directly related to the quality of professional training of teaching staff, among which a special category is occupied by executives. The modernization of the education system in the Republic has significantly expanded the scope of tasks facing the heads of educational institutions: from organization, management, leadership of the staff of an educational institution, control of all processes occurring within the organization to the functions of an executor in relation to a higher education management body. Modern leaders should not only know and understand all the tasks facing the education system but also have the knowledge and skills to competently solve these problems.

Today, the wide availability of the use of information technology contributes to the development of innovative approaches in the education system, allowing you to communicate in different modes and choose new forms, technologies, and methods of interaction in the learning process.

The use of digital technologies in the education system makes it possible to build a productive educational system based on a continuously built dialogue of all its participants. Distance classes can be based on a variety of pedagogical technologies, from the use of methods of consultative and individual training (mentoring, individual mentoring) to methods of pair, group training, joint educational and research work.

In building a workflow during training sessions in the education system, it is difficult to maintain neutrality in relationships with the teacher and the study group. To build an effective educational dialogue in the process of teaching students, it is necessary to build their communication with other participants in the educational process on the principles of equality and diversity of points of view. The skills of building and developing an educational dialogue, a kind of integration of the presented positions of the exchange of opinions, the adoption of alien positions, and the confirmation or refutation of one's own point of view from a qualitatively new level of understanding of the issues under discussion (Bashmakov and Goryaev 2014).

The formation of these skills occurs in the course of the implementation of the educational dialogue. To build a high-quality, productive educational dialogue, it is necessary to pay attention and strength to all participants in the educational process in its organization, maintaining an atmosphere of friendly and open interaction.

Training in the course of conducting vocational educational didactic games allows you to apply the personal skills and experience of students in order to solve artificially created professional tasks. Identification of a student with a given scenario allows him to obtain certain information, consolidate the skills of solving certain personally and professionally significant issues, analyze his own and collective experiences, and gain experience in solving complex professional problems (Bulkin, 1998). Successfully used in the training of leaders, game training makes it possible, during the course, to learn to control one's behavior, show emotional reactions in certain situations, or gain self-control skills in response to the considered problems encountered in professional activities. Such game models, built taking into account the professional characteristics of the listener, make it possible to form his potential achievements in the profession. Performing an analysis of the game played helps to overcome stereotypes of thinking and cross psychological barriers in professional communication, increasing the listener's self-esteem. It should be noted that pedagogical methods based on game forms cannot replace traditional teaching methods but become a productive tool in the teacher's arsenal, helping to achieve the goals of the training course.

When implementing a methodical form of diagnostics, consulting and training in the learning process, the teacher in the learning process, together with the students, determines the most urgent tasks that the heads of educational institutions face - most often in a narrow or local direction, advises and teaches. This approach pursues two main organizational goals: to solve a certain task or problem based on the knowledge and experience of the teacher and to transfer this knowledge and experience to all students.

Productive learning theory is a way of teaching in which students are involved in their own learning. Students can use learning materials to build their own knowledge bases and put what they learn to use instead of just passively receiving information. Here are examples of generative learning theory:

- Project-based learning: Students can gain a deeper understanding of the subject by working on a particular project. For example, a student might gain a deeper understanding of robotics by working on a robot design project.
- Collaborative learning: Students learn while interacting with each other. This approach allows students to learn by collaborating with each other. For example, a group of students might have the chance to learn more about a topic by working together on a project, discussing each other's ideas, and giving each other feedback.
- Problem-solving: An example of a productive learning approach is when students try to solve a problem on their own and gain experience in this process. For example, a student can improve their problem-solving skills by solving math problems.
- Learning journaling is an approach that allows students to follow and reflect on the learning process. By recording what they learned and how they learned it, students can identify their strengths and weaknesses in the learning process.
- Simulations: These allow students to understand a particular topic using their own knowledge and experience. For example, a student can better understand a historical event by simulating a historical event.

Today, education is a strategic basis for the development of the individual, society, nation, state, and the key to a successful future. The transformation of the post-industrial society into a global information society, based not only on knowledge but also on the competence of specialists, has significantly actualized the problem of innovative approaches to the organization of educational processes.

In modern conditions, very high requirements are put forward for the education system: it must prepare specialists for life and work in a wide, dynamic, rapidly changing world, where non-standard tasks constantly arise before a person, the solution of which requires the skills and abilities to build and analyze their own actions.

The basis of innovative educational technologies used in the educational process should be the social order and professional interests of future specialists, taking into account the individual and personal characteristics of students. Therefore, when training specialists, the use of innovative forms and methods must be organically combined with a pragmatic understanding of the goals and objectives of education and training. The use of innovative methods by teachers in the learning process helps to overcome stereotypes in teaching various disciplines, develop new approaches to professional situations, and develop students ' creative abilities.

The use of various active forms and methods of teaching, such as: creating projects, preparing public speaking, debating professionally important problems, collaborative learning, creating problem situations, preparing professionally directed videos and presentations, etc., are the most effective forms of educational work on the introduction of innovative processes into the educational process and the formation of key professional competencies of future specialists. The transition from informational and explanatory learning to innovative and effective is associated with the use in the educational process of new computers and various information technologies, electronic textbooks, and video materials that provide free search activities and also involve development and personal orientation. Thus, today it is possible to note various innovative teaching methods, in particular, these are problem and game technologies, technologies of collective and group activities, simulation methods of active learning, methods of case analysis, project method, learning in collaboration, creative learning, innovative educational project activity, debate technology, brainstorming technology, etc. I offer some of the presented methods in more detail.

Brainstorming technology (brainstorming) is a method of a collective search for new ideas to solve creative problems. When conducting a brainstorming session in class, the teacher conditionally divides students into two groups: “generators of ideas” and “expert critics”. The first group includes students who are able to think in an original way and have imagination and creative imagination. The group of "experts" includes students with an analytical mindset, more competent in the field of the problem being solved. “Idea generators” at the beginning of the lesson receive a task from the teacher to solve some creative problem: explaining some new phenomenon or identifying ways to solve some problem, etc. During the lesson, they must come up with and express out loud as many ideas and suggestions as possible, including the most fantastic and unrealistic ones. At this time, one or two "experts" write down all the ideas expressed by the "generators". After 20-30 minutes, the teacher invites the "experts" to start analyzing and selecting the most productive ideas.

Creative learning assumes free access of each student to the resources of the Internet and is based on the following principles:

The basis of creative learning is the intended educational product that will be created by the student;

Compliance of the external educational product of the student with his internal needs;

Individual educational trajectory of the student in the educational space;

Interactivity of classes carried out with the help of telecommunications;

Open communication in relation to the educational products created by students.

Debate technology allows solving a number of pedagogical attitudes and stimulates students in the best possible way to repeat the material covered, to read additional literature, and to find ways to solve the problem. The topic of the debate can be any scientific or moral problem on which there are ambiguous, most often opposing opinions and fundamentally different approaches to its resolution. The group is divided into two opposing teams: "pessimists" and "optimists", i.e., supporters of positive and negative views on the problem.

Various games are widely represented in ***game simulation modeling***: business, attestation, organizational and activity, innovative, reflexive games to relieve stress and form innovative thinking, search, and approbation, etc. When using business games, the productive and transformative activity of students prevails. In particular, learning games are characterized by multivariance and alternative solutions, from which it is necessary to make the choice of the most rational one. Business games for educational purposes are currently quite widespread in colleges and are used mainly in senior courses in the study of special disciplines.

As practice shows, the use of innovative methods in professionally oriented education is a necessary condition for the training of highly qualified specialists. The use of a variety of methods and techniques of active learning awakens students' interest in the educational and cognitive activity itself, which allows you to create an atmosphere of motivated, creative learning and at the same time, solve a whole range of educational, educational, and developmental tasks.

3. Methodology

This section contains information about the research model, research team, data collection tools, and data analysis.

3.1. Research method

This study, which used qualitative research methods, was conducted in a descriptive manner. Qualitative research often uses the preferred qualitative data collection methods such as observation, interviews, and document analysis to represent perceptions and events in their natural environment in a realistic and holistic way. It can be defined as research in which the process is followed impartially. Basic qualitative research is about how people construct their world, the meanings they give to their experiences, and the way they interpret their lives. In qualitative research, the researcher resorts to words and explanations, using opinions obtained through qualitative data collection methods rather than numbers to reflect what he has learned about the phenomenon (Taylor et al 2015).

3.2. Members

This research includes 36 senior students studying foreign language and Azerbaijani language education at various universities in Azerbaijan in the 2020-2021 academic year. The training process was carried out online during the pandemic period and no unethical transactions were found in the research.

3.3. Analysis of productive learning

An analysis of the scientific and pedagogical literature on the topic of productive learning led to the conclusion that this is a method that contributes to the formation of students' professional skills and the development of their personal qualities. “Productive learning is a method in which students work in groups to teach each other information and are under the leadership of his teacher" (Almazova et al 2016). students become teachers and simply send their teacher. The question is repeatedly discussed in some publications (Arutyunov and Kostina 1992; Bashmakov and Goryaev 2014; Vereshchagin and Kostomarov 1990).

Productive learning is associated with the implementation of the concept of professional orientation of students, which has become widespread in the United States and European countries as a system of professionally oriented education in secondary and higher schools (work-based learning). This type of training helps to strengthen the continuity between school and professional education, deciding development problem (Bulkin 1998).

In recent years, a significant amount of scientific work has been done on productive methods, their verification and implementation at various levels education. These papers also describe ways to improve performance education in Azerbaijan (Galperin 1976; Ievleva 1981; Nottingham 2017; Ramage 2014).

Need implementation productive method in process learning foreign languages of foreign students is associated with the problem of developing their communicative competence. Since they are studying in Azerbaijan, they need to develop Azerbaijani language.

The main methodological directions in this educational sphere are (Bulkin 1998):

1. formation communicative competencies;
2. acquisition professional language competencies;
3. development personal qualities students.

For justification relevance of our research, the authors held relevant content analysis of the curricula and content of the "Professional Foreign Language Course" at the Azerbaijan State University of Economics (UNEC). Practical implementation of the developed innovative methodology carried out as part of a pedagogical experiment used methods of scientific and pedagogical research: systemic and structural analysis, synthesis, study of scientific works, generalization of experience and experimental work.

In order to be convinced of the need for the development of communicative competence of foreign students, the authors conducted a linguistic test that revealed their level of proficiency in Azerbaijani and English. The authors determined the level of the main subcomponents of the communicative competencies and found that these competencies had a low level of development in all study groups (Table 1).

Table 1 The level of development of students' communicative competence.

Competencies	1st Group	2nd Group
Linguistic	54 %	53 %
Sociocultural	44 %	39 %
Social	45 %	42 %
Discursive	41 %	43 %
Sociolinguistic	45%	47%

In the study, the authors used linguistic tests. For each exercise in the dough, students received points results test represented in percentage: amount points received from possible 100%.

The objectives of the study are: analysis and definition of the main methodological principles of productive teaching of a foreign language in higher school; development of the concept of productive linguodidactic technology; development of the content of a personal multilingual portfolio; analysis and presentation of the results of the pedagogical experiment (Kirsh 1981; Krylova and Leontyeva 2008).

It is very important for international students to successfully pass the socialization process in a stranger country. They must explore a lot of social and cultural information of the host country. This is where the role expands for teacher, including support for students in overcoming cultural and linguistic barriers.

The basis of successful multilingualism is a developed communicative student activity. The main goal of productive educational activities students is development productive thinking, creative abilities, and educational autonomy as a methodological basis self-development and self-education personalities (Nechaev 2002).

On the basis of the developed methodology, we have developed a productive linguodidactic technology of the personal multilingual portfolio, providing effective study language. Psychological and pedagogical basis of productive linguodidactic technology is the concept of modern educational technologies in teaching foreign languages (Ovsienko 1989).

Next, consider the content of a personal multilingual portfolio (PMP). The productive linguodidactic technology of the Personal Multilingual Portfolio is a system of student learning activities based on self-management, self-esteem and self-motivation. PMP is compiled in three languages: in the student's native language, in Russian and in English. It can take the form of a paper portfolio, a digital portfolio, or an electronic portfolio. PMP enhances professional skills students and the quality of their autonomous learning. This gives additional motivation to self-development. Main functions personal multilingual portfolio (Rubtsova 2017; Samarin 2015; Samarin 2018):

1. Educational - demonstration professional competencies and personal skills.
2. Grade - demonstration educational results.
3. representation - presentation personal educational and professional achievements.

Main sections PMP represented on the three languages (on the native language student, on Russian and English languages):

1. Language file: professional vocabulary; discursive grammar; general language.
2. Monitoring file: lexical and grammar tests; tests for self-esteem; questionnaires.
3. intercultural communication file: practice professional communication; practice of academic writing; professional practice reading; autonomous communicative activity.
4. Dossier of personal achievements: awards, diplomas, certificates, thanks letters and etc.

3.4. Research results

The authors conducted a survey to determine the level of language proficiency in foreign students trained in Azerbaijan State Economic University. 36 students took part in the survey. The questionnaire consisted of 15 questions. As a result, it was revealed that the native languages of this group were Turkish (20%), Kazakh (10%), Chinese (10%), Urdu (20%), Arabic (10%), Russian (10%) and Persian (20%). English was their first foreign language. (100%). The authors found that they studied English for the purpose of future travel (35%), others studied English language in school (45%), for communication with friends (10%) and for communication on the Internet (10%). All respondents have studied English for more than 3 years. All of them had different levels of language proficiency: at the average level of 40%, at the initial level of 35%, at a low level of 25%. Second foreign language for them was Azeri. They studied the Azerbaijani language from 1 to 3 years (80 %), and more than 3 years

(20%). 70% of respondents studied the Azerbaijani language in order to obtain higher education in Azerbaijan, some were interested in Azerbaijani culture (20%), a 10% wanted to communicate with Azerbaijani friends.

Thus, it can be assumed that in the mind of a foreign student, all three interact language.

During the pedagogical experiment, the authors checked the level of development communicative abilities of students in the following components: linguistic, sociolinguistic, discursive, sociocultural and social competencies.

The experiment was attended by foreign students with the third- and fourth-year bachelor's degree. AT two groups It was 36 students. students from first (control) groups studied Azerbaijani and English without the use of PMP. Students of the second (experimental) group studied foreign languages using PMP. At the beginning of the work, it was determined the level of development of key competencies in English and Azerbaijani and found that they had a low level of development in both groups (see Table 1).

The study showed that the competencies of students of the second group developed better than students first group (Table 2).

Table 2 The level of development of students' communication in the intermediate experiment stage.

Competencies	Group 1		Group 2	
	Primordial data	Received data	Primordia data	Receive data
Linguistic	54%	56%	53%	64%
Sociocultural	44%	46%	39%	65%
Social	45%	47%	42%	63%
Discursive	41%	44%	43%	67%
Sociolinguistic	45%	47%	47%	69%

At the final stage of the experimental work, the authors once again checked the level development competencies students in both groups. Research showed significant promotion level development competence in the experimental group and no significant promotion the level of development of competence in the control group compared with the original indicators (Table 3).

Table 3 The level of development of students' communication in the final stage experiment.

Competencies	Group 1		Group2	
	Primordial data	Received data	Primordial data	Received data
Linguistic	54%	58%	53%	88%
Sociocultural	44%	54%	39%	83%
Social	45%	56%	42%	91%
Discursive	41%	55%	43%	91%
Sociolinguistic	45%	53%	47%	86%

4. Conclusion

So, the way we carried out experimental work confirmed the effectiveness of the use of PMP in teaching foreign languages students. Productive educational activity of students develops their communicative competence. Productive Method Increases Efficiency learning a foreign language for foreign students. On the one hand, this method allows you to develop the individualization of mastering foreign languages through productive, communicative activities, realizable in PMP (Samarin 2017; Ter-Minasova 2020).

On the other hand, this method ensures the internationalization of professional higher education through multilingual and multicultural educational activities. Thus, we can conclude that innovation in the field of teaching a foreign language is a necessary condition for the development of a modern system high school. The process of adaptation of foreign students to the educational environment at university must be organized purposeful complex.

Ethical considerations

Not applicable.

Conflict of Interest

The author declares that have no conflict of interest.

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Special Issue: Education in humanities in Asian countries

Empowerment and mobility of women from domestic to public spaces in improving family welfare

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Abstract Women play a role in the domestic sphere as housewives and also have a big role in the public sphere. Women become strategic actors in the community (public), especially in socio-economic development. The opportunity for women to take part in the public sphere, especially in the economic field to improve the social welfare of the family, still has an imbalance. This research is to answer the problem of how the demographic characteristics of socio-economic vulnerable women, forms of empowerment are given to socio-economic vulnerable women, how is the mobility of women to increase family income through productive economic enterprises, and the constraints and support faced by socio-economic vulnerable women in developing a productive economy to improve family welfare. The approach used is qualitative with a descriptive method. Subject targets were determined purposively, namely, women who were vulnerable to socio-economic issues and who had been empowered. The research locations were determined purposively in three provinces, namely Pekanbaru City, Riau Archipelago Province, West Bandung Regency, West Java Province, and Malang Regency, East Java Province. The results of the research can describe the empowerment and mobility of women from the domestic space to the public space to improve family welfare. Research innovations mainly lie in village and urban locations. In rural locations, it can be seen that the condition of women is weaker in terms of education, income, and involvement in the business world. In contrast to those in urban areas, the conditions of education, income, and the existence of corporate social responsibility involvement are the business world in urban areas

Keywords: empowerment, gender equality, socioeconomically vulnerable women, family welfare

1. Introduction

Based on gender differences, the August 2018 National Labor Force Survey showed that the formal sector was still dominated by men, with the proportion reaching 65.78 percent (nearly two-thirds of the share), while in August 2017, it reached 65.62 percent (Badan Pusat Statistik 2018; Amini et al 2020; Marini and Putri 2020; Purba et al 2021). Likewise in the informal sector, men also dominate, although the differences are not striking. In February 2022, the female Labor Force Participation Rate is still far below that of men, with the male Labor Force Participation Rate at 83.6 percent and women at only 54.2 percent (Indonesia's central bureau of statistics 2022).

Furthermore, the Central Statistics Agency reports that the gender wage gap is the largest in the service business workforce group, namely 53.34 percent in 2021. This wage gap indicates that male business workers earn wages that on average, are 64 percent higher than women in 2021. The gap has narrowed slightly from 51.89 percent in 2019 (Central Bureau of Statistics 2021).

We still often encounter inequality with women, not a few of those who work earn lower salaries/income than men even though they have the same workload (Ferulano 2021). The minimum income earned by female workers can cause various problems, especially economic problems in the family, especially for women who have to bear all household needs or become the backbone of the family. This makes women vulnerable to socioeconomic problems (Ready 2018). The 2018 National Socioeconomic Survey shows that the literacy rate for men is still higher than for women, namely 97.33 percent for men and 93.99 percent for women. In the health sector, the number of women who have access to health insurance is 64.47 percent. In addition, the Labor Force Participation Rate, the Figure 1, based on 2018, Sakernas shows a fairly high difference, namely 82.69 percent for men and 51.88 percent for women (Amini et al 2020).

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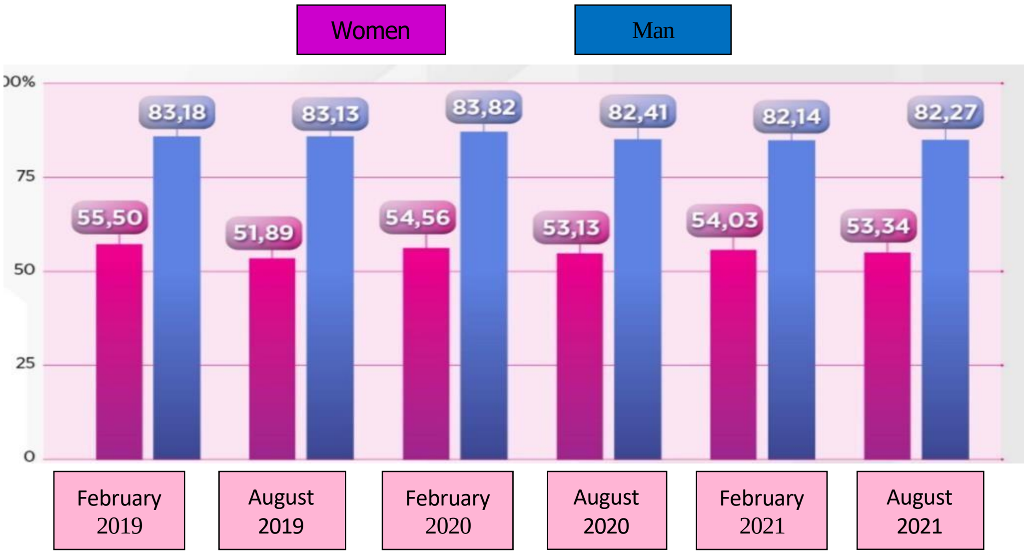

Figure 1 Percentage of Proportion of the active population in the job market by Gender, Source: (BPS 2019).

One definition of socioeconomically vulnerable women is the female head of the household who is usually poor due to low education; limited access to jobs, social services, sources of production, capital, credit, and land; and several kinship networks that support it (Prayitno 2020). Divorced women, who live or die, can immediately become poor. Therefore, efforts to empower women are needed to improve their skills so they can work and earn a decent income so that they can help the family economy (Carlson and Dermer 2016). One of the goals of empowering women is to create social mobility. Take the example of women in rural areas who carry out social mobility from casual farmers to factory workers. This condition is similar to Sorokin's theory of social mobility, especially horizontal mobility. Sorokin in Coser (1977) defines social mobility broadly as the movement of people in social space. Sorokin distinguished two types of social mobility, namely horizontal mobility and vertical mobility. Horizontal mobility is a movement from one social position to another at the same level (Golovinov and Golovinova 2021). For example, a move from a farmer to a factory worker is a move from one position to another with the same degree. Meanwhile, vertical mobility is when someone moves to increase their status or level. For example, someone who was just a peddler becomes a trader by owning his shop and having subordinates help him (Nirwana 2021).

The goal of empowering women is to raise women's awareness about gender equality so that they can realize their full potential and contribute to family well-being. There are three important reasons why women must be empowered in the context of poverty alleviation, namely (Cummings 2022): (1) women have the same interest in the development and are also users of development results who have the same rights as men (Risi et al 2022); (2) women have special interests for women themselves and children, which are not optimal if initiated by men because they require special sensitivity, related to daily life, existing socio-cultural (Horwood et al 2019); and (3) empowering involving women in development, will indirectly empower and transmit a positive spirit to the next generation, who are generally very attached to the mother figure in their daily lives (Purnama 2019).

In the context of the above, many contemporary researchers have shown that women working in poor families are always the redemptive outlet of the family economy. Women are considered to be the lifeblood of the household economy as poor women play various roles in the household (Mia 2021), including: first, as managers of household finances; second, as heads of all household chores; third, as the economic pillar of the family; fourth, as one of the important nodes of social networks in terms of social transfer, especially in times of crisis and crisis (Saeik et al 2021). Housewives have the right to work and earn income outside the home, which is mobility or a change of status from the domestic to the public sphere. This social mobility is related to the socioeconomic conditions of the family, as mobility is movement from one social class to another (Aparicio et al 2022). This means that socioeconomically disadvantaged women who receive more decent jobs and incomes, these women have the potential to contribute to meeting their needs while improving the social welfare conditions of their families (Raharjo et al 2021).

In countries with a low-end economy, many mothers are the savior of the family economy. They also seek additional family income, as their father's income is insufficient to support the family (Nhamo and Mukonza 2020). Women in poor families are mainly women of working age. Another characteristic of women in poor households is their low level of education and limited land ownership (Bora et al 2022).

Efforts made by women to alleviate poverty by diversifying businesses and handling expenses related to fulfilling food, clothing, and social interests (Ginting and Siregar 2020). Based on the above background, the overall question of this research is how to empower and mobilize women from poor families from the domestic sphere into the public sphere to improve family well-being. In particular, the question this study seeks to answer is: What are the demographic characteristics of socioeconomically disadvantaged women? What forms of empowerment are given to socioeconomically disadvantaged women? How mobile are women in increasing household income through productive enterprises? What constraints and support do socioeconomically disadvantaged women face in developing a productive economy to improve family well-being?

The objective of this research is to identify of demographic characteristics of socio-economic vulnerable women, to determine the forms of empowerment given to socioeconomically vulnerable women, to assess women's mobility to increase family income through productive economic endeavors, to explain constraints and support faced by socio-economic vulnerable women in developing a productive economy to improve family welfare in urban areas.

2. Literature review

2.1. Empowerment

Empowerment is providing resources, opportunities, knowledge, and skills to citizens to increase their ability to determine their future and participate in efforts to influence the lives of their groups (Jim Ife 2016). Still, according to Jim Ife, the concept of empowerment has a close relationship with two main concepts, namely: the concept of power and the concept of disadvantage (Eldor and Vigoda-Gadot 2017). There are at least five principles of community empowerment, starting from ecological principles, social justice, local wisdom, and process, local and global (de Grosbois and Fennell 2022. A family is a collection of two or more people who live together with rules and emotional attachment, and individuals have their respective roles and are part of the family (Ife 2009).

There are three important reasons why women should be empowered in the context of poverty alleviation (Kasema 2021), namely: (1) women have the same interests in development, as well as users of development results who have the same rights as men; (2) women, have special interests towards women themselves and children, which are not optimal if initiated by men because they require special sensitivity, related to everyday life, existing social culture (Wulff et al 2018); and (3) empowering women in development, indirectly empowering and transmitting positive enthusiasm to the next generation who are generally very attached to the mother figure in everyday life (Lassi et al 2021).

In particular, five aspects need attention in empowering women in rural areas, including financial assistance, infrastructure related to access to technology, business development, advocacy, and assistance; the formation of behavior is associated with legal and regulatory aspects (Memon and Seaman 2021). Women's empowerment programs in family life will be able to become the driving force for creative economic enterprises that can create increased family welfare (Harrington et al 2015). Women are required to be able to support family resilience which can sustain family economic resilience. The number of poor people in rural areas is still higher than in urban areas. In total, the number of poor people was recorded at 26.5 million people as of September 2021 (BPS 2022).

The results of the study show that socio-economically vulnerable women have problems with the lack of access that can be obtained, such as education and services that affect their economic conditions, causing them to become poor. The role of assistance to empower is quite effective because the companion becomes a mediator who connects women's needs to help overcome social welfare problems (Yuniyarti et al 2018).

According to Jim Ife's theory of community empowerment in his book Community Development, Creating Community Alternatives-Vision, Analysis, and Practice (1997), empowerment is defined as "providing citizens with resources, opportunities, knowledge, and skills to increase their abilities to determine their future and participate in efforts to influence the life of the group". Contextually community empowerment is defined as a concept of economic development that contains social values (Figure 2). This concept reflects a new paradigm of development: people-centered, participatory, empowering, and sustainable (Midgley and Conley 2010).

Figure 2 Driving Network Patterns in Women's Empowerment. Source: Lasano (2021).

Empowerment driving schemes and network patterns in women's empowerment are built through government participation and responsibility with regulations, policies, and facilitation. Non-government consists of private institutions/NGOs. Society as an actor empowered by the government and non-governmental organizations. The people involved in this case are socioeconomically vulnerable women (Buchely 2012). Women are involved in various sources, knowledge, opportunities, and skills to improve their abilities and skills so they can prosper (Academy et al 2017).

Empowering women through education and raising awareness through increasing knowledge and skills to increase their strength. Community empowerment in Actors' theory, society is considered a subject capable of making changes if it is released from strong control and gets the freedom to be responsible for its ideas, decisions, and actions. That perspective is by the acronym Actors, namely authority; confidence and competence; trust; opportunity; responsibility; and support (Utami et al 2019).

2.2. Gender Equality

Today, gender equality is important in social relations, which is important for the development of society. As a result of the special attention paid to increasing women's participation in society, especially in society, there have been major changes in both social relations and legislation (Sobirovich Turdiyev Bexruz 2021). Gender equality is the main issue of development goals which has its value. Gender equality (SDG 5) is one of the goals to be achieved in the Sustainable Development Goals (SDGs) agenda; there are still various problems in the form of gender-based discrimination and inequality in society (Faturachman Alputra Sudirman 2022). Gender equality is one of the priority issues in the vision of sustainable development (Sustainable Development Goals), including realizing gender equality and justice, fulfilling women's rights, and eliminating all forms of violence against women. Gender equality will enable women to do anything to increase their family income. He can work outside the house anywhere and return to his home (Asmirah, Harrifudin Halim, Rasyidah Zainudin 2023). Social mobility is one of the activities that always exist in human life. Everyone always carries out social mobility because social mobility is one of the efforts to achieve primary, secondary, or even tertiary needs (Kamilatunnisa 2018). Ideally, every human being has the same right to do a job. Recruitment or assignment must be given based on one's abilities (Munasaroh 2022). In practice, there is still discrimination against several parties, including women. Companies need resources that have good competence so that the company's productivity will increase. Women are also able to give good performances if given the same opportunity to work. In this case, leadership that gives equal rights to women needs to be done so that women can show their competence. Various theories and scientific developments on human resources also emphasize gender equality and science-based applications should pay attention to that as well (Allyana Infante 2022).

2.3. *Social Welfare*

Social Welfare in Law 11 of 2009 Social Welfare is a condition of fulfilling the material, spiritual and social needs of citizens so that they can live properly and be able to develop themselves so that they can carry out their social functions (PrawiraW et al 2021). Article 34, paragraph (1) of the 1945 Constitution of the Republic of Indonesia, mandates the state's obligation to care for the poor and neglected children. The implementation of social welfare according to Law 11 of 2009 concerning Social Welfare (Skubiak 2021), demands the widest possible role of the community, both individuals, families, religious organizations, community organizations, non-governmental organizations, professional organizations, business entities, social welfare institutions, as well as foreign social welfare institutions. Social workers help families is about creating a harmonious environment that meets the physical and social needs of family members without creating serious obstacles in the family (Clapton 2013; Kalliath et al 2022). Family welfare is the creation of a harmonious situation and the fulfillment of physical and social needs for family members without experiencing serious obstacles in the family, and in dealing with family problems, it will be easy for family members to solve them together, so standard family life can be achieved (Afrella and Amri 2018).

2.4. Legal Foundation

Regulation of the Minister of Social Affairs of the Republic of Indonesia Number 08 of 2012 Guidelines concerning Data Collection and Management of Data on Persons with Social Welfare Problems, Potential, and Sources of Social Welfare (Nuradhawati 2021). Socioeconomic Vulnerable Women are adult women who are married, single, or widowed and do not have enough income to be able to meet their daily basic needs. Criteria: a. women aged 18 (eighteen) years to 59 (fifty-nine) years; b. a wife whose husband left without clarity; c. being the main breadwinner of the family; and d. income less or not sufficient for decent living needs (Erhardt 2014). Law Number 13 of 2011 concerning Handling the Poor is explained in Article 2 that Handling the poor is a directed, integrated, and continuous effort carried out by the government, local government, and or the community in the form of policies, programs, and empowerment activities, assistance, and facilitation to meet the basic needs of every citizen (Muharremi et al 2016). Article 34 paragraph (1) of the 1945 Constitution of the Republic of Indonesia, mandates the state's obligation to care for the poor and neglected children.

2.5. Relevant Research

According to Khoirudin et al, Vulnerable women are a problem that needs attention because one of the factors that cause poverty is socio-economically vulnerable women whose income is below average. Low income can result in social inequality (Khoirudin 2019).

Research on the Role of Social Welfare Workers in Kendari City Regency in Empowering the Potential of Socio-Economic Vulnerable Women. The results of the study show that there are several roles for District Social Welfare Workers in empowering the potential of Socio-Economic Vulnerable Women (Hashmi et al 2021).

Research on the Empowerment of Socio-Economic Vulnerable Women was conducted in Triwidadi Village, Pajangan District, Bantul Regency. The results showed that after getting empowerment through coaching, motivation guidance, social guidance, entrepreneurial skills, and innovation showed changes in behavior, and there was an increase in family welfare (Purnama 2019)

The results of A'yun and Faidati's research (2021), Empowering Socio-Economically Vulnerable Women and identifying factors that Influence the empowerment of socio-economically vulnerable women in Bantul Regency. The results showed that the process of empowering socio-economically vulnerable women in improving family welfare in Bantul Regency was quite successful. This is done through training in cooking skills, making snacks, making crafts, and trading. These empowerment activities contribute to reducing the poverty rate.

3. Research Methods

The approach used in this research is qualitative, and the use of descriptive methods is to the objectives of this research which seeks to explore various opinions and answers from socio-economic vulnerable women, families, community leaders, and stakeholders (Robinson et al 2006). Research on the empowerment and mobilization of vulnerable women from the domestic sphere to the public sphere is carried out to improve the welfare of their families (Milnor et al 2020). Making it possible to understand the mobility of this more comprehensively and in-depth (Tsapalas et al 2021).

The location of the research was determined purposively in West Bandung Regency, West Java, Malang Regency, East Java, and Pekanbaru City, Riau, with the consideration that the location has a high number of socio-economically vulnerable women and they have received empowerment (Boateng 2021).

Secondary data is data obtained using the documentation method, which collects data from books, newspapers, and magazines that are relevant to the research (Sinha et al 2021). Subject targets were determined purposively, namely, women who are vulnerable to socio-economic problems and who are already empowered. The object of research in this study is the socio-economic conditions of women who are vulnerable to socio-economic conditions before and after empowerment in increasing welfare; supporting and inhibiting factors for socio-economically vulnerable women in developing a productive economy (Hoskins et al 2021). Data collection techniques used interviews, this technique used interview guidelines to reveal the socio-economic conditions of socio-economic vulnerable women, strategies to maintain the socio-economic life of the family, and the contribution of socio-economic vulnerable women in improving family welfare. Also explored the supports and obstacles in developing a productive economy (Khan 2020).

Analysis Method; Data analysis technique using descriptive-qualitative-interpretative analysis. Qualitative data will be analyzed descriptively and then given meaning interpretative by reducing data selection, centralization, simplification, and abstraction of raw data by the research objectives (Chibuye et al 2018). The analysis model used refers to the Miles and Huberman model (2005). According to Sugiyono, data analysis was carried out using the Miles and Huberman model on the Socioeconomic Answers for Vulnerable Women sheet and interview results. Data analysis is carried out through data reduction, data presentation, and conclusion drawing (Faizah and Shofiyah 2019).

4. Results and Discussion

The number of socioeconomically vulnerable women in Malang Regency is 5,026 people, while in Pagak District there are 102 socioeconomically vulnerable women in (BPS 2022). Gampingan Village and Pagak Village, Pagak Sub-District, are villages where there are quite a lot of socio-economically vulnerable women, so these villages are locations for residents to participate in empowerment to improve their welfare. The following analysis will present the results of research in these two villages. The number of socioeconomically vulnerable women in West Bandung Regency is 827,530 women, with a population aged between 15-29 years 194,948 people and those aged 45-59 years 148,265 people, in Lembang District the most is in the exact location in Cibogo Village 14, 08% of 3,856 women 827,530, or around 543 people (Aritonang 2019). In Pekanbaru City. The selection of informants was carried out using the snowball sampling technique. In terms of location of residence, the selection of informants was not limited to one particular sub-district or sub-district but came from various sub-districts in Pekanbaru City. The distribution of informants provides an overview of empowerment in various sub-districts in Pekanbaru. Figure 1, it will be known about the age of the informants in this study, most of whom are socio-economically vulnerable women in the three locations, and some of whom are stakeholders, sub-district social welfare workers, and also village assistants who assist socio-economically vulnerable women who receive the empowerment.

Figure 3 shows the age of the informants in three locations, namely Malang Regency, West Bandung Regency, and Pekanbaru City (see Board 1). It can be seen that the highest age in Malang Regency is 58%, West Bandung Regency is 55%, and Pekanbaru City is 60 % which is in the age range of 31 years to 40 years. This age group is still a productive age group for working and improving the family economy. In the age range of 41 years to 50 years in Pekanbaru City, it is still quite high at 40%; in West Bandung Regency it is 15%, while in Malang Regency it is 11%. In the age range of 21 to 30 years, Malang Regency is 26% higher than West Bandung Regency, which is 25%. This age group is an age group that is still very productive, so their knowledge and skills deserve to be improved because they still have great potential. Figure 4 below will show the level of education of this research informant.

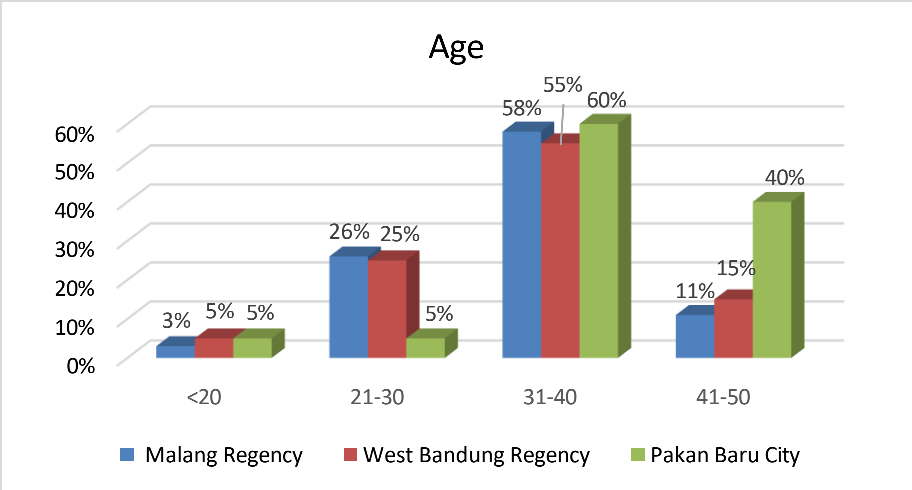

Figure 3 Age of Empowerment and Mobility of Female Informants In Malang Regency, Bandung Regency, and New Feed City. Source: 2022 primary data processed.

Figure 4 can be seen the level of education of the informants and stakeholders in the three locations. In Malang Regency, most of them did not complete elementary school education with a total of 42%, in West Bandung Regency, most of them had senior high school education as much as 72%, in Malang Regency with high school education there were 11%. Most of the City of Pekanbaru had diploma 3 education, as much as 76%, and for Malang Regency and West Bandung Regency, each as much as 5%. There are 24% of those with bachelor's degrees in Pekanbaru City, 5% in Malang Regency, and 6% in West Bandung Regency. They are stakeholders, SubDistrict Social Welfare Workers, and village assistants. The low level of education and the incompatibility of the expertise and skills possessed are very influential for job seekers with the qualifications required by the company. Figure 5 below shows the various types of jobs owned by women who have participated in empowerment.

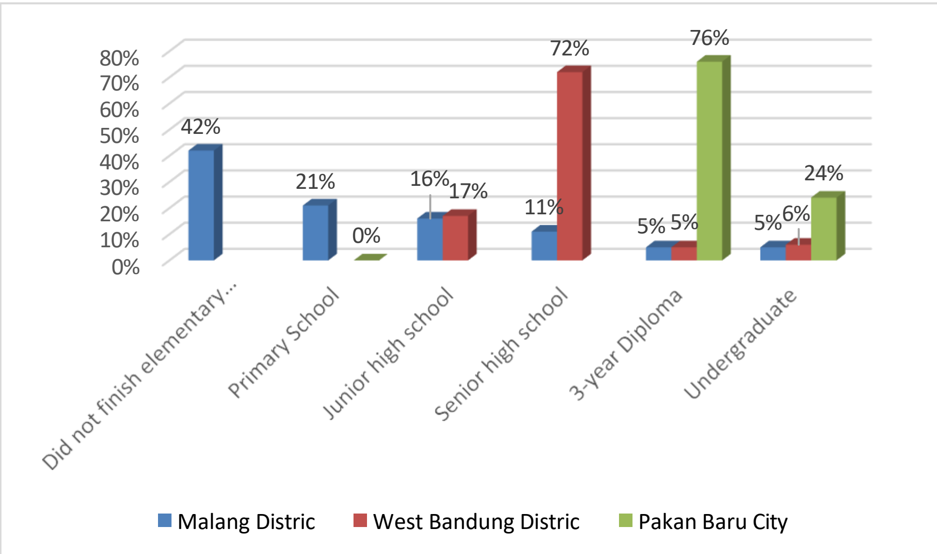

Figure 4 Informant Education Empowerment and Mobility of Women in Malang Regency, West Bandung Regency, and Pekanbaru City. Source: Primary data processed.

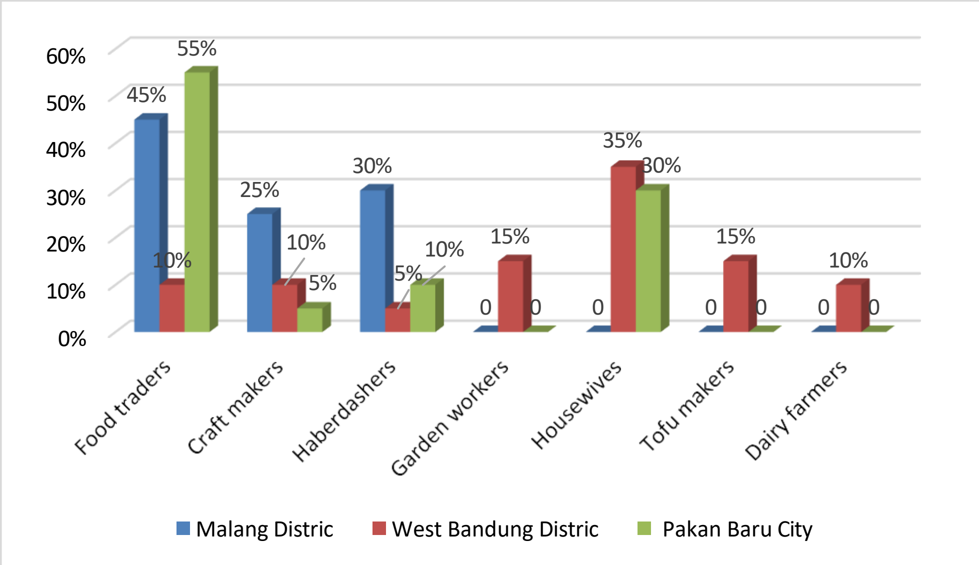

Figure 5 Occupation of Women's Empowerment and Women's Mobility Informants in Malang Regency, West Bandung Regency, and Pekanbaru City.

Figure 5 can be seen that most of the informants work as food sellers in Pekanbaru City as much as 55%, in Malang Regency as much as 45%, and in West Bandung Regency only 10%. Jobs as wholesalers in Malang Regency 30%, New Feed City 10%, and West Bandung Regency 5%. There are 25% of handicraft craftsmen in Malang Regency, 10% in West Bandung Regency, and 5% in Pekanbaru City. Tofu makers and dairy farmers only exist in West Bandung Regency. They get this type of work after empowering local governments such as the Office of Social Affairs, the Office of Cooperatives, micro, small and medium enterprises, and corporate social responsibility that care about women's empowerment.

It can be seen from Figure 6 that the number of informant family members is 2 or 35% in Malang Regency, as high as 32% in West Bandung Regency, and as high as 20% in Pekanbaru City. For informants with a family of 3 members, Malang Regency accounted for 15%, West Bandung Regency 26%, and Pekanbaru City 15%. Most of the respondents were a family of four and lived in West Bandung 20% in Malang, and 15% in Pekanbaru.

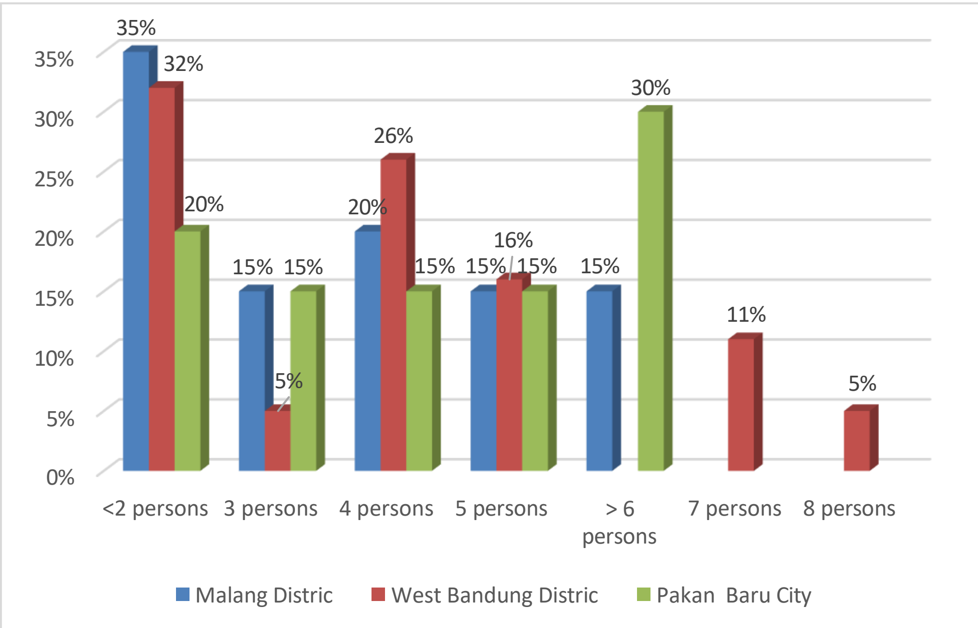

Figure 6 Number of Informant Family Dependents in Malang Regency, West Bandung Regency, and the Pekanbaru City
Source: Primary data processed.

Board 1 Analysis of Empowerment and Social Mobility of Women in Malang Regency, West Bandung Regency, and Pekanbaru City.

Research Locations	Stakeholder engagement	The Role of Stakeholders	Empowerment Initial Capital	Forms of activity	Empowerment Results Marketing	Revenue Use	Community Response to Empowerment
Malang Regency, Gampingan Village and Pagak Village, Pagak District	Provincial Social Service, Cooperative Office, Micro, Small, and Medium Enterprises, Village Head, District Social Welfare Workers, Village Facilitator	Providing empowerment to socio-economically vulnerable women as well as capital assistance for businesses and capital development.	The initial capital for empowerment is given in the form of money of IDR 3,000,000 which must be spent according to needs for business and business development, and notes on the results of the expenditure must be returned to the Provincial Social Service, always the provider of capital.	Empowerment and all socio-economically vulnerable women who are empowered choose empowerment regarding cooking, this is by the need assessment that is carried out before empowerment.	The marketing of the results of the empowerment varied, some sold in the school canteen because their husband worked as a school cleaner, some in the market, some outside the house on the side of the road, some on bicycles, and some just front of the house.	1. Use d to meet daily needs 2. Paying tuition fees 3. Paying medical expenses 4. Participate in social activities such as recitations and group gatherings.	The community's response was very positive and supportive, this was evidenced by buying the sales business that was carried out so that there was an increase in the economy compared to before.
West Bandung Regency, mountainous area, and Tourism Village	village government, national family planning agency, family welfare programs, Business world State Forest Company is a State-Owned Enterprise in the form of a Public Company that has the duty and authority to manage state forest resources State-owned enterprises The business world, State-owned enterprises, Telkom	Maker village government Policy rules. The role of women is to protect children prevent stunting and provide additional food for children. The business world facilitates social forestry facilities and infrastructure. The community participates in involving women to improve family welfare.	1. Village government village funds. 2. Business World 3. Funds from Family Income Increase Busithe ness amount to 5 million per year, and one group consists of 10 people.	1. Assistance in business and marketing. 2. Assistance In trying and marketing food products in social forests. Making knitting into various kinds of accessories (hats, jackets, clothes, vests). Sewing clothes for various needs. Manage a vegetable garden. Making snacks (candied coconut, pastries, lunkhead milk, milk candies)	1. Trade in a tourist forest environment. 2. Sell directly to tourists 3. Entrusted to the Micro, Small, and Medium Enterprises center, there are tourists 4 . Entrusted to the Micro, Small, and Medium Enterprises center. 4. Shop. 5. retail stores, 6. National Craft Council.	Used to meet daily needs. For children's education costs. For medical expenses. To participate in social activities such as recitation, and group gatherings.	Very useful to support family life. The wife can help improve the family economy. Provide new insights about new entrepreneurs in helping the family economy. Economic empowerment can improve the quality of life of women and have new insights because they have their income. Improving family quality. The role of women is not only in the domestic sphere but in the public sphere by selling business results and being able to manage family finances.

Pekanbaru City	The business world, State-owned enterprises, Regional House of Representatives Family welfare programs Land local government organizations.	Provide assistance and support to start a business. Guidance through training activities, facilitation, and capital assistance	Personal funds corporate social responsibility. Financial assistance from private companies and the government Funding assistance from the local government	Empowerment, coaching, and mentoring	Sold door to door Entrusted in stalls, food outlets, and souvenir shops. Sold at the Micro, Small, and Medium Enterprises bazaar. For sale through friendship, rent a shop in the market / commercial & residential areas.	To meet family needs. For children's education costs. For business development so that you can save a little	Actively participate in training and gain knowledge. Actively participates in training and seeks knowledge from the government, private sector, and CSOs. Commitment to return loan capital (from family) Commitment to running a business even in difficult times such as the Covid-19 pandemic.

Figure 6 can be interpreted that all informants who received empowerment have family dependencies and tend to be in large numbers. This will add to the family's economic difficulties (Mamun et al 2021). Figure 7 below will show family income in three locations, namely in Malang Regency, West Bandung Regency, and Pekanbaru City.

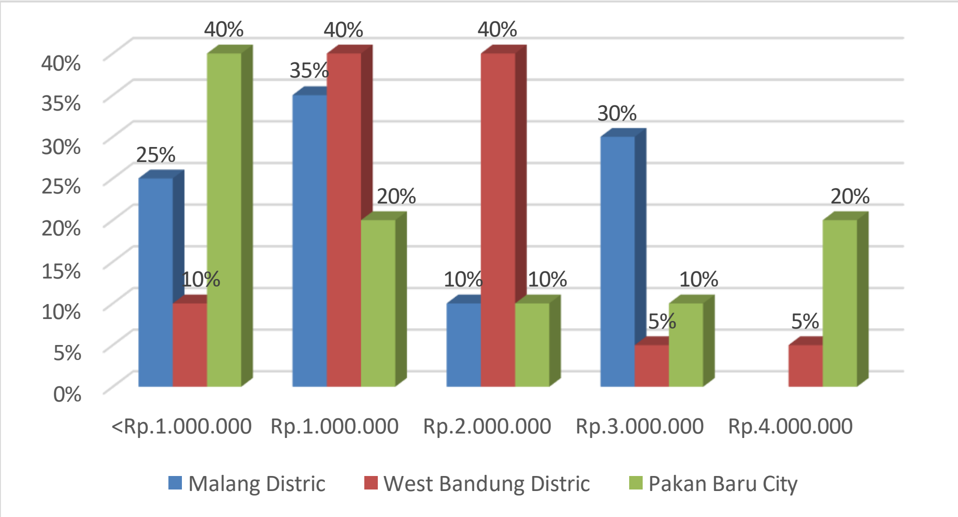

Figure 7 Family Income in Malang Regency, West Bandung Regency, and Pekanbaru City. Source: Primary data processed.

Figure 7 it can be seen about the income of informants in three locations, namely in Malang district, for those who earn < Rp. 1,000,000, there are as many as 25%, in West Bandung Regency there are as many as 10%, and in the City of Pekanbaru, there are as many as 40%. There 35% of informants who earn Rp. 1,000,000 to 2,000,000 in Malang Regency, 40% in West Bandung Regency, and 20% in Pekanbaru City. Most of the informants earn Rp. 2,000,000 to 3,000,000 were in West Bandung Regency with a total of 40%, while in Malang Regency and Pekanbaru City, each only amounted to 10%. The highest income of 3,000 to 4,000,000 is in Malang Regency, with a total of 30%, while West Bandung Regency has only 15% and Pekanbaru City has 10%. There is a disparity in income between the rural areas of Malang and the urban areas of West Bandung and Pekanbaru. The mobility of disadvantaged women in urban areas affects incomes compared to rural areas, where better transport and infrastructure can increase incomes. In rural areas, the mobility of disadvantaged women is limited due to poor access to transport, infrastructure, and culture. Rural women's beliefs and social norms limit mobility, so they affect income inequality, thereby hindering the economic advancement of disadvantaged rural women (Boyagoda 2020).

4.1. Supporting factors

There is support from the local government, Corporate Social Responsibility, the private sector, the family, and the community. There is stimulant assistance for business and business development, as well as assistance for informants who are women who receive empowerment and social assistance.

4.2. Obstacle factors

Empowering women is difficult to do on an ongoing basis because the implementation of activities is not complete, and assistance is not complete until they can become independent. There is a lack of commitment from the government and the community that the activity cannot be continued because the organizers only do it once. Obstacles in coordination between village officials and institutions that have not been well established, women's empowerment activities are often only carried out once without being continuous, thus disappointing women who want to get up to gain skills to be independent.

5. Conclusions

Research on the Empowerment and Mobility of Women from Domestic to Public Spaces in Improving Family Welfare has important implications for the impact of women's empowerment. Some of the implications of empowering economically vulnerable women include:

- Women become more socioeconomically empowered so that they can improve socio-economic welfare in terms of income and access to resources.
- Women's empowerment has an impact on social and economic life to improve the family economy because they are trained and given skills so that they can strive to improve the economy.
- Women's empowerment increases the participation of vulnerable women in the labor market, as well as empowers women to make decisions.
- Empowerment of socio-economically vulnerable women can reduce poverty because it can prosper the family.
- Women's empowerment can transform socioeconomically vulnerable women who previously did not have access to become more empowered which strengthens social and economic inclusion into a productive part of society.

6. Recommendations

The existence of novelty research, namely the differences in social empowerment and women's mobility in rural areas and urban areas, requires collaboration between the local government and the business world to empower women. Women's empowerment has a very positive effect on improving family welfare, for local governments, so that they are given more intensive assistance so that socio-economic vulnerable women will be more empowered in developing the economy or socializing with the environment. So it is necessary to make regulations or policies that bind the involvement of all parties in women's empowerment activities so that women can develop and be independent to improve welfare.

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Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Crisis management in psychology education: The role of leadership

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Abstract The case of learning in psychology education becomes important to recognize the challenges of learning and the role of leadership in managing crises when the learning process changes completely from what was planned. This paper was prepared by studying and referring to the research results on crisis management and learning events during the Covid 19 pandemic. A literature review was conducted to explore important lessons learned during general and psychology education. The use of information technology is the main challenge and at the same time a solution to carry out continuous learning. Leaders need to have competence in managing crises that occur. One of them is by using a proactive approach and prioritizing comfort in the learning process.

Keywords: managing crisis, learning in psychology, information technology, competence

1. Introduction

Psychology education is a conscious effort based on planning to organize formal education in psychology. Like education in general, psychology education is an attempt to achieve something with the concept of learning strategies that encourage the use of appropriate knowledge and information processing (Pressley et al 1989). Psychology education continues to strive for every learning effort to produce competent graduates in academic and cognitive terms (Schunk 2005). The education system is something that must be realized. Especially cognitive awareness about the involvement of students whose goal is to improve competency (Burleson 2005). Such as creativity and self-actualization. The process is carried out in a curriculum system that is spread over many courses. The system runs with a standardized learning program. Standardized programs are carried out by paying attention to the analytical power of students and based on technology (Chatti et al 2012). The learning system that has been compiled is used as a reference to carry out the learning process of psychology education.

The learning program contains many academic levels. The path in question is psychology education for the doctoral, masters, professional psychologist education, and bachelor of psychology levels (AP2TPI 2016). Each level has a degree of achievement that must be obtained and learning outcomes with tiered levels of complexity. The higher the level, the level of achievement and output, the more it requires a more efficient review process (SkepAP2TPI 2013; SkepAP2TPI 2015; SkepAP2TPI 2019a; SKepAP2TPI 2019b). The entire process of face-to-face learning and learning in the laboratory is carried out to obtain results and produce outcomes that are beneficial to society (Istijanto 2020). Learning meetings in theory classes and practicum are also required to achieve the goals targeted by the study program (Heikkinen 2011). The same also happens in the process of writing the final project; every progress of the guidance is to achieve graduates who have competence in psychology and produce outputs that contain elements of novelty (Sovacool et al 2018).

However, the covid pandemic has changed everything, including the world of education in developing countries (Tadesse and Muluye 2020), professional education such as social work and psychology education must be change follow global change (Fahrudin and Yusuf 2020). Therefore, managerial skills are needed in the management of psychology education. This paper focuses on the significance of leadership in psychology education in crisis management throughout Covid-19. The most prevalent occurrences include the transition to online learning, changes in instructional and educational methodologies, the constraints of face-to-face interactions, the influence on mental health and well-being, the increased need for flexibility and adaptation, and chances for creativity and cooperation. These changes need educators and students to adapt to new teaching and learning approaches, all while addressing the pandemic's mental health and wellness issues. For the leaders of psychology education (deans or heads of study programs), a new governance model in resolving crises in an agile and seamless manner is required so that psychology education can function as it should.

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2. Challenges of psychology education in the pandemic period

The study program is not a single entity that has consequences for successfully implementing psychology education. There are human factors, and there are environmental factors. Humans and the environment are two entities needed to run a learning program (Asvio et al 2017). Students who are in a conditional environment tend to find it easier to carry out their learning programs and successfully complete them. But the environmental conditions that are filled with disruption have definitely reduced academic commitment and the quality of learning. As happened two years ago, a pandemic occurred, and a lockdown policy was issued. Learning activities change drastically (González-Calvo et al 2022). At the beginning of the lockdown period, gatherings of many people were prohibited because there was a policy of large-scale social restrictions. Programs that actually run face-to-face are replaced with virtual mechanisms via an online network. Students and lecturers are active from home. Likewise, the study program manager monitored from home. Educational programs that are planned to be carried out formally are forced to be carried out with high flexibility. Study program organizers do not yet fully have the facilities and infrastructure to equalize the learning process online, but the education program must continue to run and achieve its goals. The quality of carrying out the learning process, learning outcomes, and outcomes are the most subject to policy flexibility.

Learning tools and online networks have not been fully prepared by students and lecturers. Learning from home is then carried out more flexibly, with control over the quality of sober learning (Manuaba et al 2022). Learning takes place through a message-sharing platform. Even though the learning discussion process by using chat is not used effectively to produce discussion conclusions (Hutahaean et al 2019). Lectures in the laboratory are the greatest difficulty because the tools for practice can only be used in the psychology laboratory room. Courses that require laboratories are a burden because it is very difficult for students to understand (Khan et al 2021). Because students and lecturers do not have the tools, the practicum is carried out live streaming. Lecturers search for relevant videos, are given as lecture material, and students are given written assignments (Ortiz and Levine 2022). Students who are working on their final project are constrained in the process of methodological guidance in psychology and difficulties in being able to access or collect research data (especially experimental research). Students feel dissatisfied with the final project guidance they receive (Purnami et al 2022). The time to complete the study was delayed due to circumstances, which resulted in delays in building a career (Satpathy and Ali 2020).

Pandemic disruption can come suddenly (D'Auria and Smet 2020). Advanced knowledge and technology can only read his cues but not anticipate and hold them. The experience of the Covid-19 pandemic has become a test that provides lessons in organizing psychology education. It cannot be known more certain that there will be disruptions in the future. Education administrators and actors need to be prepared to deal with sudden disruptions (Klusmann et al 2022). The quality and quality of learning is an important aspect that can support the acquisition of student competence (Asvio et al 2017). This study intends to explore the lessons learned during the Covid-19 pandemic, to then be used as a basis for developing general strategic constructs related to learning in psychology education.

3. Leadership and crisis management during a pandemic: lesson to learn

The coronavirus (COVID-19) is a pandemic illness that impacts the education systems of various socioeconomic level nations (Wajdi et al 2020). The United Nations Education, Scientific, and Cultural Organization (UNESCO) has acknowledged that the coronavirus pandemic epidemic has had an influence on the world's education system (UNESCO 2020b). Many pandemics have occurred throughout human history, affecting human life, education, and global economic growth (Editors 2020). The COVID-19 pandemic is not just a global health crisis; It is also a catalyst for reimagining the way we want to live going forward. From the economic system to the continous educational process. Leaders as decision makers have the opportunity to move away from the status quo and make positive changes (Buchel et al 2022) for the benefit of the faculty they manage.Changing circumstances due to the pandemic are one of the distractions that cut off the previous assignment. In the world of education, this is termed educational interruption; the educational process is interrupted for a moment because changes are required along the way (Bozkurt et al 2020). Change really needs the role of the leader to decide to make changes or maintain what is there (Oreg and Berson 2019). The leadership role in managing the crisis is localized in areas where conditions are changing. Leaders are seen to exert certain patterns by empowering circumstances or those that the pattern directs. Adaptation to work teams whose leadership is directive is lower when the team experiences changing tasks, but leaders whose attitudes are empowering are higher (Sanchez-Manzanares et al 2020).

The concept of leadership and crisis management changes the traditional attitude of adhering to the rules to an implementation of leadership that produces the right solutions (Fener and Cevik 2015). Crisis environments require immediate decision-making and implementation. Sisman and Turan (2002) states that crisis management requires leaders who have a vision. In the modern world, visionary leaders possess foresight for the future, identify realistic visions and goals for the future of the organization, and motivate subordinates to make them happen. The most significant burden regarding crisis management is the fact that some leaders prefer to stick to the rules. Since they want to see all their actions and operations declared according to law, they cannot make an immediate decision in the event of an unforeseen event. This affects the management of the organization negatively (Ahmad 2020).

According to Kadibesegil (2008), in carrying out crisis management, a true leader also needed who has a solution in dealing with every type of crisis, that's why they are optimistic. This energy affects others around them because crises are times when people desire a change of circumstances and the creation of a difference. Common solutions become invalid in times of crisis. A true leader changes the status quo and, of course, makes a difference. In this sense, leadership is not a "duty" but an unavoidable responsibility. Another important point of crisis management is the achievement factor (Emerson et al 2009). It is not only necessary to perform tasks but also to reflect all the characteristics of leadership. Because crisis management is a series of activities that are implemented in a planned, systematic and rational manner to eliminate the problems encountered (Jung and Song 2015), then the leader must be able to make decisions, then form a work team to implement these decisions and make new decisions according to the field.

Leader needs to have the ability to manage pandemic situations (Beilstein et al 2021). For example, the ability to develop a leadership style, focuses on building a motivated team of high performers. Leaders are able to position their organizations as successful organizations. The leader must be able to provide inspiration about the possibility (Abdullah and Anwar 2021) of finding newer situations, to shape the future. Leaders can manage knowledge appropriately to deal with uncertainty

One of the main characteristics of modern management policy is to assume potential problems. Strategic management of crises is carried out as a continuous process and not a job that must be completed on time (Silveira et al 2023). Furthermore, take rational managerial precautions in times of crises that arise for reasons of natural, political, economic, external, and unpredictable environments and apply preventive measures successfully (Peker 2000). Meanwhile the research results. The crisis management process can generally be divided into five distinct stages can be show in the figure 1:

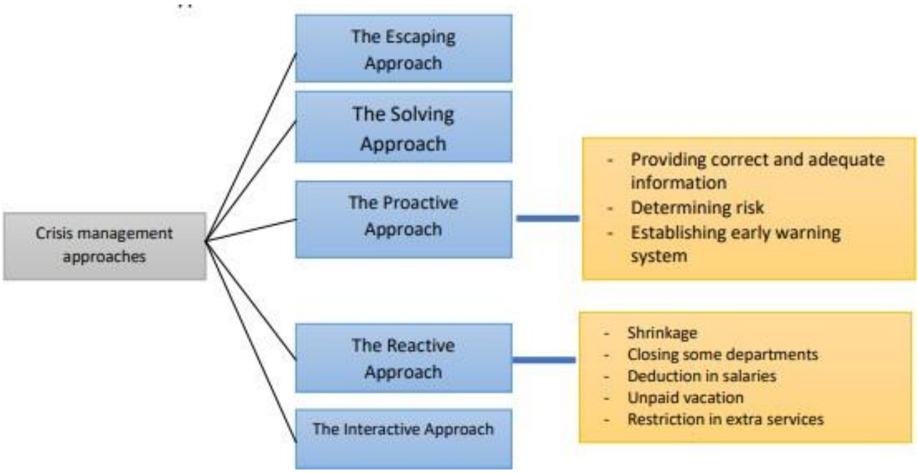

Figure 1 Crisis Management Approach (obtained from Sahin et al 2015).

a) Prediction stage; Crises are usually accompanied by several early warning signals before they occur (Renn et al 2022). These signals are very important because they can provide useful and important information about crises. Determination and identification in a timely manner to prevent the occurrence and potential damage due to crises. If top leaders do not follow and evaluate carefully, then it is inevitable to grapple with crises. The operational management of education carried out by the study program has dissolved into chaos.

b) Prevention stage; systematically following early warning signals is not a sufficient solution against crises. Top leaders must make arrangements with the crisis management team to protect the organization (Branicki 2020) from potential damage from the crisis according to the significance of the existing signals. At this stage, the leader must try to minimize risks and be able to compensate for risky decisions with expected returns. If a crisis is unavoidable, preparation activities will help control the crisis. Preparation and prevention are to protect the educational process that should be carried out by the study program. The absence of both resulted in the learning situation getting messy and chaotic.

c) Control stage; although, in some cases, the early warning, prevention, and protection mechanisms work effectively, control procedures must also be complied with in order to properly deal with the crisis. On the one hand, motivation must be provided among personnel. On the other hand, policies that generate anxiety and stress should be avoided whenever possible (WHO 2020). The education manager, in this case, does not only carry out the monitoring function of his policies but shows an actuating role for all parties who are part of the education process.

d) Recovery phase; at this stage, short and medium-term recovery mechanisms must be put in place. In other words, this stage contains the replacement of losses with new income. Organizations or institutions that have successfully faced a crisis must immediately act to normalize the situation (Lidskog et al 2020). To achieve this goal, resources, processes, and personnel must be directed according to a predetermined strategy. Here, the purpose of recovery carried out by education managers is to resolve the crisis and benefit from the crisis. Restricted spending, centralized management, and suspended authority by lower-level managers must move step by step to their pre-crisis positions.

e) Evaluation stage; To eliminate the negative effects of post-crisis, leaders can do the following: (1) systematically organize training programs, (2) rehabilitate the work environment, (3) reward successful personnel for their valuable performance in the crisis process, (4) transforming the crisis management team into a solution development team, and (5) preparing strategic reports for long-term productivity and efficiency programs (Sahin et al 2015).

The field of education is no exception; the effects of the Covid-19 pandemic have created a crisis. In order to be able to balance amid educational goals and changing circumstances, an appropriate approach is needed, namely an approach in accordance with the framework of a crisis management approach. In general, the most widely used solution to continue the educational process is online learning (Pramana et al 2021). But perhaps its use is not based on a crisis management approach. Because online learning brings another crisis for lecturers as educators, namely the crisis of using information technology (Fernandes et al 2021). The same is the case with students; it is difficult to follow learning because it is done online (Widyaningrum et al 2022).

Left issues during Covid-19 are very dynamic in nature, and can be seen in many perspectives. But the most appropriate perspective is learning about solving problems in many situations, and still maintaining the standard of lecture learning outcomes. Proper and strong connections, are the key to successfully solving problems. In this context, leaders really see how valuable cooperation is within the organization. The Covid-19 pandemic has created the biggest obstacle in conducting academic learning (Giatman et al 2020). The toughest effect of this is that decision-making is drastically weakened. Though decisions are indispensable in work. The strength and drive of the leader go a long way in maintaining connections between the entire work team (Goleman et al 2009). But the leader's weak drive can divorce the team with its job responsibilities

According to Hazaa et al (2021) mastery of information technology is an important influence in responding the challenges of the crisis that occurred, and this mastery is integrated into crisis management solutions. Generally, the approach used by leaders in carrying out crisis management establishes a systematic framework (Christine et al 1998), and innovative steps (Sahin et al 2015) is as shown below:

The Escaping Approach:

In this approach, it is necessary to follow the internal and external environment continuously and improve prediction methods about the future before the crisis. This approach is very close to the proactive approach. Managers try to predict the possibility of a crisis from the start, and find procedures that allow the organization to avoid a crisis (Vašíčková 2020). To prevent the negative impact of the crisis, top management must determine the needs and key values of the organization to set projected goals. It is also important for top management to inform personnel about policies, share values, and transfer philosophies. In addition, it is a prerequisite for identifying problems, finding effective solutions, and building a flexible, dynamic, and enthusiastic corporate structure for easy practice.

The Solving Approach:

This approach depends on predicting conditions before a crisis and on timely steps to solve problems during a crisis. During a crisis, current conditions must be clearly understood and identified and behaved realistically and patiently. In addition, several efforts, such as a systematic collection of information for effective decision-making, extra opportunities for staff at various levels, reduction of time pressure, and detailed identification of crisis sources, should be carried out. The leader carries out the arrangement of work processes appropriately and is oriented toward solving problems (Thielsch et al 2021).

The Proactive Approach:

According to this proactive approach, top management should generate alternative solutions to potential crises. Due to preventive measures, construction companies that can adapt their production and marketing activities to crisis conditions can become financially successful when their competitors are in a state of panic. A proactive attitude in crisis management is defined as an initial step to view the crisis as a whole, integrate, and take strategic steps (Abo-Murad and AL-Khrabsheh 2019)

The Reactive Approach:

This recovery approach can be chosen by top leaders in the face of unexpected crises. Under these conditions, leaders usually make aggressive decisions during crisis meetings. Precisely in managing a crisis, leaders are considered to have failed to understand the crisis that is happening, and failure occurs because a reactive attitude actually provides many limitations for leaders to restore their organizations (Fast et al 2022).

The Interactive Approaches:

This integrated approach evaluates the crisis process before, during, and after a crisis. Due to the information obtained in this process includes ongoing organizational learning and self-control mechanisms. Permanent communication and flow of information are provided for the benefit and reputation of all stakeholders. Interactive is not an approach that emphasizes procedures for conveying information in confusing situations. Interactive means using multiple methods to complement each other and all of them applied simultaneously (Fast et al 2022). Communication in crisis management is communication that is delivered transparently, especially in leaders providing challenges that affect the best performance (Szczepańska-Woszczyna 2015).

Crisis, in general, are filled with complex changes (Klemm et al 2019). It requires executives to lead and manage effectively. Addressing today's most pressing needs is management work. Leaders need to make immediate choices and allocate resources (McNulty and Marcus 2020). The leader's pace must be quick, and his actions determine success. The process of leading is done by guiding subordinates to the best end result during this time arc. The leader's focus should be on what might happen next and be ready to fulfill it. That means leaders are able to see beyond the immediate to anticipate the next three, four, or five hurdles.

4. Conclusion

Forthcoming, there may be more recent pandemic disruptions, and this will bring about a more complicated crisis than Covid-19. Because it can spread suddenly, a pandemic is something that is difficult to predict. But this does not mean that education managers give up, let the educational process run irregularly, and give super leeway. The pandemic is hard to predict, but the experience two years ago provided an important lesson to be able to anticipate it. Governments need to have the ability to manage crises appropriately, and these competencies are needed to deal with crisis-filled situations. Not only referring to the period two years ago, but the future also needs to be considered for the leader to be able to design the progress of the psychological education process he manages. Through this competence, the Heads of Faculties and Psychology Study Programs are no longer shackled in crisis situations. Any obstacles and difficulties that exist can be solved with the right strategy. That is a strategy with a proactive approach. It cannot be ruled out any more that information technology will become something mandatory. Information technology learning compulsory psychology education is built to be; (1) the education section, (2) implemented, (3) controlled, and (4) evaluated for improvement to be more effective. Information technology is used not only as a companion but also as an integrated part of the psychological education process. Its very importance of continued innovation and adaptation in the field of psychology education, especially in light of ongoing technological advancements and changing societal needs.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Enhancing of young learners' speaking achievement through the use of Facebook application: a case study in Indonesia

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Abstract This research aimed to investigate whether the Facebook application could enhance young learners' speaking achievement. The Classroom Action Research (CAR) design was employed in this study. Both quantitative and qualitative data analysis techniques were used. The quantitative data were used to examine the young learners' speaking achievement scores, while the qualitative data were used to explore their situation in practicing their speaking skills. The findings indicate that the use of Facebook significantly improved young learners' speaking achievement, as evidenced by the mean score of the pre-test (48.46), post-test 1 (56.78), post-test 2 (63.34), and post-test 3 (67.53). Moreover, the percentage of young learners who achieved the minimum mastery criterion increased from 6.25% in the pre-test to 75% in the post-test 3. Based on the observation sheet, it was found that the young learners were enthusiastic, curious, and confident in practicing their English skills.

Keywords: classroom action research, Facebook, speaking achievement, young learners

1. Introduction

The form of growth or change in the individual, which is evidenced by known behavior resulting from experience and practice, is referred to as learning (Hamalik 1983). In educational institutions, technology is used to support learning activities (Tonduer et al 2012). The National Center for Education Statistics (NCES 2003) reports that there has been a significant increase in internet access since 1999, with access at home increasing from 49% to 60%, and access in schools and classrooms increasing from 75% to 92%. Social media is a technology commonly used by people around the world. Social Networking Sites (SNS) are a type of social media that allow users to access digital information, interact and create content, and join communities in online platforms (Kaplan and Haenlein 2010). Facebook is the most popular SNS application, with 2.89 million users (Statista Research Department 2021).

While Facebook is commonly used for entertainment purposes, it can positively impact users, particularly in improving skills. Studies have shown that SNS, particularly Facebook, is a powerful digital tool that can have a positive impact on learning (Cook et al 2008). SNS and mobile learning allow learners to speak in less stressful situations, making SNS a successful medium for practicing English speaking skills in a fun way (Sun et al 2017). Previous studies have also investigated the use of Facebook as a media for improving students' academic achievement (Chang 2014; Celik, Yurt, and Sahin 2015; Junco 2015; Pebriana, Arifin and Novita 2015; Can 2016; Dweikat 2016; ElsayyedSanad 2016; González, Gasco and Llopis 2016; Moghavvemi et al 2017; AlSaleem 2018; Al Zboon, Ghammaz and Al Zboon 2018; Ekahitanond 2018; Habes et al 2018; Putri 2018; Goh et al 2019; Jassim and Dzakiria 2019; Kostikova et al 2019; Mathur et al 2019; Suganda 2019; Toker and Baturay 2019; Kholiq and Solehuddin 2020; Datko 2021; Kaso et al 2021; Ulla and Perales 2021; Mykytiuk et al 2022; Yotyodying et al 2022).

Delivering a message or expressing ideas through verbal or nonverbal communication is encompassed in the act of speaking (Chaney and Burk 1998). In order to effectively convey a message, individuals need to have a comprehensive understanding of five components, including grammar, vocabulary, comprehension, fluency, and pronunciation. Nevertheless, practicing speaking skills in English can present challenges, particularly for young learners who are often hindered by a limited vocabulary, confusion over grammar, and a fear of expressing their thoughts in English, leading to shyness and a lack of confidence (Marleni and Asilestari 2018). In response to these challenges, creative learning activities and media use are essential for supporting the development of English speaking skills in students. Prior research has demonstrated that Facebook is an effective tool for improving the English speaking skills of undergraduate students in Malaysia (Kabilan et al 2010). The interesting features of Facebook make it an ideal platform for improving speaking skills and encourage students to express

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their thoughts freely. In this study, a case study approach was taken to improve the English-speaking skills of Junior High School students who experienced speaking problems. The research found that students felt disinterested and unexcited about learning, had poor speaking skills, and lacked the confidence to speak up. Consequently, the study aimed to investigate whether the use of the Facebook application could significantly enhance young learners' English speaking skills.

2. Methodology

The research design employed in this study was classroom action research (CAR), a method used to identify changes or improvements in practices through cyclical processes. Four stages were used in CAR, namely planning, acting, observing, and reflecting (Figure 1). Due to the COVID-19 pandemic in Indonesia, the acting and keeping stages were conducted online. During the planning phase, the researchers assessed the participants' English-speaking skills, including the materials, instructional materials, pictures, and video materials on Facebook as the media, the observing sheet, scoring, and attendance list. In the acting phase, the researchers implemented the prepared plan. The observing phase involved monitoring the participants' improvement during the study. During the reflecting stage, the researcher and the collaborator discussed the weaknesses observed during the action and analyzed the results of the data, which included the observation sheet and tests used to assess the participants' improvement in each cycle. The researchers then concluded the results of the young learners' improvement.

The study comprised three cycles, and the Facebook application was used to teach the respondents. Each cycle consisted of three meetings, and the participants were Junior High School students, specifically grade VII-6 at SMP Negeri 1 Pangkalan Susu, comprising 32 students. The material taught was asking and giving opinions, and the test questions were adapted from the discussion between the researcher and the observer. The speaking test and observation sheet were the instruments used in the study. The research analyzed both quantitative and qualitative data. The quantitative data were analyzed using the speaking test score as the primary data. The rubrics for scoring the speaking test covered pronunciation, grammar, vocabulary, fluency, and comprehension, and the respondents were required to achieve a score equal to or over 65. The success criteria were that 75% of young learners should pass the test using the rubric scoring method by Brown (2004). The qualitative data were analyzed using the observation sheet. The content validity of the test was ensured, and the inter-rater reliability was used to obtain the data's reliability.

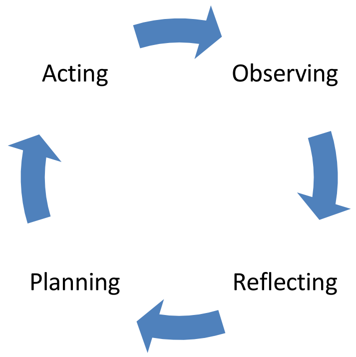

Figure 1 Kurt Lewin's action research design

3. Results

Two instruments were utilized in the study, namely, the test and observation. In the test instrument, the students' speaking skills were evaluated using a pre-test in the first meeting and a post-test after the third cycle. Three cycles were employed to ensure that the minimum mastery criterion was achieved. On the other hand, the observation sheet was utilized to monitor the teaching-learning process. In this section, an overview of the research results after the implementation of the intervention is provided.

During the pre-cycle, oral tests were administered to the young learners, and the mean score obtained was 48.46. The results showed that the students had weak pronunciation, limited vocabulary, difficulties in grammar usage, and lacked confidence in public speaking. Only two respondents attained a score of 65, with the class mean score being 48.46, as presented in Table 1.

Cycle I aimed to improve the students' pronunciation, vocabulary usage, and confidence in expressing opinions by utilizing Facebook. The young learners were requested to join a Facebook group created by the researcher. The mean score for Cycle I or post-test 1 was 56.78, which did not reach the KKM score of 65. The reflection on this cycle indicated that the students still had difficulties with Simple Tenses, which were addressed in Cycle II.

Cycle II focused on improving the students' grammar, specifically in Simple Tenses. The material provided included simple present, past, and future tenses. The mean score of the young learners was 63.34, which still did not attain the KKM score of 65. The reflection on Cycle II indicated that the pronunciation and grammar improved, but new methods were needed to enhance vocabulary in sentence construction.

The objective of Cycle III was to enrich the young learners' vocabulary by utilizing games, videos, or pictures on Facebook. The students learned through games available on Facebook to improve their vocabulary. The mean score obtained by the class was 67.53, indicating that they successfully achieved the KKM score of over 65. The reflection on Cycle III indicated that the students successfully practiced their English speaking skills and gradually reduced errors through Facebook as a medium.

Table 1 The young learners' mean scores from pre-cycle to cycle III.

Test	Pre-Cycle	Cycle I	Cycle II	Cycle III
Pre-test	48.46			
Post-test		56.78	63.34	67.53

The data showed that Facebook improved the young learners' enthusiasm in learning English, especially in improving their speaking skills. Table 2 below illustrates that the students were confident in enhancing their English speaking skills.

Table 2 The young learners' mean scores from pre-cycle to cycle III.

No	Activity	Cycle I	Cycle II	Cycle III
1	Not interrupt friends during teaching-learning process	87.5%	93.75%	93.75%
2	Pay attention of the explanation	93.75%	93.75%	100%
3	Active to respond	31.25%	62.5%	62.5%
4	Active in giving opinion	31.25%	62.5%	62.5%
5	Doing discussion in partner group	93.75%	100%	100%
6	Asking the question	9.3%	31.25%	31.25%
7	Doing the task	87.5%	100%	100%

The observation sheet was used to support the primary data, and was used as secondary data. The improvement of young learners' activity in practicing English speaking skills through Facebook was observed during cycle I to cycle III. It was observed that some young learners interrupted and did not respect their friends, and laughed at their peers' mistakes. However, there was an improvement in this aspect, as seen in the observation sheet. In cycle I, the percentage was 87.5%, which improved to 93.75% in cycle III. Additionally, the young learners paid attention to the researcher or teacher explanation, which was reflected in the percentage of cycle I, which was 93.75% (30 young learners) and improved to 100% (32 young learners) in cycle III. The young learners also responded to the researcher or teacher and provided their opinions about the material, which showed an improvement from cycle I (31.25% or 10 young learners) to cycle III (62.5% or 20 young learners). In order to practice English speaking skills, the young learners discussed and had conversations with their own group, which was presented in the observation sheet. In cycle I, the percentage was 93.75% (30 young learners), which improved to 100% (32 young learners) in cycle III.

Furthermore, the young learners actively asked questions to the teacher when they did not understand the material. The improvement was reflected from cycle I, which had 3 young learners (9.3%), to cycle II and cycle III, which had 10 or 31.25% of young learners who were active. Lastly, the young learners did the tasks, especially for practice, pre-test and post-test. The observation sheet showed that in cycle I, 28 young learners (87.5%) did the tasks, and this improved to 32 or 100% of young learners in cycle II and cycle III.

4. Discussion

In this section, the improvement of the young learners in Grade VII-6 in terms of score and situation in teaching learning process from pre-cycle to cycle III was presented. During the pre-cycle, the successful criteria of 75% young learners passing the test was not achieved, with only 6.25% passing. In cycle II, the young learners learned about "Asking and Giving Opinion" to practice their English speaking skills by reading and watching posts in a Facebook group created by the researcher. In post-test 1, there was an improvement of 17.16% from pre-test, with 21.87% young learners passing the test. The treatment continued in cycle II, leading to a further improvement in post-test 2, with 50% or 16 young learners passing the test, and a 30.7% improvement from pre-test. However, the successful criteria of 75% was still not achieved in cycle II, so it was continued to Cycle III, where the passing rate increased to 75%, with 24 young learners passing the speaking test. Therefore, in this cycle, the successful criteria of 75% was achieved, and the process of CAR was stopped until Cycle III, with an improvement of 39.35% from pre-test to post-test III.

In the pre-cycle, the young learners lacked confidence in practicing their English speaking skills due to problems with grammar, vocabulary, pronunciation, shyness, and anxiety. To overcome these problems, they learned and practiced through Facebook. The observation sheet showed that they became more active, disciplined, and enthusiastic in practicing their speaking skills during the research. The features on Facebook, such as Facebook video, pictures, status, group, and game, also helped the young learners. They became confident in improving their English speaking skills through Facebook because they did not need to see people in front of them, which made them more creative.

This study is relevant to the findings of some previous studies. For instance, Jafar, S.A. (2012) in Malaysia found that using Facebook as a tool for language learning led to significant improvements in the speaking proficiency of young learners. Another study by Gudykunst and Kim (2009) in the United States found that using Facebook to practice speaking in a foreign language can lead to more effective communication among students. Similarly, in Indonesia, a study by Pratiwi (2018) found that using Facebook in English language classes improved the speaking skills of high school students. In conclusion, using Facebook as a tool for language learning can improve students' speaking achievement, especially in young learners.

5. Conclusions

It was found in this research that the English speaking skill of young learners was significantly improved by the Facebook application. Enthusiasm, enjoyment, and excitement in learning were observed among the young learners who received treatment through Facebook. The features of Facebook, including picture, video, group, and game, provided a conducive learning environment. Moreover, the young learners felt more confident in practicing speaking skills through Facebook, as they were free to express themselves without being physically present in front of an audience.

The results showed a significant improvement in the young learners' percentage improvement in each cycle, as observed in the pre-test (6.25%), post-test 1 (21.87%), post-test 2 (50%), and post-test 3 (75%). It was evident that the young learners consistently practiced their English speaking skills, leading to a marked improvement. In conclusion, this research demonstrated that Facebook could support the teaching and learning process of young learners, particularly in enhancing speaking skills. It is suggested that further studies explore the potential of technology, such as video conferencing, virtual reality, and online language learning platforms, in improving the teaching and learning of speaking skills.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Explore the efficacy of post-pandemic blended education skill

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Abstract A global pandemic and scientific emergency have been caused by COVID-19. An existential threat appears to be faced by humanity. The concept of world order, which examines human nature and goals in the context of international affairs, is being addressed. Themes such as conflict, aggressiveness, inequality in access to and knowledge of material resources, social inequity, ecological discord, and feelings of isolation from oneself, society, and humanity are explored. Education worldwide has been greatly impacted by this pandemic. The entire education industry has undergone changes in its system, manner, and more. Initially, no solid infrastructure for online education was available. Eventually, the process of learning and adapting to make it more effective has been ongoing. Exploratory research was conducted to investigate the effectiveness of online teaching and learning. By consulting with teaching staff and students regarding their expectations for online/hybrid courses, a comparative model was utilized to examine the effectiveness of Online and offline education. The effectiveness of online and offline education is mixed. Both ONLINE and OFFLINE education have their pros and cons. It is highly dependent on various factors such as a student's financial background and the chosen course, among others. In conclusion, education can be made more effective, efficient, and interesting by combining the two formats.

Keywords: world order, post pandemic, education skill, online education, offline education

1. Introduction

Increased competition in the higher education industry has led to the proliferation of both open gaps and instructional models. Factors such as Brexit and shifting demographics have already posed challenges to colleges, potentially resulting in a drop in revenue and heightened competition among students pursuing higher education. The recent Covid19 pandemic further exacerbates these concerns, particularly with regards to the financial stability of educational institutions if there is a sudden decrease in the number of overseas students. Maintaining high levels of student satisfaction is crucial, especially in the aftermath of the epidemic, as student recruitment and retention play a vital role in upholding a university's academic reputation and competitiveness. The university has an obligation to address students' concerns and incorporate lessons learned from remote delivery experiences during the pandemic to shape future expectations, teaching methods, and assessments. This is essential to stand out in a crowded industry (Beatty 2019).

The pandemic has presented significant challenges to normal classroom operations, resulting in the temporary closure of schools and institutions throughout the past academic year. However, this does not impede education and training. Instead, alternative measures such as online backup plans have been implemented to ensure continuous instruction and assessment via digital platforms (Braun and Clarke 2006). During times of crisis, such as a pandemic or conflict, schools must swiftly adapt by transitioning instruction and evaluation to the digital realm, known as "Emergency Distance Learning" (EDL). Blended and online courses serve as examples of how EDL can modify traditional face-to-face instruction (Brightwell et al 2004).

To better cater to their students' needs, many schools have made adaptations to their educational programs, embracing a more flexible and convenient approach. Blended learning, which combines elements of online and in-person instruction, requires all students to engage in both modes of learning. The HYPERFLEX concept allows for learning to take place in both traditional classroom settings and online platforms. Students have the freedom to choose the most convenient mode of participation, but each session and learning activity is delivered live, synchronously, and asynchronously online. While the HYFLEX approach offers flexibility, it may pose challenges if some students opt for remote learning while others attend in-person classes (Carter et al 2016). Aston University utilizes blended learning to some extent. Prior to the pandemic, students had access to the Virtual Learning Environment (VLE) for reading course materials, submitting assignments, and interacting with instructors online. Additionally, the university encourages the use of 4,444 multiple-choice questions provided during revision sessions and employs Panopto courses for online delivery of lectures and additional assessment methods. Academic

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Science Learning Tools, another online resource, enhances students' understanding of laboratory techniques through accurate simulations. Timed tests in the classroom have been replaced by open-book exams administered through digital platforms during the pandemic. Originally designed to last for 12 hours, these assessments now take the form of open book reviews with the same duration. Assessments may consist of multiple-choice/short answer questions or essays (Casagrande et al 2020).

2. Literature review

2.1. Amreen Bashir et al (2021)

As a result of the Covid19 pandemic, universities were forced to close, leading to a shift from in-person to online training and assessment, thereby causing challenges and disruptions within the higher education sector. The lessons learned from the experiences of students can guide us in creating a more inclusive future for those pursuing biological sciences. A recent research project focused on the academic experiences of biological science majors at Aston University. An online survey was administered to 151 students in August 2020, investigating the impact of homeschooling and the course on their mental health and quality of life. It is imperative that future lesson plans consider the emotional well-being of students affected by the epidemic. Many colleges and universities, including our own, have started offering blended courses to ensure that biological science majors have ample opportunities for laboratory work and field study. This approach aims to keep students motivated and engaged, utilizing on-campus resources and support while also providing some of the flexibility that distance learning offers. Considering student demographics and digital equity is crucial in today's highly competitive higher education market, where student retention is a top priority, to ensure that all students are adequately served (Bashir et al 2021).

2.2. Kacper Nijakowski et al (2021)

Special attention should be given to addressing the emotional well-being of children affected by the epidemic in future school curricula. Blended learning, which combines the flexibility of distance learning with access to on-campus services and support, is widely implemented in universities, including our own, to ensure that students majoring in the biological sciences gain essential laboratory and field experience. In today's competitive higher education market, it is crucial to consider student demographics and digital equity to ensure equitable access for all students. The feedback from responders indicated that they received sufficient personal protection equipment, and our students have expressed enthusiasm for the continued use of blended learning even after the pandemic ends. They appreciate the enhanced efficiency and speed of individual learning, although they acknowledge the limited opportunities for interpersonal interaction. Proper utilization of modern technology has the potential to revolutionize the dental education system (Nijakowski et al 2021).

2.3. Anchal Sharma (2021)

The COVID19 pandemic has had a global impact, leading to significant changes in the field of education across various disciplines. One notable consequence of school closures in India was the emergence of substantial learning gaps among students. In this context, blended learning has emerged as a pivotal approach for the future of education, particularly as schools aim to reopen and ensure a secure return for students to the classroom. Blended learning combines the strengths of traditional and modern educational approaches by incorporating online resources and tools.

The key advantage of blended learning lies in its ability to enhance the educational process for both teachers and students. Despite the ongoing efforts of governments and non-profit organizations, achieving universal access to education remains a complex and challenging endeavor. However, this situation has spurred the innovative spirit, hard work, and resourcefulness of numerous educators, parents, and students in the region, resulting in the creation of exceptional educational opportunities in local schools. Furthermore, it has shed light on various loopholes and weaknesses within the system that hinder the realization of India's digital education aspirations (Sharma and Alvi 2021).

2.4. Sharma and Alvi (2021)

According to medical professionals, social isolation has been recommended as a measure to slow down the spread of the COVID19 pandemic and save lives. As a result, traditional methods of education have proven ineffective, impacting over 90% of the global student population. Educational institutions have taken steps to minimize disease transmission within the community by implementing a combination of in-person classes and online learning resources.

In light of the COVID19 situation, educators and policymakers have recognized the need to shift towards a more technology-driven approach to teaching and learning. This research paper utilizes the Statistical Package for the Social Sciences (SPSS) software version 23.0 and JASP 0.14.1 for descriptive statistics and analysis, including mean, minimum, maximum, combined, and correlation tests. The study examines and evaluates student perceptions in a higher education institution in India, comparing the views of the same students before and after the 19 COVID cycles.

The findings of this study reveal significant differences in student perceptions of pre- and post-pandemic learning methods. Pre-pandemic blended learning was more favored by students compared to post-pandemic web-assisted learning.

These results provide valuable insights into the changing dynamics of student experiences and preferences amidst the COVID19 pandemic (Sharma and Alvi 2021).

2.5. Saavedral (2021)

The global COVID19 epidemic is the worst public health emergency of the past century. Because of this, our entire way of life has been turned upside down, with never-before-seen effects on how we earn a living and acquire knowledge. The International Labor Organization (ILO) reports that between the fourth quarter of 2019 and the second quarter of 2020, working hours were cut globally by 14 percent (ILO 2020a). This is equivalent to the elimination of 480 million full-time jobs1, a statistic that reflects the widespread upheaval of the global labour market (ibid.). Goal 8 of the SDGs, "Promote an economy of sustainable, inclusive, and sustainable growth, full employment, efficiency results, and good work for everyone," and its target of 8.5, required by 2030, of "full and productive work and decent work for all," are threatened by the current situation. countries with completely closed workplaces (excluding critical workers countries) and another 42% of workers in countries with partially closed workplaces (ILO 2020a). To keep a business afloat, you need a sizable staff who, ideally, can all adjust their methods to the changing needs of the company. One of the most common adjustments is working from afar, provided that the nature of the profession permits it (Saavedra 2021).

The COVID19 pandemic has emerged as the most severe public health crisis of the past century, leading to profound transformations in our daily lives and unprecedented consequences for employment and knowledge acquisition. According to the International Labor Organization (ILO) (ILO 2020a), global working hours were reduced by 14 percent between the fourth quarter of 2019 and the second quarter of 2020, resulting in the elimination of approximately 480 million full-time jobs. This statistic reflects the extensive disruption experienced in the global labor market (ibid.).

The current situation poses a threat to Goal 8 of the Sustainable Development Goals (SDGs), which aims to promote sustainable and inclusive economic growth, full employment, and decent work for all individuals by 2030. The COVID19 pandemic has led to complete workplace closures in certain countries, excluding critical workers, while partially closed workplaces have impacted 42% of workers in other countries (ILO 2020a).

Maintaining business continuity during these challenging times requires a well-equipped workforce capable of adapting to evolving demands. One common adjustment adopted by organizations is remote work, provided it aligns with the nature of the profession (Saavedra 2021).

2.6. Varma and Jafri (2021).

This study aims to investigate the current landscape of undergraduate architectural education in India in the context of the ongoing epidemic. It seeks to explore effective evaluation methods for enhancing classroom improvisation and identify innovative approaches to teaching, learning, communication, and assignment strategies (4044). The perspectives of educators on the feasibility of online courses for the field of architecture in India were gathered, based on their experiences during the pandemic. To address the existing knowledge gap, an online survey was conducted among teachers, specifically designed to gather structured data on various aspects such as the success of online courses, instructor performance, the evolution of blended education, and other aspects of the transition process.

Environmental disasters, including earthquakes, hurricanes, tornadoes, as well as chemical incidents like gas or oil leaks, and even the potential of nuclear war, can have profound and widespread impacts on people's daily lives, prompting significant social changes. In light of such challenges, it is imperative to identify the most effective course of action (Varma and Jafri et al 2021).

2.7. Susilawati and Supriyatno (2020)

This research aims to investigate the evolution of online education prior to, during, and after the spread of the Covarian flu pandemic. This research used a pretest group design. Students enrolled in the Ministry of Planning and Investment programme at the Islamic State University of Maulana Malik Ibrahim Malang during the even semester of the 2019/2020 school year will serve as the study's subjects. Thirty students made up the sample for this research. A questionnaire was used to collect the data. A 5% margin of error was used in the paired t-test used for the data analysis. The results of the WhatsApp-based e-learning experiment indicated a correlation of 0.776 between the two variables, indicating the presence of a correlation between the pretest and the actual exam; at the 0.05 level of significance, this means that the null hypothesis (H0) can be rejected. The results show that compared to before WhatsApp was introduced, student learning outcomes improved dramatically. Analysis and discussion of the findings lead to the conclusion that learning has improved in the age and after the Covid19 epidemic thanks to the use of WhatsApp to boost learning motivation (Susilawati and Supriyatno 2020).

2.8. Singh et al (2021)

The 2019 coronavirus pandemic (COVID19) has altered the structure of higher education. Online, hybrid, and hybrid learning approaches must be considered as traditional educational institutions around the world continue to suffer a worldwide health issue. Since early 2020, educators have been working to navigate the COVID19 situation, and this descriptive study provides a deep dive into the evolution of associative learning, the rise of blended instruction, the training of faculty with limited online teaching experience, and the lessons learned along the way. The challenges encountered by professors during the epidemic were presented using a herringbone analysis, imaging, and structural analysis technique to pinpoint the root of the issue. What are your strengths and what are your weaknesses? The advantages and disadvantages of a mixed/matched approach to education have been outlined. A research-based strategy for bridging the gap between offline and online teaching to create exciting educational opportunities for students (Figure 1) (Singh et al 2021).

2.9. Kundu DK (2021)

The 2019 coronavirus pandemic (COVID19) has altered the structure of higher education. Because of the ongoing global health problem, universities and colleges around the world must rethink traditional teaching techniques and explore alternatives like online and hybrid education. Since early 2020, instructors have been navigating the COVID19 situation, and this descriptive study provides an in-depth examination of the background of associative learning, the development of blended instruction, the preparation of faculty with little or no online teaching experience, and lessons learned. The challenges encountered by professors during the epidemic were presented using a herringbone analysis, imaging, and structural analysis technique to pinpoint the root of the issue. The gap between the haves and have-nots will widen considerably as educational inequalities breed more inequalities in economic and social aspects and as structural inequality intensifies (Kundu 2021).

2.10. Zeng et al (2020)

During the peak of the COVID19 pandemic, China implemented online academic English instruction to ensure continuity in education. However, it is acknowledged that a new online teaching paradigm for academic English is required to enhance teaching efficiency in the post-pandemic era, as online learning cannot completely replace offline instruction when schools reopen. This article concludes by discussing the advantages and disadvantages of online education and presents a survey of student opinions on its effectiveness. The findings indicate that students recognize the benefits and limitations of online learning and anticipate a hybrid approach to education. Based on these conclusions, the paper advocates for a more balanced online education approach that emphasizes language proficiency, independent study, technological proficiency, critical thinking, and cultural competence. Since the outbreak of COVID-19, people's daily routines, including work and education, have been severely disrupted. During the height of the pandemic, students throughout China were unable to attend classes in person. However, China implemented a solution to address the challenge of remote learning by establishing online classrooms accessible to students from their homes (Zeng et al 2020).

3. Methodology

Teachers in India who are currently working with college-level students were polled using a standardised online survey. Online media was used because of its flexibility in gathering the required information and its widespread reach at a time when in-person gatherings were discouraged owing to the pandemic. In order to achieve these targets, we are conducting an online poll (Unicef office of Research 2021):

1) Collecting and organising information on how the COVID-19 virus outbreak has affected more conventional forms of face-to-face instruction and study.

2) Explore how adaptable the leading IT companies and organisations are, and how they leverage digital tools and resources (Phillips et al 2016).

3) Investigate the effectiveness of online teaching and learning from the standpoint of a classroom instructor.

4) Consult with teaching staff about their hopes for online/hybrid courses in education.

4. Results and discussion

The results and discussion section of this study involved gathering information from respondents in four distinct phases. The first phase focused on capturing individual and group experiences, while the second phase examined the successful transition to online learning following the pandemic. The third phase delved into the respondents' perspectives on blended learning, including its convenience and effectiveness in online instruction. To accomplish this, a set of 23 multiple-choice questions, most of which were mandatory, was used to organize and analyze the data. After collecting a total of 4,444 responses from both individuals and organizations, the survey was refined to exclude incomplete responses and ensure that all suggested answers were presented only in the post-test phase (Phillips et al 2016).

The survey was administered to 410 instructors from 152 educational institutions, and a total of 130 individuals responded, representing 82 institutions across 20 states in India. Among the respondents, there were 16 deans and 50% were associate professors (16 full-time faculty members). In terms of teaching experience, respondents generally had between five and ten years of experience. The surveyed institutions offered a range of undergraduate architecture programs, varying in duration from less than five years to over twenty-five years, and approximately one-third of these institutions also offered graduate-level education (Nijakowski et al 2021).

Particulars	Online Education	Offline Education
Method of Teaching	Digitalised tools and methods of teaching	Traditional tools and methods of teaching
Cost and Time	Cost-effective and time-saving	More expensive than online education and consumes more time
Location	Virtual classrooms	Physical classrooms
Flexibility	Online classes to have a flexible schedule	Offline classes have a fixed & strict schedule
Communication	Communication and collaboration happens digitally	Communications and collaborations happen face-to-face
Type of Approach	Facilitation and asynchronous approach	Instructional and synchronous approach
Pace of Learning	Students largely determine the pace of learning	Teachers largely determine the pace of learning
Level of Commitment	Students are less likely to remain serious and committed to their studies	Students remain more serious and committed to their studies

Figure 1 Efficacy of Online and Offline Education (Source – Google Images).

4.1. Data analysis

4.1.1. Opportunity for collaboration

Collaboration in a blended learning environment is actively encouraged and nurtured. Digital game-based learning, facilitated through peer-to-peer interactions, has been found to elicit a positive response from students. When students collaborate to foster a sense of community and create a vibrant learning atmosphere, their chances of success are enhanced. The availability of digital tools has made it easier than ever to engage in meaningful conversations with individuals from anywhere in the world. Projects like PenPal provide virtual platforms for students across the globe to exchange ideas and knowledge. In light of the pandemic's impact on society, promoting the use of digital tools among children for teamwork and collaboration can contribute to their development as empathetic and cooperative individuals, enabling effective communication among peers. Furthermore, when teachers and students share responsibilities, it leads to the formation of stronger relationships and enhances students' receptiveness to criticism, consequently facilitating their learning and retention (Qutieshat et al 2020).

4.1.2. Tracking Learning Levels

It is conceivable that, post-epidemic, there will be an even greater disparity in students' initial learning levels. Rapid and straightforward assessment of students' learning levels is essential to tailor remedial measures to their specific needs. Diagnostic tools such as ASER and the UNICEF MICS learning module can be utilized to identify students' strengths and weaknesses in foundational skills like numeracy and literacy, establishing a solid foundation for future success across all subject areas. Students who are underperforming will greatly benefit from such follow-up interventions as they enable personalized instruction. The data collected can facilitate the provision of tutoring services by volunteers and non-profit organizations, ensuring that each child receives instruction at their individual level. The overall dropout rate, particularly among girls, can be reduced through the use of affordable technological software that monitors students' school attendance and identifies potential dropouts (Al-Fodeh et al 2021).

4.1.3. Increased Access to Learning

Blended learning enhances educational opportunities for students, increasing their chances of obtaining an education. In essence, a greater number of individuals in various locations can benefit from this expanded access to education. Blended learning, particularly in the form of distance education, is particularly valuable in extending access to higher education across the globe. Mainstream software incorporating features such as text-to-speech and other accessibility tools enables students with disabilities to access educational opportunities on par with their peers. It empowers educators by providing them with additional resources for professional development, enabling them to take a more proactive role in delivering instructional materials in diverse settings. The availability of online materials allows educators to allocate more class time to addressing the individual needs of their students. By embracing these options, learning can be accelerated, and students can take ownership of their education. Engaging students in projects that foster experiential learning outside the confines of the classroom is an effective way for teachers to cultivate student involvement. The paper "Using ICTs to Foster New Models of Growth and Development in India" represents the latest addition to the CSD Working Paper Series (Hattar et al 2021).

4.1.4. Better Communication

Disparate falsehoods and generalized dread have been propagated as a consequence of the pandemic. The potential for the utilization of digital media such as radio and television to facilitate children's continued learning during school closures is recognized. These media platforms serve as a stark reminder of the significant gap in children's access to media and information resulting from the prevalent availability of online spaces. In the future, more schools can benefit from the implementation of these cost-effective resources, fostering open lines of communication between educators and families. Parents and guardians should be duly informed about the importance of educational continuity and provided guidance on accessing new learning programs as they are developed. The utilization of online forums and communities for learning, such as Microsoft Teams, Google Classroom, Canvas, and Blackboard, is encouraged (Touil et al 2021).

4.1.5. Preparing Students for a Tech-Oriented World

Almost every facet of our existence has been changed by technology. As the world constantly evolves, it is imperative that our pupils undergo the same transformation. If technology is incorporated into the classroom, teachers can better prepare children for success in the workforce. Through blended learning, students can acquire the essential skills necessary for the future. Additionally, it enables them to adeptly navigate the virtual realm of knowledge by employing various digital approaches (Figure 2). Blended learning allows students to gain hands-on experience with cutting-edge tools like 3D printers and VR headsets, thereby enhancing their understanding of how these tools can be utilized in upcoming assignments. The integration of technology in classrooms benefits students significantly as it prepares them for a world where they must continuously adapt to new circumstances.

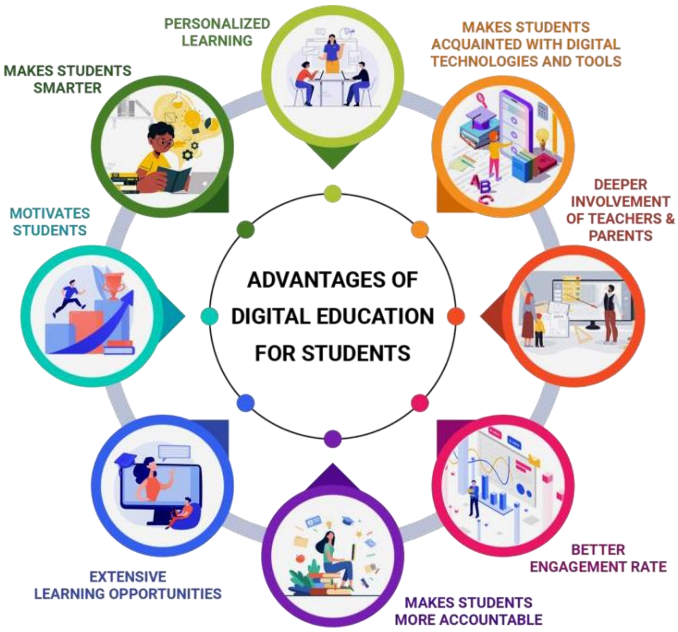

Figure 2 Digital approaches that motivate students to learn (Source: Skool Beep).

The implementation of technology-based communication and instruction, as advocated by subject matter experts, fosters a more engaging and captivating educational experience. Blended learning may very well be the future of education, ensuring that all students have the opportunity to continue their education after a pandemic. Its widespread adoption in classrooms worldwide is a result of the numerous possibilities it offers (Bock et al 2021). This approach paves the way for a fusion of pedagogical approaches that effectively cater to a diverse range of students. Online platforms grant students access to a plethora of study materials available at their fingertips 24/7, facilitating individualized learning at one's own pace. Various internet platforms have played a pivotal role in keeping students, teachers, and parents connected. Distance between students becomes less of an obstacle when online resources are utilized for collaborative work. Digital grading streamlines the process and enables instant feedback for students. For these and other reasons, technology has become an indispensable tool in the classroom. However, challenges persist, primarily the scarcity of resources such as adequate technology and infrastructure.

Insufficient technological literacy among teachers and students also hinders instruction. Consequently, teachers must receive training on the use of new technology in the classroom, in addition to being flexible and adaptive. When these components are combined, hybrid education reaches new heights of customization, interactivity, and collaboration (Jum'ah et al 2021).

5. Conclusion

Finally, it can be concluded that the effectiveness of online and offline education is mixed. Both ONLINE and OFFLINE education has their pros and cons. The type of education depends on many factors like a student's financial background, a course that he/she has opted for, and many more. Combining these two formats will make education more effective, efficient, and interesting.

Ethical considerations

The study correctly followed the ethical policies, the consent of all the respondents involved was taken**.**

Conflict of Interest

The authors declare that they have no conflict of interest.

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Factors influencing the effectiveness of blended learning activities: A case study of Vietnam National University, Hanoi

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Abstract Blended learning (BL) is an increasingly important pedagogical approach that combines traditional classroom instruction with digital resources to enhance student engagement and learning experiences. This study aims to evaluate the factors that influence the effectiveness of teaching activities in a BL model. Four groups of factors with a total of 20 sub-factors are considered, including lecturer-related factor (6 sub-factors), student-related factor (6 sub-factors), organizational factor (4 sub-factors), and technology factor (4 sub-factors). To collect data, this study conducted interviews with experts and managers who have extensive experience in managing training activities at Vietnam National University, Hanoi. The generalized fuzzy analytic hierarchy process (AHP) method is applied to evaluate the effectiveness of BL activities at VNU-Hanoi. The results revealed that lecturer-related factors have the most significant impact on the effectiveness of BL activities at VNU-Hanoi, followed by technology, organizational, and student-related factors. These findings highlight the importance of supporting and preparing lecturers to deliver effective BL experiences.

Keywords: blended learning, fuzzy AHP, generalized fuzzy numbers, VNU-Hanoi

1. Introduction

Blended learning (BL) is defined as the combination of face-to-face and online learning (Williams 2002). BL is considered a mix of traditional teaching methods (face-to-face in the classroom) and technology to support learning (information technology and internet communication), leading to reduced classroom time (Garrison et al 2002). BL can also be described as a combination of online instruction and classroom-based guidance to organize and support learning activities (Boelens et al 2015). With BL, the lecturer will guide part of the learning, and the rest will be done online without the lecturer, making students more active and familiar with new concepts than passive learning in traditional classrooms.

Over the past decade, BL has emerged as a global trend in the context of education (Allen and Seaman, 2006). BL is increasingly being widely used in higher education in many countries because it has advantages of both traditional and online teaching methods (Graham 2004; Harding et al 2005; Poon 2014). These advantages include greater flexibility (Macedo-Rouet et al 2009) and cost savings (Harding et al 2005) compared to traditional classes (Woltering et al 2009), especially when teaching a large number of students. Some previous studies have shown that the BL approach increases student engagement and learning experience because it has a positive impact on students' perception of teaching methods and learning platforms (Edward et al 2018; Ghazal et al 2018; Alebaikan and Troudi 2010; Gomez and Igado 2008; Graham 2007; Garrison and Kanuka 2004). BL emphasizes learning as well as teaching, thus creating conditions for students to participate more in the learning process, become more enthusiastic, and therefore improve their persistence and commitment (Ismail et al 2018, López-Pérez et al 2011).

University education has many characteristics that are suitable for implementing BL, such as the students' level of information technology, highly qualified lecturers, and easy access to technology. Currently, there are many studies on the factors affecting the effectiveness of teaching according to the BL model at universities. Al-Busaidi and Al-Shihi (2011) and Babic (2012) studied the factors related to satisfaction and acceptance of the use of BL by lecturers. In which, they focused on studying the impact of factors related to the individual characteristics of lecturers (concerns about computer use, technology experience, personal innovation), LMS system characteristics (system quality, information quality, service quality), and organizational characteristics (management support, incentive policies, training). According to Babic (2012), in addition to the factors related to lecturers, there are also factors related to the characteristics of students and the organization that affect the

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effectiveness of teaching according to the BL model at universities. Studies increasingly focus on the factors of lecturers as an intrinsic motivator (Ibrahim and Nat 2019; Wang and Ma 2020). However, the effective use of BL in the university education environment is a combination of many different factors related to human (lecturers and students), organization, and technology (Ma'arop et al 2016).

Recent studies have used the UTAUT2 model developed by Venkatesh et al (2003) to evaluate the factors influencing the successful implementation of BL in higher education (Azizi et al 2020; Apandi and Raman 2020). This model focuses on factors related to the intention and behavior of technology use. The model has been shown to be suitable for applying BL (Alshahrani and Walker 2017). However, implementing BL cannot be achieved simply by integrating online and face-to-face teaching (Azizan 2010). Therefore, it is necessary to determine the impact and role of students, lecturers, and administrators to ensure successful implementation of BL in higher education (Graham 2013; Güzer and Caner 2014). An overview of the literature indicates a lack of comprehensive studies that have systematically examined the factors that influence the effectiveness of Blended Learning activities, encompassing the lecturer, student, organizational, and technology platform aspects. Moreover, there appears to be a dearth of research exploring the prioritization level of these influencing factors on the effectiveness of BL activities, specifically within the context of universities in developing countries like Vietnam.

Nowadays, the fuzzy Analytic Hierarchy Process proposed by Chang (1996) is one of the most commonly used multi-criteria decision-making methods. Many studies have utilized Chang's method in the field of education, such as Lin (2010), Chen et al (2015), Kustiyahningsih et al (2020), Arora et al (2021), Menekşe and Akdağ (2022), and Zhu et al (2022). Although this method has value, in some special cases, it exhibits certain limitations that have been addressed in studies by Wang et al (2008) and Hue et al (2022).

As a leading university in Vietnam with 19 member universities/college and research institutes, Vietnam National University, Hanoi (VNU-Hanoi) has a mission to train high-quality human resources, foster talent, conduct advanced technology research, transfer knowledge, and play a key role in innovating the higher education system in Vietnam. In recent years, VNU-Hanoi has invested in digital transformation, quality assurance, and management, including initiatives such as the implementation of a digital university project, teaching innovation, the establishment of an online training platform, and the establishment of a digital university management center. VNU-Hanoi has issued various policies to promote digital transformation, with a focus on digitizing materials and staff and student data, enhancing online administrative procedures, and implementing online training. VNU-Hanoi has also developed the "VNU-Hanoi digital university architecture until 2025 and vision towards 2030 according to the e-government architecture framework of Vietnam, version 2.0," a plan to apply IT and develop a digital university until 2025, guidelines for ensuring information security and database security on VNU-Hanoi's IT platforms, and a proposal for an ICT framework for the smart university town of VNU-Hanoi. These are important foundations for implementing the policy of developing online training and BL at VNU-Hanoi. Therefore, the aim of this study is to evaluate the factors that influence the effective organization of teaching according to the BL model at VNU-Hanoi. In this study, a new generalized fuzzy AHP presented by Hue et al (2022) was applied to evaluate the effectiveness of BL activities at VNU-Hanoi.

2. Literature review on the factors influencing the effectiveness of blended learning activities

2.1. Lecturer

In both online and traditional teaching, lecturers or facilitators play a crucial role in determining the success of the model. Lecturers need to know how to use modern technologies to serve teaching, choose appropriate resources for different students, design and select suitable evaluation methods according to the students' abilities and technology skills. In reality, lecturers not only organize learning activities but also have the responsibility to guide, direct, and develop learning content to help students' self-access. It is essential to teach students information processing skills, including necessary computer skills. Teaching in a complex BL context requires more comprehensive and flexible lesson design to improve the learning process of students (Baran et al 2013; Comas-Quinn 2011). Many studies have emphasized the role of lecturers in promoting students' learning experiences and the success of BL models, including factors such as readiness, teaching experience, lesson content, appropriate teaching methods, technology competence, and student assessment methods.

a) Teaching experience

Teaching experience with traditional methods helps lecturers decide which parts of the course can be replaced or adjusted to fit the combined teaching approach. Teaching experience with BL helps lecturers have more confidence in applying technology in teaching, and the knowledge that technology can better meet the needs of students (Alammary et al 2014). Lecturers are encouraged to gradually adopt the replacement approach. They should start by shifting a small portion of the course content to online format, gradually reducing the amount of face-to-face teaching time to suit and then expanding the scale as needed until a harmonious combination of face-to-face and online teaching is achieved (Brunner 2006; Duhaney 2004).

b) Readiness

The transition from traditional learning methods to BL requires both lecturers and students to accept and be ready to innovate in teaching and learning methods. At that time, the lecturer's belief in the usefulness of the BL method played a crucial role and brought about changes in their teaching curriculum. If they believe in the benefits that the model brings, they will be ready to apply and develop it (Colorado and Eberle 2009, Ottenbreit-Leftwich et al 2010). According to the research of Poon (2014) and Dakduk et al (2018), lecturer readiness is the main factor determining the effectiveness of implementing BL.

c) Pedagogical method

According to the TPCK (technological pedagogical content knowledge) framework developed by Koehler and Mishra (2008), in order to improve student learning in a combined learning model, lecturers need to harmoniously combine content knowledge, technological knowledge, and pedagogical knowledge (practice, process, strategies, teaching and learning methods). Pedagogical knowledge specifically refers to the effective teaching methods lecturers use to promote student learning (Koehler and Mishra 2006; Koehler et al 2014; Hubber and Loong 2013). The pedagogical method places the student at the center and is an important factor in creating a successful combined learning course. This method requires lecturers to act as facilitators to enhance students' learning, to know how to promote a positive learning process and self-adjustment, to create opportunities for interaction, and to have an evaluation method for students' learning and timely feedback (Thanh and Renshaw 2013). The quick feedback from lecturers on students' requirements helps to increase students' positive learning experience, especially for those without prior technology experience (Cheng 2012; Costley and Lange 2016). This interaction occurs not only in the classroom but also through online forms, which helps students to achieve learning goals more effectively (Garnham and Kaleta 2002). In combined learning, students rely less on lecturers and learning materials and instead rely on guides (Cheung and Vogel 2013; Holley and Oliver 2010). Guides are required to understand students' motivation when participating in online learning, in order to guide them to use online learning tools and develop new teaching methods to attract students (Vanslambrouck et al 2018).

d) Technology capability

For BL models, technology is always a crucial factor. Both lecturers and students work on the online learning system (LMS). Therefore, the technology competence of users motivates lecturers to apply the BL model (Gautreau 2011) and plays an important role in the success of the BL model (Thompson et al 2006; Venkatesh and Davis 2000, Wan et al 2007, Mahdizadeh et al 2008). User experience with technology is their exposure to technology, along with skills and abilities achieved through the use of technology (Thompson et al 2006). This is obvious because lecturers need these skills not only to design lessons and perform other online tasks but also to support students when they encounter difficulties.

e) Lecture content

For both traditional and BL, high-quality lecture content is always one of the decisive factors in student satisfaction, promotes student learning, and is essential for any educational context (Lin and Wang 2012; Mondi et al 2007; Wong et al 2020). A principle in designing teaching in BL is that the distribution mechanism of content, teaching activities, and assessment activities must be based on lecture content, student learning needs, and the ability to meet the applied technological solutions (Garrison and Vaughan 2008; McGee and Reis 2012; Means et al 2013). Lecturers can design lecture content for BL models in the form of visual images, multimedia presentations, and case analysis to enhance the student learning experience.

f) Evaluation methodology in teaching

Evaluation is a continuous and ongoing process in teaching that helps lecturers monitor students' learning progress, identify their difficulties in learning, and provide timely feedback to help them adjust their learning process to achieve their learning goals. Learning based on interaction along with effective evaluation methods can significantly improve students' achievement and learning motivation, while reducing the pressure of knowledge accumulation (Chu et al 2019; Cauley and McMillan 2010).

2.2. The student factors

The student is the subject who directly participates in the educational process and receives knowledge from the lecturer. Unlike the traditional teaching method, the student is considered the center in the BL model (Suprabha and Subramonian 2015). The use of the BL model will improve the learning experience and expand the student's learning through greater freedom in learning methods, enhancing interaction between the lecturer and the student, exploiting learning tools, and comprehensive development of cognition, emotions, and physicality (Tayebinik and Puteh 2013).

a) Time management

When changing from the traditional learning method to the new learning method, the direct classroom learning time will decrease, however, this does not necessarily affect the student's learning effectiveness (Müller and Mildenberger 2021). In addition, when participating in the BL model, the student's time management and self-discipline are extremely important. Students need to change their learning methods and approach new applications, so they need to have the skill to allocate time reasonably to complete online and blended courses. Lecturers need to help students stay on track through email reminders, progress plan notifications, and expected completion deadlines (Shand and Farrelly 2018).

b) Learning attitude

Learning attitude is related to the student's views and emotions about participating in the blended teaching process. A positive attitude towards this teaching approach can reflect the student's participation and have a good impact on their learning outcomes (Akbarov et al 2018, Ja'ashan 2015). Studies often point out that students have a positive attitude towards blended teaching (Alsalhi et al 2019, Arrosagaray et al 2019), and this teaching method is also evaluated to improve students' attitudes towards learning in general (Nja et al 2022).

c) Learning motivation

The student's motivation comes from the flexibility of this method, they will work at their own learning pace, be more comfortable learning with different online tools, and communicate with the lecturer freely at any time (Banditvilai 2016, Birbal et al 2018). Studies also show that the application of technology in learning will improve students' learning motivation (Ciampa 2014, Chiu 2021 Alsadoon et al 2022).

d) Digital literacy

Studies show that the ability to receive and process digital information has a positive effect on the learning outcomes of students in BL (Mayer et al 2014, Oyarzun and Pedreira 2016). Digital literacy is considered an important factor in students' success in BL, as it helps students to access and use information efficiently and effectively (Bawaneh et al 2019, Wu and Wu 2018).

2.3. Organizational Factors

In addition to lecturers and students, the organizational factor contributes to the success of the BL model, specifically, the higher education institution. The role of the organization, in addition to providing infrastructure and support activities, also promotes the sustainability of factors related to lecturers and students in implementing the BL model (Wong et al 2014; Yeop et al 2016). Yeop et al (2016) pointed out that the organization is the main factor that helps the team of lecturers and students successfully implement BL, but this is the least studied factor. The supportive factors of the organization must include policies, support activities, facilities, and most importantly, technology.

a) Encouraging policies

Encouraging policies can affect the satisfaction of users of the BL model, especially lecturers. These encouraging policies come from the educational institution with the main purpose of encouraging and motivating lecturers to implement the teaching model. Encouragement can be in the form of monetary and non-monetary rewards. The most common form that educational institutions use to encourage lecturers is to organize teaching awards (Sumner and Hostetler 1999).

b) Support activities

Betts (2014) pointed out that one of the barriers to the participation of students and lecturers in BL is the lack of support from the organization. When transitioning from traditional teaching models to blended models, both students and lecturers lack knowledge and skills, so training for students and professional development support for lecturers are essential (Vaughan 2007). This is also demonstrated in Ndon's (2006) study, where training, counseling, and support from the organization will greatly help lecturers who have no experience in teaching blends. Support related to course design, online teaching materials development, training in new teaching skills to encourage student participation (Dziuban et al 2006; Aycock et al 2002; Gamham and Kaleta 2002).

c) Strategy and Implementation Plan

Garrison and Kanuka (2004) have clarified the essential role of schools in creating policies, strategies, plans, and resources to ensure the successful implementation of BL models. Establishing a clear and effective strategy and implementation plan for BL models makes it easier for organizations to mobilize resources and implement tasks, thereby achieving the mission and goals of the organization more easily (Niemiec and Otte 2009).

d) Infrastructure

The infrastructure plays an important role in the success of delivering online content and can hinder technology adoption in both lecturers and students (Nanayakkara and Whiddett 2005, Abusalim et al 2020). To carry out and effectively respond to BL, educational institutions need an intelligent classroom system consisting of devices that support learning, including sound systems, projectors, lighting systems, online meeting systems, etc. (Dangwal 2017).

2.4. Technology Platform

Establishing a good technology platform is a key task for an organization in creating an effective BL model (Niemiec and Otte 2010). The technology platform relates to the organization's decision to invest, choose user-friendly systems (lecturers and students) (Liu and Tourtellott 2011; Taylor and Newton 2012), and provide technical resources to enhance teaching and learning activities (Garrison and Kanuka 2004; Bokolo et al 2020).

a) Hardware system

The hardware infrastructure includes computer systems, the quality of the server system, and internet access speed (Ahmed 2010). The quality of the server system is also very important, with enough bandwidth to allow large-scale BL activities to take place (Carbonell et al 2012). Since BL integrates online components with computer and web-based technologies, low-quality or inadequate technology platforms will directly affect the learning effectiveness of students. It must be recognized that investing in a technology platform will cost a significant amount for an organization. However, the average cost per student for a BL course will be much lower than organizing a traditional course (Battaglino et al 2012). In addition, the cost of educational technology will continue to decrease over time (Salmon 2005; Schneider 2010).

b) Software system

The software system can be considered a prerequisite for implementing a BL model. Nowadays, educational institutions often invest in building software or learning management systems (LMS) to implement BL models. The LMS is often the technology platform for BL environments (Black et al 2007). The LMS is a server-based or cloud-based system that allows for the management, operation of document systems, guidance, tracking, reporting, and provision of e-learning technologies for courses or training programs. This system includes the entire ecosystem that covers the learning process, interactive interfaces, and participants, including lecturers, students, assistants, and administrators. In this sense, the LMS has created a space for exchanging and sharing information throughout the BL process (Lopes 2011).

c) Technical support activities

Technical support activities involve technical elements related to the technology platform (hardware and software systems) that help facilitate effective teaching and learning (Gamham and Kaleta 2002). Educational institutions should plan and sign contracts with information technology (IT) providers to ensure they provide reliable IT infrastructure that meets the learning and teaching needs of students and faculty, as well as have a plan to expand or improve the technology infrastructure as demand and usage increases (Moskal et al 2013).

3. Methodology

Hue et al (2022) proposed an improved fuzzy AHP approach that uses generalized fuzzy numbers to overcome the shortcomings of Chang's (1996) fuzzy AHP approach. The procedures of Hue et al's (2022) approach are as follows:

- Developing the fuzzy comparison matrix:

$$\tilde{T} = (\tilde{x}_{ij})_{nxn} = \begin{bmatrix} (1,1,1;w_{11}) & (a_{12},b_{12},c_{12};w_{12}) & \cdots & (a_{1n},b_{1n},c_{1n};w_{1n}) \\ (a_{21},b_{21},c_{21};w_{21}) & (1,1,1;w_{22}) & \cdots & (a_{2n},b_{2n},c_{2n};w_{2n}) \\ \vdots & \vdots & \vdots & \vdots \\ (a_{n1},b_{n1},c_{n1};w_{n1}) & (a_{n2},b_{n2},c_{n2};w_{n2}) & \cdots & (1,1,1;w_{nn}) \end{bmatrix}$$

where $\tilde{x}_{ij} = (a_{ij},b_{ij},c_{ij};w_{ij})$, $\tilde{x}_{ij}^{-1} = (1/c_{ij},1/b_{ij},1/a_{ij};w_{ij})$ for $i,j = 1,\ldots,n$ and $i \neq j$.

- Defining the values of the fuzzy synthetic extents:

The values of fuzzy synthetic extents, S_i are defined in Equation (1).

$$S_i = \left(g_i, h_i, k_i; \min(w_{ij})\right) = \sum_{j=1}^{n} M_{g_i}^{j} \otimes \left[\sum_{i=1}^{n}\sum_{j=1}^{n} M_{g_i}^{j}\right]^{-1}$$

$$= \left(\frac{\sum_{j=1}^{n} a_{ij}}{\sum_{j=1}^{n} a_{ij} + \sum_{k=1,k\neq i}^{n} \sum_{j=1}^{n} c_{kj}}, \frac{\sum_{j=1}^{n} b_{ij}}{\sum_{i=1}^{n}\sum_{j=1}^{n} b_{ij}}, \frac{\sum_{j=1}^{n} c_{ij}}{\sum_{j=1}^{n} c_{ij} + \sum_{k=1,k\neq i}^{n} \sum_{j=1}^{n} a_{kj}}; \min(w_{ij}) \right) \tag{1}$$

where $\sum_{j=1}^{n} M_{g_i}^{j} = \left(\sum_{j=1}^{n} a_{ij}, \sum_{j=1}^{n} b_{ij}, \sum_{j=1}^{n} c_{ij}; \min(w_{ij}) \right)$, $i,j = 1,2,\ldots,n$

- Calculate the distance between the centroid point $S_i = (\bar{x}_{S_i}, \bar{y}_{S_i}), i = 1,2,\ldots,n$ and the minimum point $G = (x_{\min}, y_{\min})$:

$$D(S_i, G) = \sqrt{(\bar{x}_{S_i} - x_{\min})^2 + (\bar{y}_{S_i} - \frac{\varpi}{3} y_{\min})^2} \tag{2}$$

where $x_{\min} = \min(g_i), y_{\min} = \min(w_{ij}), \bar{x}_{S_i} = (g_i + h_i + k_i)/3, \bar{y}_{S_i} = \min(w_{ij})/3$

- Defining the weight vector $W = (w_1, \ldots, w_n)^T$ of the fuzzy comparison matrix:

$$w_i = \frac{D(S_i, G)}{\sum_{i=1}^{n} D(S_i, G)} = \frac{\sqrt{(\bar{x}_{S_i} - x_{\min})^2 + (\bar{y}_{S_i} - \frac{\varpi}{3} y_{\min})^2}}{\sum_{i=1}^{n} \sqrt{(\bar{x}_{S_i} - x_{\min})^2 + (\bar{y}_{S_i} - \frac{\varpi}{3} y_{\min})^2}}, \quad i = 1, \ldots, n \tag{3}$$

4. Factors affecting the organization of combined teaching at Vietnam National University, Hanoi

4.1. The current situation of factors affecting the organization of combined teaching at VNU-Hanoi

a) Lecturers and students

VNU-Hanoi is a leading research and educational center in Vietnam. The majority of its scientific staff are top-notch researchers in the country and have a great reputation domestically and internationally in various fields of natural sciences, social sciences and humanities, foreign languages, technology, economics, and education. Many of its researchers have been awarded prestigious national and international prizes. As of 2022, VNU-Hanoi has a total of 4,564 staff members, including 2,502 scientific staff, 58 professors, 390 associate professors, 1,478 Ph.D. holders and Doctor of Science holders. In recent years, VNU-Hanoi has consistently ranked as one of the top universities in Vietnam, among the top 150 universities in Asia, and among the top 1,000 universities in the world, according to THE ranking. As of early 2022, VNU-Hanoi offers nearly 500 training programs to more than 55,000 students (including nearly 1,000 international students and nearly 7,000 postgraduate and doctoral students). VNU-Hanoi currently has 210 laboratories, including 1 national key laboratory, 09 VNU-Hanoi key laboratories, 38 target-oriented laboratories, 140 specialized centers/laboratories, and 22 practical centers/laboratories; and has produced 1,178 scientific and technological products, including 1,110 ISI and/or SCOPUS articles, 57 patents, useful solutions, 11 transfer and startup products (VNU-Hanoi, 2022a).

In the context of digital transformation, the teaching methods of lecturers are strongly influenced by both teaching tools and methods. Huyen and Hanh (2021) indicated that the presentation method (95.4%) and group discussion method (92%) are the two most commonly used methods by lecturers at the VNU-Hanoi. The least common method is role-playing (34%) and other methods (3.9%). This shows that lecturers have suitable methods to organize teaching activities, especially combined teaching activities. Regarding teaching materials, the survey results show that the most common forms of teaching materials used by lecturers to send to students are paper and electronic versions. Specifically, the proportion of lecturers who use electronic versions is 96.6%, while the proportion of those who use paper versions is 74.7%. This indicates that lecturers at the VNU-Hanoi have widely applied information technology in their teaching activities. The higher proportion of using electronic versions shows that the trend of electronic materials has become dominant over paper materials. Another group of lecturers uses various materials to send to students (12.7%). These materials can include links to documents, websites, reference lists, films, or information for students to find additional materials.

Regarding student assessment methods, the level of satisfaction of students with the assessment methods of lecturers at the VNU-Hanoi is still quite low (Nhat, 2021). Therefore, in order to further improve the quality of assessment activities, lecturers should not only use appropriate assessment methods that match the learning outcomes of the course but also accurately reflect the student's ability. Especially in combined teaching, lecturers should not only focus on the final exam results but also pay attention to assessing the student's learning process.

b) Organizational factors

In 2019, VNU-Hanoi established the Teaching Support Center under the Institute of Educational Quality Assurance with the mission of researching, approaching, and disseminating new educational technologies and methods for the entire VNU-Hanoi system, ensuring consistency and coherence throughout the system. During the 2019-2023 period, the center has carried out tasks such as consulting the leaders of VNU-Hanoi on policies to encourage lecturers to innovate and apply positive teaching methods, providing guidance and support to lecturers in teaching activities, organizing activities and events (seminars, training courses, conferences, etc.) on new trends and approaches in educational science, providing training and training courses for lecturers on technology and teaching methods to serve the innovation of teaching activities.

In 2021, VNU-Hanoi put into operation the VNU LMS Learning Management System, a system designed to serve the combined teaching model throughout VNU-Hanoi. The use of the VNU LMS system helps lecturers organize and manage online and offline learning activities. In addition, VNU-Hanoi has issued regulations, guidelines, and policies to encourage lecturers to innovate teaching methods and effectively implement the combined teaching model. Some units have signed contracts with lecturers to support the cost of organizing learning activities on the VNU LMS system, such as the University of Social Sciences and Humanities and the University of Education.

VNU-Hanoi has many policies to encourage lecturers to innovate teaching methods. Specifically, VNU-Hanoi has issued regulations and guidelines on implementing innovative teaching activities at VNU-Hanoi during the 2019 - 2025 period, and has issued regulations on online training and building electronic lectures at VNU-Hanoi. In the construction of online lectures, lecturers are provided with technical support and funding from the unit and VNU-Hanoi. In addition, VNU-Hanoi has issued regulations on the VNU-Hanoi Lecturer Award and awards for teaching innovation at VNU-Hanoi, with the participation of lecturers and researchers throughout VNU-Hanoi. In which, the award for teaching innovation with many specific criteria is a strong motivation for lecturers to innovate teaching methods.

c) The technology foundation factors

VNU-Hanoi has built and operated a Technology Application and Digital Learning Development Room to serve the innovation of teaching and learning in approaching Industry 4.0 technology. This technology application room is not only a studio for building teaching content but also a space for testing, training, and applying new educational technology solutions. It helps to connect existing learning content production studios at VNU-Hanoi and is also a part of the E-learning system and smart university ecosystem at VNU-Hanoi. Some units in VNU-Hanoi, such as the VNU University of Languages and International Studies, VNU University of Education, and Institute for Education Quality Assurance, have invested in modern and professional Studio rooms to digitize teaching materials and lectures that meet the requirements of combined teaching.

In 2021, VNU-Hanoi launched the VNU LMS online learning system to develop a combined teaching model throughout the university. This system was built on a modern technology platform, with the ability to expand, connect, and exchange data with training management software systems and other software. The VNU LMS system is installed and operated at the data center of VNU-Hanoi. VNU LMS is designed to allow the number of simultaneous access (CCU) to meet the current online learning demand of 5000 CCUs and can be expanded based on the addition of corresponding infrastructure capacity. After being put into operation at the units, the system received very positive feedback on quality and performance compared to previous systems. In the academic year 2022-2023, VNU University of Education and VNU University of Social Sciences and Humanities used VNU LMS to implement teaching courses based on the combined approach. VNU LMS is a new platform put into use, so there is always positive and timely support to quickly resolve hardware issues as well as software usage issues for users. VNU-Hanoi has built various forms of support to ensure online teaching and learning activities, such as building instruction toolkits, feedback/ suggestion recording tools, direct chat/exchange channels via chat applications (Zalo, Viber, Telegram, etc.) to quickly detect and handle problems. The VNU LMS system is built to serve online teaching and learning and combined teaching models. However, some learning activity organization tools have not yet met the requirements of units in different fields.

4.2. Evaluation results of factors influencing the effectiveness of BL teaching model at Vietnam National University, Hanoi

Based on a review of literature, this study evaluated four groups of factors that influence the effectiveness of BL teaching model at universities under VNU-Hanoi, including: factors related to lecturers, factors related to students, factors related to organizations, and factors related to technology platform. Table 1 provides an overview of the factors and sub-factors used in this study.

Table 1 Factors affecting the effectiveness of teaching in the BL model.

No	Factors	Sub-factors	References
1	**Lecturer (L)**	Teaching experience (L1) Willingness to switch to blended teaching (L2) Appropriate pedagogical methods for organizing blended teaching (L3) Technological ability to organize blended teaching (L4) Skills in creating visually appealing and engaging lesson plans (L5) Effective student assessment methods (L6)	Holley and Oliver (2010), Gautreau (2011), Hubber and Loong (2013), Alammary et al (2014), Dakduk et al (2018), Vanslambrouck et al (2018), Wong et al (2020), Chu et al (2019)
2	**Student (S)**	Time management skills (S1) Positive learning attitude (S2) Study motivation (S3) Numeracy skills (S4) Active learning methods (S5) Personal learning devices (S6)	Ramdass and Harripaul (2018), Arrosagaray et al (2019), Müller and Mildenberger (2021), Dai et al (2021), Yilmaz-Na and Sönmez (2022), Staddon (2022)
3	**Organization (O)**	Encouragement policies for lecturers (O1) Support activities for teaching for lecturers and students (O2) Effective strategy and implementation plan (O3) Infrastructure system to meet demands (O4)	Sumner and Hostetler (1999), Vaughan (2007), Niemiec and Otte (2009), Dangwal (2017), Abusalim et al (2022)
4	**Technology platform (T)**	Hardware system ensuring access (T1) Software system meeting teaching and learning requirements (T2) Timely technical support activities (T3) Equipment for developing learning materials (T4)	Niemiec and Otte (2010), Ahmed (2010), Lopes (2011), Moskal et al (2013), Bokolo et al (2020)

Table 2 presents the linguistic variables and their fuzzy numbers used in this study.

Table 2 Linguistic values and fuzzy numbers.

Linguistic values	Fuzzy numbers
Equal importance (E_I)	(1,1,1;1.0)
Between E_I and W_I	(1,2,3;0.6)
Weak importance of one over another (W_I)	(2,3,4;0.7)
Between W_I and S_I	(3,4,5;0.8)
Strong importance (S_I)	(4,5,6;0.8)
Between S_I and V_S_I	(5,6,7; 0.9)
Very strong importance (V_S_I)	(6,7,8; 0.9)
Between V_S_I and A_I	(7,8,9; 1.0)
Absolute importance (A_I)	(8,9,9; 1.0)

In this study, Hue et al's (2022) approach was applied to evaluate the factors influencing the effectiveness of teaching using the BL model at VNU-Hanoi. The data for the study was collected through interviews with a panel of five experts who have many years of experience in managing training activities at VNU-Hanoi. Tables 3-7 present the average fuzzy comparison matrix assessment of factors and sub-factors by the committee.

Table 3 Average fuzzy comparison matrix assessment of four factors by the committee.

Factors	L	S	O	T
L	(1.00, 1.00, 1.00; 1.00)	(4.67, 5.67, 6.67; 0.80)	(2.67, 3.33, 4.00; 0.70)	(3.00, 4.00, 5.00; 0.70)
S	(0.16, 0.19, 0.23; 0.70)	(1.00, 1.00, 1.00; 1.00)	(0.49, 0.88, 1.39; 0.60)	(0.56, 0.67, 1.00; 0.60)
O	(0.46, 0.50, 0.57; 0.70)	(2.44, 3.17, 4.00; 0.70)	(1.00, 1.00, 1.00; 1.00)	(1.33, 1.67, 2.00; 0.70)
T	(0.21, 0.28, 0.40; 0.70)	(1.00, 1.67, 2.33; 0.70)	(0.75, 0.78, 0.83; 0.70)	(1.00, 1.00, 1.00; 1.00)

Table 4 The average pairwise comparison value of the six sub-factors of the lecturer factor.

Lecturer	L1	L2	L3	L4	L5	L6
L1	(1.00, 1.00, 1.00; 1.00)	(0.33, 0.36, 0.41; 0.70)	(0.34, 0.37, 0.43; 0.70)	(0.57, 0.83, 1.20; 0.60)	(0.55, 0.80, 1.10; 0.60)	(1.67, 2.10, 2.60; 0.60)
L2	(2.43, 2.78, 3.03; 0.70)	(1.00, 1.00, 1.00; 1.00)	(2.00, 2.40, 2.80; 0.70)	(1.85, 2.47, 3.10; 0.60)	(2.20, 2.80, 3.40; 0.60)	(2.64, 3.45, 4.27; 0.60)
L3	(2.33, 2.68, 2.94; 0.70)	(0.36, 0.42, 0.50; 0.70)	(1.00, 1.00, 1.00; 1.00)	(2.07, 2.70, 3.40; 0.60)	(1.80, 2.40, 3.00; 0.60)	(2.80, 3.80, 4.80; 0.60)
L4	(0.83, 1.20, 1.76; 0.70)	(0.32, 0.41, 0.54; 0.70)	(0.29, 0.37, 0.48; 0.70)	(1.00, 1.00, 1.00; 1.00)	(1.27, 1.90, 2.60; 0.60)	(2.80, 3.60, 4.40; 0.60)
L5	(0.91, 1.25, 1.82; 0.60)	(0.29, 0.42, 0.45; 0.60)	(0.33, 0.42, 0.56; 0.60)	(0.38, 0.53, 0.79; 0.60)	(1.00, 1.00, 1.00; 1.00)	(2.40, 3.20, 4.00; 0.60)
L6	(0.38, 0.48, 0.60; 0.60)	(0.23, 0.29, 0.38; 0.60)	(0.21, 0.26, 0.36; 0.60)	(0.23, 0.28, 0.36; 0.60)	(0.25, 0.31, 0.42; 0.60)	(1.00, 1.00, 1.00; 1.00)

Table 5 The average pairwise comparison value of the six sub-factors of the student factor.

Student	S1	S2	S3	S4	S5	S6
S1	(1.00, 1.00, 1.00; 1.00)	(0.35, 0.39, 0.51; 0.60)	(0.18, 0.24, 0.36; 0.60)	(0.56, 0.82, 1.17; 0.60)	(0.39, 0.45, 0.57; 0.70)	(1.84, 2.25, 2.67; 0.80)
S2	(1.95, 2.54, 2.88; 0.70)	(1.00, 1.00, 1.00; 1.00)	(1.00, 1.00, 1.00; 1.00)	(1.60, 2.60, 3.60; 0.60)	(1.47, 1.90, 2.40; 0.60)	(2.40, 3.40, 4.40; 0.60)
S3	(2.75, 4.25, 5.49; 0.70)	(1.00, 1.00, 1.00; 0.70)	(1.00, 1.00, 1.00; 1.00)	(2.60, 3.60, 4.60; 0.60)	(2.00, 2.80, 3.60; 0.60)	(3.00, 4.00, 5.00; 0.60)
S4	(0.86, 1.22, 1.80; 0.70)	(0.28, 0.38, 0.63; 0.70)	(0.22, 0.28, 0.38; 0.70)	(1.00, 1.00, 1.00; 1.00)	(0.93, 1.20, 1.60; 0.60)	(2.47, 3.10, 3.80; 0.60)
S5	(1.76, 2.22, 2.56; 0.70)	(0.42, 0.36, 0.68; 0.60)	(0.28, 0.36, 0.50; 0.60)	(0.63, 0.83, 1.07; 0.60)	(1.00, 1.00, 1.00; 1.00)	(2.60, 3.60, 4.60; 0.60)
S6	(0.38, 0.44, 0.54; 0.80)	(0.23, 0.29, 0.42; 0.60)	(0.20, 0.25, 0.33; 0.60)	(0.26, 0.32, 0.41; 0.60)	(0.22, 0.28, 0.38; 0.60)	(1.00, 1.00, 1.00; 1.00)

Table 6 The average pairwise comparison value of the six sub-factors of the Organization factor.

Organization	O1	O2	O3	O4
O1	(1.00, 1.00, 1.00; 1.00)	(1.00, 1.00, 1.00; 1.00)	(1.11, 1.50, 2.00; 0.60)	(1.00, 2.00, 3.00; 0.60)
O2	(1.00, 1.00, 1.00; 0.70)	(1.00, 1.00, 1.00; 1.00)	(0.53, 0.94, 1.50; 0.60)	(1.00, 1.00, 1.00; 1.00)
O3	(0.75, 1.11, 1.50; 0.70)	(1.11, 1.83, 2.67; 0.70)	(1.00, 1.00, 1.00; 1.00)	(1.67, 2.67, 3.67; 0.60)
O4	(0.33, 0.50, 1.00; 0.70)	(1.00, 1.00, 1.00; 0.70)	(0.29, 0.42, 0.78; 0.70)	(1.00, 1.00, 1.00; 1.00)

Table 7 The average pairwise comparison value of the six sub-factors of the Technology factor.

Technology	T1	T2	T3	T4
T1	(1.00, 1.00, 1.00; 1.00)	(1.00, 1.00, 1.00; 1.00)	(0.53, 0.94, 1.50; 0.60)	(0.78, 1.17, 1.67; 0.60)
T2	(1.00, 1.00, 1.00; 0.70)	(1.00, 1.00, 1.00; 1.00)	(0.86, 1.28, 1.83; 0.60)	(0.78, 0.83, 1.00; 0.60)
T3	(1.11, 1.83, 2.67; 0.70)	(1.08, 1.78, 2.50; 0.70)	(1.00, 1.00, 1.00; 1.00)	(1.78, 2.50, 3.33; 0.60)
T4	(0.78, 1.17, 1.67; 0.70)	(1.00, 1.33, 1.67; 0.70)	(0.48, 0.86, 1.28; 0.70)	(1.00, 1.00, 1.00; 1.00)

The calculation of fuzzy synthetic extent values of factors and sub-factors is performed by utilizing Equation (1), and the results are presented in Table 8.

Table 8 Calculating fuzzy synthetic extent values for factors and sub-factors.

Factors	Fuzzy synthetic extent	Sub- factors	Fuzzy synthetic extent
L	(0.42, 0.52, 0.62; 0.60)	**L1**	(0.07, 0.11, 0.16; 0.60)
		L2	(0.21, 0.29, 0.38; 0.60)
		L3	(0.18, 0.25, 0.34; 0.60)
		L4	(0.11, 0.17, 0.24; 0.60)
		L5	(0.09, 0.13, 0.19; 0.60)
		L6	(0.04, 0.05, 0.07; 0.60)
S	(0.07, 0.10, 0.16; 0.60)	**S1**	(0.07, 0.10, 0.15; 0.60)
		S2	(0.16, 0.24, 0.33; 0.60)
		S3	(0.22, 0.32, 0.42; 0.60)
		S4	(0.09, 0.14, 0.21; 0.60)
		S5	(0.11, 0.16, 0.23; 0.60)
		S6	(0.04, 0.05, 0.07; 0.60)
O	(0.17, 0.24, 0.31; 0.70)	**O1**	(0.19, 0.29, 0.40; 0.60)
		O2	(0.15, 0.21, 0.29; 0.60)
		O3	(0.23, 0.35, 0.46; 0.60)
		O4	(0.11, 0.15, 0.24; 0.60)
T	(0.10, 0.14, 0.20; 0.60)	**T1**	(0.14, 0.21, 0.30; 0.60)
		T2	(0.15, 0.21, 0.30; 0.60)
		T3	(0.24, 0.36, 0.48; 0.60)
		T4	(0.14, 0.22, 0.32; 0.60)

Table 9 presents the results of analyzing the factors and sub-factors affecting the effectiveness of teaching using the BL model at VNU-Hanoi using Equations (2) and (3). The research results indicate that the lecturer factor, accounting for 54.4%, is the most influential factor on the effectiveness of teaching using the BL model at VNU-Hanoi. Specifically, the lecturer's willingness to switch to blended teaching and the lecturer's appropriate pedagogical method for organizing blended teaching have the greatest impact on the effectiveness of teaching using the BL model at VNU-Hanoi. In practice, in the period 2019-2023, the Teaching Support Center has implemented 6 training sessions through the VNU LMS system for over 1000 lecturers and lecturers at training units under VNU-Hanoi. According to the 2021 report of the Institute for Education Quality Assurance on online training, up to nearly 40% of VNU-Hanoi lecturers have never used any online learning system. The most commonly used systems that lecturers participate in are Moodle and Cousera. About 50% of lecturers face difficulties in using online teaching and learning platforms due to limited technology skills. Only 3.2% of lecturers have no intention of applying online teaching to their courses (VNU-Hanoi, 2022b). The majority of lecturers want to use their teaching time for online teaching or a combination of both. It can be seen that the lecturers have a high willingness to convert and maintain teaching in a harmonious combination of both online and face-to-face teaching approaches. Therefore, in order to enhance the effectiveness of teaching using the Blended Learning (BL) model, VNU-Hanoi and its member universities/colleges need to further strengthen the implementation of training courses aimed at improving technological capabilities and proficiency in utilizing online teaching platforms. Moreover, it is crucial to establish policies that incentivize lecturers to actively engage in teaching and maximize the effectiveness of instructional activities within the BL model. Additionally, member universities/colleges should continue investing in suitable technologies for teaching activities within the BL model, customized to the specific training disciplines offered by the university.

5. Conclusion

Blended learning has emerged as a widely adopted pedagogical approach in higher education worldwide, enhancing the overall quality of education. This study was applied the most recent generalized fuzzy AHP approach to determine the factors that influence the effectiveness of teaching activities in a BL model at VNU, Hanoi. Four groups of factors with a total of 20 sub-factors were considered, including lecturer-related factor (6 sub-factors), student-related factor (6 sub-factors), organizational factor (4 sub-factors), and technology factor (4 sub-factors). The results indicated that the lecturer-related factor (lecturers' readiness to switch to blended teaching and their appropriate pedagogical methods for organizing blended teaching) has the greatest influence on the effectiveness of BL activities at VNU, followed by technology, organizational, and student-related factors. This study is limited to the utilization of the generalized fuzzy AHP approach within a static time frame. Future research can extend the application of the generalized fuzzy AHP approach to dynamic environments. Furthermore, this study solely focuses on evaluating the factors that influence the effectiveness of teaching activities in a BL model at VNU, Hanoi. Subsequent research can broaden its scope to encompass other universities beyond VNU, Hanoi.

Table 9 Factors and sub-factors weighting affecting BL activities.

Factors	Weight score	Sub- factors	Weight score
		L1	0.112
		L2	0.274
L	0.544	**L3**	0.239
		L4	0.160
		L5	0.132
		L6	0.083
		S1	0.106
		S2	0.222
S	0.106	**S3**	0.296
		S4	0.137
		S5	0.155
		S6	0.082
		O1	0.294
O	0.221	**O2**	0.193
		O3	0.368
		O4	0.145
		T1	0.193
T	0.129	**T2**	0.194
		T3	0.408
		T4	0.205

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Ethical considerations

We confirm that we have obtained all consent required by the applicable law to publish any personal details or images of patients, research subjects, or other individuals used. We agree to provide Multidisciplinary Science Journal with copies of the consent or evidence that such consent has been obtained if requested.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Special Issue: Education in humanities in Asian countries

Indonesian secondary history literacy skills level: a case study of public and private high schools in Sukoharjo Regency, Central Java

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Abstract This study aims to understand the historical literacy level of tenth-grade high school students before the implementation of the *Kurikulum Merdeka*. The research questions posed were: (1) what is the historical literacy level of Tenth Grade Senior High School students? Furthermore, (2) What are the factors behind the history literacy level of Tenth Grade High School students? The research subjects were Tenth Grade students and teachers from 19 high schools in Sukoharjo Regency, Central Java, Indonesia. The method used is an online historical literacy test for students using multiple-choice questions. Focus Group Discussions with teachers are used to understand the factors behind students' historical literacy competence. The test results show that the historical literacy level of high school students is deficient, so they will experience many difficulties in participating in learning using the *Kurikulum Merdeka*. The reason is that teachers and textbooks thoroughly explain historical material, so the student's task is just memorizing it. Another factor is the influence of Orientalists that narrates national history about foreign activities in Indonesia. All factors made Indonesian history becomes a rote lesson that could be more interesting and challenging for students.

Keywords: high school, *Kurikulum Merdeka*, historical learning, historical literacy.

1. Introduction

In the 2022/2023 academic year, *Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi* (Kemendikbudristek/the Ministry of Education, Culture, Research and Technology) implemented a new curriculum to replace the 2013 curriculum. The new curriculum, called *Kurikulum Merdeka* (the Independent Curriculum), allows students to choose a way of learning that suits each individual's talents and interests. In addition to freedom, another characteristic that characterizes the *Kurikulum Merdeka* is the emphasis on developing students' information, literacy, and numeracy abilities. In this context, information literacy is defined as understanding, utilizing, considering, and interacting with written texts (Pratiwi 2021). On the other hand, numerical literacy is the ability to use mathematical knowledge to explain and solve problems and make decisions in everyday life (Astuti 2018).

Big attention to literacy skills is closely related to Indonesia's position, which has consistently ranked low in the Program for International Student Assessment (PISA) tests in the last twenty years. In 2012, Indonesia was rated 64th out of 65 nations with an average score of 375 (OECD 2014). Three years later, by obtaining an average score of 403, Indonesia's position increased to 62 out of 70 countries in 2015 (OECD 2018). However, in the next PISA test, Indonesia's average score dropped to 371 in 2018 and was ranked 74th out of 79 competing countries (Avvisati, Echazarra et al 2019). From this perspective, Indonesia's education is far behind the Southeast Asian countries participating in PISA. With an average literacy score of 393, Indonesia is 22 points behind Thailand (Avvisati, Echazarra et al 2019). Indonesia's literacy rating is also lower than Malaysia's 415 (Avvisati, Echazarra et al 2019). Indonesia is far behind Vietnam's literacy, with an average score of 505 (Avvisati, Echazarra et al 2019).

According to a World Bank review of PISA results, 55% of Indonesian pupils are functionally illiterate, which means they can read but cannot comprehend what they read (UNICEF, UNDP et al 2021, UNICEF and UNESCO 2021). Another finding is that workability and productivity will be impacted by literacy levels. Data from the World Bank show that between 2011 and 2016, 3,600 USD worth of new jobs were created in Indonesia. Thailand promised 1.5 times as many new positions as Indonesia (USD 5,300), and Malaysia offered four times as many (USD 14,800). It's odd how Vietnam rated in terms of literacy. Vietnam can achieve a higher literacy score of 550 despite having a lower GDP than Indonesia (World_Bank's_Jakarta_office 2018).

The condition of Indonesian education was even more worrying when the Covid-19 pandemic arrived in early March 2020 and quickly spread to most regions. The learning process quickly changes to online based on the internet network. The

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facilities and skills of the teacher and students are still being prepared, so it is estimated that the effectiveness of the process and the results will be far below class learning. Learning loss is a threat that will further worsen the quality of education. The Minister of Education and Culture, Nadiem Makarim, explained that distance learning would result in a loss of one year of study time (Purba 2021). Covid-19 has also increased student dropout rates (Cerelia et al 2021).

The Covid-19 pandemic has also impacted the broader and more intensive internet use in society, including by students. Low literacy levels and no proper preparation in digital communication skills have made Indonesian netizens widely known as uncivilized. Microsoft created a Digital Civility Index (DCI) poll to measure politeness among netizens, or people who use the internet, in four areas: maintaining morality, respecting other people's differences, waiting before commenting, and voicing various deviations that harm others. Indonesian netizens got the worst score out of 32 countries in the 2020 poll (Indrawan 2020). Indonesian internet users are known to be the cruelest because they often lie, spread false information, ridicule, bully, discriminate, and use hate speech (Ikhsan 2021).

Under pressure from the large number of victims who died due to Covid-19, the prediction of learning loss, and the low morality of the young generation in interacting using digital devices, Kemendikbudristek made various breakthroughs to reduce the negative impact of the pandemic on education. This breakthrough includes the implementation of the *Kurikulum Darurat* (Emergency Curriculum), *Kurikulum Prototipe* (the Prototype Curriculum), and the *Kurikulum Merdeka* (Zulfikri 2022). The *Kurikulum Darurat* implemented in the new 2020/2021 school year was the first constructive response to the impact of Covid-19, which forced learning to be carried out online (Arini et al 2021). From the perspective of curricular objectives, the curriculum simplifies *Kurikulum 2013* (the 2013 curriculum), focusing on mastering information literacy and numeracy skills (Nugroho and Narawaty 2022). Students perceive implementing the *Kurikulum Darurat* results positively (Rosmana et al 2022). Zulfikri (2022) explains that implementing the *Kurikulum Darurat* can reduce learning loss by 73% for information literacy and 86% for numeracy literacy.

The satisfactory results of implementing the *Kurikulum Darurat* prompted the Kemendikbudristek to develop it more fully. This curriculum improvement is named the *Kurikulum Prototipe* and will be implemented in 2021, especially in pilot project schools called *Sekolah Penggerak* (Activator Schools) (Caesaria 2022). It is planned that the *Kurikulum Prototipe* will be perfected based on the results of trials and will become the national curriculum in 2024. In 2022 the *Kurikulum Prototipe* will change its name to the *Kurikulum Merdeka* and can be applied by all schools without selection (Putra 2022). The Kemendikbudristek gave schools the freedom to apply the *Kurikulum 2013* (the Kurikulum Darurat, or the *Kurikulum Merdeka*.

The term literacy has begun to gain the attention of Indonesian education since the Kemendikbudristek launched the *Gerakan Literasi Sekolah* (GLS/ School Literacy Movement) in 2015 (Sutrianto et al 2016). The movement is in the form of giving students 30 minutes to read before entering class. The main weakness of GLS is that there are no teacher assistance, guidance, and literacy skills targets to be achieved. As a result, students read anything just a killing time.

The PISA 2018 score, which was very low, made it clear that the GLS was ineffective in increasing literacy skills and provided education stakeholders with an understanding that literacy is not just reading. This new awareness and understanding made attention and research on literacy begin to develop. The investigation began to focus on literacy in history subjects. A study by Hastuti, Zafri, Basri (2019) develops literacy for character building through reading biographies of Indonesian historical figures. Research on historical literacy grew when the Covid-19 pandemic occurred in Indonesia in early 2020. Kurniawati et al (2021) initiate historical literacy to develop historical thinking skills by testing historical films with related primary sources. In subsequent times, research is developing towards action research intending to increase information literacy in history subjects. Students are given the task of identifying problems from historical texts as a basis for students to find solutions. Students are then guided to seek, find, utilize, communicate, and draw conclusions (Yulianti and Winarti 2021). Rizaldi & Qodariyah (2021) conducted the same study by guiding students to compare the content of history textbooks with related narrations from other books.

Studies on literacy in history learning have shown positive developments since 2018. The question then arises is how far has students' literacy skills increased. This question concerns the plan to implement the *Kurikulum Merdeka* in 2022, which aims to improve information and mathematics literacies. This research focused on students' readiness to study history lessons, so it was directed to describe the historical literacy level of high school students. The results of this study will be a valuable resource for teachers to find effective methods for improving students' historical literacy skills.

2. Literature Review

Information literacy skills which are the main study in history lessons are the ability to understand, use, contemplate, and communicate reflectively with written texts, to achieve self-goals, develop the knowledge and potential of readers so that they can participate actively in society (Farihah, Muhith et al 2020). Literacy skills include identifying the meaning of words in the context of reading, transcoding information from diagrams/graphs, interpreting metaphors, finding main ideas and sentences, drawing conclusions, identifying writing techniques used by authors, and finding answers to questions (Bojovic 2010).

At a deeper level, literacy skills are not limited to obtaining the grammatical meaning of a text but also as a medium of communication in society. Literacy does not only analyze the language of the text from its constituent elements (such as sentences, phrases, and words). However, it is directed at language or language functions in the context of social interaction (Perry 2012). From this viewpoint, the text is seen as a subjective expression of the author with all the surrounding context, including the interests of power (Wodak and Meyer 2006). Thus, scrutiny is conducted to find contextual meaning to capture assumptions, ideology, and messages discussed and conveyed by readings/texts (Crawford 2001).

Each level of education has different goals for prioritizing literacy skills. The SD level will have a different focus of attention from SMP and SMA. Schneider et al (1994) provide a clearer picture of the various literacy skills that need to be mastered by students at the junior high school level, namely:

a. Understanding
1) Reading for literal meaning.
2) Use chapter and section titles, topic sentences, and summary sentences to select the main ideas.
3) Distinguish between main ideas and additional/explanatory ideas.
4) Choose sections related to the topic being studied.
5) Interpret what is read by concluding.
6) Detect cause and effect relationships.
7) Distinguish between fact and opinion; recognize propaganda.
8) Recognize author bias.
9) Use picture clues and picture captions to aid understanding.
10) Using literature to enrich meaning.
11) Reading for many purposes: critical and analytical, to predict outcomes, to answer questions, to form opinions, to find facts.
12) Read various printed materials: books, magazines, newspapers, directories, schedules, and journals.

b. Vocabulary
1) Use context clues to get the meaning.
2) Use appropriate sources to get the meaning of important terms and vocabulary: glossaries, dictionaries, texts, and glossaries.
3) Recognize and understand a growing number of social studies terms.

In the *Kurikulum Merdeka*, the minimum information literacy competencies that students must master are set as follows (Wijaya and Dewayani 2021):

a. Finding Information
1) Accessing and searching for information in texts: Finding explicit information (who, when, where, why, how) in literary or informational texts, which continues to increase according to the level.
2) Finding and selecting relevant information: Identifying effective keywords to find relevant sources of information in literary or informational texts that continue to increase according to the level.

b. Understanding
1) Understanding the text literally: Analyzing changes in the intrinsic elements (events/characters/settings/conflicts/ storylines) in literary texts, which continue to increase according to the level.
2) Making inferences, making connections, and predictions in both singular and plural texts:
    a) Summarize the feelings of the characters and other intrinsic elements, such as the story's setting and the events in the story, based on detailed information in the literary text, which continues to increase according to the level.
    b) Compile inferences (conclusions) and predictions based on supporting elements (graphs, pictures, tables, etc.) accompanied by supporting evidence in literary texts or information texts, which continue to increase according to the level.
    c) Comparing the main things (e.g., characters or other intrinsic elements) in literary texts that continue to increase according to the level.

c. Evaluating and reflecting
1) Assessing the presentation format in the text:
    a) Assess the author's purpose in using diction and vocabulary in literary texts according to their level.
    b) Assess the suitability of color selection, layout, and other visual support (graphics, tables, etc.) in conveying specific messages/topics in literary or informational texts that continue to increase according to the level.
    c) Assess the intrinsic elements (characterization, storyline, setting) and the authenticity of the depiction of society in literary texts according to their level.
2) Reflecting on the contents of the discourse for making decisions, making choices, and linking the contents of the text to personal experience: Justifying the opinions of others based on the contents of literary texts or informational texts according to the level.

In line with the concept of information literacy, historical literacy is the ability to find historical sources, understand sources and historiography, and evaluate and reflect on sources and historiography. Various views on historical thinking skills

(Wineburg 2001; Ercikan and Seixas 2015) and historical consciousness (Rüsen 2004) as abilities that students in history lessons must master are systematized by Maposa and Wassermann (2009) into five dimensions (Table 1).

Table 1 Maposa and Wassermann Dimensions of Historical Literacy.

No.	Dimension/benchmark of historical literacy	Sub-dimension
1	Knowledge	Events Narratives
2	Conceptual understanding	Time Causation and consequence Motivation Significance Moral judgments Change and continuity Empathy
3	Source work (Historical method)	Sourcing Corroboration Contextualization Analysis Evaluation Explanation
4	Historical consciousness	
5	Historical language	

3. Methodology

This study used nine public and ten private high schools in Sukoharjo Regency, Central Java Province. The students used as research subjects were in tenth Grade with the consideration that they were the first to carry out learning using the *Kurikulum Merdeka*. The number of participants who took the historical literacy test was 755, with details of 623 students from public high schools and 132 from private high schools.

Historical literacy test questions measured students' ability to understand historical readings. The questions are arranged in multiple-choice form with one correct answer. The preparation of the historical literacy test refers to the literacy test conducted by PISA (OECD 2021). Taking into account that the literacy level of Indonesian students is deficient, the questions prepared cover levels 1 to 4, namely:

1. Students can find a piece of information stated explicitly and prominently in the text, recognize its main ideas, recognize the relationship between the information in the text, and relate the contents to their daily experiences.
2. Students can read to find one or more pieces of information and draw conclusions. Another task at this level is finding the main ideas in the text, understanding relationships, or interpreting meaning in text passages. Students also make text comparisons with prior knowledge.
3. Students can understand written and implied problems in texts with moderate complexity, such as finding information, connecting different parts of a text, and connecting them with similar prior experiences and knowledge. Tasks at this level require students to find and recognize relationships between information, integrate several parts of a text to identify main ideas, and interpret the meaning of words or phrases. They are required to compare, contrast, and categorize. The required information needs to be more prominent, and much of the information needs to be more consistent.
4. Students face difficult reading, such as finding hidden information behind the text, interpreting the meaning of linguistic nuances, and evaluating texts critically. Completing test questions at this level requires students to find and organize several pieces of embedded information, so they need to interpret the meaning of a part of the text by paying attention to the text as a whole. At this level, students must also think reflectively using formal knowledge to develop hypotheses or critically evaluate a text. Students must demonstrate an accurate understanding of long or complex texts.

A Focus Group Discussion with Tenth Grade history teachers was used to interpret and find the background of the results of the historical literacy test. The discussion focused on finding the conditions behind students' literacy skills. Questions included teacher learning, students' responsibilities in learning history, and teachers' perceptions of information and historical literacy.

5. Results

The test results showed that the Sukoharjo District High School students' historical literacy skills were deficient, as seen in Table 2.

Table 2 Digital Literacy of Private High School Students in Sukoharjo Regency.

SCORE	GRADE	VALUE	FREQUENCY	%
85 - 100	A	Excellent	8	1%
70 - <85	B	Good	28	4%
60 - <70	C	Fair	80	11%
56 - <60	D	Poor	34	4%
50 - <56	E	Very Poor	149	20%
<50	F	Failed	456	60%
TOTAL			755	100%

Table 2 shows that only 1% or eight students got excellent, 4% Good, and 11% Fair. On the other hand, 4% of students scored Poor, and 20% were Very Poor. Sadly, 60% of students fail or need to be literate in historical literacy. They can read historical texts but are unable to understand them.

Compared between public (sample 623 students) and private (sample 132 students) high schools, it can be seen that the historical literacy skills of private high school students are lower than those of public schools. None got Excellent. Only 2% got a Good score, and 9% was a Fair. The rest were students who needed special assistance; 5% scored Poor 20% were Very Poor, and 64% were included in the Failed category. On the other hand, the historical literacy scores of public high school students are 1% Excellent, 4% Good, 11% Fair, 4% Poor 20% Very Poor, and 60% Failed.

The results of the t-test show that the sig (2-tailed) value at SMA Negeri in Sukoharjo is 0.02<0.05 with a t-test of 3.039>t table 1.964. Meanwhile, private high schools obtained a sig(2-tailed) value of 0.04<0.05 with a t-count of 2.826>1.656. Therefore, there is a significant difference between the historical literacy abilities of public and private high school students in the Sukoharjo district.

The question that then arises is why is the historical literacy ability of most high school students in Sukoharjo Regency deficient. This question is the main problem faced by history teachers in the Focus Group Discussion. From the developed responses, the paradigm of history learning adopted by teachers is still traditional. They view that historical narratives contained in textbooks and used as teaching materials talk about events that occurred in the past. From this point of view, the demand for learning history is to understand historical narratives as events that actually happened in the past. Students must memorize historical narratives in detail, like what, when, where, how, and who are the characters from historical stories.

The view that historical narratives represent events that occurred in the past is explained by Munslow (1997) when discussing reconstruction and construction. Teachers believe that historians with competence and professionalism can find substantial evidence about events that occurred in the past to be then compiled into historical stories that have high accuracy and truth and are value-free (Forber and Griffith 2011; Yang et al 2014). They view the stories in history textbooks as a picture that is the same as events in the past (Oppong and Quan-Baffour 2014). Therefore, teachers require students to memorize stories in history textbooks to understand events that occurred in the past well.

On the other hand, construction is a historical narrative that seeks to explain historical events. According to Munslow (1997), the development of historical narratives from reconstruction to construction is due to the demand to explain massive social changes in post-industrial society. In this context, the Annales school of thought was born, which uses a social science approach to explaining historical events (Burke 1990; Tendler 2013). From this point of view, historians compile historical narratives in the form of stories of past events and their underlying causes to provide an in-depth understanding of the various causes that have grown over a long period. In order to be able to provide an in-depth explanation, historians use social sciences as an auxiliary science of history (Burke 1993).

The development of historical research methodology influenced history learning from the 1975 National Curriculum (McGregor 2008). Discussions about the background of events are explained in depth in history textbooks from political, social, and economic perspectives (Notosusanto and Basri 1981). This pattern of discussion continues in history textbooks that were published later (Purwanta 2012), even today (National Curriculum 2022). The strong influence of the Annales school on the development of historical research in Indonesia cannot be separated from the significant role of Sartono Kartodirdjo, a prominent Indonesian national historian who propagated the social sciences approach (Kartodirdjo 1992).

The problem is that history teachers are academically not trained to conduct historical research. They have no experience conducting social science research and must understand how historians work, especially regarding interpretation and historiography (Hasan 2011). As a result, teachers only explain historical events written in textbooks as rote and cannot train students to master historical thinking skills (Wineburg 2001; Seixas and Peck 2004). Therefore, students only memorize the results of historian analysis written in textbooks and need help understanding their train of thought (Saidillah 2018).

Being trapped in history lessons on memorization makes students not interested in exploring it. They view the learning process as dominated by the teacher with stories about past events that have nothing to do with the student's daily lives. Moreover, teachers' media does not adapt to technological developments, so learning is often boring (Rahmawati, Hadi et al 2023). In almost all schools in Indonesia, history is a less interesting subject. As a result, students' motivation to study history needs to be deeper (Oktaviani 2011).

The second problem that emerged in the Focus Group Discussion was the still strong legacy of historical narratives from the Orientalists. Borrowing Said's criticism (Said 1979; Said 1994), orientalism is a form of cultural colonization by the West against the East. Orientalist studies place the eastern world as lamentably alien who is exotic, irrational, low attitude, lazy, static, and uncivilized (Said 1979). The dominance of their works in the academic world has made Eastern intellectuals accept those views as truth. From this point of view, the study of the Orientalists becomes an ideological weapon that multiplies the pressure and suffering of the Eastern world as ex-colonial countries (White 2008).

In Indonesia, Orientalists have a strong influence on historical studies. Their view that the Indonesian nation could not develop itself without foreign assistance led to speculation about the arrival of Indian influence and the forcing of Hinduism as an ethnic religion to become a propagating religion (Coedès 1975). The history textbooks explain the theory of the influx of Indian culture, namely Brahmins, Kshatriyas, Vaisyas, and Sudras, although historians have criticized this narrative. The deconstruction of the narrative of the Indianization of Indonesian culture gave rise to a view of the Backflow that places Indonesian society as an active historical actor in cultural interaction (Bosch 1961; Michael 2003).

The views of the Orientalists also influenced the historical narratives of modern Indonesia. Dutch colonialism and imperialism are narrated more positively. Even when explaining Dutch imperialism in the 20th century, historians see it as an attempt to make Indonesia a Dutch culture. Kartodirdjo (Kartodirdjo 2014) explained that the Dutch colonial government was no longer oriented toward seeking economic benefits but towards spreading Western culture. This perspective makes historians place the pioneers of the Indonesian national movement as intellectuals who have absorbed Dutch culture, so they think, speak, and act like Westerners (Andoni 2014). Historians who are influenced by and become agents of the Orientalists are called Modern Professional Historians (Sutherland 2008) because they want Indonesia to change itself to become modern like industrial countries in the West (Purwanta 2018).

The view of the Modern Professional Historian influences narratives in textbooks, both old publications written by Notosusanto and Basri (1992) and new ones written by Sardiman and Lestariningsih (2017). The authors of history textbooks explained that Indonesia's national movement was the result of the Ethical Policy. The policy of the Dutch colonial government developed education for the natives, thus giving birth to intellectuals who pioneered the national movement.

Historical narratives with an Orientalist perspective make students feel that the history taught is about foreign nations in Indonesia, not narratives about their past (Nordholt 2004). Students cannot find historical narratives that can make them proud to have an identity as part of the Indonesian nation and inspire them to live their lives here and now. This condition is concerning because Indonesia's younger generation will be swayed by the criss-crossing of discourses on social media. Borrowing Heidegger's view (Heidegger 1996), the young generation of Indonesia is trapped in the condition of *dasein*. They will also be easily infiltrated by transnational ideologies that want to turn Indonesia into an Islamic state (Wahid 2009). Around 25% of the younger generation have been exposed to radical Islamic movements that wanted to establish a caliphate in Indonesia (Azzam and Dianti 2017; Akbar 2018).

5. Discussion

Memorizing historical narratives is the lowest level of cognitive ability in Bloom's taxonomy (Hyder and Bhamani 2016). The inability of students to understand historical texts is evidence of the teacher's lack of success in learning basic literacy. Hogan (2017) explains that history teachers view learning basic literacy as the responsibility of the language teacher. On the other hand, the history teacher is responsible for explaining events and their context in the textbooks. The problem is that language teachers need to understand the characteristics of historical narratives and use popular texts in their lessons.

One of the characteristics of historical narratives is that they are diachronic (Widdersheim 2018), namely explaining a phenomenon in space and time. Therefore, to gain a comprehensive understanding, the reader must understand the context and phenomena that occurred before the event, which is the main topic of a historical narrative. In order to understand the Dutch colonial policy in the early 20th century in Indonesia, the reader needs knowledge about the development of Western private companies in the late 19th century and their interests. In line with that, Wineburg's (1991) study of history lecturers and students' understanding of the US revolution also shows readers' importance in understanding a historical text through a comparative test with other related texts or intertextual study. Based on these academic characteristics, only history teachers can take responsibility for developing students' abilities in historical literacy.

The main problem in learning historical literacy is the ability of the teacher. Kurniawati et al (2022) study found that teachers need a greater understanding of historical literacy. Almost the same problem also occurs in South Africa. Schoeman's research (2014) shows that history teachers and textbook authors tend to explain the cause-and-effect analysis of historical events so that students only memorize activities. Teachers in Vietnam and Malaysia (Abdullah et al 2019) also teach by telling stories and explaining historical events, making getting students' full attention difficult. One of the breakthroughs in developing students' imagination and their interest in history, stories, and teacher explanations are using information technology (Huong et al 2021).

Learning history that emphasizes explanations by teachers and textbooks need to be updated and adapted to scientific developments in History Education. From this viewpoint, teachers, as the most important figures in the process of learning history, must guide students to achieve the goals of history education. Almost all historical education experts suggest that the primary skills students must master are the ability to think like historians and historical consciousness (Purwanta 2019). By understanding how the historians works, students will realize that the results of the reconstruction and construction of historians do not represent the events studied. Lee (2005) asserts that historical reconstruction is an impossibility. A historical narrative is more of a representation of the professionalism and interests of historians. Even White (2008) explains that winners often use historical narratives as ideological weapons to attack political opponents.

Various methods of learning historical literacy have been developed. These three methods of historical literacy learning are excellent to be applied to secondary schools in Indonesia. The first is the reading Like a Historian method developed by Wineburg et al (2013). History teachers widely practice this method, which improves student reading skills, such as sourcing, contextualizing, corroborating, and close reading (Colis et al 2016). The second is the development of history essay writing skills using the annotating written sources model implemented by Leticia (2016). The third is the project of Shanahan et al (2016), who tested the READI (Reading, Evidence, and Argumentation in Disciplinary Instruction) learning method using various historical sources. The result is that the method can develop the ability of teachers and students to comprehend and construct evidence-based arguments in history. Students are actively involved in reading, writing, and reasoning practices, so learning history does not only memorize names, places, and events (Shanahan et al 2016).

6. Conclusion

The implementation of the *Kurikulum Merdeka* in history lessons has serious obstacles because teachers and students need to be academically prepared. They are used to using the paradigm that history lessons are filled with memorizing events, names, places, and years. The development methodology of history with social science approaches has yet to be able to change the paradigm of learning history. Likewise, when the development of history education at the international level has made historical thinking skills the primary goal, learning history in Indonesia still needs to move from rote memorization.

Reform of History Education in Indonesia must be carried out immediately so that the implementation of the *Kurikulum Merdeka* can be successful. Training and professional development for history teachers must be given intensively, especially in learning methods that allow for the development of students' historical literacy.

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Ethical considerations

Not applicable.

Conflict of Interest

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Special Issue: Education in humanities in Asian countries

Bilingual education of future natural sciences teachers as today's requirement

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Abstract The article addresses the issue of integrating bilingual education elements into the training of future natural sciences teachers. It has been observed that Ukraine has previous experience in implementing bilingual education in general secondary education institutions. However, a significant limitation in this regard is the inadequate bilingual preparation of future natural sciences teachers. The content of the elective course "Science teachers training in US universities," which is taught in English, serves as a means to establish a "parity model" of bilingual education for future natural sciences teachers and a "displacing model." The course aims to achieve two objectives: first, to familiarize students with the concept of natural sciences teachers training in the United States, including its structure, content features, and pedagogical methods within the context of continuous educational development; second, to foster intercultural interaction skills. Research has indicated that teaching methods incorporating varying levels of assistance during cognitive tasks and differentiated complexity levels are effective in delivering this course. These methods ensure that each student is provided with optimal conditions to satisfy their cognitive needs and develop their communicative skills. The approach involves a gradual transition from collective work to partially independent and fully independent task performance, with an increasing level of complexity. Experimental evidence supports the effectiveness of implementing the course "Science teachers training in US universities."

Keywords: bilingualism, future teachers, natural sciences, elective course, dose of assistance

1. Introduction

The problem statement: It is recognized that current social, economic, and political changes in the world necessitate the active participation of different countries in the global geopolitical multicultural dialogue. The mastery of at least one foreign language has become a crucial factor in intensifying this dialogue. Consequently, the emergence of bilingual education in the world educational practice is a direct response to this need. The research on bilingual training is naturally prompted by the creation and strengthening of interrelations among pedagogical and scientific communities across different countries. The introduction of bilingual education will ensure active communication among educational stakeholders, expand employment opportunities and provide career growth advantages. It is noteworthy that the national policy on training industry specialists, who are recognized by other countries and remain competitive in today's labor market, has undergone significant positive changes, particularly in the realm of foreign language learning, both in general and within professional contexts.

The analysis of recent studies and publications: The development of bilingual education in Ukraine, driven by the general trend towards integration into the European space and the aspiration for intercultural dialogue and communication, can be traced back to its historical roots. In the 1960s and 1970s, bilingual learning technologies were actively introduced in general secondary schools that focused on advanced foreign language education. Drawing upon our own experience, we recall that during that time, for instance, Ternopil School No. 3, which specialized in foreign language learning, taught the subject "Geography" in a foreign language (English) at the 6th-grade level. Subjects such as "English Literature," "American Literature," "Technical Translation," and "United States Navy" were incorporated into the high school curriculum as additions to the "English" subject. Every Tuesday, political information (reports on recent domestic and international events) was delivered in English, encompassing all high school students. Additionally, there was an English day once a week, during which all programs on the school radio were broadcasted in English. This experience has endured and continues to be actively employed. However, both then and now, the challenge remains in training teachers who possess, for example, a natural sciences education and can effectively teach schoolchildren in English. All these factors underscore the need for introducing bilingual education into the professional training of future natural sciences teachers.

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The state and prospects of future natural sciences teachers' training were the subjects of our study (Stepanyuk and Olendr 2019). Regarding bilingual education, the analysis of literature sources revealed that the theoretical foundations of bilingualism in Ukraine are expounded upon in the works of several scholars (Bodnarchuk 2013; Horoshkina 2012; Ihnatenko 2014; Kotlovskyi et al 2020; Sytniakivska and Khlyvniuk 2015; Shirin 2003). Their research substantiates that bilingual education is a purposeful process of engaging with world culture through both native and foreign languages, wherein the foreign language serves as a means of understanding the world, acquiring specialized knowledge, and learning about the cultural, historical, and social experiences of different countries and peoples. Although the forms of utilizing two languages, as well as the types of didactic materials and their language, are not regulated, it is imperative that their level corresponds to the average language competence of the reference group.

The studies conducted by Sytniakivska and Seiko (2018) compared the students' attitudes toward bilingual education in Ukraine and Poland. Bartosh (2021) conducted a study that generalized the ideas from the American experience, focusing on bilingual education as a means to ensure effective intercultural interaction in a multinational state.

In foreign pedagogy, various currents of bilingual direction have been identified. Bilingual education was studied by representatives of the American scientific school to facilitate the integration of national minorities into the dominant culture (Fishman 1976). Notably, researchers such as D. Baker, D. Basaraba, and P. Polanco examined the effects of bilingual education on academic performance, compared its impact on writing, science, and mathematics, and explored the cognitive benefits of bilingualism (Baker et al 2016).

European practice is familiar with bicultural contact classes, which promote an intensive dialogue of ideas, educational and lifestyle approaches, traditions, and cultures among children from different linguistic and ethnic backgrounds. Contact classes emphasize the parity of the two languages of instruction and the equality of represented cultures, giving bilingual education and multicultural education a special moral significance (Hamers and Blanc 2000).

Our work (Olendr et al 2021) partially addressed the problem of introducing elements of bilingual education into the professional training of future natural sciences teachers. Such education offers the advantage of progressing toward multicultural education. However, it is hindered by the imperfections in the system of bilingual teacher training and the lack of suitable textbooks. Bilingual education encompasses various models and programs, all based on the principle of using two languages as a means of instruction. These models include dubbing or *accompanying*, *supplementary*, *parity*, and *displacing models*. Each model requires further research regarding its content.

This article aims to develop the content of the elective course "Science teachers training in US universities," taught in English as a means of bilingual education for future natural sciences teachers, and to experimentally substantiate its effectiveness.

2. Methodology

To achieve the aforementioned goal, several methods have been employed, including theoretical-comparative analysis to explore different perspectives on the problem and identify areas of study, modeling to develop a model of the elective course "Science teachers training in US universities," constructing to develop the course component and criteria for research, and systematization and generalization to formulate conclusions and recommendations for improving the educational process and raising the quality of educational services at higher education institutions. Additionally, empirical methods such as generalization of pedagogical experience, scientific observation, interviews, content analysis, and questionnaires were utilized to assess the implementation of the problem in practice and develop the content of the experimental teaching methodology. The effectiveness of the proposed methodology was verified through a pedagogical experiment, which involved expert evaluation of the developed experimental materials.

The experimental research was conducted at Ternopil V. Hnatiuk National Pedagogical University, focusing on the professional training of future natural sciences teachers. The effectiveness of the proposed methodology was evaluated during a two-year period spanning the 2019-2020 and 2020-2021 academic years. The research involved 21 lecturers from higher education institutions and 105 students at the second (master's) level of the educational and professional program in Secondary Education (Natural sciences). Eighty individuals participated in the summative stage of the experimental research, while 25 individuals were involved in the forming experiment.

The methodology of the experimental research encompassed several stages: the preparatory stage, which involved studying the needs of the educational interaction subjects and identifying the requirements for improving the quality of educational services; the organizational and methodological stage, where priorities were determined among students regarding educational and organizational activities related to the proposed course; the procedural stage, which involved the study of the proposed course; and the reflexive-analytical stage, where the results of the experimental training were analyzed based on objective and subjective indicators.

3. Results and discussion

The development of the issue regarding the introduction of elements of bilingual education in the training of future natural sciences teachers was based on the assumption that such training is more effective than classical approaches. The aim is to facilitate the development of students' general competencies, enabling them to compete in the Ukrainian labor market and globally. Additionally, it was considered essential to incorporate positive experiences from professional teacher training abroad, particularly in the USA, to effectively address the continuous improvement of professional training in higher pedagogical educational institutions. The USA stands out as a country where multicultural education is a public policy regulated by the Bilingual Education Act. It also recognizes the importance of interpreting education as a continuous learning process, emphasizing the degree of competence aging and the half-life of knowledge. Moreover, the USA demonstrates a high level of development in natural science education, which enhances the professional competence of teachers (Shirin 2003).

To introduce bilingual education in the professional training of teachers, a program for the course "Science teachers training in US universities" was developed in 2020. This course is part of the block of elective disciplines in the methodological direction and has been incorporated into the curriculum for second-level (master's) students specializing in Secondary Education (Natural Sciences) and Secondary Education (Biology and Human Health) at the Faculty of Chemistry and Biology of Ternopil Volodymyr Hnatiuk National Pedagogical University. The course serves a dual purpose: to provide students with knowledge of the concept of training natural sciences teachers in the United States, encompassing its structure, content features, and forms and methods of teaching natural sciences teachers in the context of continuing pedagogical education; and to develop intercultural interaction skills. Notably, the course is taught in English, tailored to the students' foreign language competence levels.

Since students at the second (master's) level of higher education have varying levels of knowledge and skills in the foreign language, the teacher must employ different methods and approaches to foster foreign language competence during language instruction. Drawing upon the findings of previous research (Malykhin and Bondarevska 2018; Zadorozhna et al 2019; Kotlovskyi et al 2020; Morska 2018; Nikolaeva et al 2019; Zadorozhna et al 2019) and classroom experience, it has been concluded that teaching methods involving different levels of assistance during cognitive tasks are effective. These methods provide optimal conditions for satisfying each student's cognitive needs and interests while mastering educational material and developing communicative skills. Task planning takes into account students' proficiency levels, allowing for the creation of tasks of varying complexity and corresponding discussion groups. The lecturer provides tasks and adjusts the level of assistance according to each student's needs. As the training progresses, there is a gradual transition from collective work to partially independent and fully independent tasks, increasing in complexity.

Lectures encompass the study of general issues related to the organization and content of future natural sciences teachers' training in the United States, as well as the forms and methods of professional training and quality monitoring of natural sciences education in US universities. Thus, the following topics are covered: "Formation of the future natural sciences teacher's professionalism and their professional and methodological competence," "Normative sources of constructing the content of natural sciences teachers' training in the US," "Content, forms, and methods of natural sciences teachers' professional training for the beginning of pedagogical activities," "Organization of natural sciences teachers' professional training during pedagogical activities," "Methods of teachers' professional training in the USA," "Peculiarities of the organization of future natural sciences teachers' professional training in the USA and Ukraine," "Concept of monitoring: The essence and criteria of monitoring of education in US universities," "Structure and standards of natural sciences education in US universities," "Monitoring studies of students' outcomes quality in US universities," and "Process and result as components of monitoring the quality of natural sciences education".

Practical classes aim to deepen the understanding of the main topics covered in the lectures by studying components that ensure the high professionalism of natural sciences teachers in the United States. The main normative sources that determine the essence of professional training and pedagogical activities of natural sciences teachers in the United States, as well as the features of curricula for natural sciences teachers' training in the United States and methods of natural sciences teachers' professional training in the USA, are explored.

The content of the course is divided into two thematic modules: "Training of a natural sciences teacher in the USA" and "Monitoring the quality of natural sciences education in the USA." The structured nature of the course allows for easy expansion of its scope and variation in the topics covered. During independent work, students engage with literary, scientific sources on the problems that are partially explained during lectures or discussed in practical classes.

The educational materials intended for students' self-study are suitable for independent study according to the level of difficulty. These materials expand, supplement, and specify the knowledge of the fundamentals studied in the basic course. They include practical materials that illustrate the application of general principles, such as components of natural sciences teachers' professional training in the United States, main stages of pedagogical practice at school, types of professional training methods implemented during the study of natural sciences and their characteristics, main differences between the Ukrainian and American systems of pedagogical education, comparative analysis of the content of American and Ukrainian training programs for future natural sciences teachers, and characteristics of the requirements for professions in the field of knowledge "Natural Sciences". The total number of hours assigned for students' independent work is 52 hours.

The formation of independence in the acquisition and deepening of knowledge, which will increase the competitiveness of future specialists in the labor market, is the purpose of the student's independent work. It has been observed that independent work becomes effective in teaching English for professional purposes during the 5th and 6th years of study, as it allows for the optimization of the educational process while students are engaged in different projects, specialized disciplines, and the preparation of their master's thesis. To enhance the organization of students' independent work at higher education institutions, information technologies and e-learning environments are successfully employed. It should be noted that such conditions lead to improved learning outcomes and the acquisition of additional information processing skills, thereby increasing motivation.

The formation of skills to plan and organize their learning strategy and the development of autonomous learning skills are important outcomes of this training. Consequently, the role of the lecturer undergoes a transformation, shifting from a traditional mentor to an organizer and moderator of the educational process. Acting as a partner and assistant, the lecturer supports, guides, and monitors the cognitive activity of future specialists. Proper organization of the educational process is one of the main tasks for the lecturer.

Students' research work focuses on mastering the skills of independent information processing, primarily through the analysis and comparison of elements related to the training of natural sciences teachers in Ukraine, the United States, and Europe. Additionally, students compile glossaries for various topics and translate abstracted texts. The process of natural sciences teacher's certification is also studied. A notable example of research work is scholarly studies examining lesson plan development and preparation for conducting lessons. In order to integrate educational and scientific research activities for students, a web page called "Scientific Progress" has been created on the official website of Ternopil Volodymyr Hnatiuk National Pedagogical University. This page houses a collection of scientific papers under the series "Biology" titled "The Scientific Issues of Ternopil Volodymyr Hnatiuk National Pedagogical University," as well as materials from annual international scientific-practical conferences such as "Physics, Chemistry, Biology, and Natural Sciences Teachers Training in the Context of the Requirements of the New Ukrainian School" and "Ternopil Bioscience." These platforms provide undergraduates with the opportunity to showcase the results of their research.

The organizational and methodological support of the educational process is based on the development of an educational and methodological complex for the course, which includes the program of the course, syllabus, textbooks and manuals, methodological materials and tasks for lectures and practical classes, individual tasks for students' independent work, and current and final tests to assess the students' level of knowledge acquisition.

To determine the criteria for the effectiveness of the course, the essence of the general competencies that future teachers should possess according to the Professional Standard for Teachers (2020) and a student survey were analyzed. The obtained results allow us to conclude that the course "Science Teachers Training in US Universities" has the greatest impact on the formation of general competencies such as mastery of communication skills (according to 92% of the respondents), ability to search, process, and analyze information from various sources (96%), and ability to apply best practices in professional activities (84%). Therefore, two criteria have been selected: the level of development of mental activity techniques (IQ) and the development of speech activities.

The first criterion is seen as an integrated indicator of the formation of the ability to analyze, compare, and draw conclusions from known theoretical information and practical activities. It was determined based on the analysis of students' opinions regarding the diversity and effectiveness of teaching methods employed by lecturers at Ukrainian higher education institutions. Students arrived at their conclusions by comparing the theoretical knowledge gained during the course with their personal experiences and the real practices of future natural sciences teachers' training.

The second criterion was established based on the reflection of students' own achievements in mastering the four main types of speech activity: *reading and reading comprehension*, listening and listening comprehension, speaking, and writing. Various sources, such as adapted and non-adapted popular and scientific sources, lecture materials, manuals, textbooks, scientific articles, tests, media, English texts from web-based resources, including software for the use of English-language sites, annotation and abstracting of texts, were utilized for reading and reading comprehension. *Listening and listening comprehension* involved understanding the teacher's speech during lectures, interpersonal communication during practical classes, audio-Internet conferences, round tables, seminars, authentic audio recordings of scientific films, and feature films of socio-pedagogical orientation. *Speaking* activities encompassed both monologue and dialogue speech during classes, communication during practice, and delivering speeches at conferences with the participation of foreign scientists. *Writing* tasks included writing notes during lectures, performing social and pedagogical tasks, writing abstracts for scientific articles, composing resumes for further employment, preparing scientific reports for participation in grants, and writing theses and reports for international student conferences.

To evaluate the quality of the proposed course, an integrated criterion of "didactic quality" was employed, which was determined through expert assessments. A group of experts consisting of scientists and lecturers from pedagogical higher education institutions across Ukraine was formed to conduct the research. The composition of the expert group intentionally varied to consider a wide range of opinions regarding the alignment of the proposed content with the needs, real conditions of teaching practice, and the current state of pedagogical science. The experts exhibited high levels of competence, interest in the examination results, a businesslike character, objectivity, and impartiality.

The expert group included lecturers and scientists from Ternopil Volodymyr Hnatiuk National Pedagogical University and Sumy State Pedagogical University named after A.S. Makarenko, as well as students at the master's level of higher education. Among the 21 respondents, there were 6 Doctors in Pedagogical Sciences, 5 PhD and Associate Professors, and 10 students.

Out of the total number of experts, a subgroup of 5 highly competent specialists in the field of the studied problem was selected. This subgroup comprised foreign language lecturers and methods of teaching natural sciences lecturers with more than 10 years of degree and teaching experience.

This group of experts agreed upon the indicators used to assess the content of the courses. As a result of collective discussion, following the condition that $\sum_{i=1}^{6}$ =100%, the “weight” (K) of each of the six selected indicators was determined. The results of this determination are presented in Table 1.

Table 1 The weight of indicators of the content of courses' didactic quality.

#	Indicators	Weight
1.	Significance for soft skills formation, which is listed in the educational and professional program	25
2.	Significance for hard skills formation, which is listed in the educational and professional program	25
3.	Significance for the organization of interactive pedagogical cooperation of the educational process participants	10
4.	Accessibility for perception	10
5.	The expediency of use during future teachers' professional training	20
6.	Correspondence to the life experience of scientists, lecturers, and students	10

The examination was carried out in May 2019, evaluating four components of the course "Science teachers training in US universities": I - lectures, II - practical classes, III - tasks for independent work, IV - control and reflexive tasks. The content of each component was assessed based on the integrated indicator of "didactic quality," which measured the level of alignment with the identified indicators.

The invited experts were briefed on the objective of the experiment and the rules of its implementation. They received information regarding general approaches to addressing the problem. Subsequently, each expert individually completed a questionnaire assessing a set of factors. The questionnaires were then studied and analyzed.

The results of the expert assessment convincingly demonstrated the possibility and relevance of including the course "Science teachers training in US universities" in the curriculum for second-level (master's) students pursuing higher education in the educational and professional program of Secondary Education (Natural Sciences). According to the experts, the course content is overall accessible and important for enhancing the quality of future teachers' professional training.

To evaluate the quality of the proposed course, the students were asked to respond to questionnaires after studying it. The first question required them to indicate the forms, methods, techniques, and technologies used by teachers during lectures to facilitate the educational process. The students were provided with a list of methods and techniques, and they had to categorize each one as "often," "rarely," or "never." The analysis of the students' answers revealed that the following methods were frequently employed during the training of future natural sciences teachers: lecture-discussion (64% of respondents), discussion in subgroups (68%), working in pairs during the lecture (60%), and free discussion (32%). Additionally, 80% of respondents stated that lectures were often conducted in the form of a lecturer's monologue, which differs from the typical approach in US universities.

The following methods were rarely used during lectures: voting (84%), press conference (64%), brainstorming (20%), special guest invitation (92%), training groups (40%), debates (48%), problem solving (56%), lecture-excursions (60%), and work in self-assessment groups (80%). The respondents mentioned several methods that are commonly used in US higher education institutions but were never encountered by them, including binary lectures (96%), "feedback cards" (80%), aquarium (88%), Abercrombie groups (82%), outdoor classes (56%), role-playing games (64%), syndicates (60%), flipped lectures (96%), lectures with pre-planned mistakes (76%), and debates (40%).

In response to the question "What techniques, methods, and technologies are used during seminars?", the respondents frequently noted the use of presentations and discussions (92%), working in pairs (64%), project work (56%), and brainstorming (40%). Among the methods that were rarely used during seminars were self-assessment groups (40%), "flow of ideas" (64%), round table discussions (52%), essay writing (64%), situation modeling (56%), training groups (60%), "microteaching" (52%), and case studies (36%). The following technologies were never employed during seminars according to the respondents: Abercrombie groups (80%), video recordings of students' micro-teaching and subsequent discussions (88%), press conference (52%), role-playing games (72%), interdisciplinary seminars (56%), special seminars (52%), syndicates (64%), and "decision tree" (72%).

During laboratory and practical classes, teaching was often organized using various methods, such as working with equipment (96%), conducting experiments (100%), frontal surveys (96%), individual surveys (100%), testing (88%), performing experiments (64%), conducting research (68%), problem solving (76%), observation of objects (72%), doing exercises (84%), and demonstrations (68% of respondents). Methods that were widely used in natural sciences teachers' training in the United States but rarely among Ukrainian students included project work (64%), heuristic conversations (48%), and creating visual teaching aids (40%). According to the respondents, none of the listed methods were classified as "never used".

An analysis of the answers to the question "What methods of independent work do you use during studying?" revealed that independent work is often organized using methods and techniques such as report preparation (64%), working with various literature (68%), problem solving, calculations, exercises, and individual tasks (76%), answering control or test questions (84%), performing individual research tasks (64%), and independent project work (40%). The following technologies were rarely used in organizing students' independent work: writing abstracts (52%), essay writing (64%), and working with scientific articles (52%).

The qualitative analysis of students' answers indicated a sufficient level of formation of their mental activity techniques, which they effectively utilize in non-standard conditions of a changing educational environment and draw appropriate conclusions.

The quality of educational services provided was assessed based on the second criterion by analyzing the results of students' reflections on the improvement of their proficiency in the four types of speech activity as a result of mastering the course content (Table 2).

Table 2 Results of students' reflection on increasing the level of their speech activity.

#	Type of speech activity	Increased considerably	Increased partially	No changes
1.	Reading and reading comprehension	28 %	60%	12%
2.	Listening and listening comprehension	32%	60%	8%
3.	Speaking	80%	16%	4%
4.	Writing	4%	20%	72%

The results of students' reflection on increasing of their personal achievements showed that their foreign language competence improved. The best results are concerned with such type of speech activity as speaking. Thus, in the students' opinion, 80% of them began to speak much better in English, 16% - partially improved this type of speech activity and only 4% did not show any changes in speaking English. All of them praise the results of mastering the course.

4. Conclusions

The inevitable spread of bilingual education in Ukraine brings forth numerous challenges related to its organization, goal-setting, and evaluation of outcomes. The conducted research aims to establish a solid foundation for training a new generation of teachers who possess high levels of intellectual development and emotional intelligence, while also fostering the creation and development of contemporary models for personal growth among teachers.

The inclusion of the elective course "Science teachers training in US universities" in the curriculum for future natural sciences teachers greatly contributes to engaging students in global culture through the medium of a foreign language. This approach facilitates the exploration of the world, the acquisition of specialized knowledge, and the study of cultural, historical, and social experiences of diverse countries and peoples. Moreover, it expands the prospects for future specialists to adapt to various social, informational, and scientific realities of the modern era, while enhancing the quality of intercultural communication, an increasingly vital skill in a globalized world. Moving forward, there are promising prospects for further content development in other courses aimed at the professional training of future natural sciences teachers..

Ethical considerations

Our study correctly followed the ethical policies for a study that includes human subjects and all the survey participants were aware of the study. All the respondents who were involved confirmed their consent (*Conclusion of the Commission on the Issues of the Ethics of Scientific Research and Experimental Developments of Ternopil Volodymyr Hnatiuk National Pedagogical University. № 86/40-03 of 03.02.2023*).

Conflict of Interest

The authors declare that they have no conflict of interest.

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Cost and benefits of international financial reporting standards (IFRSs) from the preparers' perspective: Evidence from Kosovo's implementation experience

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Abstract This research investigates the costs and benefits associated with the adoption of International Financial Reporting Standards (IFRS) in Kosovo. The study utilizes a survey questionnaire methodology, collecting responses from 297 preparers' of IFRS financial statements. The data was subsequently analyzed using Analysis of Variance (ANOVA) to evaluate the perceived benefits and costs of IFRS implementation. The findings indicate significant benefits from the adoption of IFRS; with increased comparability of financial statements ranking as the highest benefit (mean value 4.13); Greater confidence in financial information (mean value 4.07) and long-term net benefits for both the company (mean value 3.94) and Kosovo (mean value 3.95) followed closely. The most significant cost was identified as the harmonization of tax laws and others with IFRS (mean value 3.52), followed by additional work to ensure comparability and opening balances of the financial statements align with IFRS (mean value 3.05). On a weighted average, benefits outweighed costs at 3.72 versus 2.54, respectively; The research concludes that from a preparer's perspective, the benefits of adopting IFRS in Kosovo surpass the costs. However, the study acknowledges that perceptions may vary among different stakeholders and over time, and the long-term impacts of IFRS adoption are yet to be fully explored.

Keywords: IFRS, IAS, financial reporting, compliance

1. Introduction

The current state of the research field should be carefully reviewed, and key publications, especially recent ones, should be cited. The Introduction should be comprehensible and connect the points mentioned above with a dynamic flow of reading, making it accessible to scientists outside of the specific research field. Citations should be presented in parentheses, using only the last name of the first author followed by the year, without commas or periods. More than 110 countries require public businesses to follow a set of accounting guidelines known as the International Financial Reporting Standards (IFRSs). The IFRSs are designed to give businesses access to a single set of excellent, clear, and widely recognized accounting rules for their financial reporting.

The question of whether the advantages of adopting IFRS outweigh the expenses has generated a lot of discussion. The discussion is especially pertinent to poor and rising nations since they frequently have insufficient resources and capacity to put the standards into practice.

The International Accounting Standards (IAS) have been extensively accepted by developing countries as a requirement for membership in international organizations. The belief that the use of certain reporting frameworks could increase the risk of international investments and that the use of a single basis for financial reporting and auditing would have significant positive effects on the global market also played a significant role in the common path towards convergence with IFRS. Even if they have not embraced these standards, it is practically hard for companies or governments to remain untouched by the convergence process.

Most countries that are in transition or who lack the resources or the legal framework to create their own national or local standards have embraced international standards or are in the process of doing so as financial reporting systems.

International standards provide transparency on a global scale. They pinpoint vulnerable areas that, if avoided, can promote financial and economic growth. They boost market discipline and effectiveness. At the national level, the standards offer benchmarks to pinpoint pertinent flaws and direct policy changes. The scope and application of these standards are

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evaluated in the context of the overall development of a country's strategy and are tailored to the specific conditions of the country in question to effectively fulfill these two objectives.

Although the Kosovo Accounting Standards (KAS) were also used prior to 2011, according to the Law on Accounting, Financial Reporting, and Auditing in Kosovo, which was approved by the Parliament of the Republic of Kosovo in 2011 and updated in 2018, the International Financial Reporting Standards (IFRSs) are now the reporting framework in Kosovo. This is done to ensure that Kosovo meets the requirements established in the EU Acquis Communautaire and European Directives. Therefore, under this law, Kosovo, which seeks EU membership, mandates the implementation of IFRSs for large and medium-sized businesses. Numerous academics have studied the adoption and implementation of IFRSs, and it is still a crucial and essential subject for accounting and financial reporting.

Analysis of the standard-setting process from the viewpoints of the owners and debt suppliers is crucial because the information needs differ (Holthausen and Watts 2001).

In this research, we have analyzed the implementation process from the preparer's perspective. The cost-benefit analysis of applying IFRSs has been used to measure the adoption of these standards, and this research will focus on the impacts of something similar on the Kosovar economy.

Listed below are the main objectives of this research:

- ✓ Determine whether the use of IFRSs has enhanced the quality of financial reporting in Kosovo.
- ✓ Establish whether the increased comparability of financial accounts with those of other nations has benefited Kosovo's IFRS adopters.
- ✓ Verify if the IFRS adopters in Kosovo have gained advantages from the greater comparability of financial statements with other countries.
- ✓ Demonstrate the changes in time and cost savings resulting from the consolidation of financial statements due to the adoption of IFRSs.
- ✓ Investigate whether the adoption of IFRSs has improved business relations with foreign companies, eliminated global barriers to capital flow, and overall increased confidence in financial data.

As part of the analysis, we also examined potential costs associated with the adoption of IFRSs, trying to determine:

- ✓ Does Kosovo's business climate permit the adoption and reporting of IFRS?
- ✓ Should tax laws and other legislation be in line with IFRS to fully implement them as legal requirements?
- ✓ Do businesses need to do anything more to ensure that the opening figures of the financial statements are in line with IFRS and that the items in the financial statements are comparable?
- ✓ Are businesses in Kosovo investing time, money, and other resources in improving their accounting and financial reporting information systems, training and developing their staff, and allocating more time to ensuring that other users of the financial statements are aware of the changes in the financial statements as a result of the adoption of IFRS?

This research study will provide dual substantial contributions. Firstly, it will supplement the current body of literature on the execution of International Financial Reporting Standards (IFRSs) in emerging countries from the perspective of companies that prepare financial statements. Additionally, it will establish a groundwork for future research, particularly in transitional nations, as they face comparable prospects and challenges associated with the adoption of IFRSs. Secondly, unlike previous researches that have emphasized the economic implications of IFRS adoption and implementation, this study will evaluate the benefits and drawbacks of IFRS implementation from the viewpoint of businesses.

This paper will make a contribution that is not only scientific but also professional and useful. The regulatory bodies and supervisory bodies overseeing the application of IFRSs in Kosovo will be able to use the research's recommendations and findings because the perspective of businesses adopting IFRSs is crucial for decision-makers, as they stand to benefit the most from the improvement in the standards of financial reporting, transparency, and accountability, which will have an impact on the economic growth drivers in our country (Hoti and Krasniqi 2022). This is due to the fact that many companies in Kosovo are small and medium-sized, which on the one hand can meet the requirements set forth by legislation to implement IFRSs but cannot afford the cost of compiling and auditing the financial statements.

2. Literature review

IFRSs demand significant disclosure for transactions with related parties, data regarding segments and branches, and the statement of cash flows, but local/national accounting and financial reporting standards usually do not. IFRSs also has detailed rules for the measurement and recognition of assets and liabilities, employee benefits, and other financial items (Bae et al 2008; Warrell 2002). These all can contribute to additional costs and be a burden for small and medium-sized companies in Kosovo.

In contrast, financial statements prepared in accordance with IFRSs present income, expenditure, assets, liabilities, and capital that has been calculated using more accurate and relevant techniques, are more timely, reliable, valuable, and relevant, and thus reduce the demand for management to provide additional information to help investors better predict future earnings. Therefore, management's lower estimates could also be impacted by the implementation and adoption of IFRS.

According to Walton, harmonization is the process of bringing down discrepancies across accounting systems, whereas standardization is the process of implementing a single set of accounting rules (Walton 2015). This will make it easier to compare financial outcomes across nations. The harmonization of accounting and financial reporting standards is driven by several factors, including the development of financial markets, the increase of FDI, and the creation of global businesses (Gray 1988).

The decision to adopt and implement IFRSs voluntarily was reached after a comprehensive analysis of all relevant costs and benefits, including the consequences on the cost of capital. This is in contrast to mandatory adopters in the EU, who adopted IFRSs because it was imposed by legislation. The degree to which the institutional environment (such as the caliber of legal enforcement) impacts the incentives and disincentives of report preparers will likely determine how effective this legislation is in attaining benefits such as a decrease in the cost of capital (Ball et al 2003). As a result, it is still uncertain how the implementation of IFRSs would affect the cost of capital, and this is still an empirical topic.

Some studies (Ball et al 2003) question the effects of implementing international financial reporting standards locally without institutional support. Other recent studies, however, suggest that the voluntary use of IFRS by a firm has the expected economic impacts and demonstrate that disclosures under IFRS are, on average, of greater quality than those under local accounting and financial reporting standards in the majority of the globe.

According to these studies, voluntarily adopting IFRS is linked to fewer accounting flexibility issues and smaller analyst forecasting errors, lower capital costs (Shi and Kim 2011) (Shi and Kim 2011), higher market liquidity and trading volume (Leuz and Verrecchia 2000), higher performance ratios (Bartov 2005), a better quality of accounting and financial reporting (Barth et al 2008), and a convergence of accounting standards (Shi and Kim 2011).

There is also evidence that IFRSs impose costs on preparers, particularly in terms of the time and resources required to implement and comply with the new standards (Barth et al 2008). IFRSs may also require businesses to change their accounting systems and processes, which can also be expensive (Ball et al 2003).

Also, recent literature has highlighted the complexities of IFRS adoption, particularly in countries lacking a strong institutional framework. For instance, Isidro et.al., have suggested that the benefits of IFRS are significantly diminished without the presence of robust regulatory bodies and legal enforcement mechanisms (Isidro et.al. 2013). They argue that a "one-size-fits-all" approach to financial reporting standards can overlook local economic and social factors, leading to a misrepresentation of a firm's true financial position.

On the other hand, positive aspects of IFRS adoption cannot be overlooked. Increased comparability, transparency, and reliability in financial reporting are often cited benefits (Brown 2011). Furthermore, companies that adopt IFRS may enjoy greater access to foreign capital markets and potentially lower cost of capital (Hope et al 2006). However, it's important to note that the benefits and drawbacks of IFRS adoption are contingent on numerous factors, including the quality of the institutional environment, the nature of the firm, and the specific circumstances of the adoption.

Based on the analysis of literature, it has been found that there are both advantages and costs associated with the implementation of IFRS from the perspective of the preparer. The implementation and compliance-related expenses account for most of the costs, whereas the benefits are primarily related to improved financial reporting quality and long-term comparability. Although not all countries may find it feasible to adopt IFRS at all stages of economic growth, many developing economies are likely to experience benefits that outweigh the costs in the long run.

3. Research methodology

3.1 Data collection and research sample

This study employs a mixed-method approach collect data, which involves a survey questionnaire and secondary data collection. The primary data were gathered from a sample of 297 respondents, specifically, preparers of IFRS financial statements in Kosovo. Additionally, secondary data were obtained from financial statements submitted to the Kosovo Regulatory Body for Financial Reporting - KCFR.

The choice of 297 respondents is premised on a statistical calculation that ensures an adequate representation of the broader population of IFRS preparers in Kosovo. The sample size was determined to ensure a balance between representativeness and feasibility of data collection, considering the resources and time available for the study. Purposive sampling was used in the selection of these respondents due to practical reasons. This method was chosen as it allows for the selection of respondents who are knowledgeable and experienced in the subject matter, thereby ensuring the quality and relevance of data gathered. It is worth noting the sample includes businesses across different sectors and sizes, reflecting the diversity of entities that use IFRSs in Kosovo.

The results from the primary and secondary data were then analyzed and interpreted to provide insights on the adoption costs and benefits of IFRSs from the preparers' perspective in Kosovo.

3.2 Respondent characteristics

The questionnaire's first section, Part A, was created to gather information on the respondents' overall characteristics. 130 of the respondents from the companies reported having a bachelor's degree, 161 had a master's degree, five had a Ph.D., and one did not respond. The distribution of respondents' degree of university education is shown below (Figure 1).

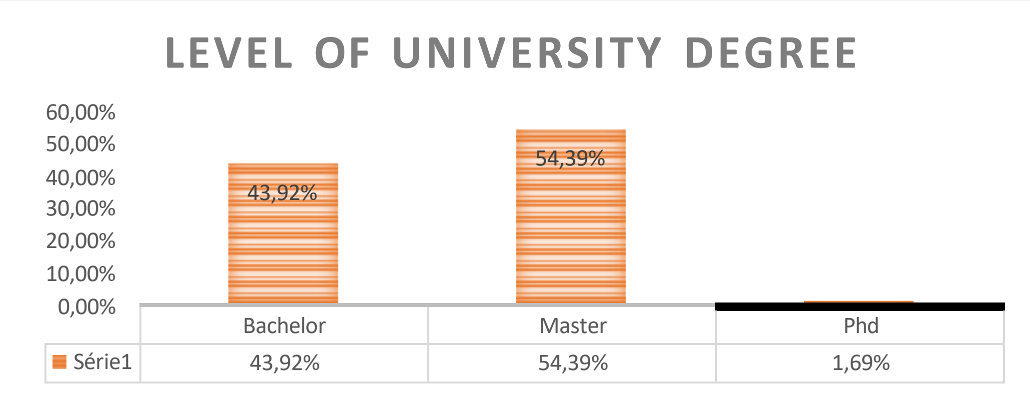

Figure 1 Respondents' education.

In terms of professional designation, the majority of respondents—136 in total—were certified accountants (CA), followed by 126 certified auditors (CA), 7 statutory auditors (CPA), and 27 accounting technicians (CAT). One respondent chose not to answer the question.

In addition, 131 respondents had between 5 and 10 years of accounting or auditing experience, 128 respondents had between 10 and 15 years of experience, and 22 respondents had above 15 years of experience. Given their academic and professional backgrounds, as well as their work experience in accounting, finance, or auditing, it is obvious that the respondents have a fairly good degree of understanding of these criteria. As a result, the replies may be deemed relevant and significant enough to facilitate testing of hypotheses on the advantages and disadvantages of IFRS adoption. The distribution of responders, including their professional vocations and work experience, is shown below (Figure 2 and Figure 3):

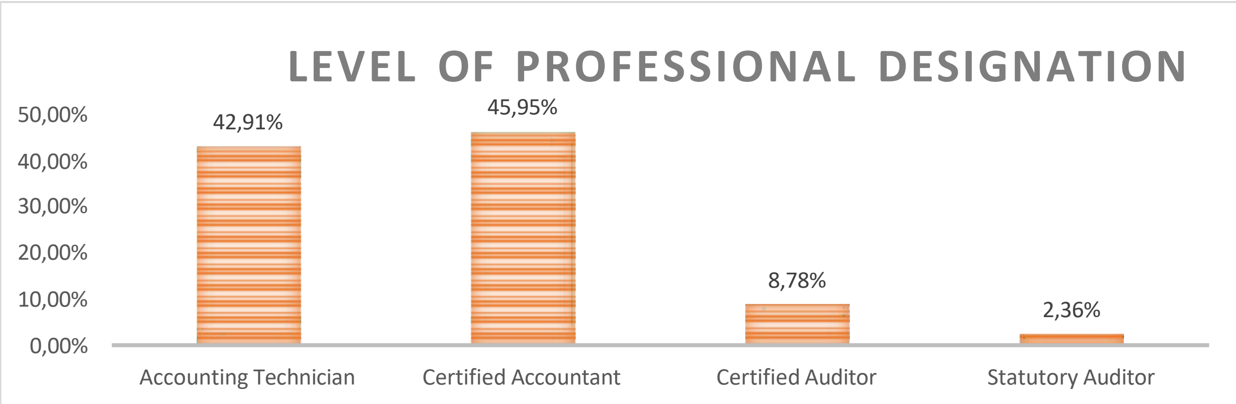

Figure 2 Respondents' professional designation

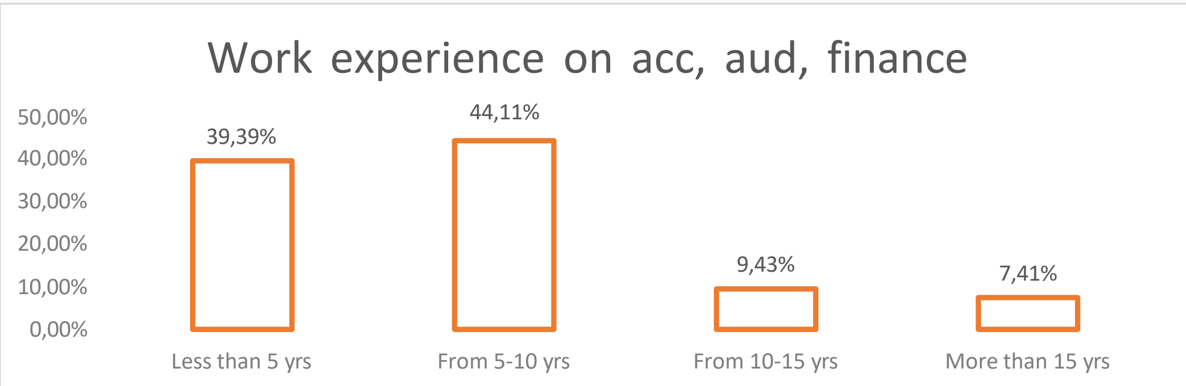

Figure 3 Respondents'' professional experience

4. Results and hypothesis testing

This study uses empirical testing to examine the following hypotheses, which are derived from the study's research questions:

H1: IFRS has no effect on improving the quality of financial reporting.

H2: The implementation of IFRS has no impact on the increase in the comparability of financial statements, the reduction of time and cost to consolidate PF, the improvement of partnerships with foreign companies, the removal of barriers to the flow of international capital, long-term net benefits for the company, long-term net benefits for Kosovo.

H3: Implementation of IFRS does not affect greater reliability in financial information

H4: The business environment in Kosovo is not suitable to implement and report according to IFRSs.

H5: The use of time, money, or other resources to develop staff, enhance the accounting and financial reporting information system, or devote extra time to ensuring that other users of the financial statements are aware of the changes made to the financial statements as a result of the adoption of IFRSs is unaffected by the adoption of IFRSs.

H6: Harmonization of tax laws and other laws with IFRS is not necessary in order to adopt IFRSs.

H7: The benefits of adopting IFRS for companies in Kosovo do not exceed the costs.

$$H_0: \mu_1 = \mu_2$$
$$H_1: \mu_1 \neq \mu_2$$

The null hypothesis is rejected and the alternative hypothesis is accepted if F > critical F and Fisher's P is P, however we accept the null hypothesis if F I less than critical F, and if Fisher's P is P > alpha. Answers on the advantages of adopting and using IFRSs were obtained for the major section of the questionnaire. The Linkert scale, which ranges from 1 to 5, was used to rank the responses.

The ANOVA results are shown below (Table 1) to demonstrate whether or not there are advantages to adopting IFRS and which of them are considered most important by the respondents:

The "Discussion" section of a research paper provides a comprehensive analysis and interpretation of the study's results

Table 1 Results of the Analysis of Variance (ANOVA) on the potential benefits of the adoption of IFRS in Kosovo.

Variables	Mean	Standard deviation	F	Pr > F
1. Improving the quality of financial reporting	3.89	0.95	49.861	0.000288*
2. Increasing the comparability of financial statements	4.13	0.84		
3. Reduction of time and cost to consolidate PF	3.75	1.01		
4. Improving partnerships with foreign companies	3.86	1.03		
5. Removing barriers to the flow of international capital	3.64	1.09		
6. Greater confidence in financial information	4.07	0.89		
7. Long-term net benefits for the company	3.94	0.94		
8. Long-term net benefits for Kosovo	3.95	0.99		

Source: Authors calculations from questionnaire data; significant p<0.05.

The advantages from IFRSs varied significantly, according to Table 1 findings, with a ratio of variance F=49.861 and significance p<0.05 (0.000288). The main benefit from the adoption of IFRSs is considered to be the increase in the comparability of financial statements (mean value 4.13, standard deviation 0.84), the next benefit is greater confidence in financial information (mean value 4.07, standard deviation 0.89), then long-term net benefits for Kosovo (mean value 3.95, standard deviation 0.94), long-term net benefits for the company (mean value 3.94, standard deviation 0.94), improvement in the quality of financial reporting (mean value 3.89, standard deviation 0.95), improvement of partnerships with foreign companies (mean value 3.86, standard deviation 1.03), reducing the time and cost to consolidate FSs (mean value 3.75, standard deviation 1.01) and as the last benefit is ranked the removal of barriers to the flow of international capital (mean value 3.64 , standard deviation 1.09).

The respondents agreed with these benefits that are a result of IFRSs adoption, and the analysis shows that all of the aforementioned benefits have an average above 3.0, therefore they are all deemed to have a major impact from the implementation of IFRSs in Kosovo.

The costs have also been examined in order to determine whether one has a greater influence than the other and whether the benefits outweigh the costs, as the posed hypothesis indicates whether they do or not.

The respondents were prompted to evaluate whether the adoption of IFRS, an independent variable, will have an impact on the anticipated costs, which serve as the dependent variables.

Table 2 shows that the adoption of IFRS didn't change the costs in a way that was important, with a ratio of variance F=3.88 and significance p>0.05 (0.081522). According to the results shown above (Table 2), one of the biggest costs resulting from the respondents' adoption of IFRS is the harmonization of tax laws and other laws with IFRS (mean value 3.52 and standard deviation 0.8), followed by extra work to ensure that the items are comparable and the opening balances of the financial statements are in line with IFRS (mean value 3.05 and standard deviation 1.19); spending time to ensure that other users of financial statements are informed of the improvements to financial statements brought on by the implementation of IFRS (mean value 2.9, standard deviation 1.12); spending time, money, and other resources on staff training and development (mean value 2.75, standard deviation 1.13); spending time, money, and other resources on ensuring that other users of financial statements are aware of changes in financial statements as a result of the adoption of IFRS (mean value 2.9, standard deviation 1.12); and spending time, money, and other resources to ensure that improvements of the accounting information system and financial reporting (mean value 2.7, standard deviation 1); The business environment in Kosovo is not suitable to implement and report according to IFRSs (mean value 2.58, standard deviation 1.09); Visible negative impact on financial statements (mean value 2.27, standard deviation 0.9); The decline in the quality of financial reporting (mean value 2.14, standard deviation 0.93).

Table 2 Results of the Analysis of Variance (ANOVA) on the potential costs from the adoption of IFRS in Kosovo.

Variables	Mean	Standard deviation	F	Pr > F
1. Financial accounts show a clear negative impact	2.27	0.9	3.8	0.08152
2. Implementing and reporting on IFRS in Kosovo's corporate climate is not feasible	2.58	1.09		
3. Investment of time, money, and other resources into the development of the accounting and financial reporting information system	2.7	1		
4. Investing in the time, money, and other resources necessary for the staff's growth and development	2.75	1.13		
5. Investing the time to make sure that all other readers of the financial statements are informed of the modifications made as a result of the implementation of IFRS	2.9	1.12		
6. Deteriorating financial reporting standards	3.05	1.19		
7. Harmonization of tax legislation	2.14	0.93		

Source: Authors calculations from questionnaire data; significant $p<0.05$.

Respondents were asked to indicate whether they believed the implementation of IFRS would result in visible benefits, visible cost increases, or benefits that would at least equal the costs but not surpass them.

The weighted average of the responses was determined to be 3.72 for benefits outweighing costs, 2.54 for costs outweighing benefits, and 2.8 for both, as shown in the accompanying graph (Figure 4):

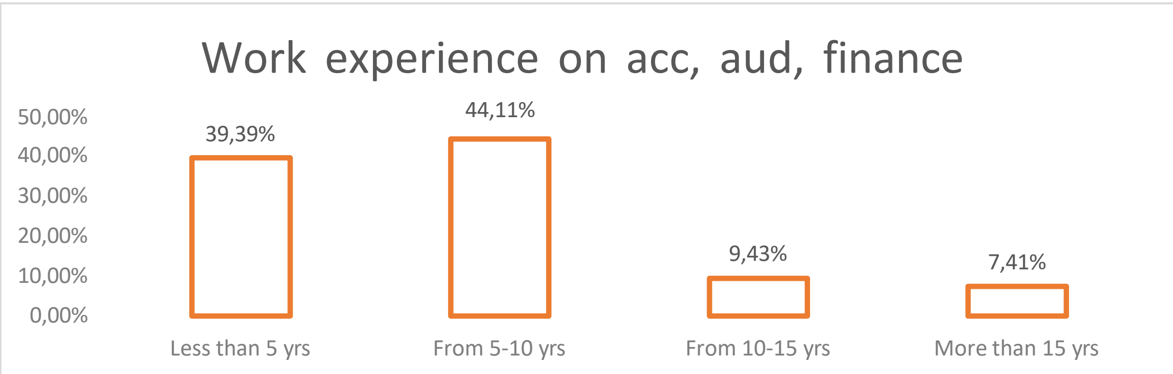

Figure 4 Weighted average of benefits and costs from IFRS

In order to determine if the benefits of adopting IFRS outweigh the costs, it was necessary to answer all of these questions. The null hypothesis was tested, which presupposes that H0: The benefits of adopting IFRS for enterprises in Kosovo do not outweigh the costs.

According to the study results, the advantages of adopting IFRS for businesses in Kosovo exceed the costs, which is comparable to the overall conclusion taken from the graph above.

In this regard, we have confirmed alternative hypotheses:

H1: Adopting IFRS has a significant impact on the enhancement of financial reporting quality.

H2: The use of IFRS has a substantial influence on the improvement of financial statement comparability (FS), the reduction of time and cost to consolidate FS, the improvement of partnerships with foreign companies, the removal of barriers to the flow of international capital, long-term net benefits for the company, long-term net benefits for Kosovo

H3: Implementation of IFRS does affect greater reliability in financial information.

H4: The business environment in Kosovo is suitable to implement and report according to IFRS.

H6: Harmonization of tax laws and other laws with IFRS is necessary in order to adopt IFRS.

H7: The advantages of implementing IFRS for businesses in Kosovo much outweigh the expenses.

And we have confirmed the null hypothesis:

H0: The adoption of IFRS has no impact on the time, money, or other resources used to improve the accounting and financial reporting information system, train and develop staff, or spend additional effort ensuring that other users of the financial statements are aware of the changes made as a consequence of the implementation of IFRS.

5. Discussion and conclusions

Our findings have important implications for standard setters and other regulatory bodies in Kosovo, indicating that harmonizing accounting and financial reporting will be difficult to achieve by the use of existing accounting and financial reporting standards. In this direction, the study took into account authors who are pro and contra IFRSs in the literature on accounting harmonization (Saudagaran and Diga 1997) (Helen et al 1995) and convergence of accounting (Leuz et al 2003) (Land and Lang 2002). Although the aforementioned factors have been important in the past to explain potential changes in regulations, these differences have recently been diluted considerably by the ever-growing needs of the world economy. This applies especially to a large extent to multinational companies, for which it is quite a big, difficult and expensive job to prepare financial statements for different countries, where they have branches or operate in different countries.

According to the research findings, while adopters of IFRSs in Kosovo feel that IFRS adoption has no significant impact on costs, they agree that IFRS adoption has resulted in significant advantages, and that these benefits are a result of IFRS implementation.

Among the benefits of adopting IFRSs in Kosovo are ranked: Improving the quality of financial reporting; Increasing the comparability of financial statements; Reduction of time and cost to consolidate FS; Improving partnerships with foreign companies; Removing barriers to the flow of international capital; Greater confidence in financial information; Long-term net benefits for the company; Long-term net benefits for Kosovo. On the other hand, it is concluded that the implementation of IFRS did not have a substantial influence on costs and the business environment in Kosovo is suitable to implement and report according to IFRS.

In general, it is concluded that from a preparer`s perspective the benefits of adopting IFRS for companies in Kosovo outweigh the costs, even though Kosovo is among the new countries that have adopted IFRSs.

The study attempted to ascertain the IFRS adoption costs and benefits from the preparer’s perspective. However, it is important to note that there are various other stakeholders in IFRS adoption such as regulators, investors, creditors, etc., who would have their perception of the costs and benefits. Furthermore, IFRS is a relatively new concept and its long-term effects are not yet known. As a result, it is important to consider these limitations when interpreting the results of this research.

Despite these limitations, the study provides valuable insights into the IFRS adoption process from the preparer’s perspective. The findings can (Shala et al 2014) be used by policymakers to improve the IFRS adoption process and make it more efficient and effective (Hoti and Krasniqi 2022).

This research provides important insights into the adoption of International Financial Reporting Standards (IFRS) in Kosovo, yet it is important to note the limitations inherent in the study's design and execution. Primarily, the geographic limitation restricts the findings' applicability beyond Kosovo. The focus is on one particular developing country, which may limit the extrapolation of the results to regions with differing socio-economic contexts. Additionally, the study relies heavily on a purposive sampling approach. While this allows for the selection of participants who are likely to be informative, it introduces potential selection bias, reducing the generalizability of the findings to the wider population. Furthermore, the study only collects data at one point in time, ignoring potential fluctuations and evolutions in costs and benefits over time. A longitudinal study would provide a more comprehensive view of these dynamics.

The study's reliance on respondents, particularly the preparers of financial statements, and their perceptions of the costs and benefits also presents a significant limitation. Respondent bias is a potential issue, with participants' positive or negative experiences with IFRS transition likely to color their responses. Furthermore, measuring perceived costs and benefits rather than actual expenditures and gains may lead to inaccuracies. Perceptions are subjective and may not truly reflect the real costs and benefits experienced by the companies involved.

Finally, the study predominantly uses quantitative data obtained through surveys, and this preference for breadth over depth potentially limits the scope of the findings. The absence of qualitative data may conceal nuanced insights into the challenges and benefits of IFRS adoption that a purely numerical analysis cannot reveal. Also, the study's scope is largely limited to financial aspects, excluding vital considerations such as organizational or cultural changes prompted by IFRS implementation. Potential non-response bias and language or cultural barriers could also impact the study's reliability and applicability. Future research should strive to rectify these limitations, employing more diverse methodologies, incorporating actual costs and benefits, and embracing a more culturally nuanced approach.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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American sign language to improve deaf and hard of hearing (DHH) English reading comprehension skills

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Abstract Palestinian Sign Language (PSL) is used for teaching English language for DHH students in their schools. This hinders Palestinian deaf students communication with deaf foreigners. Hence, the use of American Sign Language (ASL) can solve the aforementioned problem. ASL is considered as an international sign language, thus, it can be useful for DHH students to learn this language to be able to communicate with their peers all over the world. This study aimed at investigating the effectiveness of American Sign Language (ASL) program in developing the Palestinian DHH students' English reading comprehension skills. in addition, the study explored the advantages and drawbacks of the ASL Program. The researchers used the quasiexperimental approach. One experimental group of (30) DHH, selected from Elrafie school for deaf in Gaza city, was assigned as the sample of the study. Those students attended a 20-hour training program which lasted for four weeks. In addition, the instruments used in the current study was a reading comprehension skills test which students did before and after the experiment, and a semi structured interview to reveal the advantages and drawbacks of the training program from the participants' perspectives. Results showed that the ASL training program is so effective in enhancing the reading comprehension skills of the DHH students. In addition, the findings revealed that the participants of the study liked the activities of the training program and they become so motivated to read various types of English texts. In light of the aforementioned results, the researcher recommends EFL Palestinian teachers to use the ASL when teaching English language to DHH students.

Keywords: ASL program, DHH students, TEFL

1. Introduction

Language is a very important aspect for developing countries on various sides. It is a means of communication between people worldwide. Learners study the languages of others to enable them to interact well. English is considered an international language, as it is utilized in all fields of life. Learning English language skills is important for all students, including students with disabilities. Since the 1997 Education for All Act in Palestine, deaf children have had the opportunity to receive free and appropriate education. However, deaf and hard of hearing (DHH) students can study in nongovernmental schools, and many hard of hearing (HH) children are placed in governmental schools (ELC 2015).

Integrating DHH students in general/public education requires effective planning. Aladini (2020) confirmed that including DHH students in mainstream schools is effective. In the same regard, Alasim (2018) suggested various strategies that facilitate the participation and interaction of deaf and hard-of-hearing students in the general education classroom at a public elementary school. In addition, Alasim identified the issues that limit the participation of those students. In particular, the study focused on describing factors related to general education teachers, sign language interpreters, deaf and hard of hearing students, and hearing students to develop a practical framework for assisting students with hearing impairment to gain more social and communication skills. The findings indicated that DHH students, who face barriers to their participation and interaction in general education and classrooms, have good chances of participating in several contexts.

In Palestine, Palestinian Sign Language (PSL) is used for teaching English language for DHH students in their schools. This hinders Palestinian deaf students' communication with deaf foreigners. Hence, the use of American Sign Language (ASL) can solve the aforementioned problem. ASL is considered an international sign language; thus, it can be useful for DHH students to learn this language to be able to communicate with their peers all over the world. Wilbur (2000) reviewed the literature on ASL use in teaching English and showed that early learning of ASL leads to the development of English structures, speech and other cognitive skills.

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1.1. Study Problem

The results of a pilot study conducted by the researcher showed that Palestinian teachers use Palestinian Sign Language (PSL) to teach English to DHH students. Teachers at Alrafie School for Deaf Students in Gaza, the only school that can be found in Palestine, complained that they teach English using the PSL. However, DHH is not able to communicate with DHH around the world. This shows the urgent need for ASL programs to develop their English reading skills and be able to communicate with other DHHs abroad.

1.2. The Study Questions

1. What is the framework of the ASL program that aims to improve Palestinian DHH students' reading comprehension skills?
2. What are the reading comprehension skills that DHH students should possess?
3. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean scores of Palestinian DHH students in the pre ad post reading comprehension test?
4. What are the advantages and disadvantages of the ASL program from the participants' perspectives?

2. Literature review

2.1. Reading comprehension

There are several definitions of reading comprehension. WETA (2021) defines comprehension in reading as the ability to understand a written text. When students comprehend a written passage, they construct meaning from the words to understand the passage as a whole. WETA adds that reading comprehension is the ability to communicate a text leading an integrated process that involves decoding vocabulary and sentences, employing prior knowledge relevant to the text and using cognitive and meta-cognitive strategies to make sense and to get the target message the author wants to convey. The researcher reviewed several studies by Hamouda (2020), Abukhaled (2019), Keshta and Al Udaini (2012), and Aladini and Jalambo (2021) concerning reading comprehension skills, but there was no consensus between researchers that there are certain skills of reading comprehension due to the educational level of students and their differences. The Ministry of Education in Palestine prepared a framework for the English for Palestine curriculum in 2015. This framework was inclusive for all students, including those without disabilities and those with disabilities.

The reading comprehension skills that were declared in this document for grades 10-12 were as follows:

1. Identify supporting details.
2. Distinguish main idea from supporting details.
3. Deduce meaning of unfamiliar words from context.
4. Skim for gist or general impression of text or graphics.
5. Distinguish fact from opinion.
6. Infer mood and author's attitude or tone.
7. Scan for specific information from texts and realia (ads, menus, schedules, calendar, flight information and tickets, the like.).
8. Interpret information presented in diagrammatic display.
9. Relate text to personal experience, opinion, or evaluation.
10. Analyze text for setting, theme, characters and the like.
11. Extract and synthesize information from several sources
12. Evaluate text for accuracy of information, soundness of argument, and the like.
13. Interpret information in diagrammatic form.
14. Scanning a text for detailed information.
15. Develop awareness of semantic fields (word mapping).
16. Identify the main idea of reading text
17. Make predictions about reading text
18. Identifying pronoun referents
19. Develop awareness of synonyms and antonyms
20. Answer factual, inferential, judgment or evaluation questions
21. Read familiar material with correct pronunciation and intonation
22. Make inferences about a reading text
23. Summarize reading text
24. Generate questions about reading text
25. Understanding figurative language
26. Making inferences about information that is not explicit to readers.

2.2. Reading comprehension difficulties for hearing Palestinian EFL learners

The problems for EFL learners in general have been identified in the literature as the focus of reading on “higher-level” areas such as syntactic processing and rhetorical structure, conceptual and cultural schemata, and learner attitude and motivation. Additionally, El Udaini (2017), Mourtaga (2008) and Aladini (2020) conclude that Arab EFL/ESL students, including Palestinian students, suffer from many reading problems as a result of teachers' misunderstanding of the reading process, students' lack of linguistic competence, differences between English and Arabic, and English spelling-pronunciation irregularities.

2.3. Reading Comprehension Difficulties for DHH Palestinian EFL learners

Abukhaled (2019) and Abubleama (2018) addressed the reading difficulties for DHH learners in Palestine, and they stated some examples of these difficulties as vocabulary, poor reading skills in Standard Arabic (Deaf students‘ native language) and Deaf students‘ lack of motivation. In addition, there are other reasons, such as poor teaching strategies and teacher training programs and unfamiliar reading topics. Especially for DHH.

In the same regard, EwaDomagała-Zyśk (2015) and Perfetti, Stafura, & Adlof (2013) state that DHHs often have problems using their native spoken/written languages. Thus, foreign language learning creates a new challenge for both Deaf students and their teachers. Additionally, it has been identified that there is a logical relation between word reading and reading comprehension skills. If the word reading level is poor, the reading comprehension level will definitely be poor. The reason behind that is the Deaf learners' employment of their cognitive abilities for word processing instead of the higher level reading comprehension skills that help reading for meaning. Additionally, Cain (2015) investigated a comparison of deaf and normally hearing readers’ profiles by using reading comprehension assessment. The findings of the study indicated that Deaf students’ reading comprehension skills were similar to those of poor comprehenders.

A study by Holmer (2016) investigated reading development in DHH children who attend these schools and who are learning to read. The primary aim of the present work was to investigate whether the reading skills of DHH signing children can be improved via computerized sign language-based literacy training aimed at strengthening the connections between sign language and written language. Similarly, in another study by Andrew, Hoshooley and Joanisse (2014), who investigated the robust correlation between American Sign Language (ASL) and English reading ability in 51 young deaf signers ages 7 to 19, signers were divided into ‘skilled’ and ‘less-skilled’ signer groups based on their performance on three measures of ASL. The findings provided evidence that increased ASL ability supports English sentence comprehension both at the levels of individual words and syntax.

2.4. Deaf and Hard of Hearing

DHH is defined by the WHO (2021) as people who are not able to hear as well as people with normal hearing. Hearing loss may be mild, moderate, severe, or profound. It can affect one ear or both ears and leads to difficulty in hearing conversational speech or loud sounds. 'Hard of hearing' refers to people with hearing loss ranging from mild to severe. People who are hard of hearing usually communicate through spoken language and can benefit from hearing aids, cochlear implants, and other assistive devices as well as captioning. 'Deaf' people mostly have profound hearing loss, which implies very little or no hearing. They often use sign language for communication.

'Deafened' usually refers to a person who becomes deaf as an adult and, therefore, faces different challenges than those of a person who became deaf at birth or as a child. In Palestine, many people are deafened due to wars and bombardments near crowded inhabited areas.

2.5. Impact of Deafness on Language Development

There is a disparity among the deaf community in developing language patterns. Some acquire and use these patterns accurately. On the other hand, some DHHs lack accuracy in the structure of sentences and the use of words. This disparity is caused by different factors that are related to the child, the family, and the school. The factors were explained by Hall et al (2019), Tashjian (2018), Humphries (2012) and Bahrawi (2012) as follows:

1- The age at which hearing loss occurred (before language learning/after language learning).

2- The loss of hearing before acquiring the language leads to the child’s inability to develop his/her language.

3- The degree of hearing loss (mild/moderate/severe/profound).

4- As the degree of hearing loss increases, the child’s linguistic deficiency increases, and the child’s acquisition of language becomes more difficult.

5- The cause of hearing loss (hereditary/environmental). A child who has genetic deafness in acquiring language is faster than a child whose deafness is caused by an environment because environmental factors not only cause deafness but also extend to the presence of other disabilities that impede hearing.

6- The mental ability of the child affects the language development of the DHH.
7- Linguistic readiness or maturity and chronological age of the child.
8- The health and sensory status of the child.
9- Family factors as the economic and social conditions of the family.

2.6. Learning English Language in Palestine

Arabic is the native language for Palestinians. English is considered a foreign language for them, and it is taught as a compulsory school subject. English language is taught from grade 1 to grade 12 in all schools, UNRWA, public and private schools. Students have 3 to 5 classes within a week, with almost 40 minutes for each class. In the only secondary school for DHH students, three English language classes are given to students every week (Aladini and Jalambo 2021a; Aladini and Jalambo 2021b).

2.7. DHH among Disabilities in Palestine

There are 93 thousand persons with disabilities in Palestine. Approximately one-fifth of them are under the age of 18. In addition, approximately 75% of them live in urban areas of Palestine (see Table 1).

Table 1 Percentage Distribution of Persons with Disabilities (less than 18 years) by Region and Sex 2017.

Region and Sex	Percentage
Palestine	19.6
West Bank	17.3
Gaza strip	21.8
Sex	
Male	20.8
Female	18.1

Regarding the same concern, Figure 1 shows the distribution of disabilities based on type.

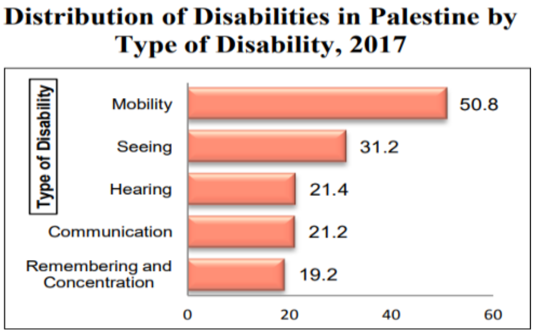

Figure 1 Distribution of disabilities in Palestine, by type (2017).

Figure 1 shows the distribution of the percentage of types of disabilities in Palestine. Regarding the same concern, Figure 2 reveals that more than one-third of persons (10 years and over) with disabilities are illiterate. Data indicated that illiteracy rates among persons aged 10 years and over with disabilities reached 32% in Palestine in 2017. The gap in illiteracy rates between the sexes is large, as the illiteracy rates among males reached 20% compared to 46% among females. The illiteracy rate in the West Bank was 35%, while in the Gaza Strip, it was 29% among persons with disabilities aged 10 years and over.

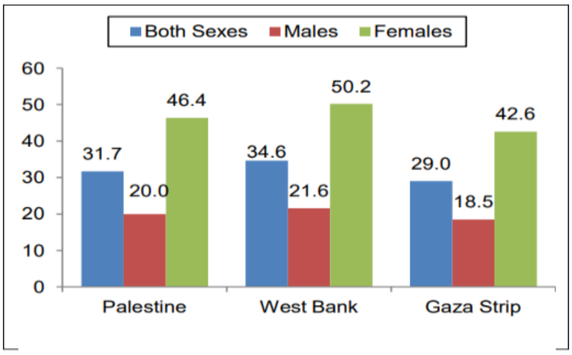

Figure 2 The Illiteracy Rates Among Persons with Disabilities (10 Years And Over) By Region And Sex 2017.

2.8. DHH in Palestine

According to the Palestinian Central Bureau of Statistics (PCBS). The percentage of hearing disability is 21,4%. The number of deaf people in Palestine is not identified accurately for cultural reasons. Some people hide the hearing disability of themselves or their children due to the social circumstances they may face. In the Gaza Strip, an increasing number of people are deafened because of the wars on Gaza. In the last war on Gaza in May 2021, heavy bombings occurred everywhere. However, people do not show their hearing disability due to social reasons. Khatib (2019) revealed that injuries, accidents or wars are causes of hearing disabilities.

The PCBS statistics in 2017 showed the following numbers of deaf people in Palestine in general and the Gaza Strip in particular, as shown in Table 2.

Table 2 Number of Deaf people in Palestine.

Governorate	Number of Deaf people
Palestine	19,811
Gaza Strip	9,821
North Gaza	2,210
Gaza city	2,988
Deir El balah	1,504
Khanyounis	1,976
Rafah	1,143

The Palestinian government strives to deliver quality education for people with disabilities. The lack of resources and the occupations obstacles hinder the efforts conducted by the government in this field. Meanwhile, there are 6 educational private institutes that educate the deaf children from grade 1 to grade 9, students who age 6 to 15. The institutes are shown in Table 3.

Table 3 Private Institutes for people of disabilities.

Institute	Area in the Gaza Strip	Grades	Number of children
Palestine Red Crescent Society	Khanyounis	1 to 9	211
Jabalia Rehabilitation association	Jabalia city	1 to 9	97
Falastin Alghad Rehabilitation Institute	Nusairat camp	1 to 9	32
Atfaluna Society for Deaf Children	Gaza city	1 to 9	267
Deir Elbalah Rehabilitation institute	Deir Elbalah city	1 to 9	168
Rafah society for Rehabilitation	Rafah	1 to 9	123

2.9. Sign Languages

Deaf people around the world use different sign languages. There is no unified sign language for the deaf in the world, and almost every country strives to unify their own sign language. Some countries, such as Arab countries, have created unified sign language. However, there is still some privacy for each nation to use their own signs, which are originally related to their culture. These sign languages have their own vocabulary and grammar, which are as follows.

2.9.1. Arabic Sign Language

The Arabic sign language alphabet is known in Arabic countries. One hand is used to show the letters. Mouthing is optional while signing, as shown in Figure 3.

2.9.2. American Sign Language

Different sign languages are used in different countries or regions; for example, British Sign Language is a different language from American Sign Language (Figure 4), and therefore, the deaf people who use British Sign Language do not understand its American counterpart and vice versa.

Abubleamah (2018) aimed to identify the difficulties facing elementary DHH students in learning English as a foreign language in Gaza schools of deafness. The results revealed that the percentage of difficulty among deaf students according to teachers' responses was 71.16%. The study also showed that the percentage of difficulty among deaf students as perceived by assistant teachers was 81.31%. Similarly, Zaien and Habbash (2020) evaluated a newly designed English language enrichment program with the help of ASL as the medium of instruction at the Community College of the University of Tabuk. The results revealed that the academic performance of the experimental group significantly improved compared to that of the control group. Additionally, Abu Shbika (2019) aimed to investigate the effectiveness of the educational environment based on learning approaches in developing English listening skills. The results showed that the educational environment based on the learning approaches achieved an effective degree in the listening skills test greater than 1.2 according to the black ratio coefficient.

Figure 3 Arabic Sign Language. Recognition System (2021) Available inline: www.Arabicsignlanguage.com

Figure 3 American Sign Language Alphabet. Gerard Aflague Collection (2021).

Objectives

1- constructing an ASL program to develop DHH students' English reading comprehension skills,
2- identifying the reading comprehension skills of deaf students,
3- revealing the effectiveness of an ASL program on developing deaf students' English reading comprehension, and
4- Determining the advantages and disadvantages of the ASL program.

3. Materials and Methods

This study aimed to investigate the effectiveness of the ASL program in developing Palestinian DHH students' English reading comprehension skills. The researcher used a quasiexperimental approach. One experimental group was assigned as the sample of the study. The researcher selected a purposeful sample that represented one group whose students attended the (20) training hours of the ASL program and performed pre- and postreading comprehension tests.

The study participants were all deaf students in Mustafa Al-Rafi school who were enrolled in the first semester of the school year from 2021-2022. They were 90 students enrolled in three grades, 10^{th}, 11^{th} and 12^{th}. The sample of the study is students who are interested in learning ASL to develop their reading comprehension skills. The ASL training program was announced in the school. Then, the students who wanted to get the training were asked to fill out a registration form and hand it to their English teacher. The 30 female students who agreed to participate in the current study represent 33.3% of the study community. Two of them were hard of hearing (HH), and 28 were deaf.

3.1. Instrumentation

The instruments of the study were a reading comprehension skills test and a semistructured interview. The test included 4 questions based on reading comprehension skills that were identified by the teachers in the focus group.

To achieve the validity of the reading test of the study, the researcher prepared the test based on the most important reading comprehension skills. She distributed the first version of the reading test to a panel of referees, including university professors, supervisors and experts in deaf studies from Palestine and Europe. The test was modified according to their valuable comments and remarks.

The researcher conducted a pilot study on a sample of 20 students from the same school. She measured the Pearson correlation coefficient between the test questions and the total degree of the test. The results of this correlation are stated in Table 4 below.

Table 4 The Pearson correlation coefficient between the test questions and the total degree of the test.

No	Questions	Pearson cor. Coeff.	Sig
1	Q1	0.557 **	0.001
2	Q2	0.906 **	0.000
3	Q3	0.887 **	0.000
4	Q4	0.410 *	0.024

** The correlation coefficient is significant at 0.01
* The correlation coefficient is significant at 0.05

Table 4 shows that all the questions of the test are correlated and significant with the total degree of the test. The correlation coefficients were 0.906-0.410(. In light of the results, it is confirmed that the test questions and the degree are internally consistent.

3.2. Reliability of the Reading Comprehension Skills Test

Hariri (2012) confirms that the test is reliable if it gives the same results in the case of its retest in the same conditions.

3.2.1. Split-Half

This method depends on splitting the test into two parts and then determining the correlation coefficient between the two halves using the Pearson method. After that, the correlation coefficient is corrected using the Pearson-Brown coefficient in the case of part variation. The Guttman method does not need the partial variation test equality. The test reliability was measured using the split-half method by measuring the correlation coefficient averages in the first and second parts of the test, as shown in Table 5:

Table 5 Guttman methods between the test two halves.

No.	Value	Item
1	3.034	Test part one variation
2	2.79	Test part two variation
3	0.758	Correlation coefficient between the two parts
4	0.862	Guttman Split-Half

Table 5 shows that the correlation coefficient between the two parts of the test was (0.758) and the reliability using Guttman Split-Half equals (0.862), and this value indicates that the test is highly reliable.

3.2.2. Cronbach's Alpha

The items of the test were measured by Cronbach's alpha, and the result was 0.741. This value assures that the test is reliable.

3.3. Semistructured Interview

The second tool of the study is the semistructured interview, which was used to investigate the advantages and drawbacks of the program from the students' perspectives.

3.4. Framework of the ASL Program

The researcher defines the ASL program as a program that has acquaintances and skills based on American Sign Language, a complete natural language that is expressed by movements of hands and face and has the same linguistic properties as spoken languages, with grammar that differs from English. This program includes performance skills, content, training strategies and assessment tools.

The ASL program was designed in light of the need to understand English reading texts and interact effectively using an international language that enables deaf students to communicate with other deaf people around the world.

English language is a very important aspect for developing countries on various sides. It is a means of communication between people worldwide. Palestinian sign language is considered the communication medium among deaf students. Deaf students use the Palestinian Sign Language to learn English, which contradicts the taught English Language, which should be taught using an English Sign Language. Thus, this study can help students understand English and use it in meaningful contexts to be able to interact with deaf people abroad.

3.5. The ASL Program Bases

- Setting a clear plan for each class of the course.
- Stating the aims of the course to students
- Building upon students' previous knowledge of PSL to the new ASL to help them relate relative techniques and materials in the trainers' teaching practices.
- Facilitating and demonstrating the activities and topics of ASL help students understand and respond well.
- Various teaching aids should be designed to motivate students to participate in teaching activities.
- Administering teaching activities using group work and pair work techniques.
- Three types of evaluation are used: formative assessment, summative assessment and alternative assessment tools.
- Providing students with various activities that help achieve the general aims of the course is a kind of supplementary material that helps enhance students' autonomy.

3.6. The Outcomes of the Program

At the end of the training course, students are expected to be able to

1. identify the ASL alphabet,
2. recognize their names using the ASL alphabet,
3. greet each other using ASL,
4. identify the world countries using ASL,
5. identify numbers from 1 to 100, 1000, 1000000,
6. identify family members; father, mother sister, brother, son, daughter, grandfather, grandmother,
7. make predictions about a reading text related to family members,
8. identify the days of the week,
9. skim various types of English reading texts,
10. scan various types of English reading texts,
11. identify the months and the seasons of the year,
12. identify different jobs,
13. identify English pronouns correctly,
14. identify transport items and colors,
15. talk about transport items and their colors,
16. identify different animals, and
17. develop awareness of synonyms and antonyms.

3.7. Content of the ASL Program

The researcher reviewed the literature for suitable ASL training topics for the deaf that help them empower their reading competencies. Then, she presented the topics to a panel of referees to assure their validity. The ASL program contains the ASL alphabets; numbers; colors; family members; transportation; countries; greetings; jobs; future wishes; animals in Palestine; weather, seasons, months, days of the week and daily routines. The training classes were (10). Each class lasted for 2 hours. The training program was conducted within 4 weeks during the first semester of the 2020-2021 scholastic year.

3.8. Validity of the ASL program

The ASL program was submitted to a focus group consisting of Palestinian teachers of deaf students. See Appendix (8), which presents detailed information about those teachers. The teachers approved the construction and logical sequence of the activities and topics that were motivating for the deaf students. However, they added some remarks regarding the construction of some topics of the program, and the program was modified accordingly. Appendix (5) presents the final version of the suggested ASL program.

4. Results

4.1. The first question: What is the framework of a program based on ASL to improve DHH students' reading comprehension skills?

The framework of the ASL program contains topics and reading comprehension texts that improve students' English reading comprehension skills. The program consists of activities and topics of ASL that help students understand the taught items and respond effectively. In addition, it contains teaching activities using group work and pair work techniques and various teaching aids to motivate students to participate in the teaching activities. Furthermore, the framework of the ASL of the program consists of various types of evaluation as formative assessment, summative assessment and alternative assessment tools.

4.2. The second question: What are the reading comprehension skills that DHH students should possess?

To answer this question, the researcher reviewed the literature to determine the reading skills that are suitable for deaf students. The literature review and the focus group that the researcher carried out helped her to pinpoint the following DHH students' reading skills:

- Making predictions about a reading text.
- Scanning a text for detailed information.
- Develop awareness of synonyms and antonyms.
- Identifying pronoun referents.

4.3. The third question: Are there statistically significant differences at (α ≤ 0.05) in the mean scores of Palestinian DHH students in the pre- and postreading comprehension test?

To answer this question, the researcher verified its hypothesis, which states that there are no statistically significant differences at (α ≤ 0.05) in the mean scores of Palestinian DHH students in the pre- and postreading comprehension test. The first step of verifying this hypothesis is to measure the normality of the data distribution using the Shapiro–Wilk test. The results of this test are stated in Table 6 below.

Table 6 Measuring normal distribution.

Item	Pre application	Post application
Sample number	30	30
Means Average	6.93	13.97
Standard Deviation	2.227	3.200
Shapiro–Wilk	0.980	0.967
Sig. (2-tailed)	0.823	0.471

The results show that the test is significant in the pre- and postapplication of the test. The sig. values (0.471 – 0823) are higher than 0.05, which ensures the normal distribution of the data. Thus, the researcher used the T Test for paired samples to verify the null hypothesis. The test results are stated in Table 7.

Table 7 Results of the Paired Sample T test.

Tool	Test	Sample number	SD	Mean	Value T	Sig value	Statistically significant
Test	pre	30	2.227	6.93	22.776	0.000	0.01
	post	30	3.200	13.97			

Table 7 shows that the standard deviation of the posttest was (3.200), which is higher than the pretest, which was (2.227). Additionally, the T value equals 22.776, and the Sig equals 0.000, so we reject the null hypothesis, which states that there are no statistically significant differences at (α ≤ 0.05) in the mean scores of Palestinian DHH students in the pre- and postreading comprehension tests. Therefore, the results show that there are differences in the total average score of the pre- and posttest in favor of the posttest. Apparently, the mean score of the posttest was 13.97 out of 20, which indicates much progress in the achievement of the students during the intervention.

The researcher analyzed the test questions, and the results were as follows in the Table 8:

Table 8 The Questions of the Test.

Questions	Test	Mean	SD	T	sig	Statistical significant	η^2
Q1	Post	2.53	0.583	11.789	0.000	0.01	0.827
	Pre	1.07	0.571				
Q2	Post	4.47	1.408	8.515	0.000	0.01	0.714
	Pre	2.47	1.456				
Q3	Post	4.60	1.269	8.789	0.000	0.01	0.733
	Pre	2.33	1.429				
Q4	Post	2.37	0.828	8.963	0.000	0.01	0.734
	Pre	1.07	0.718				

The results in Table 8 show the degree score of each skill in the reading comprehension test. The mean score showed a higher degree of postapplication of the test than preapplication of the test. The mean score of the first question, which investigates (making predictions about a reading text), was 2.53 out of 3, and the T value was 11.79. Additionally, the second question, which examines scanning a text for detailed information, was 4.47 out of 7, and the T value was 8.515. Additionally, the degree of the third question (Develop awareness of synonyms and antonyms) was 4.60, and the T value was 8.789. Finally, the fourth question, which investigated identifying pronoun referents, was 2.37 out of 3, and the T value was 8.963.

The size effect was calculated from the collected data by the researcher using the size effect rule of the T test for paired samples as clarified by Afana (2016):

Table 9 shows that the size effect is η^2 = 0.947, which indicates a large size effect based on the effect size levels clarified by Afana (2016) in Table 9.

$$\eta^2 = \frac{t^2}{t^2 + df}$$

Table 9 Size Effect table.

Scale	Large	Medium	Low
η^2	0.14	0.06	0.01

4.4. The answer to the third question: What are the advantages and drawbacks of the ASL program from the participants' perspectives?

To answer this question, the researcher conducted a semistructured interview with the participants of the study. The 30 students who participated in the study were interviewed separately, one at a time, and the idea that gains more than 50% was accepted. Table 10 includes the advantages of the ASL program, and Table 11 includes the drawbacks of the program.

Table 10 Advantages of the ASL Program.

No.	Advantages	Frequency	Percentage
1	The program is so motivating.	27	91%
2	The program includes useful teaching activities.	25	83%
3	The AVMs used by the trainer, facilitate the various tasks	24	80%
4	The trainer's teaching techniques were varied.	22	73%
5	The program enables me to communicate with DHH foreigners.	20	66.6%

Table 10 reveals that 27 students showed their motivation during the ASL program. In addition, 83% of them confirmed that the program included useful teaching activities. Moreover, 80% assured that the AVMs used in conducting the teaching activities of the ASL program facilitated the conducted tasks. Pertaining the trainer's teaching techniques, 73% of the participants ascertained that they were varied. Finally, 66.6% of the participants showed that the program enabled them to communicate with DHH foreigners. The qualitative analysis of the participants' answers also indicates that the program successfully enhanced the participants' reading skills, as nineteen students mentioned "I like reading" and "I want to read more reading texts". This proves that students were motivated to use the ASL. This may be attributed to their interest in studying a new language and contacting new people around the world. Additionally, it may be attributed to their awareness of the importance of the English language. In the same regard, eighteen students responded to their motivation to communicate with DHH foreigners using ASL. This ascertains their awareness of the importance of the ASL to reach the outside world. These results are similar to some empirical studies, such as Ikasari et al (2019) and Salehomoum (2018), which confirmed that DHH students respond effectively to reading activities and tasks by showing their motivation.

Table 11 The Drawbacks of the ASL Program.

No.	***Drawbacks***	***Frequency***	***Percentage***
1	Limited number of lectures.	28	93,3%
2	Heavy loads of information and materials.	26	86,6%
3	Power shortage that hinders contacting DHH foreigners.	21	70%

Some drawbacks were listed by the participants, such as the limited number of lectures, heavy loads of information and materials and power shortages that hinder their contact with other DHHs abroad. In this regard, 26 students responded ''I need more'', which confirms that the students are in bad need of this sign language that assists them in being open to the outside world. DHH students have the right to communicate with other DHH people abroad.

5. Discussion

This study aimed to investigate the effectiveness of the ASL program in developing Palestinian DHH students' English reading comprehension skills. The findings revealed that the ASL program was effective in enhancing the reading skills of Palestinian DHH students. This result is in agreement with Alawad and Musyoka (2018), Aladini (2020), Hrastinski and Wilbur (2016), and Holmer (2016), who stated that ASL improves DHH reading skills. The positive effectiveness of the ASL program in enhancing the reading comprehension of the participants of the study can be attributed to the variety of the topics presented in the training sessions. In addition, the plan of the program includes all information that enables the students to be competent in using the ASL.

The ASL program showed improvement in the students' reading comprehension skills. This may also be attributed to the varied teaching techniques used by the teacher of the ASL program. Those techniques fulfill students' needs and preferences, as 91.3% of the participants of the study mentioned that they were motivated to participate in the various teaching activities of the ASL program. In addition, the effectiveness of the ASL training program in enhancing the reading comprehension skills of the participants of the study could be attributed to the urgent needs of DHH students to learn in international language, which enables them to communicate with foreigners. Hence, the participants of the study showed their interest in studying American Sign Language.

Habbash and Zaien (2020), Musyarofa (2015), Alawad and Musyoka (2018), Hrastinski and Wilbur (2016), Holmer (2016) and DeLana (2004) investigated the impact of ASL on improving reading comprehension achievement and literacy in DHH. They concluded that ASL positively impacts DHH students' reading comprehension performance. The majority of students progressed at a steady rate.

6. Conclusions

The effective teaching of the English language to Palestinian DHH students necessitates careful planning and necessary adjustments. This includes the implementation of an ASL program, which has proven to be highly effective in improving the reading comprehension skills of Palestinian DHH students. It is crucial to address the current situation in which teachers at Palestinian deaf schools lack proficiency in ASL and instead rely on Arabic Sign Language for teaching English. By providing proper training and resources, educators can enhance their ability to utilize ASL effectively in the English language instruction of DHH students, thereby facilitating their language development and overall academic success.

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Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Evaluating the MA translation programme at IUG in light of the EMT competences

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Abstract The problem of this study is a response to a perceived gap between what is taught in the master programmes of translation at the Islamic Univeristy of Gaza IUG and what is needed in the translation job market. The study aimed at determining the EMT standards to be embedded in the MA Translation programmes first, then evaluating the academic courses taught as a part of the MA translation programme at IUG in light of the European Master's in Translation Framework (EMT) translation standards. For data collection, the researchers used a content analysis checklist to evaluate the MA translation programme in light of the EMT translation standards. The results of the study revealed an insufficient level of the availability of the EMT translation standards in the MA translation programme at IUG, as it does not exceed (41.17%) as a general evaluation of the entire programme. Therefore, the researchers hold that the MA translation students at IUG are not completely ready to compete in the job market.

Keywords: evaluation, MA Translation Programme, EMT competences

1. Introduction

The global challenges and modernization promote the need to develop the academic programmes and curriculums of the educational institutions to prepare university graduates to compete successfully and professionally in a rapidly changing job market. The last few decades witnessed a considerable increase in the number of translation programmes in the national and international universities due to the numerous job vacancies qualified translators can attain in the freelance job market. This year, according to the American Translators Association (ATA) (2019), around 545 translation programmes all over the world are published in the official List of Approved Translation and Interpreting Schools. However, hundreds of other unlisted programmes do exist even though they are not members of ATA yet. A point in case is the Master's degree of translation at the Islamic University of Gaza (IUG) as well as other translation programmes in the neighbouring countries. The growth of the profession of translation urged IUG to launch its MA translation programme in the year 2015. This programme was accredited in the academic year 2015- 2016 to meet the growing demands for translators in the Palestinian society. This programme is the first of its kind in the Gaza Strip, which seeks to develop the abilities of students academically and professionally by developing their knowledge and skills in the fields of translation (the IUG official website 2020).

Defining the needed skills and competencies of the good translator is essential in designing the translation curricula and programme in academia. The notion of translation competence has increasingly gained acceptance to be the most extensively discussed concept (Ressurrecció et al 2008). Although translation competence is a multipart notion, that encompasses various aspects, the translation competences are deliberately identified and explained in the European MA's in Translation (EMT) framework (Ressurrecció et al 2008). Meeting the demands and expectations of the job market expects and requires from the translator in the 21st century is the main responsibility of the decision-makers through designing their translation programmes and developing the curriculum in the academic institutions (Elshafei 2014). Therefore, this study mainly aims at evaluating the MA translation programme in light of European MA's Translation (EMT) standards at IUG.

1.1. The Statement of the Problem

The students of translation programmes have to master certain skills to better perform the tasks of translation, so that they can be hired (Elshafei 2014). Based on the preliminary interview with some translation professors and experts in the department of English at the Faculty of Arts at IUG, the researchers have reported the lack of well-designed courses in the MA translation programme. The respondents of the preliminary interview disclosed that the MA translation programme does not sufficiently meet their expectations. The head of the English department at IUG also affirmed that the MA translation has not been evaluated since it was launched in 2016. He also agreed that the IUG translation graduates lack many competencies on the theoretical and practical levels. Therefore, the problem of lacking empirical evidence and a clear vision to prioritize what

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should be taught in the MA translation programme was documented and emphasized by some professors and experts in the field of translation. On the other hand, no studies have investigated the EMT framework as a guide to design MA translation programmes within the Palestinian context. Considering that the EMT Competence Framework is the most comprehensive and is an improvement to the pioneer previous models of translation, according to Reza Esfandiari et al (2017), the researchers officially contacted the EMT commission via email to check on the significance and the usefulness of conducting this study. The EMT commission welcomed and appreciated such a project in the Arab world since they stated that it would be a great effort to evaluate MA translation programmes based on a checklist structured in light of the EMT competences.

1.2. Significance of the Study

The importance of the current investigation is summarized by the following points:

- This study adds up to the translation literature in terms of adopting the EMT in designing MA programmes within the Arab context and more specifically in Palestine.
- There is a need for a real empirical evaluation of the MA translation programme, especially that it has never been evaluated from any other perspective rather than the IUG instructors.
- Therefore, the results of this study may guide the universities and training centers by providing them with the required translation competences and skills that shape the professional future of their candidates, while designing their courses and programmes of translation, especially that Abu-ghararah (2017) stated that teaching translation is deviated due to the deficiency of a clear set of educational principles in the era of technological growth.
- The results of this study may encourage non-membered universities to join the EMT network by upgrading the quality of their MA translation programmes. In other words, this study produces an academic and scientific proof for IUG decision-makers and other non-membered universities to join the EMT network.

1.3. The Study Objectives

The current study is essentially conducted to achieve the following two objectives:

1. Defining the EMT standards to be embedded in MA Translation programmes.
2. Evaluating the courses of the MA translation programme at IUG in light of the EMT standards of translation competence.

1.4. The Study Questions

The problem of the study is represented in the following questions to be answered:

1) What are the EMT standards that should be embedded in the MA translation programmes?
2) To what extent are the EMT standards of the Translation Competence are included within the MA Translation programme at IUG?

1.5. Limitations of the Study

The limitations of the current study are mainly represented in the samples of the MA translation courses that have been evaluated, the selected EMT standards that were adopted in the content analysis checklist.

- The sample of the MA translation courses was limited to 10 specialized translation courses approved by the Faculty of Arts at IUG (the accredited plan No. 2) and taught for the MA students enrolled in the track of translation during the academic year 2019-2020.
- This study only investigates the availability of the EMT translation standards listed under the Translation domain in the EMT framework 2017.

1.6. Definitions of the Study Terms

The researchers define the terms and keywords used in this study as follows:

- Evaluation of the programme: It means examining the translation courses of the MA programme in light of the EMT translation standards to know the extent of the availability of those standards in each course.
- The MA Translation Programme at IUG**:** It is a master programme launched in 2015 as a track of a dual programme (i.e. Translation and Linguistics). In this study, the researchers used the term MA translation programme to refer to all the translation courses taught for the translation MA students at IUG during their two years of studying in the study plan of the academic year 2019-2020.
- European Master's in Translation Framework (EMT): It refers to the competences and standards included and listed in the EMT framework 2017 that have been formulated to improve and upgrade the employability of MA translation graduates all over Europe. However, the researchers used the term EMT translation Standards to refer

only to the competences and standards of the domain of translation in the EMT framework 2017, which includes (14) main standards and were later broken down by the researchers into (23) indicators.

2. Literature Review and Theoretical Framework

In the past few decades, most of the researchers and experts in the field of translation approved that TC requires different sub-competences despite their different emphasis on some competences rather than others. Accordingly, various endeavors were dedicated to developing a comprehensive TC model to train competent translators. Those models were laid out to be followed in translation teaching and training aimed at increasing the quality of the would-be translators. Despite the several models of TC, it is worth to mention that the manifestation of TC models, as specified by Zou and Lv (2015), went through four main stages:

A. In the early stage—the 1970s, the researchers did not separate TC from bilingualism, so that they argued that TC is an inborn competent. Therefore, TC in that stage was restricted to the linguistic competence of the translator, because it assumed to be the essential component of the TC.
B. In the second stage in the 1980s, researchers started to realize other skills in addition to linguistic competence such as disciplinary, instrumental, and social competence.
C. The third stage in the 1990s is the inspiring stage since it followed the functional theory of translation. In that stage, awareness becomes wider by acknowledging the competence of context, communication, function, as well as the energetic characteristics of translation.
D. The fourth stage of developing the TC models has been improved in the 1990s by including the instrumental, professional, and evaluation and monitoring competence, besides recognizing the interaction among such components and sub competences.

Upon what has been reviewed so far in the literature of the TC, the researchers finds out that despite the so many endeavours, in the early 1990s, to map the process and criteria of acquiring the TC, it is still a controversial issue to identify in which specific stage the translator can be competent. In other words, TC was handled and investigated differently depending on the goal of each suggested translation model. However, the researchers appreciated all the efforts exerted by the different scholars in the field of translation to study the diverse components of TC. Among the pioneers of the investigators in this area are; Bell (1991), Kiraly (1995), Hurtado Albir (1996), Cao (1996), Pym (1992), Campbell (1998), Schaeffner (2000), PACTE (2000 2003 2011), EMT (2009, 2017).

2.1. The EMT Competences Framework

The EMT framework defines five main areas of competence. Within each of these areas, several skills are deemed to be essential or important within the context of a Master's degree in translation. Although each of them can be viewed separately, and the relevant skills can be applied to different professions beyond the translation industry, the five areas defined below should be considered as complementary and equally important in providing the translation service, which is the ultimate goal of the translation process. The framework does not attempt to define different levels for each of the areas of competence. It is assumed that Master's degree programmes within the EMT network expect students to achieve the advanced level of competence required of future language industry professionals. (European Commission 2017)

2.2. Domains and Standards of EMT

The EMT framework deeply considers that MA students of translation education not only should be aware of the profound processes of translation and interpretation but with the skills to accomplish and deliver translation service following the high standards of professionalism and ethics. Hence, EMT framework of translation competences outlines five key domains i.e (Language and Culture, Translation, Technology, Personal and Interpersonal, and Services Provision). Concerning each of the five domains, there is a list of standards to guide and guarantee the quality of the learning outcome of the MA in translation for the membered universities in the EMT network (European Commission 2017).

Reviews the related studies that tackled the EMT framework, such as Bilovesky and Las (2018), Reza Esfandiari et al (2017), Ilynska et al (2017), Eszenyi (2016), and Chodkiewicz (2012), the researchers observed that such studies are inadequate both in its number and in its depth. In other words, despite the very few studies that tackled the EMT as a comprehensive framework, they did not adopt the EMT framework for evaluating MA translation programmes. Accordingly, the researchers state that the few studies found in the field of the EMT standards only investigated the match of the EMT skills to the expectations of students and/or instructors' perceptions in the translation departments. Moreover, the available reviewed studies employed the Likert-questionnaires to collect data rather than structuring a content analysis checklist to, subjectively, evaluate the availability of EMT skills and competences. Additionally, the previous studies tried to localize the EMT framework to go in line with their traditional theories and results of translation studies rather than upgrading the quality of their local translation teaching-learning to meet the EMT competences as international standards. Therefore, the current study is adding up to the literature of the EMT framework as a map to design MA programmes.

3. Methods and materials

The researchers adopted the descriptive-analytical approach to evaluate the MA programme at IUG in light of the EMT translation standards. The sample of the translation courses that were evaluated and analyzed, based on the availability of EMT standards, was ten translation courses that stand for all the specialized and general translation courses of the programme, the obligatory and optional courses of the translation track for the year 2019-2020.

3.1. The Content Analysis Checklist

The extensive increase in the number of available translation textbooks and references should have a careful evaluation and selection to pick or even supplement suitable ones while teaching high-quality translation courses. In this regard, Şahin (2020) stated that a checklist approach is perhaps the most widely effective method of making the choice, among the so many options of translation textbook, because it is an easier and more efficient method. To sum up, a checklist based on the EMT translation standards was constructed to evaluate the MA translation programme at IUG, since the translation profession is international and global. Therefore, the researchers believe that IUG textbooks of translation should be evaluated and designed through a global perspective rather than a local one i.e. the EMT competences.

3.2. Constructing the Checklist

The Content Analysis Checklist, used to evaluate the MA translation courses, was formulated by the researchers in light of the 14 EMT standards listed under the domain of translation. To keep on the EMT standards as a published document of international translation standards, the researchers have adopted the same standards but in a form of checklist to test the availability of those standards in each course of the MA programme. To come out with measurable indicators for the content analysis checklists, the fourteen EMT translation standards were broken down into twenty-three measurable indicators. It is worth mentioning that the the checklist was sent to a panel of specialists and experts in translation to be validated. Moreover, the researchers have officially contacted the EMT commission via email asking them for permission to use their published standards on one hand and to check the significance of conducting this study on the other hand.

3.3. Determiners of the Analysis Checklist

This content analysis checklist was designed based on the following determiners:

a. **The objective of the checklist:** The purpose of analyzing the content of the MA translation programme is to disclose quantitative data that reveal the availability of the EMT standards of translation in the programme.
b. **Sample of Analysis:** As mentioned earlier in this chapter (the sample section), this checklist was used to evaluate all the translation courses listed in the study plan of the MA programme. They were ten courses taught for the MA students during their first and second year of study at IUG in the academic year 2019-2020.
c. **Unit of Analysis**: Considering that the corpus of analysis is the detailed course descriptions of the tackled courses, the content analysis process was limited only to find the translation skills included in the course description. In this regard, the theme was assigned as the unit of analysis to register either the absence or availability of the EMT translation standards. The documents of the course descriptions were officially accessed through the head of the English Department at IUG in the Faculty of Arts, as he approved conducting this study earlier. (See appendix 1)
d. **Registration of the unit of analysis:** The researchers relied on the availability of any of the EMT translation skills listed in the content analysis checklist to appear once at least to be registered as "Yes available". Therefore, evaluating the content of the MA translation courses was conducted based on the appearance and absence of the EMT translation standards within each course. It is worth mentioning that the repetition of the same skill was not considered of much significance in drawing the results of the analysis because the researchers are concerned, in this stage, with the existence or absence of the EMT translation standards rather than its frequency.

3.4. The Validity and Reliability of the Content Analysis Checklist

The researchers adopted the external validity to ensure the validity of the tool, since the best way to ensure the validity of a tool is when specialists and referees determine the validity of the criteria to be measured (EBEL,1992). The content analysis checklist was sent to a panel of professors and experts in the field of translation and specialists in curriculum and methodology and translation to examine the relevance of the checklist used in this study. The researchers used the Percent Agreement formula to find out the reliability coefficient for the researchers himself over time and between him and the other two external analysts. The first external analysts is MA holder in Applied Linguistics from the UK and he is a sworn legal translator, as he has been working in the field of translation for more than 10 years. The second is an MA holder in Methodology and Curricula from IUG and he has been working in the field of translation for more than 20 years. The formula used is shown below, as Percent

Agreement (PA) simply means the percentage of items on which two coders agree to the total number of the items evaluated, where it is calculated using the following formula:

$$PA = \frac{NA}{NA + ND} \times 100$$

In this formula, (N_A) refers to the number of agreements between the two coders or analysts, while (N_D) means the number of disagreements between them. Following the given (PA) formula, the reliability coefficients for the researchers himself as well as the other two analysts are shown in the following table 1:

Table 1 The Reliability Coefficient of the Checklist.

Analysts	All the skills	Agreed skills	Disagreed skills	Percentages
with the researchers himself	23	22	1	96%
with the researchers and the 1st Analyst	23	21	2	91%
with the researchers and the 2nd Analyst	23	20	3	87%
Between the 1st and the 2nd Analyst	23	20	3	87%
The Total Reliability coefficient				90%

Table 1 displays the reliability coefficient of the content analysis checklist used in this study, for the researchers himself and between the researchers and the other two external analysts. Over the four weeks, the reliability coefficient for the researchers himself was (96.0%). The same table shows that the reliability coefficient between the researchers and the first external analyst was (91.0%), while between the researchers and the second analyst was (87.0%). Additionally, the sane table presents the reliability coefficient between the first external analyst and the second external analyst that was (87.0%), so the total reliability coefficient for the content analysis checklist is (90.0%). In light of the results of the reliability coefficient shown in table (3), the content analysis checklist used in the present study is fit and suitable, as Lombard (2005) stated that (75.0) and more the reliability coefficient is high, while (50.0-75.0) is acceptable, and if it is less than that, it is rejected.

4. Results

4.1. Answering the first Question of the Study

To answer the first question of the study "What are the EMT standards that should be embedded in the IUG MA translation programme?" the researchers revised the related literature to the EMT framework 2017, and referred to the official website of the EMT Commission. The researchers figured out that the EMT framework 2017 contains five main domains namely; Language and Culture, Translation, Technology, Personal and Interpersonal, and Services Provision. Under each domain, translators should acquire various skills during the study journey of the MA degree in the field of translation (See appendix 8). Although the five domains of the EMT standards look as if they can be viewed separately. All the skills listed under those various categories should be taken as integrated and similarly significant skills in teaching-learning translation.

Aiming at identifying the top and most important competences among the EMT framework competences to be included and embedded in the IUG MA translation programme, the researchers consulted a panel of specialized translators and translation teachers. Therefore, the researchers presented the title and the goal of the study to the panel of experts (See appendix 10), then introduced the EMT framework competences distributed over the five domains, to validate adapting those standards to be implemented within the MA translation at IUG. The researchers found out a consensus on keeping on all the listed skills in the EMT framework, because all the consulted experts did not accept the idea of prioritizing the most important translation skills to be embedded in the MA of translations due to the significance of all the EMT skills in preparing MA translation graduates. The panelists stated that the MA translation programmes are assumed to graduate well-trained translators who are familiar with more than transferring meanings from the source language (SL) to the target language (TL).

Moreover, the panel asserted that the graduates of the MA translation at IUG should be up to the international standards such as the EMT framework, because any successful translator should be able to translate anywhere outside Palestine, particularly that translation work knows no geographical borders in the time of virtual and online world besides the global platforms of freelance translators. Accordingly, it is concluded that translation is an international profession that requires all the skills and competences listed under the five domains of the EMT framework (i.e. Language and Culture, Translation, Technology, Personal and Interpersonal, and Services Provision). In brief, all the EMT standards and skills were checked by the group of experts in the field of translation to be embedded in the MA of translation programmes.

4.2. Answering the Second Question of the Study

To answer the second question of the study that stated, "To what extent are the EMT standards included within the MA Translation programme at IUG?" the content analysis checklist was used to evaluate the courses of the MA translation at IUG in light of the EMT standards. Then the percentages of the availability of EMT skills and competences in each course were calculated, followed by a total percentage for the availability of the EMT competences in the entire MA programme at IUG.

Appendix (1) presents the 23 competences of the EMT translation competences as well as the ten MA translation courses that are offered and taught for the MA students at IUG in the academic year 2019-2020. The same table indicates the scored checklist, as the available EMT translation competences were observed by ticking (Yes) and coded with (Y), while the unavailable ones were observed by ticking (No) and coded with (N). It is worth to remember that observing the EMT competence more than once in the MA course does not count in the current evaluation of the MA programme, because the existence of the translation skill is more important rather than its frequency. Accordingly, the following sub-sections, separately, present and discuss the evaluation of each MA course taught in the MA translation programme for the academic years 2019-2020 in light of the EMT standards.

4.3. Evaluating the Semantics and Sociology Course

Appendix 1 shows that the Semantics and Sociology course included (6) translation skills out of the (23) EMT competences. In other words, only (26%) of the EMT standards are embedded in the Semantics and Sociology course. The researchers assure that it is not enough for such a valuable course like Semantics and Sociology to focus on other topics rather than the skills that the course should be devoted to. So, the Semantics and Sociology course is one of the requirements of the MA translation program that should be redesigned to target more skills listed in the EMT framework whether within the translation domain or the other domains.

4.4. Evaluating the Theories of Translation Course

Appendix 1 shows that the Theories of Translation course includes only (4) competences out of the (23) EMT translation competences. That means only (17.3%) of the EMT standards are available in the Theories of Translation course. Even though this course is somehow theoretical, it should focus on other skills rather than presenting the theories. It is observed that the least portion of the EMT translation skills is scored in this particular course, compared to the other courses of the MA translation program. Accordingly, (17.3%) is not enough for such an obligatory course in the MA translation program to present the availability of the EMT standards.

4.5. Evaluating the Discourse Analysis Course

Appendix 1 shows that the percentage of EMT translation skills available in the Course of Discourse Analysis is (65.2%). This indicates that this course is at least scored (15) translation skills out of the (23) EMT skills. It is worth to mention that this is the top course, as well as the legal and business translation, in terms of the availability of EMT translation skills among the MA translation courses at IUG based on the results of the content analysis checklist. Though this indicates that this course covers the majority of the EMT translation skills, it lacks a few ones.

4.6. Evaluating the Comparative Linguistics Course

Appendix 1 shows that the EMT translation skills available in the Comparative Linguistics Course is (5) out of (23). This indicates that the course covers (21.7%) of the EMT translation skills. This indicates that this course is one of the bottom three courses on the scale of the availability of EMT translation skills in the MA translation program at IUG; even it is one of the requirements of the program.

4.7. Evaluating the Interpreting Course

Appendix 1 shows that the available EMT translation skills in the Interpreting Course are (11) out of (23). This indicates that the course is at least considering the (47%) of the optimal curriculum to meet the EMT framework competences. Though this course is closer to the top three courses compared to the other MA course in the MA translation program, the researchers find that evaluation of this course is not satisfying especially that it is one of the obligatory core courses in the MA program. Consequently, this course should be improved to contain more essential skills.

4.8. Evaluating the Legal and Business Translation Course

Appendix 1 shows that the number of EMT translation skills available in the Legal and Business Translation Course is (15) out of (23). This stands for (65.2%) of the course skills goes in line with the EMT framework. It is worth to highlight that this course is the top course, as well as the course of Discourse Analysis, in terms of the availability of EMT translation skills in the MA translation program. Nevertheless, it needs to be improved aiming at including more basic translation skills.

4.9. Evaluating the Media and Political Translation Course

Appendix 1 shows that the percentage of EMT competences available in the Media and Political Translation Course is (43.4%). This means that the course covers (10) out of (23) EMT translation skills. This indicates that the course of Media and Political Translation, as well as the course of *Stylistics in Translation*, is in the middle border of the top courses and the bottom ones in terms of their containing to the EMT translation skills. This course lacks some essential translation skills. Accordingly, this course should be improved to include the other EMT translation skills aiming at improving the quality of teaching translation at IUG.

4.10. Evaluating the Stylistics for Translation Course

Appendix 1 shows that the percentage of EMT competences available in the Stylistics for Translation Course is (43.4%). This means that the course covers (10) out of (23) EMT translation skills. This indicates that the course of Stylistics in Translation, as well as the course of Media and Political Translation, is in the middle border of the top courses and the bottom ones in terms of their containing to the EMT translation skills. In this regard, this course lacks several essential skills. Eventually, this course should be improved to reach a satisfactory level of the most important translation skills to increase the quality of teaching translation at IUG.

4.11. Evaluating the Literary Translation Course

Appendix 1 shows that the EMT translation skills available in the Literary Translation Course is (12) out of (23). This indicates that the course covers (52.1%) of the EMT translation skills. It is observed that this course is one of the top three courses, compared to the other MA translation courses, based on their containing the EMT skills. However, it should be developed to cover the other missed skills in the EMT framework. Despite that this course is taught as a separate module in the course of Literary and Academic Translation, this particular module should be enriched to upgrade the MA students' translation competence.

4.12. Evaluating the Intercultural Translation Course

Appendix 1 shows that the percentage of EMT competences available in the Intercultural Translation Course is (30.4%). This means that the course covers (7) out of (23) EMT translation skills, which indicates that it is closer to the bottom three courses on the scale of evaluating the MA translation courses in light of EMT translation skills. Even it is an optional course in the academic study plan of the MA program, it is recommended to be redesigned to contain all the needed translation skills.

10.13. Summary of answering the second question of the study

To summarize the extent to which the EMT standards of the TC are included in the MA Translation program at IUG**,** the following chart, shows the ordered percentages of the availability of EMT translation standards (Figure 1).

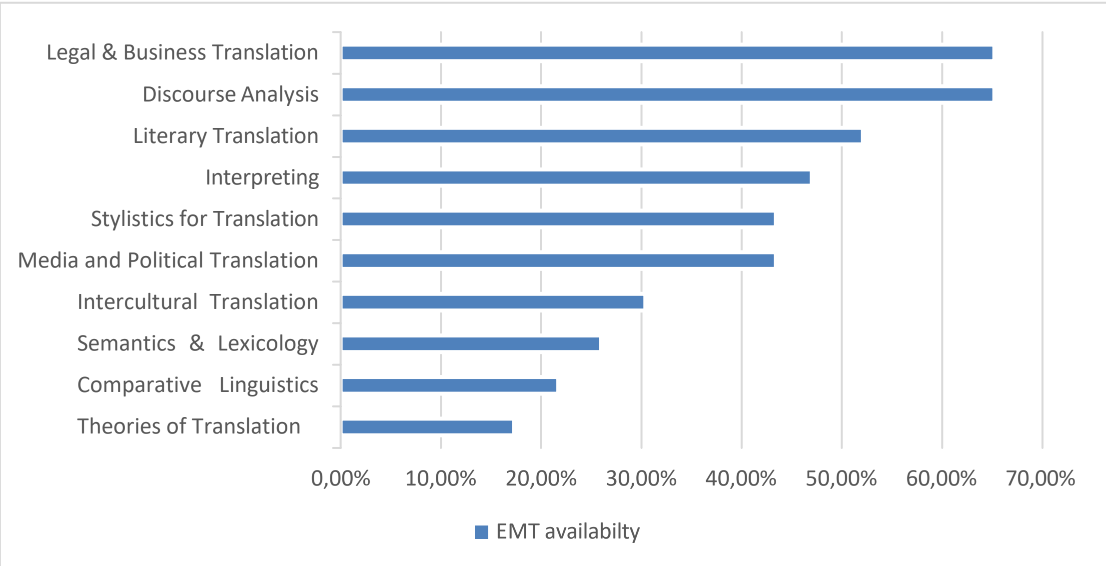

Figure 1 The EMT standards availabilty in the MA Program.

Chart 1 indicates that the maximum inclusion of the EMT translation standards and skills is (65.2%) which represented in two courses of translation i.e. the Business and Legal Translation as and the Discourse Analysis course, while the third top course in the same scale is the Literary Translation course. On the other hand, the minimum presence of the EMT translation standards and skills is (17.3%) in the Theories of Translation course, followed by the Comparative Linguistics course and Semantics and Lexicology which include (21.7%) and (26%) of the EMT translation skills, respectively. Accordingly, the availability of the EMT standards varies between (17.3%) and (65.2%) in the MA translation at IUG to hit the average of (41.17%) as a general evaluation of the whole program in light of EMT translation standards. Eventually, some courses should be enriched while others should be redesigned to contain more and more of the essential skills needed for IUG graduates to meet the professional requirements of their future jobs.

5. Conclusion and Recommendations

The current study investigated a very important issue in the world of translation, as it investigated the practicality and usefulness of the EMT framework as a guiding and comprehensive model of designing the MA translation programme at IUG. The main reason beyond the significance of this study is the lack of academic research that examines the effectiveness of incorporating the EMT competences framework on improving the MA students' translation competences. In light of the results of the current investigation, the researchers came out with some recommendations.

6. Recommendations of the Study

- Redesigning or enriching the MA translation programme in light of the EMT translation standards in the very short run.
- Implementing the EMT competences in the translation domain as well as the other domains to build on the desired learning outcomes.
- Urging the Quality and Accreditation Unit at IUG to take real actions to be ready, to enroll the MA translation programme in light of the EMT network and applying in the coming call.
- Familiarizing the translation instructors with the EMT framework competences as a benchmark in the field of translation.
- The Faculty of Arts at IUG is recommended to equip the English language labs with the needed hardware and software to train the MA students to use the CAT tools in accomplishing translation tasks.
- Ensuring the maximum impact of the MA translation programme through the ongoing evaluation of the offered courses to increase its quality to meet the job market needs and the translation employers' expectations.
- The IUG instructors are also recommended to help the MA students to evaluate and reflect on the progress they make over the entire programme as a whole as well as their improvement throughout the single translation course.
- The MA translation instructors are recommended to reconsider the methods of assessment they use to guide their students to recognize how translations are evaluated from the translation employers' perspective.
- The MA translation instructors are recommended to familiarize their students with the pros and deficiencies of the CAT tools and train them on how to post-edit the outputs of such tools.

Ethical considerations

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Conflict of Interest

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Implementation the theory of mind in Tajweed knowledge learning: analysis of Iqra's method

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Abstract The theory of mind (ToM) is a psychological theory that posits the existence of a distinct mental world separate from one's physical reality. This theory serves as a framework for comprehending the thoughts and behavioral motives of others. ToM can be cultivated and enhanced through various activities, including play, acting, and language. One such activity is the recitation of the Quran with tajweed, which entails adhering to specific rules that must be understood during the recitation process. Quranic recitation with tajweed has been recognized as a means of facilitating the development of ToM. Previous studies have highlighted the occurrence of errors in tajweed rules, which indirectly involve the application of ToM, despite individuals having recited and learned the Quran since childhood. Consequently, this study aims to identify the presence of ToM elements in the acquisition of tajweed knowledge using the Iqra' method, with the goal of emphasizing their importance and preventing common errors. This qualitative study employs a content analysis approach to analyze textual data. The findings reveal several instances within the Iqra' method that incorporate ToM elements. The development of ToM among students of tajweed knowledge indirectly contributes to cognitive development, aiding in the comprehension of tajweed rules and ultimately reducing errors during Quranic recitation.

Keywords: theory of mind, tajweed knowledge, quranic recitation, Iqra' method, basic quranic learning

1. Introduction

Theory of mind (ToM) is a theory in psychology defined as one's understanding that the mind world is different from the physical world (Harwood et al 2008). According to Frith and Frith (2005), ToM enables a person to understand others' knowledge, belief, and desire. They explained that this ability also facilitates human beings to recognise that a person's knowledge differs from others.

ToM is initiated and operated through mechanisms in the human brain. A study by Völlm et al (2006) showed that brain parts involved in ToM activation are the medial prefrontal cortex, temporal pole, and superior temporal lobe. Meanwhile, Singer and Tusche (2014) and Frith and Frith (2005) demonstrated that ToM involves a network of the medial prefrontal cortex, superior temporal sulcus, temporoparietal junctions, and temporal pole. Völlm et al (2006) explained that these neuron networks involve social perception and inferential process towards others' minds.

The importance of ToM to one's social aspect is very critical. This is because ToM can explain one's behavioural motive. Besides that, when there is a conflict between belief and reality, the belief will determine the action and not reality (Frith dan Frith 2005). Poor development of ToM has been recognised as the cause of abnormal behaviour, such as autism and sociopathy (Völlm et al 2006; Harwood et al 2008; Goldstein and Winner 2012; Singer and Tusche 2014).

Nevertheless, ToM can be trained through several related activities, such as language, play, and acting (Hughes and Leekam 2002; Harwood et al 2008; Goldstein and Winner 2012). Developing ToM in these activities involves a formation of a false belief that helps someone to understand a fabricated situation (Bosacki and Wilde Astington, 1999; Hughes and Leekam 2002; Harwood et al 2008). These activities include tajweed knowledge learning for Quranic recitation, also recognised as an activity that implements the ToM element. The rules of tajweed knowledge learnt are applied comprehensively and consistently in Quranic recitation. Tajweed knowledge is a knowledge of Quranic recitation rules defined as "Assignment of letter on its rights, from every original and impending attribute for it" (Al-Jazari 2006).

In Tajweed's knowledge, the rights of every letter should be fulfilled so that accuracy of Quranic recitation can be preserved. If it is studied, tajweed knowledge learning is also an activity that contains the element of false belief as a component of ToM while fulfilling the rights of letters in their rules. However, false belief in this tajweed knowledge does not carry a negative connotation. It is related to ToM, indicating that something in mental view is not similar to the physical view

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through the ToM concept (Harwood et al 2008). Tajweed rules involving this ToM will be discussed in this study based on *Iqra*'s method written by As'ad Humam (2014), which has been used long in Malaysia.

2. Literature Review

The importance of ToM implementation in tajweed knowledge learning can be understood through previous studies that highlight numerous tajweed errors when specific rules regarding ToM are not applied. One such study, conducted by Imran Kamal Basah (2010), identifies the negligence of sabdu (gemination) recitation as a common error in Quranic recitation among congregations in mosques. This error falls under the category of lahn al-jaliy, a significant mistake. Geminated letters consist of two letters: a sakinah (consonant) letter and a voweled letter. However, the sakinah letter is often omitted, and the combination is written as a single letter with a sabdu sign (ّ).

Another study by Surul Shahbudin Hassan and Muhammad (2013) examines tajweed errors made by students in higher learning institutions, with 8% of the mistakes falling under the category of letter pronunciation. Within this category, 30% of the errors are attributed to the neglect of letter recitation, and 24% are due to adding extra letters. The study highlights an example of the error iltiqa' al-sakinain. This tajweed rule requires the addition of a nun letter with a kasrah (/i/ vowel) to the pronunciation, even though it is not present in the written text.

Furthermore, Mohd Zulkifli Saari et al (2018) explain that regular tajweed errors are also prevalent among trainee teachers responsible for teaching Quranic education to school students. This is concerning since these teachers will serve as a reference for their students, yet their Quranic recitation skills are still unsatisfactory. Among the recurring errors, trainee teachers make are pronouncing letters that should not be pronounced, as they only exist in writing and not in recitation. Additionally, there is a consistent neglect of sabdu pronunciation.

These three studies reveal that tajweed errors occur due to the lack of ToM implementation concerning the relevant rules, such as pronouncing letters that should only exist in writing but not in recitation and neglecting the pronunciation of letters that should be pronounced despite not being present in the written text. This study aims to highlight the importance of implementing the concept of ToM in tajweed knowledge learning to prevent such tajweed errors. Thus, based on the researcher's observations, no previous studies address the topic of ToM implementation in Tajweed knowledge learning. Therefore, this study aims to fill this gap in the existing knowledge.

3. Research Methodology

This study adopts a qualitative approach, utilizing the document study method as the primary source of data. The primary data are obtained from the Iqra' method book (As'ad Humam 2014), while secondary data are gathered from the Qur'an, hadith, tajweed books, psychology books, and previous studies on ToM and tajweed knowledge. The primary data consist of examples from the Iqra' method book that indicate the presence of ToM elements. These data are analyzed using the content analysis method, employing techniques such as induction, deduction, and comparison to draw conclusions regarding the implementation of the ToM concept in the Iqra' method as a means of tajweed knowledge learning.

4. Result and Discussion

In the Iqra' method (As'ad Humam 2014), several examples demonstrating the presence of ToM elements were identified across various topics. These examples have been summarized and presented in Table 1.

Table 1 Examples of ToM implementation in Iqra' method.

No.	Rule	Example
1.	Sifr mustadir	"ا exists in writing, not in recitation" (As'ad Humam 2014:18 (Iqra' 3))
2.	Alif on tanwin fathatayn	"بًا should be pronounced short and alif is considered not existent" (As'ad Humam 2014:1 (Iqra' 4))
3.	Alif wasal	"الحمد, alif is considered not existent in recitation" (As'ad Humam 2014:1 (Iqra' 5))
4.	Waqaf on mad arid lil sukun	"ءامِيْ ← ءامِي, during waqaf of last letter is recited as sukun" (As'ad Humam 2014:3 (Iqra' 5))
[illegible]	[illegible]	"أبًا ← أبَا, waqaf on letter with tanwin fathatayn ً, one fathah is removed and recited with length of two harakats" (As'ad Humam 2014:6) (Iqra' 5))
6.	Waqaf on letter ta' marbutah	"ءامِنِيَة ← ءامِنِيَه, when waqaf on ta' marbutah is changed into ha' sakinah" (As'ad Humam 2014:7 (Iqra' 5))
7.	Tasydid	"إنّ = إنْ ن" (As'ad Humam 2014:10 (Iqra' 5))
8.	Alif lam syamsiyah	"الّ, not existent in recitation" (As'ad Humam 2014:12 (Iqra' 5))

Phrases and letters underlined in Table 1 indicate the presence of ToM elements in the Iqra' method. For example, the phrase 'not in recitation' in Example 1, 'is considered not existent' in Example 2, 'is considered not existent in recitation' in Example 3, and 'not existent in recitation' in Example 8 demonstrate the implementation of ToM, where a letter that exists in one's physical view is considered non-existent in the mental view.

In addition, Example 4 shows the implementation of ToM through the change of a nun letter with fathah to nun sakinah, Example 5 involves the change of the letter dal with tanwin fathatayn to fathah, and Example 6 demonstrates the change of the letter ta' marbutah to the letter ha' sakinah. These examples illustrate the implementation of ToM, where the form that exists in the physical view differs from the mental view. Furthermore, Example 7 presents ToM implementation, where the letter nun sakinah in the tasydid symbol, which is invisible in the physical view, is considered existent in the mental view.

These examples indicate the occurrence of ToM implementation in the Iqra' method. Additionally, other sources of tajweed knowledge also acknowledge the presence of the ToM concept in tajweed knowledge learning, supporting the findings of this study. For instance, Taysir al-Rahman fi Tajwid al-Qur'an book mentions that certain elements are "existent in pronunciation and not in writing" ('Abd al-Hamid 2009).

Therefore, it is important for teachers to not only teach the Iqra' method through recitation and memorization but also to emphasize the concept of ToM within this method. This will enable students to better understand and appreciate the techniques required for accurate recitation, thereby avoiding common errors as observed in studies by Imran Kamal Basah (2010), Surul Shahbudin Hassan and Muhammad (2013), and Mohd Zulkifli Saari et al (2018).

The implementation of ToM in the Iqra' method not only facilitates the development of social interaction among students, as demonstrated by studies conducted by Bosacki and Wilde Astington (1999), Hughes and Leekam (2002), and Goldstein and Winner (2012), but also helps individuals understand the motives behind others' actions (Frith and Frith 2005).

From an Islamic faith perspective, the implementation of ToM contributes to the development of one's mind in understanding the existence of metaphysical and supernatural elements beyond what is perceptible through the physical senses. By implementing ToM, individuals come to believe in the existence of supernatural elements, thereby fulfilling Allah SWT's commandment, as mentioned in the Quranic verse: "People who believe in supernatural things and perform prayer and donate some from what We have bestowed upon them" (Al-Baqarah, 3).

This verse highlights the attributes of a pious person, emphasizing the belief in supernatural elements. Through ToM, individuals come to believe in the existence of the unseen and elevate their faith.

Furthermore, the development of ToM guides believers to look beyond superficial matters. Negligence of the hereafter, as described in Allah SWT's words, "They only know about superficial matters from the worldly life but they are negligent of the hereafter" (Al-Rum, 7), can be avoided. ToM development enables individuals to believe in the existence of the hereafter, even though it cannot be perceived through the physical senses.

From a tasawwuf (Sufism) perspective, the implementation of ToM facilitates a person's understanding of the concept of ihsan, as described in a hadith of Rasulullah SAW: "You worship Allah as you are seeing Him, and if you are not seeing Him, you believe that He is seeing you" (Riwayat Muslim 2015).

Through the concept of ToM, individuals come to believe in the existence of Allah, even though He cannot be seen with the physical eyes. This enables them to embody the true meaning of ihsan in their worship.

Additionally, there is supporting evidence from the application of ToM among visually-challenged reciters, as demonstrated in a study by Mohd Nur Adzam Rasdi et al (2021). The study shows that ToM can be implemented by visually-challenged individuals through an understanding that something may not be physically visible but can be perceived through touch, such as Braille writing. For instance, visually-challenged individuals understand that although there is an alif after waw jama' at the end of a word, the alif should not be pronounced. This example illustrates that visual impairment does not hinder the implementation of ToM in tajweed knowledge learning.

5. Conclusion

This study has demonstrated the presence of ToM elements in the Iqra' method as an effective approach for teaching tajweed. The implementation of ToM in tajweed learning enhances students' understanding of the subject and reduces common errors. Moreover, it indirectly contributes to the development of a deeper comprehension of metaphysical concepts, supernatural aspects, faith, and the practice of ihsan in Islamic teachings. It is hoped that teachers of tajweed will incorporate ToM concepts into their instructional methods for the benefit of all learners.

Ethical considerations

Not applicable.

Conflict of Interest

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The role of human beings as Caliphs in preserving nature

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Abstract Islam is a comprehensive religion that encompasses all aspects of society's life, including social, economic, political, cultural, and environmental dimensions. The environment is regarded as a manifestation of God's greatness, containing pearls of wisdom bestowed upon human beings to make them realize that everything is under the control of God (Allah SWT). However, the balance of nature can be disrupted by excessive exploitation caused by human activities. This is evident in various contemporary environmental issues, particularly in terms of biodiversity and climate. As Caliphs on Earth, human beings bear the responsibility of actively safeguarding the environment. Furthermore, Islam emphasizes the implementation of responsible development and adherence to the principles of sustainability. Therefore, this study focuses on the role of human beings as Caliphs on Earth, highlighting their responsibility in conserving and preserving the environment. The study examines two main aspects, namely education and politics, that can contribute to effective environmental preservation. The research methodology employed in this study is a library survey.

Keywords: environment, human beings, caliph, faith and nature

1. Introduction

Under the control and direction of Allah SWT, the entire universe, from the smallest to the largest, whether perceivable by human beings or not, fall. Muslims believe in the existence of the invisible (ghaib) world, which encompasses angels, devils, the hereafter, heaven, hell, and demons (jinn). Likewise, the visible aspects of nature, such as water, plants, and animals, are creations of Allah SWT that exist around human beings. These elements of nature, like all other creations, have their designated place and role, perfectly crafted by Allah SWT. Furthermore, the equilibrium of nature is maintained through various processes, such as the creation of gases in the air, the occurrence of photosynthesis, and the existence of human beings, animals, plants, and the celestial bodies beyond the earth's atmosphere.

The term "environment," as defined by Miller (2002), encompasses all external factors and conditions that impact living organisms, including air, water, light, animals, humans, the sun, and others. According to Idris al-Marbawi's dictionary (1998, p.40), nature is defined as "ما سوى الله," which translates to "anything other than Allah SWT." From an Islamic perspective, it can be concluded that nature encompasses all creatures created by Allah SWT, both visible and invisible. These creatures can be categorized into four groups: firstly, those that can be seen with the naked eye, such as stones, wood, and water. Secondly, those that cannot be seen with the naked eye but can be observed using manufactured devices like microscopes, such as atoms and bacteria. The third category includes beings that can be physically felt but not seen, such as wind, air, and electric current. Lastly, there are creatures whose existence can be felt instinctively but cannot be perceived by any of the senses or human-made tools, such as angels, devils, and demons (jinn).

To fulfill the role of responsible caliphs and actively preserve the environment, individuals can take various actions. Examples include reducing plastic waste, conserving water, and planting trees. Through making small yet significant changes in our daily lives, we can collectively have a positive impact on the environment and fulfill our duty as caliphs.

Overall, it is evident that human beings have a crucial role in preserving the environment, and Islam emphasizes this responsibility. By adopting sustainable and accountable actions, we can fulfill our duty as caliphs and safeguard the environment for future generations.

2. Literature Review

The role of human beings as caliphs in preserving nature is emphasized in the Book of Allah SWT (al-Quran). Human beings hold a special position among Allah SWT's creations on Earth due to their endowed intellect ('aql) compared to other creatures. They have been chosen as representatives to take care of God's creation. This is stated in surah al-Isra, verse 70,

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which states: "Indeed, We have dignified the children of Adam, carried them on land and sea, granted them good and lawful provisions, and privileged them far above many of Our creatures" (translated by Dr Mustafa Khattab).

As caliphs on this Earth, human beings have an obligation to act in accordance with the decree of Allah SWT. They must realize that while they are the best of Allah SWT's creation, they can also become the lowest and dirtiest if they are unfaithful to Allah SWT and His Messenger. This is evident in surah at-Tin, verses 4 to 6, which state: "We have certainly created man in the best of stature; then We return him to the lowest of the low, except for those who believe and do righteous deeds, for they will have a reward uninterrupted" (translated by Saheeh International).

Furthermore, a human being with a strong belief in tauhidiyyah (the oneness of Allah SWT) will face no challenges in fulfilling their Shariah duties. They should be aware of their responsibility as soon as Allah SWT entrusts them with it and equip themselves with sufficient knowledge to comprehend the concept of the governed environment. Al-Quran mentions in surah al-A'raf, verse 74: "And remember when He made you successors after the 'Aad and settled you in the land, [and] you take for yourselves palaces from its plains and carve from the mountains, homes. Then remember the favors of Allah and do not commit abuse on the earth, spreading corruption" (translated by Saheeh International).

As social beings, human beings share the same ecology and biology as other beings, ensuring the continuation of life. They should possess a sense of gratitude and responsibility to preserve Allah SWT's creation in nature. This message is recorded in the Quran, surah an-Naml, verse 31, which states: "Be not haughty with me but come to me in submission [as Muslims]" (translated by Saheeh International).

Moreover, engaging in actions forbidden by Allah SWT that lead to the destruction of well-created creations demonstrates disrespect towards Him, the Supreme. Human beings must realize that everything in the universe solely belongs to Allah SWT and they are not its explicit owners, even though they are given the freedom to use natural resources. They should not misuse these resources beyond their needs and expectations. Allah SWT reminds of this in surah al-A'raf, verse 85, which says: "..and do not defraud people of their property, nor spread corruption in the land after it has been set in order. This is for your own good, if you are 'truly' believers" (translated by Dr Mustafa Khattab).

The Quran emphasizes multiple times the role of human beings as caliphs in general, and specifically as Muslims, in bearing the responsibility as guardians of the environment. Every action will be questioned on the Day of Judgment. However, the current disruptions and imbalances in the ecosystem demonstrate significant environmental damage. For instance, in January 2022, 12 sea turtles were found dead in Terengganu, which is a deeply concerning tragedy. The two main causes identified for this drastic loss were trawlers and the rubbish being thrown into the sea (Norhaspida Yatim 2022). These human misconduct have disrupted the equilibrium in the ecosystem and led to the tragic deaths of these protected and conserved sea creatures.

From another perspective, Islam has long emphasized the significance of plants in preserving the environment and mitigating the effects of climate change. Prophet Muhammad SAW consistently prohibited the destruction of trees during warfare and encouraged the act of planting trees. In a hadith, the Prophet SAW stated that anyone who plants a tree or sows seeds, and then a bird, person, or animal benefits from it, will be rewarded with charitable acts (Bukhari Hadith). Additionally, during times of war, the Prophet SAW explicitly forbade the destruction of trees and plants due to their usefulness as a shelter for troops. However, when these plants and trees are not protected, the consequences can be seen in natural disasters such as floods and landslides, as witnessed in Malaysia in late 2021, where uncontrolled logging and unplanned development were identified as the causes of the tragedy (Syed Mohd Hazique Syed Nor 2022).

Furthermore, the present-day climate change is a clear example of how those responsible have failed in their duty. Industrialization has led to a dramatic destruction of habitats, with forests being cleared for timber and ecosystems being disrupted for the construction of roads, strip mines, and gravel pits. The destruction of these habitats not only affects the local ecosystem but also contributes to the extinction of plants and animals that are unable to migrate and adapt to the new environment.

In recent times, Malaysia has intensified its efforts to protect the highly endangered and nearly extinct Malayan tiger (harimau Malaya). With the current population of this species recorded at less than 150, immediate action is needed to prevent the extinction of this national symbol. The main threats to this species are the loss of habitat and food sources due to changes in land use, as well as poaching and illegal trade (Maisarah Sheikh Rahim 2022). This serves as undeniable evidence of the impact of uncontrolled human activities on the ecosystem.

Human beings have repeatedly disregarded the warnings and reminders about the importance of preserving nature, leading to irresponsible acts. The Quranic verse in Surah ar-Rum, verse 41, states that: “Corruption has appeared throughout the land and sea by [reason of] what the hands of people have earned so He [i.e., Allah] may let them taste part of [the consequence of] what they have done that perhaps they will return [to righteousness]” (translated by Saheeh International).

The death of sea turtles, floods and landslides, and the threat of extinction to the Malayan tiger are all examples of the corruption and consequences resulting from these irresponsible actions.

The combination of the concepts of tauhid (oneness of Allah SWT), khilafah (representation), and trust in the sustainable management of natural resources is supported by the Islamic perspective on environmental conservation (Maidin 2007). Preserving the environment should be understood as a religious obligation, and every individual must take responsibility for it.

Engaging in environmental management and conservation is considered a virtuous act of worship (ʻibadat) solely for the sake of Allah SWT, and every effort made in this regard is rewarded by Him. Conversely, actions that go against religious teachings not only harm the environment but also invite divine retribution. The environmental crisis we are facing today is a result of human greed and failure to fulfill their entrusted role as guardians of nature.

According to Abd Rahman et al (2018), the decline in responsible attitudes towards environmental care is due to the lack of appreciation for Islamic values related to environmental management based on the Quran and Sunnah. The current process of modernization has witnessed extreme actions by humans driven solely by profit, causing damage to God's creation (Mohd Noor et al 2012). Therefore, preserving the sustainability of nature remains a significant challenge for human beings. Even in the current year 2022, despite various efforts made for nature preservation, the Global Risks Report 2022 published by the World Economic Forum highlights that three out of the top ten global risks in the next ten years are related to the environment, including climate issues, extreme weather events, and loss of biodiversity. Moreover, half of the listed risks are associated with environmental concerns, including damage to the human environment and loss of natural resources (Astro Awani 2022).

Furthermore, al-Quran, which was revealed to Prophet Muhammad SAW, serves as a complement to Islamic law. Thus, Islam is seen within the global community as the optimal solution for people (ummah) in this world. Efforts should be made by human beings to address and prevent environmental damage by adhering to Islamic teachings, which serve as an impeccable guide in their lives in accordance with Maqasid Syariah (purpose of legislation). The sustainability of the environment can be achieved through the guidance of Islam based on al-Quran. This aligns with the narration by Abdullah bin Abbas in the book Fathu Barri, which states: "Islam is the highest religion, nothing more than that."

Moreover, Okour (2013) elucidated the three main areas that reflect the ethics of sustainable development. Firstly, the equilibrium of the environment can be achieved by appreciating its components. Secondly, the value of environmental management should focus on human beings as the sole representatives responsible for the care of the environment. Thirdly, plans should be implemented to protect the environment.

Respect for the advantages of science and the role of scientists in developing new technologies to protect the environment is also necessary. Green technology is viewed as capable of minimizing the negative impacts of human activities while contributing to Islamic civilization (Norizan et al 2016). Islam has long recognized the significance of trees in safeguarding the environment and mitigating the effects of climate change, as outlined in the rules concerning environmental sustainability.

3. Research Methodology

The research methodology employed in this study follows a library research design, which relies on secondary sources to gather the most relevant information. The data collection process involved consulting various materials, including books, the Quran, hadith, articles, reports, and scholarly research. These sources were accessed both in print and online formats.

4. Results and Discussion

The primary role of human beings is seen as the caliph in the creation of the world. The term "caliph" (khalifah) originates from the word khalafa (خلف), which means to follow or come after, or the more accurate term is 'substitute'. The concept of human beings as caliphs on Earth can be summarized by five main characteristics: 1) representative (khilafah), 2) trust, 3) leadership (qiyadah/siyadah), 4) religious worship (ibadah/ubudiyyah), and 5) trial (ibtila') (Rahman et al 2018). As caliphs, humans have the responsibility to manage, govern, and protect the Earth. However, humans often betray the warning and reminder of the importance of caring for nature by engaging in irresponsible acts. Human beings should manage natural resources in an organized manner as stewards of Allah SWT. The Quran itself warns against excessive waste and exploitation (Abdelzaher et al 2019).

Furthermore, al-Qaradawi (1995) states that nature is a gift from Allah SWT to all beings (makhluk) that inhabit it. For Muslims, appreciating the environment is enhanced by exploring the various messages entrusted by Allah SWT through the Quran. The Quran describes the significance of nature from an Islamic perspective, as stated in Surah az-Zumar, verse 21:

"Do you not see that Allah sends down rain from the sky and makes it flow as springs [and rivers] in the earth; then He produces thereby crops of varying colors; then they dry and you see them turned yellow; then He makes them [scattered] debris. Indeed, that is a reminder for those of understanding" (translated by Saheeh International).

Thus, the environment is intertwined with one's faith in God, and it is reflected in human behavior by emphasizing morality (akhlak) as the core of the relationship between humans, nature, and God (Haliza 2019). These relationships need to be comprehensively emphasized to maintain and preserve sustainable development. Islam encourages its ummah to utilize the creations of the universe properly and to avoid treating them carelessly, as this could lead to future disasters. However, hidden behind these blessings is a test from Allah SWT to measure the extent of human trust in living in a way that pleases Him and their efforts to maintain a harmonious environment.

Furthermore, it should be known that Allah SWT has appointed human beings as caliphs on this Earth, making them responsible for maintaining a harmonious nature and proactively looking after the environment. The entire Earth has been created as a place of worship, clean, and holy. Therefore, it is incumbent upon human beings to wisely and thoughtfully preserve the natural resources that Allah SWT has exclusively entrusted to them for use and utilization. The purpose of these natural resources is not for arrogance or pride, but rather for human beings to learn the meaning of gratitude and humility (piety, taqwa).

Preserving the balance of nature is the responsibility of every human being as a caliph. However, as mentioned by Abd Rahman et al (2018), the lack of Islamic values can diminish the sense of responsibility towards the environment, and thus these values must be instilled from childhood. This can be achieved through education. In Malaysia, environmental education is implemented as early as primary school, through various subjects such as Moral Education, Geography, Language, Civic Education, and especially Islamic Education (Haliza Abdul Rahman 2018). The Philosophy of Islamic Education highlights one of its objectives as instilling responsibility for the development of nature towards goodness (Noraziah Mhd Yusop & Latipah Sidek 2010). Starting from primary school, environmental responsibility is nurtured within the children of Malaysia, as demonstrated in the Standard Document for Assessment and Curriculum in Primary School Standard Curriculum (DSKP KSSR) for Year Six Islamic Education, where pupils are taught about attitudes towards the environment (Ministry of Education Malaysia, n.d). This is a preparation to mold them into responsible "little caliphs of the world" who recognize their role as caliphs in preserving nature, even from a young age.

However, environmental education among students should not only involve theoretical aspects but also practical approaches. This can be seen through the efforts of the Department of Environment Malaysia in the Sustainable School - Nature Gift program. In this program, students are taught about their role in building a sustainable school, and they are encouraged to put these teachings into practice in real life, thereby maintaining nature preservation in the school environment (Department of Environment Malaysia 2021). This educational approach in instilling environmental values among children and students aligns with the area suggested by Okour (2013) of creating the equilibrium of the environment by appreciating its components.

Meanwhile, nurturing a sense of responsibility as caliphs for nature preservation among adults can be achieved through politics, where authorities can leverage their power to mobilize communities towards intensive natural preservation actions. According to Haliza Abdul Rahman (2021), political commitment should prioritize environmental issues. Authorities such as Sultans and politicians have the ability to influence people, as their words hold great influence and are accessible to the public through mass media. This can be witnessed in a recent speech by His Highness Sultan Nazrin of Perak, where he fulfilled his role by educating people that preserving nature is everyone's responsibility (Media Baharu 2022).

Moreover, the government in power is actively accelerating actions for nature preservation. The current government has demonstrated its commitment to this responsibility through the National Budget for the year 2022. During the announcement, Minister of Finance, Tengku Datuk Seri Zafrul Abdul Aziz, stated that RM450 million would be allocated for national nature and biodiversity preservation (HM Digital 2021).

Prominent politicians, such as Vice President of UMNO, Datuk Seri Mohamad Hasan, have also emphasized the need for aggressive and radical actions to prepare the country for the challenges posed by climate change (Malaysiakini.com 2022).

The actions taken by these public figures align with the main area suggested by Okour (2013) for sustainable development, which emphasizes the value of environmental management focused on human beings as the sole representatives responsible for looking after the environment. Based on the previous discussions, it can be observed that every individual, whether a child, a secondary school student, a minister, a politician, or a Sultan, can play a role in effectively preserving nature. This is because every human being on this Earth is a caliph of Allah SWT.

6. Conclusions

The universe and the environment that surrounds us offer countless benefits to both the living and the deceased, serving as undeniable evidence of the existence of Allah SWT. It is our utmost responsibility as human beings to worship Allah SWT, seek rewards in this world and the hereafter, and simultaneously uphold the preservation and reverence of our environment. However, despite the unequivocal messages from Allah SWT regarding the paramount importance of environmental conservation, regrettably, many individuals fail to prioritize their relationship with the environment, resulting in its gradual degradation and destruction.

To address this pressing issue, it is incumbent upon each individual to personally assume responsibility by embracing sustainable practices that effectively reduce their carbon footprint. These practices encompass conscientiously conserving energy, minimizing transportation usage, and adopting a plant-based diet that promotes environmental sustainability. Furthermore, supporting environmental organizations, actively engaging in community-driven clean-up initiatives, and fervently advocating for the implementation of environmentally conscious policies can collectively contribute to meaningful change at both local and national levels. Preserving nature transcends being solely a religious obligation; it is an unequivocal moral duty that must be conscientiously fulfilled. By steadfastly safeguarding our environment, we are able to truly embrace our roles as caliphs and positively impact the world we inhabit.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Education in humanities in Asian countries

A comparative analysis of traditional and electronic learning systems and their applications in new education system

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Abstract Teaching via the Web is a new issue that functions mostly as a possible academic infrastructure and a fruitful field of inquiry into its influence on teaching & learning practices. It is a subject that deserves more attention since it is so new. Due to the major differences between e-core learning and face-to-face transmission, extra new abilities for programmed development, online evaluation, and interaction, in addition to conventional characteristics, are needed in contrast to conventional features. Construct online programs and websites from the ground up using MOODLE, a package of the program that allows you to do just that. It is called a Learning Management System (LMS) because it allows students, instructors, & peers to work together more efficiently on initiatives or assignments in general. In this section, we will look at how instructors utilize MOODLE to build exciting & exciting learning programs at a variety of specialized schools, as well as how educators make use of the multiple capabilities of MOODLE to develop vivid & fascinating teaching circumstances.

Keywords: E-Learning, development, knowledge, teaching, programmer, software

1. Introduction

University administrators are investing large opportunities in e-learning platforms to aid in the delivery of instruction and learning as Web innovations progress. The Learning Management System (LMS) is an example of an e-learning system that incorporates capabilities for distributing coursework over the Web as well as for online collaboration. It facilitates interaction between educators and students, as well as performance tracking and the secure online transmission of course data (Álvarez et al 2013). In latest years, learning management systems (LMSs) have emerged as practically indispensable instructional aids. Many educational institutions, whether they specialize in distance education or classroom-based teaching, are presently using learning management systems (LMSs) to strengthen and optimize learning and teaching processes. With the implementation of learning management systems (LMSs) by academic organizations, it is anticipated that higher-quality, learner-centered education would be provided (Russell 1986). Localized learning management systems (LMSs) often include a broad variety of features that may be utilized to support either conventional or distant learning. New learning and teaching methodologies that cover a broad variety of educational objectives may be provided via learning management systems (LMSs) (Lowry and Gaskin 2014). The use of learning management systems (LMSs) in higher education, for instance, has made it straightforward to offer hybrids programs to students.

A hybrids program mixes face-to-face classroom instruction with digital instruction. In hybrids classes, educators combine the rewards of internet education with the positives of face-to-face schooling to provide a more effective learning experience. Rather than opting for either a purely in-person or entirely digital program, a combination of face-to-face and digital learning is preferred since it gives students more academically challenging learning experiences (Bhattacherjee 2001). The acquisition and use of e-learning systems are one of the best extensively researched topics in the previous research since they provide university administrators with more flexibility in a variety of areas, such as program planning. In the bulk of this study, the technological accepting models (TAM) and other associated concepts were utilized to investigate the origins of e-learning platform usage as the end dependence factor, which was the final dependent factor. Following these analyses, several components were revealed to be the origins of the use of e-learning systems (either directly or indirectly). Facilitating conditions of use, considered utility, considered pleasure, considered liveliness, data reliability, systems reliability, services reliability, and system functioning are all important factors to consider when evaluating a product or service. The recognized usefulness and considered ease of use of e-learning have been the greatest important elements in promoting acceptance in the majority of instances. Encounters with others web allow for a wide exchange of understanding on a variety of various forms

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of material. Software programs that may be utilized as digital learning platforms include several different options (Lengyel and Herdon 2009).

These solutions are expressed via the use of documents, professional programs, and open sources software (OSS) (Muwanguzi 2009). Moodle has been adopted by a lot of universities and groups all across the globe since it offers a comprehensive and simply available set of features. Several of its elements, notably its security functions, were, on the other hand, constructed without the benefit of comprehensive architectural specification.

Besides having an active audience, Moodle also boasts a solid design, implementations, compatibility, and internationalization. MOODLE is accessible as free and open-source software licensed underneath the General Public License (GPL). It has no up-front costs, and it is reasonably easy to get your hands on one. Although it has certain advantages, it also has some drawbacks, such as a shortage of SCORM support and a constrained roles and authorization framework. Documents modification is not supported by this application. These limitations, on the other hand, will be tackled as parts of the program's route plan. Increasingly, greater educational organizations are using a course management system (CMS) to assist in the distribution of program contents to students, whether as a supplement to conventional programs or as a completely digital programmer experience. It is possible to use a CMS system as an alternative teaching strategy that does not include the scientific challenges that arise when dealing with large groupings of pupils. Moody was developed as an e-learning framework as part of a developmental programmer aiming at improving the quality of the teaching and studying experience (Robertson 2021).

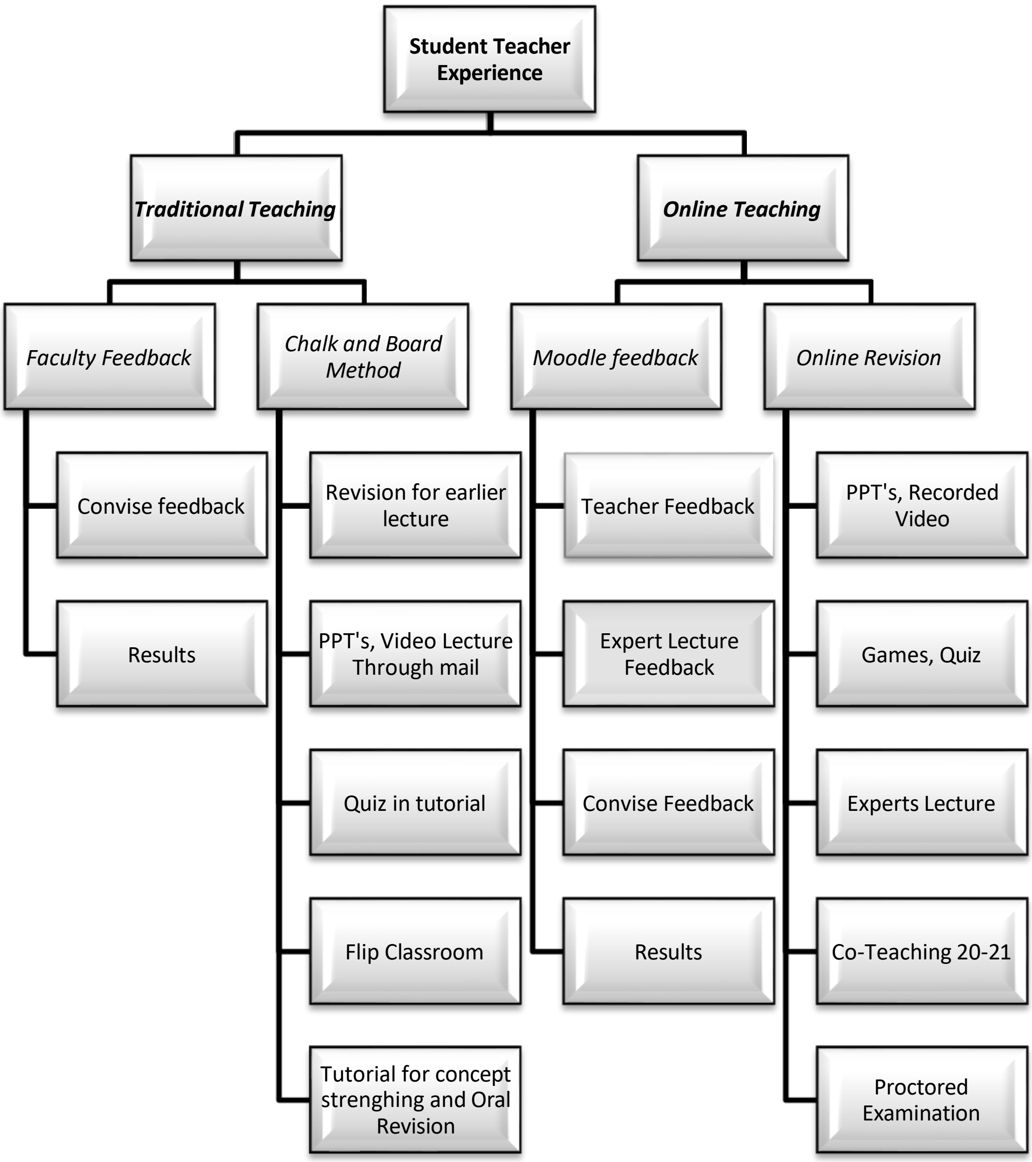

Figure 1 Student Teacher Experience.

2. Literature review

2.1. What is MOODLE?

Moodle is a public learning management system that provides a framework for e-learning. It greatly assists different instructors in conceptualizing the numerous classes, courses frameworks, or content, hence enabling engagement with digital participants (Yordanova 2017). Martin Dougiamas created Moodle, and its major goal has been to add appropriately to the network of e-learning as well as enable digital teaching or achievement of digital qualifications from its start. Moodle is an acronym that refers to Modular Object-Oriented Dynamic Learning Ecosystem.

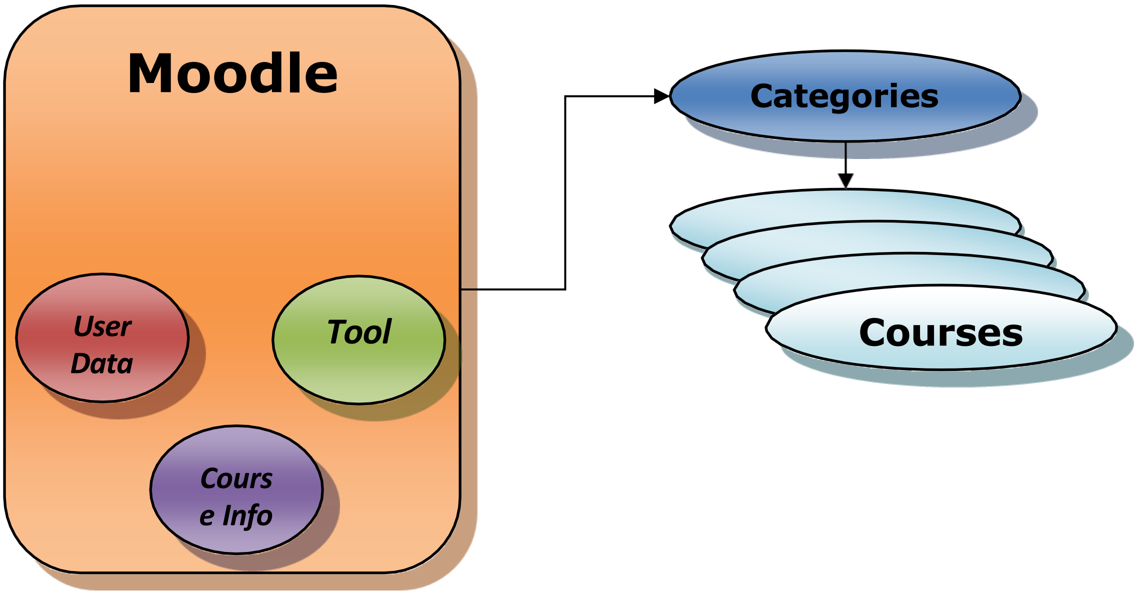

Figure 2 Moodle. Source: self-developed.

2.2. Learning Management Systems

A learning management system (LMS) is a programming program that is used to administer training programs, academic programs, or training and advancement programs by monitoring, analyzing, automating, or delivering them. The notion of a learning management system arose straight from e-Learning. LMS account for the lion's share of the learning system market. The LMS was initially introduced in the late 1990s. Because of the focus on distant education even during the COVID-19 epidemic, the use of LMS has skyrocketed (Ülker and Yılmaz 2016).

Utilizing analyzing information and monitoring, learning management systems were created to detect educational or learning shortages. LMSs are primarily used for digital learning distribution, but they may also be used for a variety of other urposes, such as serving as a framework for digital material such as courses, both asynchronously or synchronously. An LMS in tertiary learning may provide lecture administration for teacher instruction or a flipping class (Williams van Rooij 2011).

mart techniques are used in advanced LMSs to provide automatic course suggestions depending on a person's ability profiles, as well as to gather information from learning components to create similar suggestions much more reliable.

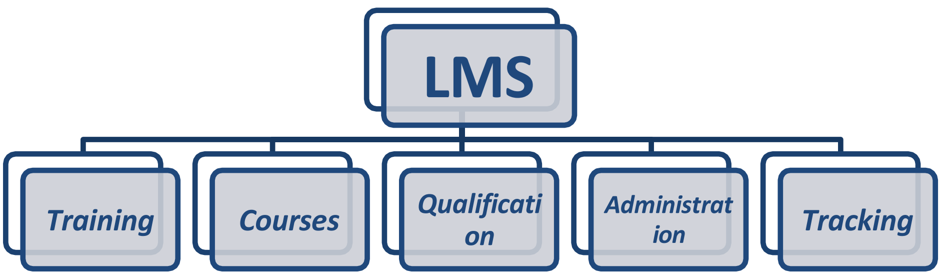

Figure 3 LMS (Learning Management System). Sources: self-developed.

2.3. Moodle Structure

Table 1 shows how Moodle delivers multiple packages for teaching and education to students and learners (Herman Dwi 2014).

Table 1 List of Moodle delivery packages.

1	Plugins	Extensions are a powerful collection of tools that enable Moodle customers to customize and enhance the functionality of the website. There seem to be numerous Moodle extensions available, each of which adds new capabilities to Moodle's basic capability. The Moodle extensions catalog contains a listing of all of the extensions available.
2	Patterns	To customize the appearance and performance of a Moodle website or a particular program, graphical templates for Moodle may be downloaded or deployed.
3	Translating	Moodle has been converted into more than 100 languages and is accessible for installation by any website administrator. Individuals from a variety of nations work together to preserve and improve the different languages packages.
4	Smartphone	Several Moodle designs, which are focused on flexible web design, make it possible to utilize Moodle on portable platforms as well. Moodle mobile applications are also accessible on Google Play, the App Store (for iOS devices), and the Windows Smartphone Stores, among other places.

2.4. Moodle Application

Moodle may be downloaded and installed on a Web platform including Apache HTTP Server, and it supports a variety of databases administration platforms like PostgreSQL (Wu 2010).

It is simple to set up utilizing LAMP (Linux, Apache, MySql, PHP) and WAMP (Windows, Apache, MySql, PHP). For Microsoft Windows or Macintosh, which was before configurations of Moodle with Web servers or databases are accessible. There are other automatic deployment methods available, including downloading a Debian distribution, distributing a prepared TurnKey Moodle appliances, utilizing using Bitnami installers, while using "one-click download" services like Installatron. Additional Moodle solutions offered by Qualified Moodle Associates include hosting, education, customization, or material production (Table 2). Via licensing, this community of suppliers contributes to the growth of the Moodle program (Herbimo 2020).

Table 2 lists the most important Moodle applications.

1	The evaluation of trainees or scholars.
2	Moodle is by far the biggest extensively utilized learning management system around the globe.
3	Basic moodle has a comprehensive range of teaching and learning features.
4	Moodle is available for installation and use, but funds are required to keep the platform running.
5	Moodle has several frequent public participants who are constantly pushing the platform ahead.
6	Moodle is a very popular accessible application.
7	Any topic instructor or training will find this beneficial.
8	It may give training and educational materials for instructors or students. The materials may be split based on the needs.

2.5. Moodle's Basic Functions and Activities.

Several of the elements and characteristics expected of an e-learning system, such as communities, material administration, exams with different sorts of inquiries, and a range of activities packages, are featured in LMSs. Moodle's primary features include facilities for building courses and events. Those, in turn, provide the course's professor with a plethora of useful possibilities. The teacher may use the Assets section to build text sheets or web pages with a combination of text and graphics, as well as links to documents or online sites/pages (Anonymous 2020).

For every subject or even a week, the Assets section also provides for the establishment of sub-directories, which include documents. The Operations section, which includes projects, discussions, or choices (another question with a choice of replies – comments are collected so analytics may be determined), information, which would be tables established by the instructor or completed results indicating that students are additional useful and collaboration component. The teacher provides a dictionary of terminology and definitions that anyone may read or a debate thread in which anyone can participate in the topic. Tests are integrated into classes, allowing learners to pick which route to pursue and how many questions to answer. A test allows you to create a range of tests, a poll gathers student input, as well as a wiki is a web address that multiple individuals update. Any Virtual Learning Environment (VLE) may utilize SCORM-enabled material by incorporating it into the material that it serves. A teacher may modify several of the course's fundamental characteristics by accessing the administration section of the program website. The structure, design, amount of weeks and themes, or minimum uploading volume for your courses are all possibilities. It is feasible to change your enrollment selections, accessibility, or languages here. By giving categories to individuals, various degrees of accessibility may be allowed to individuals (Moreno 2008).

Moodle, an accessible e-learning software, is used by over 400,000 individuals worldwide. Including a wide number of contributors, the development's communities webpage offers tools such as blueprint, how-to instructions, or CVS tutorials for anyone interested in delving into the original codes. It does not give any guidance for potential growth. Instructors may utilize it as a framework for preserving and distributing instructional materials, including engaging together digitally including both learners and educators, to let students participate in a variety of ways. Several components are available for download from the Moodle.org community site, and it's quite beneficial for integrating video illustrating elements to the Moodle e platform.

These instruments help to improve the efficiency of classroom instruction. There are numerous Moodle systems worldwide, varying in length from a single-teacher site to a college with 40,000 students. However, numerous Jordanian institutions that have chosen commercialized CSM (WebCT and Blackboard) are thinking about converting to Moodle (Tenriawaru et al 2016).

2.6. Platforms for E-Learning

Several words are used to describe instructional computer applications, particularly e-learning systems, Learning Management Systems (LMS), Course Management Systems (CMS), and even Virtual Learning Environments (VLE), and several more (Wallace 2014).

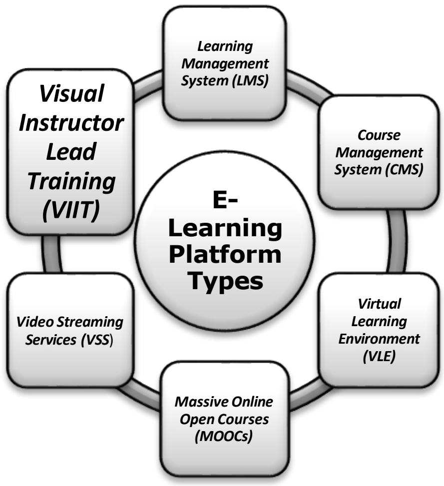

Figure 4 E-Learning Platforms Types. Sources: self-developed.

Students may utilize these systems to access course content in a variety of media (text, image, and voice), as well as engage with instructors and classmates through messaging platforms, forums, conversations, multimedia conferencing, and additional messaging services. Such solutions include a suite of customization resources that enable customers to construct virtual courses, topic sites, work teams, and learning groups. Aside from pedagogy, such platforms offer a collection of features for registration, analyzing, and assessing student and teacher behaviors, and the capacity to manipulate data through the Web (Moreno et al 2016).

It is a technology that offers comprehensive help for the following 6 primary operations:

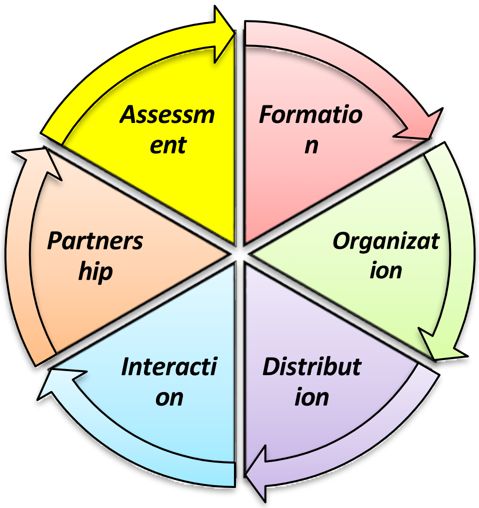

Figure 5 E-Learning Platform's primary operations. Sources: self-developed.

- Formation
- Organization
- Distribution
- Interaction
- Partnership
- Assessment

Technically speaking, there are various kinds of learning management systems (LMSs), many of which are commercialized (including Blackboard) and others that are accessible (such as Moodle). Different studies have shown that implementing e-learning programs offers considerable advantages, irrespective of the type. However, implementing e-learning technologies brings several challenges for organizations, including the right choice of technology platform to use. In respect of open alternatives, numerous polls have shown that Moodle (Modular Object-Oriented Dynamic Learning Environment) is the most extensively used and intuitive, and easy framework in higher ed, according to the results of the studies.

2.7. Moodle Technological Needs

Moodle is free software, thus it is not limited to a specific range of technical needs and can be run on a broad variety of CPUs, including old and new versions, rendering it incredibly adaptable (Gorbāns and Bierne 2015).

- It is possible to use any one of the following operating systems on a Mac: OS 9.3 (Mac OS X) or 10.3 (Mac OS X), as long as the computer is equipped with a Pentium 2 or 3 processor. This means that everyone may benefit from it.
- Increasing the pixel density from 800 x 600 pixels to a maximum of 1024 x 768 pixels is possible.
- To access the web, you may utilize 56k modems or elevated ADSL/Cable connections.
- Firefox, Internet Explorer, and a slew of additional technologies are available. There is no constructed HTML writer in Opera or Safari.
- Moodle can access and utilize many programs, including Microsoft Word, Spreadsheet, and Ppt. Except for a basic text editor, the Excel and Ppt reader's work. Free Desk may be used as a substitute.
- Windows Media Player, Realistic Player, Apple Quicktime, Adobe Readers, Flash player, Shock-wave player, Desktop Applications, and Java Mac OSx are all compatible with this application.

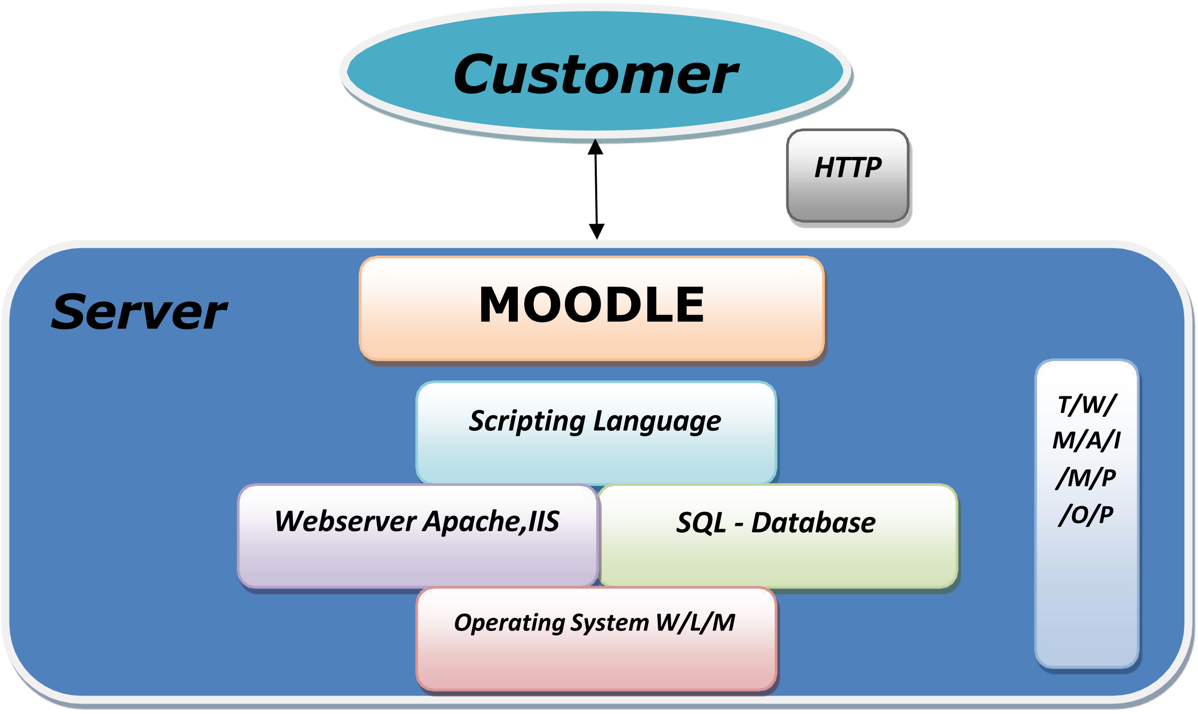

Figure 6 Technological Needs or architecture for Moodle. Sources: self-developed.

2.8. Using Moodle, We Can Evaluate the Effects Of E-Learning On Students.

The most significant evaluating consequences for e-learning are the exploration of questions related to the assessment of the e-learning processes and methods of instruction, and the formulation of a comprehensive approach for the assessment of e-learning and instructing. Any evaluating action may have an impact on judgment (Wongpratoom and Sranamkam 2019). To attain this aim, the university will need a rigorous evaluation technique for measuring the impact of its numerous education, training, and study operations. Every plan must gather a variety of information and comments, as well as deliver a high quality of service and make proper usage of information and communications technologies in education and learners, in addition to other requirements (Anomyous 2020). The major differentiation between various forms of educational assessments tasks is made by dividing them into three categories: receptive, tracking, and integrating assessments. A simple and inconspicuous information collecting approach for assessment techniques should be used, and it should be updated frequently with all students and faculty members. Table 3 contains additional information from the following assessment that was acquired as part of the diversity information gathering procedure:

Table 3 Evaluation of effects of E-learning on students.

1	Evaluation in the developmental stage	This kind of assessment emphasizes customer and other important organizations' input throughout the deployment stage.
2	Tracking and assessment as a part of an integrated assessment	Ensures that the use of e-learning and digital education is integrated into regular teaching and learning operations at any institution.
3	Assessment in the evaluation	Convinces that e-learning has a good impact on education and studying at any institution.
4	Evaluation at the start of the process	A questionnaire is required for this kind of assessment to discover the anticipated results and desires concerning online education and studying.

2.9. What Are The Distinctions Among Online and Traditional Education?

Whether you are selecting between online and conventional learning, the following comparisons in Table 4 may be useful (Anomyous 2020):

Table 4 Comparison of online and traditional educational systems.

Online education	Traditional education
Encourages a self-directed learning method	We are all studying from or alongside one another.
Online material and online trainers are the key sources of data.	The instructor is the major provider of knowledge.
Completing online courses exposes you to additional technologies, allowing you to become more technologically adept.	Having able to engage with all of the learners on campuses is an important component of studying in colleges. Although this is doable online, conventional programs provide many more chances.
While it may seem counter-intuitive, online learning may be beneficial for enhancing classroom engagement. An online class fosters an atmosphere in which individuals who are often hesitant in regular classrooms may engage.	However, whether you are simultaneously earning when learning, in-person programs provide almost no versatility in terms of course attendance.
Certainty the absence of commuting, this is almost a despite. By just turning on your computers and enrolling in an online class, you just save the time it takes to get dressed and attend class.	Attending courses will consume more of your effort than online programs. This involves being ready for classes and potentially traveling.

3. Results

The questionnaire went on to emphasize the importance of the Moodle systems as an e-learning platform in his subsequent response. In a program, the use of a learning management system (LMS) might just save students a significant amount of time even while arranging and handling multiple simultaneous components for the same course. The Moodle Learning Management System (LMS) helps pupils in improving their study skills. It is believed by learners that an e platform is a valuable tool and an open classroom for the full-time period. Students can connect with instructors online and participate in live conversations from anywhere and at any moment, and they can easily discover missed class resources. The contents of the lessons may be completely entered into the database and, as a result, made available to students. We study about 250 samples where both online learning and traditional learning are important in their field but the result, we found that students and teachers choose online learning as a priority and easiest thing so the percentage ratio that we studied to read samples is 60% Online learning and 40% Traditional learning students and teachers choose for their requirements.

4. Discussion and conclusion

Several studies have proved the benefits of the Moodle systems over certain comparable systems. We discovered several E-learning elements that Moodle has to provide throughout our investigation. Moodle is an ideal tool for instructors because it allows for the simple creation and preservation of educational resources and a cooperative online learning atmosphere for instructors and students. Apart from creating courses, participating in online communities is a terrific method to remain recent with both the planet and encounter a group of scholars who will encircle the planet. We can rapidly find a huge variety of components that may be utilized to improve our Moodle website just on the moodle.org website. These resources help us improve the efficacy of our education. As a consequence of bringing data and communications technologies into teaching via e-learning through moodle, instructional performance is boosted. E-learning makes it easier for learners, teachers, and students to collaborate. E-learning has the potential to improve availability, affordability, and student cooperative education even while raising engagement in students and instructors.

A detailed assessment of the fundamental causes for academicians' use, or lack thereof, of e-learning resources, and an inquiry into what these innovations could help in the efficacy of the teaching and learning procedure, should be included in ongoing studies.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Special Issue: Education in humanities in Asian countries

Analyzing the necessity for universities to offer students with cutting-edge mental assistance

Check for updates

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Abstract The offer of mental assistance to the students within the university comes with the opportunity to enhance awareness along with reducing the number of mental health issues among students. The main aim of this study is to discuss the necessity for universities to develop students with cutting-edge mental assistance. Moreover, this is informative enough to understand the mental health issues of students. The particular study supports reducing the problem of facing different mental disorder in university life. The identification of mental illness in students enhances understanding of how the students think, act, and feel. In addition, it provides information regarding the development of mental state and the technology, which is the latest to identify the psychological condition of the student. Henceforth, the reduction of the mental illness can be possible rapidly with the support of AI and digital technology.

Keywords: student's life, virtual mental health clinic, innovation, cutting-edge mental assistance, mental health issues

1. Introduction

The virtual mental health clinic in the universities supports reducing mental health issues among university students. Moreover, the innovation of cutting-edge mental assistance allows the university the opportunity to support the student in successfully navigating the way through college and healthy habits of the student. Free mental healthcare services in the university enhance the performance of the student in education. Therefore, the mental health assistance innovation can build mental health awareness among the students in the university.

The identification of mental illness in students enhances understanding of how the students think, act, and feel. Moreover, it is also helpful for determining how the student handles stress and the way they make healthy choices and can relate to others. According to Suzuki (2022), in the today's era, most of the students are struggling with the stress and anxiety, the mental health of the college students are degraded by passing time. As highlighted by Bagher Khatibi (2021), there are several factors that affect the mental health of the students, and the issue needs to be considered and one of the best ways to implement effective mental assistance to the students can be done by the universities to offer students with cutting-edge mental assistance.

The measures that need to be implicated by the universities includes such as the personal support and care by monitoring and regulating the performance of the students. The instructors and educators of universities play the critical role in establishing and regulating the mental health of the college students. As per the statement of Chounta (2020), the teachers and professors need to implement different skills to enable the students to be efficient and creative to combat the adverse effects of mental illness.

The self-help guidance and emotional support can be the best ways to provide the students supportive services and resources for the treatment of the mental illness. The growth and interpersonal development of the students is directly connected to their mental health stability. It has been observed by Labra (2020), that students who have a strong emotional and mental support are more likely to succeed in life and have more opportunities to flourish. Furthermore, the studies are more effective and adaptable to transform and enhance performance levels of the students. On the other hand, it has been observed that the lack of awareness of advanced technologies and their beneficial roles in the educators and instructors in the universities decreases the efficiency and productivity of the implication of the assistance. As per the view of Saefi, (2020) ,therefore, the recommendation of the up gradation of the advanced and innovative technology that are relevant to mental assistance of the students is crucially important for the better understanding of the mental health illness among the student.

Research aim and objective

The aim of the research study is to analyze the suitable and appropriate measures implicated by the universities to determine the impact of the mental assistance on the performance levels of the students. The objective of the research study is based on the requirement the researcher wants to fulfill after conducting the research project. The research objective is as follows:

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RO1: To identify the impacts technological tools in the implementation of mental assistance
RO2: To find out different practices of technology that is adopted by universities
RO3: To determine the significance of mental assistance provided by the universities
RO4: To identify the measures that is used for certifying the digital technology for handling mental illness

Research question

RQ1: How to find out the impacts of technological tools in the implementation of mental assistance?
RQ 2: What are the impacts of different practices that are adopted by universities?
RQ 3: What is the significance of the introduction of mental assistance provided by the universities?
RQ 4: How to identify the measures that are used for certifying the digital technology for handling mental illness?

2. Literature review

2.1. Importance of cutting-edge mental assistance in university

The success of the student's life is directly linked to their mental health. As mentioned by Saefi et al (2020), children who receive mental health support perform better in academics. In addition, there are mobile phones, the internet, and computer devices that influence the uses of technology and help to understand the mental disorder of the student (Figure 1).

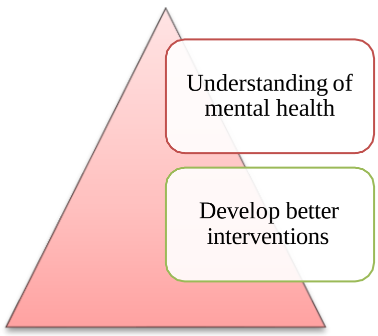

Figure 1 Impact of technology on students. Source: Influenced by Almaiah et al (2022).

Figure 2 shows the impact of the innovative technology used in the mental health assistance, which helps to develop the intervention of the student. As mentioned by Akpan et al (2021), digital intervention can be more effective due to having regular contact and remaining information in a systematic way.

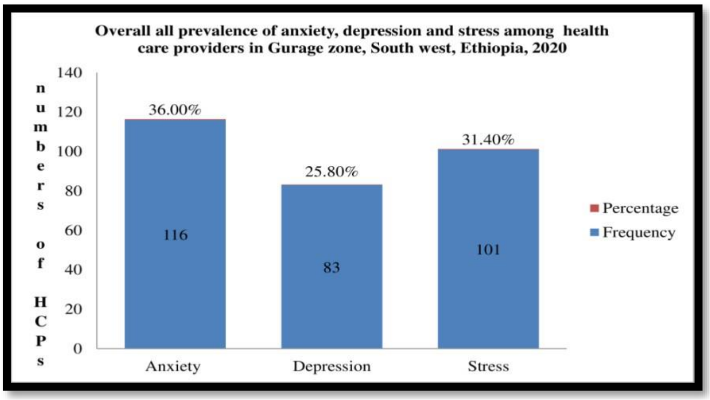

Figure 2 Prevalence of anxiety, depression, and stress. Source: Statista 2023.

2.2. Identification of technology for determining the mental health issues

Different types of technology including AI- And Smartphone-Assisted Therapy, VR for Mental Health, and Digital Symptom Tracking are used in the mental health problem identification and make resolution. Moreover, Prescriptions such as Video Games and The Concept of Digital Pills are also supportive to enhance the treatment of mental problems. As depicted by Keown et al (2020), the technological implementation in the university influences a student to enter the course and experience a less stressful life with higher education. In addition, therapy for mental disorders can be improved by the use of digital technology that attracts students to have a motivated and confident education system. On the opposite side, Michelotti et al (2020) concluded that the lack of technological knowledge reduces the use of AI and digital devices that help to identify the problem of students. The appropriate technology for the identification and solution making of mental illness is important for the development of students. Henceforth, the implementation and appropriate use of that technology should be monitored to enhance the use of that AI.

Figure 3 provides important information about the technology that can use to identify mental health issues. Moreover, the new digital technology supports enhancing academic performance by reducing mental stress.

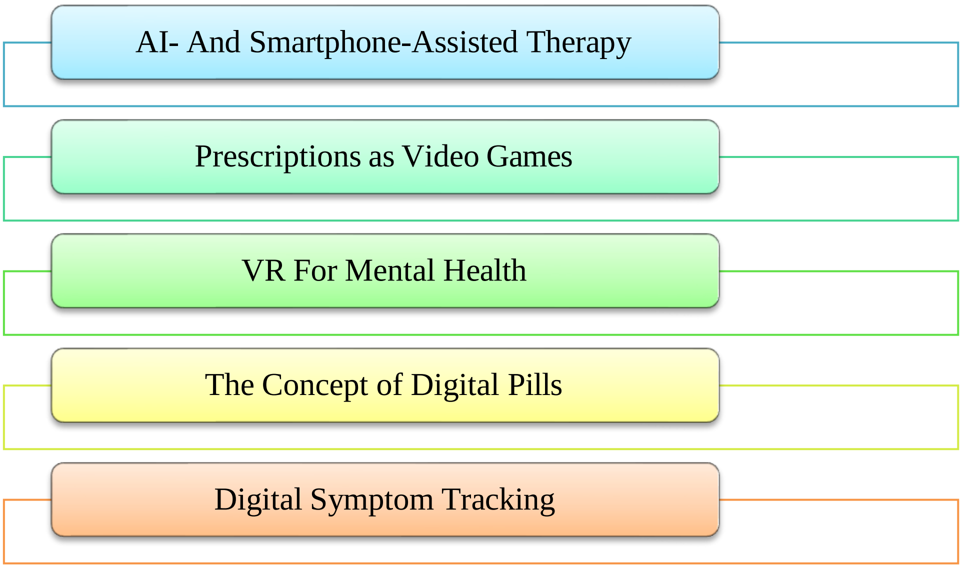

Figure 3 Type of technology used in mental health. (Source: Influenced by O'Connor et al 2020).

2.3. Critical analysis of the latest Applications (app) development regarding mental health improvement

The latest technology provides rapid results through analyzing and diagnosis of the student. Moreover, monitoring and analysis can be effective with technology and AI.

Figure 4 is helpful to improve the idea about the various app that supports the development of the mental condition of the student in the universities. Moreover, there are Apps for Improving Thinking Skills, and Self-Management Apps enhance the thinking capacity of a student to make the student creative and analytic. In this regard, self-management apps help to manage education and other extracurricular activities. As mentioned by Mehta and Ali (2020), Skill-Training Applications and Evaluating Apps are supportive to improve the skills of the student to enhance their confidence level.

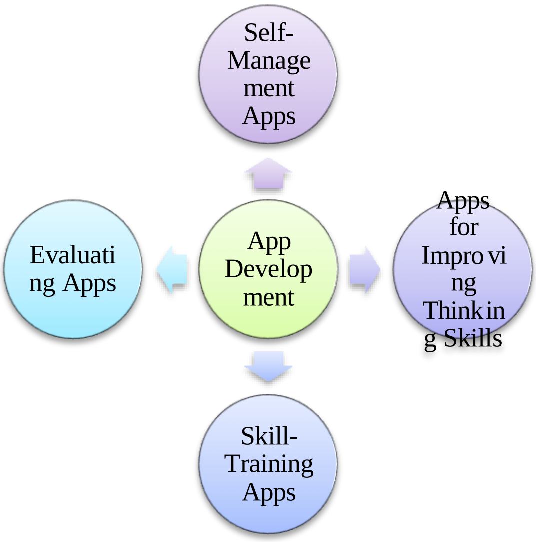

Figure 4 latest app development regarding mental health improvement. (Source: Influenced by Tlachac et al 2022).

3. Methodology

Cutting-edge mental assistance is the latest technology that uses in the improvement of mental awareness in university students to enhance their mental condition. As mentioned by Kulikowski et al (2021), different mental problems include anxiety and depression. Moreover, the problem of the mental health shows a decline in the academic performance of the study and enhances fear of new experience. The information about the latest technology can be gathered in the study to develop knowledge about the latest technology. In addition, the evaluation of the information can enhance the result of the study as well as develop the understanding level of the solution to mental health issues among the students. Communication among the studied and identify the problem enhances the outcome efficiency and supports the development of innovative technology in the university. On the top of that, the technology is implemented and the use of that technology by the student is the most effective and crucial factor in understanding the result of the innovation.

The knowledge regarding apps and technical devices is gathered to enhance the efficiency of the innovative technology used in the university. Mental health is an important factor for a student to improve their academic performance so; the issues should be removed and developed the mental condition. Motivation and confidence make the student more active, effective in their work, and supportive of their future improvement, stated by Mohammad et al (2023). The identification of the particular technology is the crucial part of this study; therefore, the evaluation of the result of that technology among students can be identified to enhance the outcome. The necessity of mental assistance is analyzed in the research, which improves the entire performance of the student. On the opposite side, Pandian et al (2020) noted that the lack of technology use in the research reduces the effectiveness of the outcome of the study.

4. Discussion

The research study discussed the major steps that need to be implemented in the universities to upgrade the students in every possible way by providing cutting-edge mental assistance. In this regard, the study also shed the light on the brief discussion of the significance of the innovative, advance and relevant technologies that can support mental assistance to the students. As stated by Labra et al (2020), the performance levels of students can be enhanced by the implementation of emotional and supportive skills in the universities to improve the reputation the awareness of the mental health and its associated impacts the creative efficiency of the students. Therefore, it results in the confidence building in the students as well as it assists students to build strong and positive attitude towards their future.

On the other hand, Mohammad et al (2023) sheds the light on the significant factors such as the lack of communication between teacher and the students, as it has the deteriorative effects and decreases the efficiency and productivity of the understanding the mental health of the student. However, with the implementation of proper mental assistance skills by the implication of relevant and innovative technology can be more advantageous and supportive to investigate the psychological condition and mental stability of the student. As per the comment of Suzuki (2022), the digital technologies help in the personal development of the students along with the growth and reputation establishment of the professional lives of the individual serving in the universities. As mentioned by Mehta and Ali (2020), with proper implementation of digital technology in the classrooms of the universities can help the students in every possible aspect. Moreover, students can regulate and monitor their disorders as the digital technologies can help to overcome illnesses and their associated challenges.

Moreover, there are several treatments that lead the student to be more productive and creative. As highlighted by Maharjan et al (2022), it has been noted that the students having strong mental assistance, are more likely to be happy and satisfied with their life as, the mental health improvement is significant for establishing a happy life by reducing all the stressful factors. The well-being of the students whether it is emotional, physiological or sociological, are maintained by the mental health stability and the associated mental assistance provided by the universities. Additionally, stable mental health assists to lower the anxiety levels, enhance mood as well as helps to boost the creativity and potentiality to establish strong decision making As it help to decrease the risk of depression by improving the self-esteem. As per the expression by Estien et al (2021), the diagnosing of the mental illness of students can be diagnosed by implementing technological skills as it supports mental assistance to the students by reducing the stress of life.Therefore, stabilizing the sense of inner peace of students can be improved with a good mental condition. Thus Wan and Ni (2020) noted that depression, loneliness, and lack of self-esteem can be lowered by the resolving of the issues by the implementation of different technological tools. Henceforth, the mental assistance provided to the student by the universities improves the performance levels of students in academics as well as the outcome of the education system.

5. Conclusion

The study concluded information regarding the development of mental state and the technology, which is the latest to identify the psychological condition of the student. In addition, the entire study support enhancing the development of the university as well as the students' lives. Future development is also possible to remove mental health issues and improve the creativity and social communication. On the opposite side, Pandian et al (2020) noted that the theory and themes in the study make the topic more understandable and effective. Therefore, the proper analysis of development and implementations of different digital technology by universities is regarded as the crucial part of mental health improvement, which has several impacts on the mental stability of the students as it influences the student to be more creative and confidents. As mentioned by Prameswari et al (2020), free mental healthcare services in the university enhance the performance of the student in education. Therefore, the mental health assistance innovation can build mental health awareness among the students in the university. On the other hand, Wan and Ni (2020) highlighted that the lack of technological knowledge and lack of communication are the two major deteriorative factors that reduces the efficiency of the use of technology in the organization.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Special Issue: Education in humanities in Asian countries

Educational philosophy for Vietnam in the present era

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Abstract The present era witnesses rapid advancements in science, technology, and unforeseen transformations that impact all dimensions of the global economy and society, including Vietnam. Consequently, a comprehensive reform of the education system becomes necessary to address the evolving developmental requirements. This reform encompasses multiple aspects such as organizational structure, administrative management, curriculum content, teaching methodologies, and quality assurance. To navigate the changing landscape effectively, the establishment of an educational philosophy that can guide the activities of educational institutions within the national education system becomes imperative. This article acknowledges the crucial need, given the current state of education, to formulate an educational philosophy that will provide direction for Vietnam's education in the new contextual landscape.

Keywords: philosophy, educational philosophy, education, Vietnam

1. Introduction

In the history of education in Vietnam, education has never been as widely discussed as it is today. Discussions about education extend from macro-level managers to various school institutions, from teachers to parents, and from official state media to people's social networks. These discussions often touch upon the quality of Vietnamese education and are filled with emotions, including praise, criticism, approval, and disapproval. The focus is on education in general and the educational philosophy specific to Vietnam. The main topics of concern include the numerous shortcomings of the current education system, its inability to adapt to socioeconomic development, outdated curriculum content and textbooks, inappropriate teaching methods, ineffective management of many educational institutions, lax quality assurance, an incompatible diploma system, substandard teaching staff, and the heavy burden of enrollment at all levels. The key question raised is what the education sector should do given that our education system is still young, limited in resources and experience, and faces rapid changes in the scientific and technological environment. What strategies are needed in education to be suitable and capable of producing resources that meet the requirements of national development? Should education be based on a pillar philosophy? What is the best content and teaching-learning approach? These are complex issues that are challenging to address and reach consensus on in terms of scientific awareness and social agreement.

The concept of "educational philosophy" has been discussed by many researchers in recent decades, not because Vietnamese history lacks educational philosophy. Essentially, all researchers acknowledge that Vietnamese history has witnessed the emergence of various educational philosophies advocated by notable educators such as Chu Van An, Ho Quy Ly, Nguyen Trai, Nguyen Binh Khiem, Le Quy Don, Nguyen Dinh Chieu, and Ho Chi Minh. In Vietnam, there are currently two main tendencies when discussing educational philosophy. The first tendency, proposed by Thai Duy Tuyen, Do Khanh Tang, and Hoang Minh Thao, is referred to as the "philosophy of education." The second tendency, advocated by Pham Minh Hac, Nguyen Huu Chi, Nguyen Cong Giap, Tran Kiem, Tran Quang Nhiep, and Nguyen Anh Tuan, is referred to as "educational philosophy." Educational philosophy is a historical and contextual matter. In each historical period, educational philosophy has different goals and directions to serve the progress of citizens and the development of the country. It must be constructed based on the realities of each specific historical period, taking into account the environmental circumstances of that time. Importantly, one cannot apply the educational philosophy of one nation or historical period to another, or even within different units or educational and training organizations within the same branch or field. Educational philosophy can only be correct and effective in its guiding role in education and training when it aligns with the historical context, environmental conditions, specific goals of each country, nation, unit, or organization. Therefore, researching and studying the content related to educational philosophy in Vietnam today is an urgent matter in order to identify the guiding ideology for educating and training all generations of citizens in each specific historical period, thereby achieving the country's goals and expectations for individuals and their responsibilities in national and social development.

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2. Materials, methods, techniques, questions, and purpose

Theoretical basis

Based on the theoretical basis of Marxism-Leninism, Ho Chi Minh's thought, guidelines and policies of the Party and State on teaching and training.

Practical basis

The process of leadership, direction and implementation of the Party, State, and localities in the renewal of education and training in Vietnam currently.

Methods

The article uses dialectical materialism and historical materialism in research, and specific methods include analysis, synthesis, logic and history.

Techniques

The article uses the technique of documentary analysis as well as the system of documents relating to the renewal of education and training in Vietnam currently.

Questions

1. What is the basic difference between philosophy and educational philosophy?
2. What are the basic contents of the current Vietnamese educational philosophy?

Purpose

The aim of this article is to analyse and clarify the basic content relating to the current Vietnamese educational philosophy.

3. Results and Discussion

3.1. Characteristics of education in Vietnam today

When considering the current state of Vietnamese education, there are conflicting and sometimes strongly worded opinions. Some argue that national education has made significant progress, particularly when compared to the high illiteracy rates following the August Revolution, thanks to the considerable efforts of the state and the education sector. They acknowledge the achievements despite the existence of challenges and shortcomings. On the other hand, others assert that education in Vietnam is characterized by contradictions and serious deficiencies, lagging behind global standards. Interestingly, both perspectives are supported by reasoned arguments and evidence, according to their respective viewpoints.

Addressing these conflicting opinions requires a calm and objective approach. It is crucial to evaluate the current state of Vietnamese education from a historical standpoint, particularly in relation to the viewpoint of the Party, which serves as the prevailing educational philosophy in Vietnam. This philosophy emphasizes the development of people's intellect, the cultivation of resources, and the nurturing of talent. The success achieved in education today cannot be easily compared to past outcomes, nor can it be directly compared to the achievements of long-established educational institutions in Europe and America, which benefit from strong economic foundations and substantial budget allocations for education.

However, it seems that all three goals mentioned above have not been fully realized. It is challenging to provide convincing evidence by simply comparing the number of degrees with the population, the number of schools and training institutions, the number of international competition awards, the number of research topics and inventions, the number of patents, or the number of highly educated staff members.

Discussions on public forums indicate that current education in Vietnam still faces many limitations and disadvantages, primarily due to low educational quality. Despite being recognized as a top national priority, the actual results thus far indicate that the investment strategy has been inadequate. The education sector struggles to attract talented individuals to teaching and scientific research positions, resulting in a prevalent issue of "brain drain." Moreover, the curriculum content and textbooks are outdated and slow to adapt, focusing heavily on theoretical and academic knowledge while lacking relevance to the dynamic realities of economic and social life. When changes are necessary, they often lead to the neglect of professional knowledge in favor of moral and legal education, as evidenced by the consequences of recent educational practices.

The management of education is also ineffective within the education system. There are conflicting opinions regarding preschools, primary schools, high schools, vocational training institutions, universities, postgraduate schools, specialized classes, renowned schools, new establishments, mergers, separations, and the model of National and Regional Universities. International recognition of Vietnamese universities is still modest, and scientific research outcomes remain less effective.

Current education in Vietnam fails to meet the requirements of developing people's intellect, training resources, and fostering talent. Numerous objective and subjective factors contribute to this situation, but finding suitable solutions to address these challenges is of utmost importance. Education policies have certain shortcomings and deficiencies, and the curriculum content is not appropriately aligned. Examinations at all levels impose a heavy burden, and inconsistent and constantly changing regulations create psychological insecurity, negatively impacting recruitment efforts and distorting the overall image of education. Educational facilities remain insufficient, particularly in rural, mountainous, and ethnic minority areas. The living conditions of teaching and research staff are also challenging, making it difficult to attract highly qualified individuals to the teaching profession.

In online discussions, the term "education alienation" has emerged, tarnishing the positive image of teachers and education managers. Despite various government directives aimed at curbing tutoring and improving diploma management at all levels, the issue persists. Despite numerous education reforms, there has been no significant breakthrough in quality. The field of education holds great significance, not only within its own realm but also for society as a whole, as it shapes the destiny of the nation in the near future. In our view, taking into account the historical specificity and the reality of the education landscape, it is essential to objectively evaluate and accurately assess the state of education. This evaluation will serve as the foundation for determining a reasonable policy. It is important to recognize that the education models of developed countries cannot be directly applied to Vietnam. Similarly, maintaining the current model of education without adapting it to specific periods of time is not an effective approach. The challenge lies in identifying an appropriate model that draws from the best practices of developed countries while incorporating the relevant elements of Vietnam's political, economic, and cultural context.

Establishing and promoting an educational philosophy is a necessary mission as it provides clear guidance for the future development of a robust and effective education system. By doing so, we can ensure that education in Vietnam is aligned with the right principles and values, empowering individuals to contribute to national and social development.

3.2. The Philosophy and educational philosophy

In order to establish the core content of Vietnamese educational philosophy, the first step is to define and unify the internal understanding of philosophy. Philosophy should not be confused with philosophy itself. Philosophy, as a science, has its own research subjects, methods, and a system of results expressed through categories, principles, and rules, with rules being the central component. Philosophy encompasses a comprehensive system of theoretical viewpoints that address the world and the role of individuals within it. It represents a general awareness that is conveyed through propositions and serves as the foundational concept guiding both cognition and human action. Philosophy holds significant spiritual value, generating a strong belief system that acts as a guiding principle for individual or communal behavior, actions, and lifestyles. As such, philosophy is an aspect of an individual's or a community's awareness, specific to a particular field, and provides direction and meaning to education by virtue of its correctness.

In practice, individuals or communities also possess their own philosophies, which are documented or implicitly accepted as values voluntarily adhered to without conditions. The activities of individuals or organizations based on a particular philosophy differentiate them from others, illustrating the effectiveness and value of that philosophy.

Based on the aforementioned perspective, educational philosophy is a concise and clear viewpoint on education held by those who fulfill an educational function. It encapsulates the core ideas and provides guidance for the formulation of policies, teaching and learning methods, curriculum design, and the instructional process. Teaching and learning is not solely the responsibility of individuals but also involves organizational entities such as management agencies, schools, and training institutions. Therefore, educational philosophy serves as a legal document that governs education management, teachers, and students, establishing the principles that organizations and individuals must adhere to. Educational philosophy, issued by government agencies and approved by educational institutions, teachers, students, and the broader community, plays a critical role in ensuring consistency and effectiveness within the educational system.

In Vietnam, the lack of unified internal educational philosophy has resulted in persistent challenges in teaching and learning at all levels. Despite numerous adjustments, changes, and reforms, the education industry has not achieved the desired outcomes. Educational philosophy, by delineating the direction of education and the fundamental tasks of the teaching and learning process, determines the quality, capacity, and responsibilities of learners, teachers, schools, families, and society. It provides valuable guidance for educational institutions in transforming the knowledge system, developing skills, and shaping attitudes in accordance with set goals.

From this perspective, educational philosophy can only be effective when tailored specifically to each subject, level, and form of education. The educational philosophy for preschool education, for instance, will differ from that of general education, vocational training, or university education. It is for this reason that few countries around the world incorporate educational philosophy into legal documents, often using it as a guiding principle. National Education Commissions or Ministries of Education and Training of various countries rarely include a dedicated section defining their educational philosophy. Similarly, major and reputable universities typically do not have a separate section explicitly outlining their educational philosophy, but rather, they present the philosophy's content in a clear, concise, and succinct manner as part of the institution's overview, which defines its mission, goals, core values, and vision.

3.3. Is there currently an educational philosophy in Vietnam?

The question of whether there exists an educational philosophy in Vietnam has been vigorously debated in the fields of research and education management. Numerous discussions, exchanges, and scientific seminars have generated conflicting opinions on this matter. Some individuals assert the existence of an educational philosophy, while others refute it, citing the absence of this term in any official state management documents. This issue becomes more complex if one solely considers the use of words. Some default to the belief that Vietnam possesses an educational philosophy, even though it has not been explicitly stated in words or enshrined in legal documents. The educational achievements of Vietnam since the establishment of the Democratic Republic of Vietnam serve as clear evidence. Presently, various viewpoints on educational philosophy in Vietnam are being debated:

Firstly, educational philosophy is manifested in the grand vision of the Party and the State, encapsulated in the significant endeavors related to education outlined in the Platform and the resolutions of Party congresses. This reflects that Vietnamese education continues to progress along the right path, achieving remarkable accomplishments in national defense and development. Educational philosophy is also specified in legal documents, such as the Law on Education 1998, Law on Education 2005, Law on Education revised in 2009, Law on Higher Education 2012, Law on Vocational Education 2014, Law on Higher Education revised in 2018, and Law on Education 2019.

It would not be convincing if the development of strategies were considered as a mere branch of the Party's resolutions, as this would violate the laws governing the adjustment of specific branches of legislation. The task of philosophy is to provide guiding ideologies, measures, and enforcement mechanisms to restore order. While the plan is determined beforehand, the actual implementation does not significantly differ from the specific philosophy.

Secondly, there is a viewpoint asserting that Ho Chi Minh's thoughts on education affirm the educational philosophy in Vietnam. Ho Chi Minh's philosophy on education was previously confirmed through his instructions, articles, and speeches in the field of consistent education and philosophy. For example, statements such as "Study to learn, to be a human, to become a cadre, study to serve the whole fellow citizen, classes and people, the nation and humanity. To achieve this, one must be diligent, economical, unselfish, serious, and prioritize the benefits of the people," "The benefits of growing trees within 10 years, the benefits of nurturing people within 100 years," "Not to tire of learning, not to weary of teaching," and "To build socialism, one must first have socialists" emphasize the importance of education in the formation of revolutionary generations.

Ho Chi Minh emphasized that education's role is to unleash learners' abilities, and educational information must encompass understanding of constitution, intelligence, aesthetics, and morality. The method of education is closely linked to the family, school, and society. In letters addressed to students at the beginning of a new school year on October 20, 1955, Ho Chi Minh wrote:

"- Constitution: Strengthening personal health and hygiene
- Intelligence: Reviewing lessons and acquiring additional knowledge
- Aesthetics: Recognizing beauty and non-beauty
- Morality: Loving the nation, the people, labor, science, and the public."

The philosophical understanding of education extends to the holistic development of individuals in terms of morality, constitution, and aesthetics to build a stronger society. This confirms that the educational philosophy in Vietnam aligns with Ho Chi Minh's ideals and is not misguided.

Thoughts on various sectors such as politics, economics, military affairs, diplomacy, culture, arts, and education are not the entirety of the philosophy pertaining to those sectors. Legalization of the text may be acceptable, but without it, the understanding would be incorrect.

Thirdly, Vietnam's philosophy is vividly expressed in UNESCO's perspective on education, which is based on four pillars: "learning to know, learning to do, learning to be, and learning to live." Currently, many international organizations, nations, and countries adopt their own philosophies of education, tailored to their specific contexts, and Vietnam is no exception. Some argue that this philosophy is clearly reflected in the strategic development of education and training in Vietnam, as evidenced by the achievements made in the field of education over the decades.

In reality, all endeavors are inherently influenced by the political, economic, and cultural foundations. Vietnam, with its unique characteristics among nations worldwide, faces various complexities, making it challenging to develop a broad philosophy that universally encompasses humanity. Philosophical education should be tailored to Vietnam's specific circumstances, taking into account the factors of national character that must be integrated into the philosophy.

Thus, the field of education in Vietnam operates based on an educational philosophy derived from various sources, including opinions, party directives, state laws, and Ho Chi Minh's thoughts on education. However, this philosophy is not explicitly articulated in official discourse, as the guiding principles of the law are clearly delineated in Vietnam's educational philosophy.

Fourthly, culture and education in Vietnam undergo a developmental process that embraces value perspectives on education from both Eastern and Western histories. However, the three major influences in Vietnam, namely Confucianism, Buddhism, and Taoism, hold their specific significance in shaping the philosophical aspects of folk education.

During the Spring and Autumn - Warring States period, Confucius laid the foundation of education based on his perspectives and principles, which included:

- Cultivating virtuous character
- Loving the people

- Pursuing perfection
- Practicing sincerity, self-improvement, maintaining harmony in the household, and governing the state.

Confucius emphasized that learning should encompass knowledge of the source, principles, and morality, as well as the acquisition of new knowledge and the application of knowledge to improve oneself, manage the household, society, and ultimately strive for global peace.

Buddhism, with its profound insights, addresses education by emphasizing its purpose to guide individuals towards morality, self-understanding, and responsibility. Buddhism seeks to help individuals progress spiritually and attain enlightenment for their own salvation and the benefit of others. Thus, the essence of Buddhist education lies in finding the path, understanding truth, and acquiring beliefs and knowledge to enhance oneself while restraining destructive tendencies.

From a Taoist perspective, knowledge is inherent in people. Taoism emphasizes that one can gain understanding without external pursuits. It recognizes the innate purity of human nature and promotes the idea of "learning without learning," suggesting that the best form of education is achieved by letting go of formal education and returning to one's inherent purity.

Fifthly, when discussing educational philosophy in Vietnam, it is important to consider the concepts found in the treasury of proverbs and folklore. Although these expressions may not be highly generalized, their benefits are evident, as they are easy to memorize, apply, and yield productive results. They encompass various aspects of educational philosophy, including goals, methods, and knowledge.

Drawing from Confucianism, a popular saying that represents the long-standing educational philosophy, albeit currently subjected to criticism, is "respect learning first, then prioritize culture." In the treasury of folklore, ancestors pass down their wisdom and experiences related to education. Over thousands of years, they have defined the purpose of learning as acquiring knowledge and improving one's quality of life, and they offer guidance such as "learning is about improving quality and finding the balance between advantages and disadvantages" and "embracing the freshness encountered along the way."

The role of education is emphasized through proverbs like "an uneducated person is like an unpolished gem" and "to understand, one must seek knowledge." Learning is not confined solely to academic pursuits but encompasses responsibility, interests, and strong determination, as expressed in sayings such as "practice leads to talent" and "perseverance is key."

The value of learning from different sources is highlighted in proverbs like "learn wisdom from speech, learn thriftiness, and learn generosity" and "learning through practice." The importance of disciplined learning is conveyed through expressions like "learning from a knowledgeable teacher, not just friends" and "hard work leads to intelligence." The role of teachers is also acknowledged with proverbs such as "do nothing without a teacher" and "to excel, one must hold teachers in reverence."

3.4. Educational philosophy of universities in the world and Vietnam

Globally, philosophic education is rarely explicitly defined in constitutions and educational laws. Even renowned universities do not include specific terms regarding educational philosophy, highlighting the general nature of these institutions. At Harvard University, for instance, there are no explicit terms related to educational philosophy; the university's abstract simply states, "Harvard University is dedicated to excellence in teaching, learning, and research, and to developing leaders in many disciplines to make a difference globally" (Vy, N.D, 2008).

Similarly, Yale University's educational philosophy, upon its establishment in 1701, was as follows: "Yale was devoted to expanding knowledge, fostering creativity and inspiration, and preserving cultural and scientific knowledge for future generations" (https://www.yale.edu/about-yale).

Cambridge University in the United Kingdom also emphasizes its prominent missions and values: "Cambridge University's missions include contributing to culture through pursuing educational goals, fostering learning, and promoting freedom from discrimination" (https://www.cam.ac.uk/about-the-university).

The National University of Singapore (NUS) desires to establish a reliable community of authors, researchers, staff, students, and alumni who collaborate to foster innovation and integration for a promising future. The university places great importance on nurturing talent and ensuring the quality of education, researching its impact, and envisioning its role in serving the nation and society. Their vision is to become a top university globally, with a focus on future planning. Their mission is centered on education, creativity, inspiration, and change. Their values encompass innovation, patience, excellence, respectability, and straightforwardness (https://www.cam.ac.uk/about-the-university).

These specific examples illustrate that nearly all universities worldwide do not explicitly state their educational philosophy. Instead, they outline their missions, visions, and core values.

In general, the missions of renowned universities around the world can be considered their educational philosophy. They prioritize the learner, ensuring the highest quality of education, while also leveraging the expertise of individuals in research, teaching, and studying. These universities strive to create new value through effective communication and a commitment to the values process.

In Vietnam, universities are still in the early stages of development. Many aspects are lacking, including low-quality education, fledgling management, adherence to government standards for quality monitoring, and limited international standards. Financial autonomy is a pressing issue, as is the heavy focus on theoretical knowledge that is often disconnected from practical applications in production, business, and daily life. The research capabilities and international publication outputs of Vietnamese universities remain relatively low, and their ability to rank globally is limited. Collaboration between universities, both domestically and internationally, is loose and inefficient.

Despite these challenges, some universities in Vietnam have established specific targets to define their educational philosophy, while others express it through their mission and vision statements. The issue lies in universities' reliance on individual leaders and collective leadership within educational institutions, rather than a systematic approach to higher education.

By formalizing educational philosophy, universities facilitate thoughtful consideration of their objectives, schedules, methods, system design, and operational management.

When constructing educational philosophy in Vietnam, universities consistently emphasize the value of high-quality education and scientific research to guide future orientations. They also prioritize international integration, highlighting the uniqueness of their programs and career opportunities. The focus is on leveraging the quality of individuals to affirm their value and contribute to societal development.

For instance, the Vietnam National University (VNU) states its mission, vision, and core values as follows: "Mission: To educate high-quality human resources, foster talent, engage in scientific research, develop technology, and facilitate interdisciplinary and multidisciplinary collaboration. VNU aims to contribute to the construction, development, and national defense, while leading the higher education system in Vietnam. Vision: By 2030, VNU aspires to become a research-oriented, interdisciplinary, and multidisciplinary university with high levels of integration. Some of its universities and research institutes specializing in basic sciences, high technology, and the economy aim to achieve recognition in Asia.

Core values at VNU encompass high quality, creativity, leadership, integration, responsibility, and sustainable development. The university's slogan is "Excellence through Knowledge" (https://www.vnu.edu.vn/ttsk/?C1917/N27921/Su-mang, tam-nhin-va-gia-tri-cot-loi.htm).

Similarly, Hanoi University of Science and Technology, in the abstract does not have parts showing their educational philosophy, but in the *mission* and *vision* are showing specific *educational philosophy* for training institute have traditional in sectors of technology *“Development of humanity, training human resources, scientific research, creative technology and transfer knowledge, serving society and nation, with the vision “ to become a university leading area with the core is technique and technology, interacting to economic growth and contributing to keeping the law, peace of the nation, leading in higher university in Viet Nam”, through the core values of the system: Quality - efficient; dedicated-devoted; straightforward-respectable; talent of individuals - collective knowledge; inherit-create*”(https://www.hust.edu.vn/su-mang-tam-nhin-gia-tri-cot-loi).

National Economics University, confirmed their values in the economy and Business Administration, all the information of educational philosophyare showing in mission: “*National Economics University has the mission supply the product of training for the society, scientific research, consultant, apply and transfer high quality of technology, contributing to the industrialization, modernize in the circumstance integrate to the international economy* (https://khaothi-dbclgd.neu.edu.vn/vi/gioi-thieu-4047/su-menh-tam-nhin-dai-hoc-kinh-te-quoc-dan)

Recently, some universities have begun constructing educational philosophyfor them to orientate for training activities, scientific research to create their brand. Such as, the University of Economics, The University of Da Nang, determining strategies for the development of the university have the parts statement educational philosophy: “*We believe that higher education plays the important role in “constructing social in the future”. We pursue educational thought, with humanity, scientific spirit and the activity of learning the whole life of individuals for building prosperity in society. Three main parts in their education are: “ liberate - Self educated - benefit”* (https://due.udn.vn/vi-vn/gioithieu/gioithieuds/cid/3591.)

Ton Duc Thang University, recognized as the leading international scientific institution, presents its essential components as follows: The educational philosophy is guided by the principle of nurturing humanity. The mission focuses on education, research, and innovation to foster human development. The vision aims at advancing humanity and creating a peaceful and happy world. The university upholds high standards based on four criteria: university lecturers, training quality, infrastructure, and international collaboration. The objective is to position the university's research among the top 200 universities globally. The university culture is characterized by quality and reliability. The principles of conduct emphasize justice, effectiveness, and service. The slogan captures the essence: "From there, the light will illuminate everywhere in the galaxy."

During university introductions, there is little differentiation from other institutions. However, Vinh University prioritizes a state educational philosophy centered on collaboration and creativity, aiming to equip students with the adaptability needed in the current context.

Therefore, whether universities desire it or not, they must establish their educational philosophies. These philosophies serve as guiding statements for their missions, visions, and governing activities. It is crucial to note that educational philosophy encompasses aspects such as personal development, humanistic values, constitutional principles, sustainability, careers, and cultural norms, all while aligning with the nation's educational philosophy.

Regardless of their public or private nature, nearly all universities in Vietnam have recently developed independent educational philosophies. The common thread in these philosophies emphasizes the quality of education, scientific research, and optimal learning environments to cater to the needs of students. The universities' commitment to learners ensures the reputation of educational institutions, the value of diplomas, and the responsibility of utilizing resources to meet social demands and contribute to the community.

4. Conclusions

All aspects of socioeconomic life have been profoundly impacted by the rapid development of science and technology. This necessitates a true revolution in education, one that differs from traditional approaches, in order to cultivate high-quality human resources capable of meeting future development requirements. Hence, the promulgation of a Vietnamese educational philosophy becomes imperative. The educational philosophy holds significant importance for a country's education system as it determines the direction for education, sets the goals for teacher standards, defines the knowledge, skills, and attitudes learners should acquire at all levels and forms of training, establishes programs, teaching methods, and guides the management of educational institutions. To accomplish this, the state should establish a group of knowledgeable and dedicated scholars and educational administrators who can develop the contents of the Vietnamese educational philosophy with concise requirements, including the fundamental aspects of vision and mission within the education sector. This crucial task requires objective and scientific surveys, seminars, critiques, and debates. Once a consensus is reached within the education industry, official recognition should be followed by the incorporation of the educational philosophy into legislation.

Research suggests that philosophy of education falls under the domain of social philosophy, specializing in the study of education's goals, forms, methods, and outcomes as a process and a sector within the social realm. Philosophy of education focuses on analyzing, explaining, and implementing educational ideas. Numerous questions arise within this field, such as: What is education? What are its purposes? What should learners study? How should teachers teach? Educational philosophy represents the viewpoint, the central concept, and the core of education put forth by those involved to guide human actions. The overarching question that educational philosophy seeks to answer is the purpose of teaching and learning activities and how the education system aims to develop individuals. Educational philosophy serves as the guiding principle for states, organizations, and educational institutions in their mission to educate and train generations of citizens, fulfilling the country's expectations of its citizens and their responsibilities for national and societal development. Educational philosophy always possesses historical and specific characteristics, therefore exhibiting different goals and directions for education during different periods of history, aligning with the progress of citizens and the country's development. Educational philosophy must be tailored to the reality of each historical period, suiting the environment and conditions, as well as the specific goals of each country, nation, unit, or organization within the realm of education and training. Consequently, educational philosophy is only valid and effective in guiding education and training when it aligns with the historical context, environment, and conditions, and corresponds to the specific goals of each country, nation, unit, or organization.

In the present context, the progress of Vietnam over the past 36 years has been notable. Since 1986, economic and political reforms have spurred rapid economic development, propelling Vietnam from being one of the world's poorest countries to a low- to middle-income nation. As a result of deep economic integration, the Vietnamese economy has faced significant challenges amidst the COVID-19 pandemic while demonstrating considerable resilience. Vietnam has witnessed rapid changes in its population and society. The country's human capital index surpasses the averages of the East Asia-Pacific region and lower-middle-income countries. Healthcare has also made substantial advancements in tandem with improved living standards. Nevertheless, Vietnam's rapid growth and industrialization have had adverse impacts on the environment and natural resources. Urbanization, economic expansion, and population growth have brought about increasing challenges in waste management and pollution control. The government is actively striving to mitigate the effects of growth on the environment and effectively adapt to climate change. Numerous strategies and plans have been implemented to develop the country and improve people's living standards, firmly protecting the independence, sovereignty, unity, and territorial integrity of the Fatherland. Faced with these opportunities and challenges, the mission of education and training is to enhance intellectual capabilities, develop resources, and nurture talent, making a significant contribution to the country's development and the cultivation of Vietnamese culture and people. The development of education and training, alongside advancements in science and technology, is a top national policy. Investing in education is synonymous with investing in development. The comprehensive renewal of education and training is based on the societal development needs, aiming to enhance quality in line with standardization, modernization, socialization, democratization, and international integration, all while effectively serving the cause of national construction and defense. Therefore, the discussion and exploration of the Vietnamese educational philosophy hold both theoretical and practical significance in the current context of Vietnam. However, this research has not yet presented a comprehensive examination of the factors influencing the Vietnamese educational philosophy today.

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Conflict of Interest

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Digital storytelling as a method for teaching writing skills

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Abstract The objective of this study was to assess the writing abilities of pupils, employing an experimental research design. The participants consisted of Grade 10 students from Inopacan National High School. Two tools were utilized: the control group used a module, while the experimental group utilized digital storytelling. The analysis revealed that the students' writing skills were good when using both the module and digital storytelling, with minimal difference between the two approaches. The findings indicate that the teacher's intervention and initiative play a crucial role in providing pupils with the best opportunity to address their writing weaknesses. Based on the results of the study, it is recommended that further research be conducted to explore ways of enhancing students' writing abilities and implementing interventions to facilitate ongoing skill development, particularly in addressing areas of weakness among students.

Keywords: development, module, teacher's intervention, weaknesses, writing abilities

1. Introduction

Both teachers and students can greatly benefit from using digital storytelling as a creative teaching strategy to boost students' writing abilities. One of the issues the researchers identified in their students' writing abilities. Because their students struggle with basic writing skills such as proper word usage and mechanics, it is a concerning issue. This study was created in response to this.

The use of technology and digital media in storytelling is known as "digital storytelling." Its goal is to create a teaching tool that may be used as an intervention to improve the writing abilities of children in Grade 10. The stories develop into multimedia experiences. Around the world, billions of mobile devices are in the hands of people around the world, and an ever-increasing percentage of those devices contain video cameras, still cameras, and microphones.

One of the most crucial skills that any student should possess is writing, but most struggle to write well (Bruma and Marbella, 2019). In a poll by The Chronicle of Higher Education, it was found that 61% of teachers claimed that their students could not write longer than five pages, which provided further evidence of this claim. Thus, they lack the necessary training to acquire writing skills. It has been established that other people experience this issue in addition to the researcher.

In reality, the findings of the study by Bruma and Marbella (2019) show that pupils in the second level of secondary school frequently make grave errors when writing official letters in Filipino. According to the study's findings, pupils lack a basic understanding of the structure, topic, and mechanics of essay writing. Due to a lack of writing practice, students have these deficiencies.

According to Yamac and Ulusoy (2016), the importance of supporting students in the development and utilization of various writing abilities to prepare them for life in the 21st century cannot be overstated. The use of teaching aids is considered an intervention that can facilitate the completion of teaching and learning tasks for both teachers and students. The equipment used in teaching is systematically arranged to create a favorable learning environment for students (Bacalla, 2019). The necessity of setting writing objectives, organizing thoughts, adhering to grammar rules, using appropriate word choices, punctuation, and spelling is emphasized (Odewumi et al 2019). This assertion drives the researchers to consider interventions aimed at strengthening their students' areas of weakness.

The K to 12 Filipino Curriculum Guide (2016) establishes benchmarks for each grade and places significant emphasis on writing as a macro ability. According to this guide, students who have completed grade 10 should be capable of utilizing technology to showcase their communication skills, understanding, and enthusiasm for literature. To achieve this objective, the researchers assessed the effectiveness of digital storytelling as a strategic intervention.

Rong and Noor (2019) contend that one of the contributing factors to students' poor writing abilities is the teaching methods employed by teachers. Given the necessity of adapting schools to the 21st century, the use of technology in the classroom has become essential, regardless of teachers' personal preferences. School administrators consistently advise

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teachers to tailor their lessons to the interests of their students. The importance of exposing the current generation to technology in order to prepare them for the future is widely acknowledged.

This rationale underpins the researchers' encouragement to implement a technological intervention. As educators, the researchers believe it is crucial to address their students' weaknesses, particularly in writing. They anticipate that the findings of this study will be valuable for teachers who also grapple with their students' poor writing abilities. The study employs digital storytelling as a means to evaluate students' writing skills.

2. Theoretical/Conceptual Framework

This study used Berman's (2020) statement as a basis for analyzing students' writing skills. Berman (2020) explains that technology makes students creative in writing (Figure 1). With technology, students learn new things they did not know before. In this statement, it is only stated that technology can help develop students' writing skills.

Hughes (1998), who was cited in Emberda's (2021) thesis, described how teachers used technology in their lessons, how they learned about using it in the classroom, and what knowledge and learning outcomes resulted from doing so. This idea emphasized how some schools have been slow to update their writing curriculum to incorporate new technologies, although writing has become a crucial skill for younger generations. This article suggests that using technological gadgets can help pupils improve their skills. Lopez (2017) shared that in global competition, students will be exposed to technologies.

In response to this need, the DepEd Computerization Program (DCP) has undergone further expansion. To address the issue, an Aide Memoire titled "Accelerating DepEd Computerization Program: Digital Learning Requirement" was issued. Its objective is to provide public schools with the necessary technologies to enhance the teaching-learning process, meet the challenges of the 21st century, and address the ongoing pandemic. In line with DepEd Memo No. 280, s. 2011, which aligns with Berman's statement (2020), the implementation of the DepEd Computerization Program for Batch 7 e-classroom packages aims to employ suitable e-learning teaching tools that can enhance students' learning outcomes to meet the demands of the K to 12 program and produce students equipped with 21st-century skills. It is widely recognized that the majority's understanding of democracy serves as the foundation for valuing the development of every individual.

Education is very important to the development of humanity and the transformation of society. It is thought to be a pillar in developing skills so they can be completely exploited, and it will also pave the way for creating a better society. Humanity is united by education around the world. According to some, education is the only tool that can be used to mend and improve relations between countries. Therefore, it is a huge honor for a teacher to create a successful tribe. The educational curriculum is always changing as well.

Increasing teachers' knowledge can help them stay current and avoid getting left behind when things change. To make lessons more understandable and to keep students' attention and memory, teachers must use new teaching techniques. The educational curriculum is always changing as well. Increasing teachers' knowledge can help them stay current and avoid getting left behind when things change.

To enhance lesson comprehension, sustain student attention, and promote better retention, teachers must incorporate innovative teaching techniques. In this particular study, digital and modular storytelling were employed by the researchers to emphasize the writing skills of Grade 10 students. The participants' proficiency was evaluated based on five key aspects of writing: content, organization, vocabulary, usage, and mechanics. The utilization of digital storytelling as a teaching resource resulted in the creation of various products.

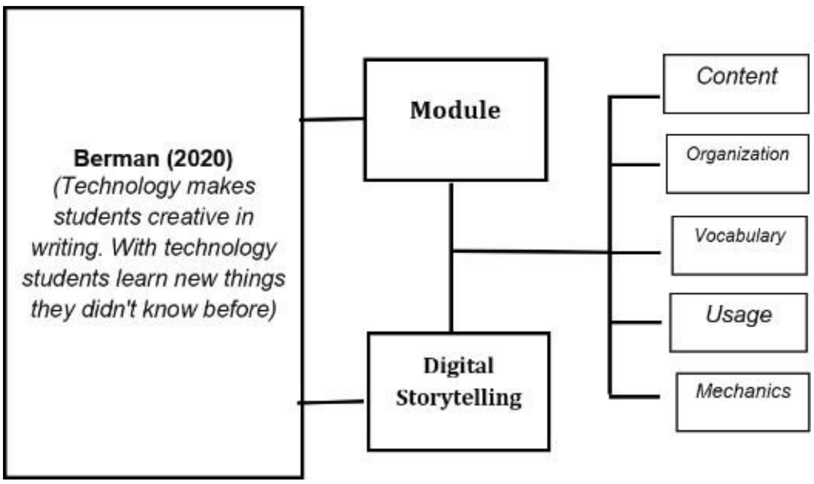

Figure 1 Schematie Diagram of the Study.

3. Materials and Methods

The experimental approach was employed in the study. The experimental method is a scientific approach to research that gives the researcher complete control over the variable under study so they may monitor and assess any changes in the variable's condition that they wish to investigate. Using a quasiexperimental research design. Students in grade 10 were made into the study mix with 17 girls and 15 boys. The researcher evenly divided the students based on their grade point average (GPA). In the grouping, it was determined who the participants will use the module and for digital storytelling where they will receive equally from the highest to the lowest GPA. The instrument used is stories contained in the Grade 10 module. The researchers have prepared three stories that will be the basis of this analysis. Both stories were prepared for the students who would use the module in the control group and the digital storytelling for the experimental group.

Three (3) stories from the Learners Material (LM) in Filipino 10 were developed by the researcher, who also included references to modules based on the Most Essential Learning Competency (MELC). The first two works are contained in the second mark titled "Ako Po'y Pitong Taong Gulang", which is a short story, and "Aguinaldo ng Mago" by O. Henry, which is a short story. The third mark includes Barbara Kimenye's short story "Ang Alaga," which is the third work.

The works are carefully chosen for the students based on the themes they cover and the time frame in which they are distributed. Students must respond to a specific question for each task as part of the experiment. Similar questions were posed to the two groups, and their responses required them to each contribute an opinion of at least 150 words to determine the five components of writing (content, organization, vocabulary, use, and mechanics), which served as the foundation for the analysis that followed Mabalhin and Marbas's (2019) study.

Researchers have created criteria or rubrics to evaluate students' writing abilities. The criteria were taken from Tabec (2013). The researchers divided the students according to their grade point averages in the Filipino subject. There were students in both the experimental group and the control group. The participants in the control group learned using the conventional method, which consisted of attentively reading the module's carefully chosen stories before responding to the questions. The same chosen stories that were applied or employed by multimedia in the digital storytelling method were used in the experimental group, and the same question was addressed.

In both groups, the researcher utilized the same device. The control group received a response first, followed by the experimental group, according to the researchers. The researchers gave the participants instructions on what to do before the story began. Their learning task includes this work. After the participants responded to the preprepared questions, the researcher engaged three teachers with master's degrees who assessed the participant's skills.

The researchers produced or developed a teaching tool that made use of e-learning materials after studying the study's findings. The researchers created an LAS to ensure that the included activities were in line with the competency after creating the instructional materials. The researchers analyzed, interpreted, and forecasted the gathered data using statistical techniques. In this investigation, the weighted mean was employed. The mean is useful since it takes into account the results from all of the research study's subjects.

4. Results

4.1. Students' Writing Skills Using Module Tasks

Table 1 answers problem 1, showing the results of students' writing skills using tasks from the module.

Table 1 Students' Writing Skills Using the Module.

Component	Weighted Mean	Description
Content	15.6	Satisfactory
Organization	15.95	Satisfactory
Vocabulary	15.2	Satisfactory
Usages	11.2	Satisfactory
Mechanic	9.7	Fairy Satisfactory
Average	13.53	Satisfactory

Criteria:
25-21 Outstanding
20-16 Very Satisfactory
15-11 Satisfactory
10-6 Fairy Satisfactory
5-1 Did Not Meet Expectations

4.2. Students' Writing Skills Using Digital Storytelling Activities

The study of students' writing abilities utilizing the digital storytelling intervention is shown in Table 2. The results show that two of the five components or elements—the content has a weighted mean of 19.6, the organization a weighted mean of 19.45, the vocabulary a weighted mean of 19.1, the tool a weighted mean of 17.25, and the mechanics a weighted mean of 17.15—performed well.

Table 2 Students' Writing Skills Using Digital Storytelling.

Component	Weighted Mean	Description
Content	19.6	Very Satisfactory
Organization	19.45	Very Satisfactory
Vocabulary	19.1	Very Satisfactory
Usages	17.25	Very Satisfactory
Mechanic	17.15	Very Satisfactory
Average	18.51	Very Satisfactory

Criteria:
25-21 Outstanding
20-16 Very Satisfactory
15-11 Satisfactory
10-6 Fairy Satisfactory
5-1 Did Not Meet Expectations

4.3. Differences in Students' Writing Skills Using Modules and Digital Storytelling

The result shown in Table 3 is the result of the analysis of the contrast of students' writing skills using the module and digital storytelling.

Table 3 Differences in Students' Writing Skills Using the Module and Digital Storytelling.

Variables	t value	p value	interpretation
Module vs Digital Storytelling	0.096	0.759	There is no significant difference

5. Discussion

Table 1 makes it evident that while the mechanical aspect received a bad description, the other four writing elements—content, structure, language, and usage—all received good descriptions. The outcome clearly demonstrates that grade 10 students possess the ability to offer activities that are consistent and acceptable with the assignments that the teacher has prepared. The students were able to set up the activities based on what they had created because they grasped the material completely. Students are therefore adept at employing creative language. However, this result is somewhat concerning because, although mechanics is the simplest of all the writing components, it has a low skill level, as evidenced by its low weighted mean of 9.7, the lowest of all components.

The proper use of capital and lowercase characters, as well as punctuation, is referred to as mechanics. Vocal (2019) and Flores (2018) claim that the teacher began instructing the students in mechanics while they were in the first grade. This outcome is concerning because if mechanics such as punctuation and the proper use of small and capital letters are employed wrongly, the elegance of the text, organization, vocabulary, and grammar accuracy will be irrelevant. According to Vocal (2019) and Flores (2018), many students fail to employ proper spelling, punctuation, capitalization, italics, writing numbers, and word and paragraph brevity. In reality, both of their participants performed poorly, particularly in terms of writing mechanics, which was also a problem in this study.

It is disappointing as a Grade 10 teacher because it is expected that at their level, they have been careful with proper writing. Notice that the word that should be written in capital letters such as Britty is written in small letters and that the common noun that is the dog is written in capital letters. This was one of the mistakes noticed by one of the students while checking their answers. "Before, I used to love Dogs. Now my pet Dog is britty!".

Usage describes how a word should be used correctly or appropriately. Usage scored the second lowest of these skills, with an 11.2 weighted mean. This weakness is one of the most frequently observed weaknesses in studies. This result is a related result of Legaspi's (2020) study, and the writing component used in both studies obtained a good description. This simply means that every teacher must emphasize and focus on punctuation, spelling and other components of writing so that students can succeed in any written task. Having enough writing skills for every student is a great success for every teacher in his teaching.

It can be observed from the results in Table 2 that in each component of writing, all the participants had good skills. It is indicated here that e-learning tools such as digital tools can help in developing the weaknesses of students. This is confirmed by the results shown in Table 2.

As a Grade 10 teacher at Inopacan National High School, we will continue to assign writing assignments. It now forms a component of the exercises the instructor planned for his students. One of the qualities that students in Grade 10 are encouraged to build is writing proficiency. To succeed in their academic activities, students must be ready for a new chapter in their education where this skill is one of the prerequisites. As a result, it is important to emphasize the teaching tools and the tactics that will be utilized to strengthen any student weaknesses, particularly in the components of usage and mechanics, because both groups had low weighted means while using the modular and digital methods. It merely suggests that the teacher, particularly the researcher, may need to put twice as much effort into his activities, techniques, and interventions if he is to be successful in shaping the minds and skills of students.

It just demonstrates that the instructor, particularly in Grade 10, will genuinely care about his students' welfare. Being a teacher of Grade 10, we find it concerning that their former teachers or institutions of higher learning will have an impact on the aptitude or performance of college students. The researchers then completed the assignments given to the two student groups. Five members of the experimental group participated in a casual conversation with the researcher to discuss their feelings while carrying out the planned assignment. The participant who said that "classes that employ technology like narrating a tale are interesting since it is engaging to watch and easy to take in what is told" expressed the same opinion. One participant even stated, "It is easy to get the message or content of the story in these devices".

Kamariah et al (2018) suggested that the current instructor should be in accordance with his students' interests in response to the participants' statements. Everyone is aware that today's students are surrounded by a variety of gadgets and technology that teachers view as tough competitors for pupils' attention and academic success.

The development of today's youth's knowledge is aided by their obsession with various technologies, which every institution of higher learning must keep up with. The instructor needs to have instructional materials so that everyone can receive a good or quality education, as stated in Section 3 of the Education Act of 1982: "The state shall encourage the right of every individual to relevant quality education." The focus of competitiveness in today's schools is on 21st-century technology and modern teaching.

The advantages for both students and teachers are well understood in modern education. As evidenced by several participants' statements, it broadens the notions since pupils can better understand what the particular issue seeks to express. Simply put, it means that each teacher must be original in how they apply the technique. Their students' deficiencies can be improved with the aid of strategy.

Using the T test, it is clearly shown in Table 3 that there is no significant difference in the efficiency of the writing skills of the students who used the modular and experimental group or digital. According to the investigation, the population as a whole did not experience a shift or improvement in pupils' writing abilities as a result of employing digital storytelling. The increase only applies to a limited number of Grade 10 students. According to the participants' personal interviews, their parents and siblings assisted them in some of their activities. Some participants went on to say that they felt secure in their responses because some of their siblings and parents were educators.

This could be the reason why there was no difference in writing competency between the two groups. This result showed that the teacher is always coming up with new teaching methods and tools to help pupils improve their skills. It simply means that educators will increase their concern for their students' wellbeing by creating interventions and innovations to strengthen their areas of weakness. There are various reasons why students' aptitude remains low, including the subject's lack of interest among students, a task's boredom, or the teacher's lack of preparedness due to the instructional materials employed. This only serves to highlight how difficult it may be for teachers to mold their pupils' knowledge, particularly in light of the modern technologies that surround us.

Writing is a skill that is highly regarded in the twenty-first century and one that teachers are encouraged to help children improve because it is essential to the achievement of K to 12 goals and all academic work. Every teacher aspires to support their pupils' academic growth. One strategy for achieving this goal is for teachers to employ various techniques, such as the utilization of contemporary technologies, to enhance each student's aptitude.

In other words, the teacher must be imaginative or creative in their selection of instructional aids. To help their students develop their skills, teachers might continue to tickle their charges, according to Talafhah (2018). One of every teacher's promises is to help students reach their potential. For the benefit of their students, teachers must therefore step up their efforts.

6. Conclusion

It is merely suggested that the opportunity to strengthen students' areas of weakness, such as their writing abilities, depends on the teacher's intervention and initiative. It is merely suggested that the opportunity to strengthen students' areas of weakness, such as their writing abilities, depends on the teacher's intervention and initiative. Consider strategies to help students learn more and keep exploring solutions to close students' learning gaps.

Ethical considerations

Not applicable.

Conflict of Interest

The authors whose names are listed below certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements) or nonfinancial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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Enhancing advanced mathematical proficiency in economics students through software integration

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Abstract The essential principles of advanced mathematics present significant challenges in higher education, particularly for students of economics. The comprehension and proficiency in numerous topics within this field are enhanced by employing problem-solving visualization. A potent instrument for this objective is the use of computer mathematics software packages. In the present context, Russian universities may face the critical issue of utilizing licensed software. As a viable solution, complimentary software products such as graphing tools can be employed for mastering advanced mathematics. This study focuses on the feasibility of using the GNU Octave software to teach advanced mathematical topics related to function analysis, with the goal of establishing a strong basis for its real-world use. The case study presented provides qualitative insights into the effectiveness of incorporating GNU Octave into advanced math instruction, using observational, analytical, and systematic approaches. The findings reveal an enhancement in learning outcomes with the application of GNU Octave software, underscoring the improved educational results in advanced mathematics for future economists through the adoption of freely available computer mathematical programs.

Keywords: statistical modeling, future specialist, economics, gnuplot, GNU Octave

1. Introduction

In the contemporary educational landscape, envisioning effective pedagogy across various disciplines without the incorporation of modern software tools seems increasingly improbable (Shishov et al 2021; Li 2023; Salas-Pilco et al 2022). This observation is particularly salient in the realm of advanced mathematics education. Today's market is replete with diverse software programs, engineered to streamline complex calculations, enabling expanded opportunities for detailed analysis and specialized problem resolution (Paolella 2021). Beyond merely facilitating problem-solving, these technological tools significantly amplify students' professional knowledge and skills.

In the current era, economists are inevitably faced with the need for robust graph construction, statistical modeling, and extensive data processing. The burgeoning domain of big data and machine learning underscores this exigency (Zine et al 2023). Moreover, addressing the disparity between academic research and practical application in finance is paramount (Brooks et al 2019). This context emphasizes the urgent need for robust, versatile software tools capable of enhancing the development, testing, and deployment of diverse and adaptable models. Advanced computational software thereby facilitates a more extensive exploration and analysis, potentially augmenting the real-world applicability of academic research in finance and economics. Many U.S. and European institutions of higher education, especially those with strong economics programs, emphasize the importance of quantitative skills. As a result, software like MATLAB, Mathematica, STATA, R, and SAS are commonly integrated into the curriculum. So, there is a consensus that prominent software ecosystems such as Mathematica (Wolfram Research n.d.), Maple (Maplesoft n.d.), MATLAB (MathWorks n.d.), and MathCAD (PTC n.d.) are essential for executing precise mathematical calculations. Their intrinsic capabilities facilitate symbolic computations, along with thorough visualization of processes and the ensuing data, fulfilling the diverse needs of students and educators across varied fields. The integration of such advanced software transcends the conventional boundaries of life sciences and engineering, offering substantial benefits in disciplines including economics and the humanities.

Despite their undeniable utility, the affordability of software tools like Mathematica, Maple, MATLAB, and MathCAD remains contingent upon individual, institutional, or national financial capacities. Although potentially expensive, more affordable options for students, educators, and academic institutions often exist, ensuring broader accessibility.

In pursuit of a universal and accessible program for widespread university use, this work concentrates on the application of the GNU Octave package, which encompasses gnuplot functionality. As a freely distributed program, GNU Octave is adept for constructing and analyzing graphs, offering a financially viable solution for institutions worldwide.

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Gnuplot, a robust graphing software integrated within GNU Octave, boasts a comprehensive interpreter designed for simultaneous function construction, supporting both explicit and implicit functions with parameters, polar coordinates, and integral curves.

Given this backdrop, this study endeavors to assess the efficacy of employing the GNU Octave software, and by extension gnuplot, in enhancing the learning experience related to further mathematics topics, specifically the study of functions. The study posits the hypothesis that the integration of freely distributed computer mathematical programs will foster enhanced learning outcomes for future economists.

The research objectives delineated for this study include:

- Theoretical analysis of mathematical package applications in solving mathematical problems.
- Execution of a pedagogical experiment to assess the utility of free software for graphing and data analysis in teaching further mathematics.
- Evaluation and documentation of the learning outcomes dynamics of economics students studying further mathematics using GNU Octave.

In conclusion, this study stands as a methodical effort to elucidate the tangible benefits of employing GNU Octave and gnuplot in the academic journey of economics students, aiming to bolster their educational experience and practical skills in mathematics.

2. Materials and Method

A comprehensive case study was conducted to analyze the efficacy and feasibility of employing gnuplot in the study of functions within further mathematics. This investigation sought to scrutinize the practicalities and potentials of engaging gnuplot in exploring extensive mathematics topics pertinent to the study of functions.

During the preparation phase, participants were selected from a cohort of first-year economics students. The selection adhered to a principle of diversity, striving to comprise a varied group of students with disparate levels of acquaintance with advanced mathematical topics and the gnuplot software. The study encompassed 60 participants, evenly distributed across three academic groups. This research was executed during the first semester of the 2022/2023 academic year at the Elabuga Institute of KFU Kazan Federal University.

Data collection encompassed interviewing students to obtain insights into their perspectives on utilizing gnuplot for studying functions within further mathematics. Additional data were gathered through methodical classroom observations, concentrating on the deployment of gnuplot. Observations were focused on discerning its impact, benefits, and potential constraints in augmenting comprehension and problem-solving abilities.

Adhering to this robust methodology, the study aspired to furnish a profound, comprehensive insight into the practical implications, efficiency, and potentiality of gnuplot usage. This exploration delved into the expansive mathematical topics pertinent to function studies within the educational context, particularly among economics students, thereby contributing to an enriched understanding and practical knowledge of the relevant mathematical domains.

3. Results

The responses from students underscored the enhancement in their educational experience through the integration of technology. This finding was corroborated through interviews, which revealed a significant increase in mathematical skills, especially among those with high initial academic standings. The use of gnuplot proved to be a catalyst, promoting a deeper understanding and mastery over complex mathematical concepts.

An increased level of engagement and interest in exploring further mathematics was also noted. The practical experience of using this advanced computational tool for visualizing and resolving mathematical problems made the learning process more interactive and enjoyable, fostering a more optimistic academic perspective among students.

However, the interviews also highlighted a variety of learning outcomes. While some students quickly adapted to gnuplot, improving their academic performance, others initially faced challenges, particularly those unfamiliar with such advanced tools. Despite these obstacles, persistent use of gnuplot, supplemented with sufficient academic support, helped to overcome these hurdles, leading to enhanced academic accomplishment.

The study also revealed an expansion in the students’ exploration of mathematical concepts. Empowered by the diverse features of gnuplot, many expressed increased confidence in tackling advanced mathematical issues. This confidence translated into discernible improvement in their problem-solving abilities, analytical skills, and overall academic performance.

Nonetheless, not all student groups adapted uniformly to gnuplot. Some seamlessly incorporated the software into their learning, while others met it with initial resistance. Despite this, consistent use and support led the majority to realize the significant academic advantages offered by gnuplot.

In terms of academic scores, a notable enhancement was observed as students honed their skills in utilizing gnuplot for various mathematical tasks and analyses. This trend was particularly prominent among those who initially had average or below-average performances, highlighting gnuplot’s role in narrowing academic gaps.

The study further emphasized the vital need for ongoing support and guidance for the successful integration of gnuplot into the curriculum. Particularly for students who found it challenging to navigate this new technological aspect, dedicated training and personalized assistance emerged as essential, ensuring comprehensive benefits from gnuplot integration, and subsequently enriching their overall academic and learning experience in further mathematics.

4. Discussion

The obtained results emphasize the importance of integrating tools like Gnuplot in university courses for economics students, showcasing an array of benefits. The unassailable significance of adept data visualization in economics is fulfilled by Gnuplot's exceptional graphical capabilities. It provides an efficient mechanism for generating clear and precise plots from complex data, making the interpretation process more intuitive and accessible to students, ensuring a comprehensive understanding of economic data.

Furthermore, the financial constraints associated with acquiring advanced computational software are neutralized with Gnuplot's open-source and cost-free nature. This characteristic assures uninterrupted access to essential data plotting and visualization tools for students, eliminating additional financial strain on educational institutions or the students.

The smooth visualization of economic models by Gnuplot strengthens students' understanding and analytical abilities related to these models. This enhancement in visual representation augments students' grip on theoretical concepts, fostering an enriched educational experience. Furthermore, the practical applicability of Gnuplot in academic settings strategically empowers students with concrete skills in data and model visualization, bolstering their readiness for real-world economic analysis and decision-making scenarios.

In addition, the broad compatibility of Gnuplot with various operating systems and its integration capabilities with other software tools ascertain its versatility and applicability in diverse academic and research contexts within the economics field. Moreover, Gnuplot's extensive support for various data formats streamlines data engagement, allowing students to effectively interact with a wide range of economic data without the need for cumbersome data conversions.

In summation, the incorporation of Gnuplot into economics courses emerges as a prudent and advantageous endeavor. It offers a conglomerate of benefits including advanced visualization, financial feasibility, and robust support for diverse data formats and models, culminating in a comprehensive academic enhancement for economics students. This integration symbolizes a significant advancement towards aligning academic learning with practical industry demands.

Expanding on this, the field of economics is fundamentally tied to the analysis of extensive datasets like GDP, employment rates, and inflation (Rab, Anjum 2010; Matvienko et al 2022). The detailed scrutiny of these extensive datasets indispensably relies on robust software tools like Gnuplot, MATLAB, and Mathematica, which assist in adeptly interpreting complex datasets, fostering informed decision-making.

Exploring deeper into economics highlights the vital need for proficient modeling and simulation for predicting future economic trends, robustly analyzing diverse economic scenarios, and meticulously testing various economic hypotheses (Akhmetshin et al 2019; Eskerkhanova et al 2023). The seamless creation and simulation of intricate economic models in these software environments ensure a practical and tangible grasp of multifaceted economic theories and principles, bridging the theoretical and real-world divide (Denisova et al 2023).

In addition to this, the substantial aspect of statistical analysis in economic research and study is amplified with the infusion of advanced software packages (Beni et al 2022). This enhancement equips both students and professionals in economics with a reinforced framework for informed, accurate exploration, and understanding.

Addressing frequent optimization issues, such as profit maximization or cost minimization, in economics underscores the critical role of computational software like Gnuplot. The deployment of these tools assists in the efficient resolution of complex optimization problems, offering optimal solutions to diverse economic queries and challenges.

Lastly, the essential role of effective data visualization in economics is met with advanced software tools, facilitating the construction of comprehensive and clear visual representations of intricate economic data. This advanced visualization significantly elevates the interpretation and presentation of crucial economic data and insights, contributing to an enriched and holistic understanding of economic concepts and theories (Ahrens, Chapman 2006).

As we proceed to examine the long-term impacts of integrating tools like Gnuplot into economic education, it's essential to recognize the potent influence it can exert on students' overall academic trajectory and future professional endeavors. The multitude of functionalities offered by Gnuplot and similar software enhances students' technical proficiencies, preparing them for diverse roles in the contemporary economic landscape. The skills gained in utilizing such sophisticated tools for data analysis, visualization, and model simulation are in high demand across various sectors of the economy, thereby significantly enhancing students' employability and career prospects.

In the era of Big Data, the ability to analyze and interpret large and complex datasets is a critical skill for economists (Bobkov et al 2020). The use of software tools for such purposes during academic training equips students with practical, hands-on experience, reinforcing their data analytical skills and ensuring they are well-versed in employing advanced technological solutions to tackle real-world economic issues. This proficiency further assists in making precise and informed economic projections, vital for effective policymaking and strategic economic planning.

Beyond the academic and professional realms, the integration of Gnuplot and similar tools into economics education contributes substantially to fostering a culture of innovation and critical thinking among students. As they navigate the multifaceted functionalities of these software platforms, students are encouraged to approach economic problems with a fresh, analytical perspective. They gain insights into the intricate interplay of various economic factors, enhancing their capacity for innovative thinking and problem-solving. This cognitive development is paramount in nurturing a new generation of economists equipped with both theoretical knowledge and practical skills, capable of steering economic growth and innovation in the evolving global landscape.

In essence, the strategic infusion of Gnuplot into economics courses is not just a short-term investment in enhancing educational experience but a long-term investment in shaping knowledgeable, skilled, and innovative future economists. This forward-thinking approach in education paves the way for sustained economic advancement, underpinned by a workforce adept in leveraging cutting-edge tools and technologies to navigate the complexities of the global economic ecosystem. By ensuring students are well-acquainted with the practicalities of such essential software, educational institutions play a crucial role in bolstering the future of economic research, analysis, and policy development, contributing meaningfully to global economic progress and stability.

5. Conclusions

In light of the gathered evidence and ensuing discussion within this study, the integration of computational tools like Gnuplot into the educational curriculum for economics students emerges as not only beneficial but essential. The multifaceted advantage of such integration is palpable, ranging from enhanced data visualization and analysis capabilities to the bolstered understanding and application of intricate economic models and theories.

Navigating the academic and practical spheres of economics necessitates a robust grasp over data interpretation, model simulation, and analytical reasoning. The implementation of advanced software tools significantly amplifies these skills among students, preparing them to adeptly confront and resolve complex economic challenges in their future professional roles. This proficiency is not merely a supplementary advantage but a critical requirement in today's data-driven economic landscape.

The findings of this study substantiate the hypothesis that the use of computational software like Gnuplot substantially enhances the academic experience in economics, leading to improved learning outcomes, enriched understanding, and heightened preparedness for real-world economic analysis and decision making. The utilization of these tools transcends traditional learning methods, equipping students with practical and applicable skills that will serve them and the broader economic community in the long run.

The importance of continuing and expanding this integration is underscored by the study's future research directions. The development of a comprehensive methodology for students to explore and employ free mathematical packages holds promising potential to further enrich their academic journey and professional readiness. The ongoing creation of additional tasks, extending beyond the standard curriculum, aims to challenge and hone students' mathematical and computational skills further, ensuring their robust preparedness for diverse and complex economic scenarios.

In conclusion, the amalgamation of advanced computational tools within the economics educational framework stands as a significant and strategic step toward fostering a well-rounded, skilled, and innovative future workforce. This integration holds the key to navigating the intricate terrains of global economics, ensuring informed, insightful, and effective economic solutions and advancements in the coming years. The commitment to this educational enhancement will undeniably yield long-standing benefits, substantiating the pivotal role of technological integration in modern economic education and practice.

Ethical considerations

The study was conducted according to the guidelines of the Declaration of Helsinki. Informed consent was obtained from all subjects involved in the study.

Conflict of Interest

The authors declare no conflicts of interest.

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Creating the cultural environment of a school fostering the creative development of adolescents

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Abstract The aim of the study was to determine the main components of the cultural environment of a school that contributes to the creative development of adolescents and the ways to engage the student to this cultural environment. The conducted study consisted of a standardized online survey of 1,542 school students between the ages of 12 and 18, the focus group method (involving 159 students from 15 to 17 years old) and SWOT-analysis of the creation of the school cultural environment in educational organizations from five regions of Russia. The authors argue that the cultural environment of a school is constructed based on the continuum of 21st-century art, which is understood as the spatial and temporal cultural environment that exists at the present moment and incorporates folk, classical, popular, and contemporary art. The article reports the results of a comprehensive study of school students' interest in and motivation for engagement in art, as well as the relevance of creating a holistic cultural environment of a school that unites fragmented knowledge based on the continuum of art. The main directions of activities to create the cultural environment of a school in interaction with cultural institutions are identified.

Keywords: cultural environment of a school, continuum of art, interaction with cultural institutions, interest, motivation, contemporary art

1. Introduction

In the 20th century, human life has undergone radical changes that defined the new traits of one of its vital spheres – art. The decisive role in this process is played by scientific discoveries and technological progress, which not only provided for great advancement in terms of the technologies of art, the newest means of expressing, recording, and transferring large volumes of information contained in artworks but also transformed the artistic environment, changing the very language of art.

Undoubtedly, modern society offers great opportunities for personal self-realization, provides free access to any cultural information, gives opportunities for creative work with the use of virtual reality, and presents individuals with the skills of living in a global multicultural world. All of this results in the absolute freedom of the new generation in the choice of cultural guides.

However, the same information society generates major problems: the information obtained on the Internet is often unverified or even dangerous for children adolescents; the fascination with virtual and augmented reality destroys the real private life of people, gives rise to infantilism in young people; traditional mechanisms of cultural development are being destroyed; cultural identity is being lost; the young generation is developing tolerance that reaches complete indifference; cynicism and rejection of national spiritual values; intergenerational links are being disrupted, which leads to the destruction of traditions. As a result of this comes a fear of the future. Alvin Toffler (1970), the American cultural scientist, voiced this issue at the end of the 20h century and warned that the salvation for the individual in the information society can be found only in local culture: the culture of family, ethnicity, personal circle of communication. It is the art that can form an emotionally sensitive and appreciative view of the world in which it is peaceful and interesting to live.

Rapid changes in the cultural discourse in modern society cause the concept of culture to blur, as culture becomes multivariate. This variability is particularly reflected in art, which, on the one hand, is the quintessence of an era, and, on the other hand, affects the general level of artistic preferences and cultural demands of modern society.

In this context, we can refer to the continuum of art of the 21st century. By the continuum of art, we mean the spatial and temporal state of humanity's integral culture, which continues throughout all historical epochs and includes folk (traditional), classical (academic), and popular art, and, most importantly, born at each moment of the continuum – contemporary art (Akishina 2017).

The art continuum as a spatial-temporal cultural environment accompanying a person at a given moment in time is presented in Figure 1.

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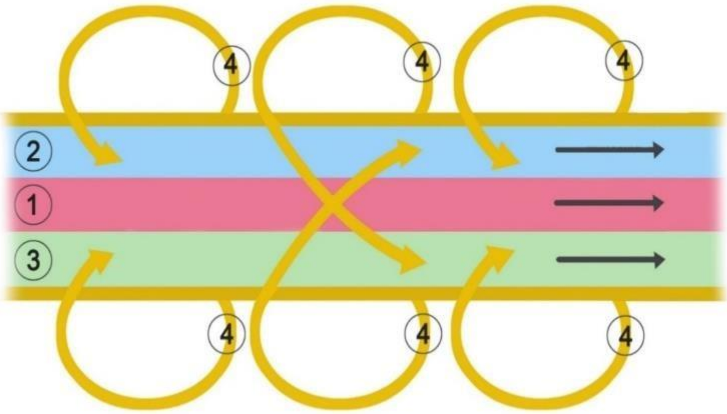

1 – folk art 3 – popular art
2 – classical art 4 – contemporary art
Figure 1 Model of the continuum of art in the early 21st century.

In the context of the modern continuum of art, the problem of introducing the younger generation to the whole layer of artistic culture is gaining relevance. For students to understand contemporary art, it is necessary to acquaint them with folk, classical, and popular art that has left its mark in world culture.

Today, it is becoming clear that the disparate knowledge of modern adolescents needs to be brought to a holistic view of the entire history of art. For this reason, the issue of a system for the development of school students in the field of art to nurture their artistic preferences and demand for high-quality artworks arises acutely. In the context of the art continuum, there is a need to create a cultural environment in each school that is capable of educating the younger generation on the arts through their education, development, and upbringing based on the best examples of world art.

Problem statement

The problem of creating the cultural environment of a school as a systemic introduction of school students to art is relevant in the present day. The modern world is a space of wide choice and great opportunities for the young generation since society provides them with various forms of personal socialization (education, leisure, hobbies, etc.). The high level of development of information technologies, including the distance activities introduced in 2020-20201 due to the restrictions caused by the COVID-19 pandemic, contribute to the transition of many forms of socio-cultural activities to the Internet space.

In 2021, employees of The Federal State Budget Scientific Institution "Institute of Art Education and Cultural Studies of the Russian Academy of Education" conducted a SWOT analysis of the current state of the cultural environment in educational institutions as part of the research project "Implementation of the model of an upbringing cultural environment in educational organizations". As a result, the *strengths* of the process are identified as follows:

- the development and upbringing objectives of the cultural environment of a school;
- undoubted public and family interest in the cultural development of the younger generation.

The relevance of creating a holistic cultural environment in schools is confirmed by the existing *threats* that are voiced by teachers and parents:

- the exponential growth of the problem, that is, the slower we develop a holistic cultural environment, the more difficult it is to create an effective model of familiarizing modern schoolchildren with the arts;
- the expansion of aggressive and inhumane cultural forms that are difficult to counter with the usual means of traditional and academic culture;
- the insufficiency of online methods for introducing students to the arts, which has become especially evident during the pandemic.

The school's systemic, holistic, and varied cultural environment has the *potential* to:

- solve the problems of developing a creative person capable of adequately appreciating the works of art;
- counter anti-cultural expansion;
- develop the potential of each individual within the system of the art continuum;
- solve the problem of the deterioration of the quality of modern art.

The conducted SWOT analysis also reveals *weaknesses* in the following aspects:

- the need to improve the skills of teaching staff in improving work in the sphere of art;
- the need to improve the skills of teaching staff in creating a holistic cultural environment of a school.

Thus, the results of SWOT-analysis of the current state of the cultural environment in educational organizations show the need to reinforce the development of children in the sphere of culture and art. Furthermore, it is necessary to create a cultural environment in each school based on the continuum of art in accordance with the needs of students and the opportunities of the region.

2. Methods

The present study uses the theoretical methods of analysis, synthesis, systematization, generalization of the obtained data, and pedagogical modeling.

The employed empirical methods include:

- a standardized online survey: the selected sample consists of 1,542 school students between the ages of 12 and 18;
- interview;
- diagnostics;
- the focus group method (involving 159 students from 15 to 17 years old):
- SWOT-analysis of the creation of the school cultural environment in educational organizations from five regions of Russia (Moscow, Saint Petersburg, the Komi Republic, and Leningrad and Nizhny Novgorod Oblasts, 214 schools in total).

3. Results

The main goal of modern education is a self-developing and freely self-realizing personality able to flexibly change the ways and means of life. Thus, the accent in modern education is shifting to the process of socialization, an important role in which is played by the continuum of art. The continuum of art affects all phenomena of art and culture, education included.

Herein, we should review the components of the presented model of the continuum of art in the early 21st century in more detail (Figure 1):

1. *Folk (traditional) art* is a critical component of the cultural continuum and it remains so despite that the ethnocultural environment from which folk art draws its strength is gradually disappearing. Often entire strata of folk art become cultural artifacts and museum pieces. The potential of folk art is, however, so great that it continues to be the source of inspiration for professional composers, artists, and writers and a guide for the upbringing and education of children.
2. *Classical (academic) art* is a concept that appears simple at first glance but is quite difficult to clearly define in the scientific context. Under classical art, we understand the works of high artistic level that have stood the test of time and have become the examples of perfection for the next generation in their country of origin and abroad. This occurs if the creator of an art piece puts it into the most perfect form, while reflecting all the complex and often acute problems of their time, and stimulates with their work the emergence of new authors who pick up their ideas and embody them in the most relevant and innovative forms.
3. *Popular art* is a phenomenon that stems from earlier times but made its proper appearance in the 20th century and is considered its characteristic feature. Popular art refers to the art pieces created for the mass listener and viewer audience and, accordingly, have simple forms and easily understandable content. The works of popular art are created for leisure events and festivities and provide for not only comfortable rest but for the formation of a new worldview. Thus, popular art can be defined as a branch of art that appeared in the 20th century, is aimed at the general public, is understandable to the unprepared listener, and contributes to the formation of a new view of life.

Contemporary art, that is, the art that is created and continues to be created by our contemporaries. The art appearing at each moment of the continuum in question and defined as “contemporary art” is gradually embedded in the mainstream of one of the basic components of this phenomenon, i.e. classical or popular art. This process is constant, and this quality allows us to treat contemporary art as one of the components of the continuum of art of the early 21st century (Akishina 2017).

Without a doubt, the continuum of art has a strong influence on the entire culture and especially on the emergence of the culture of the new generation, which is searching for its path in life and forming its interests and needs. In the sociological survey and focus groups, school students at the age of 12-18 years old express great interest in mastering the arts. However, the study reveals that the number of adolescents who engage in the arts is far less than of those potentially wishing to. The results of the conducted survey are presented in Figure 2.

Analyzing the survey results, we can note modern school students’ intense need for doing art. In particular, 84% of the respondents wish to study music, 62% – to engage in film art, 52% are interested in literature (to a greater extent with social networking content and blogs). The least interesting to the adolescents are theater (43%) and fine art (36%). The same types of art are of great interest with the application of computer technology, 91% of the respondents indicate that they would like to engage in various forms of artistic activities, but with the use of computer programs, electronic tools, and virtual Internet space. Thus, a small group of adolescents chooses academic fine art, with the majority of schoolchildren wanting to draw using computer programs. However, in reality, the level of engagement in the arts is low, even in popular art with the use of computer technology.

The conducted focus groups demonstrate several problems that prevent the students from satisfying their art needs. One of them is the lack of opportunities to engage in art since in big cities, it often requires traveling long distances, and in small towns, the students often do not have the opportunity to do what they want to. The students note the possibilities of online classes, but still express a desire for direct communication with a teacher and fellow students about music-making, drawing, dancing, etc. The detected latent problem of the adolescents; inability to satisfy their needs for artistic activities is their lack of systemic knowledge about art, its types, stages, and artistic peculiarities. For example, the students show no desire to do fine art since they only know of drawing and painting and have no idea about such modern types of fine art as installation, art-action, anamorphosis, land-art, reverse graffiti, and many others.

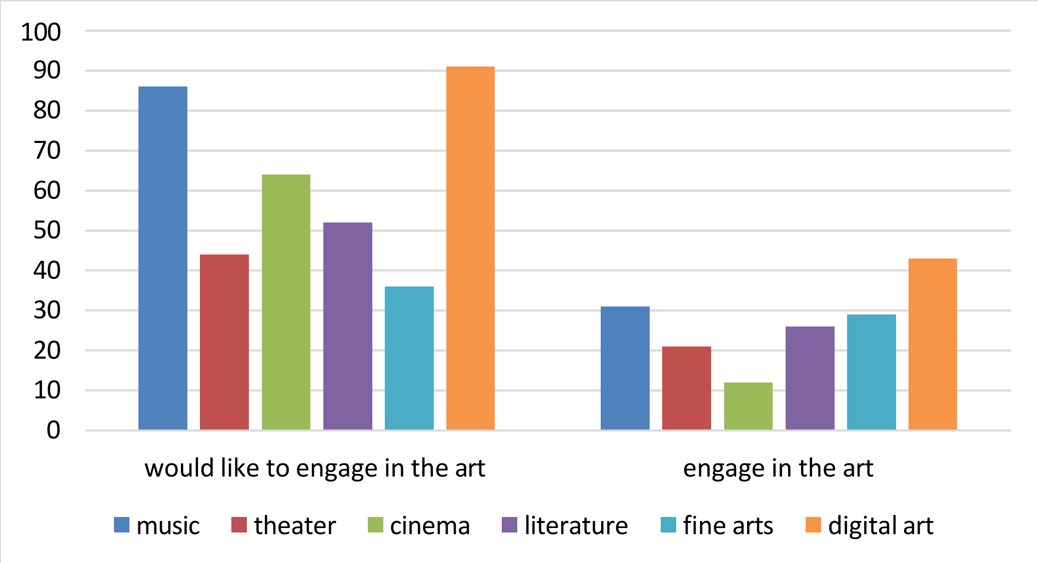

Figure 2 Diagram of the level of adolescents' interest in engaging in the arts (in %).

Meanwhile, the demand for contemporary art among adolescents is very high (Figure 3). To the question "Why are you interested in contemporary art?", the students respond: "It's the art of today, and I live now and want to understand what's happening in culture", "I can ask the author a question", "Contemporary art reflects the most important moments in life for people today", "I want to better understand other people, my contemporaries". At the same time, the adolescents are not always able to determine how the continuum of art affects modernity. Many students respond that they are not very interested in the classical and popular art of the past and that no one needs folk art at all at present.

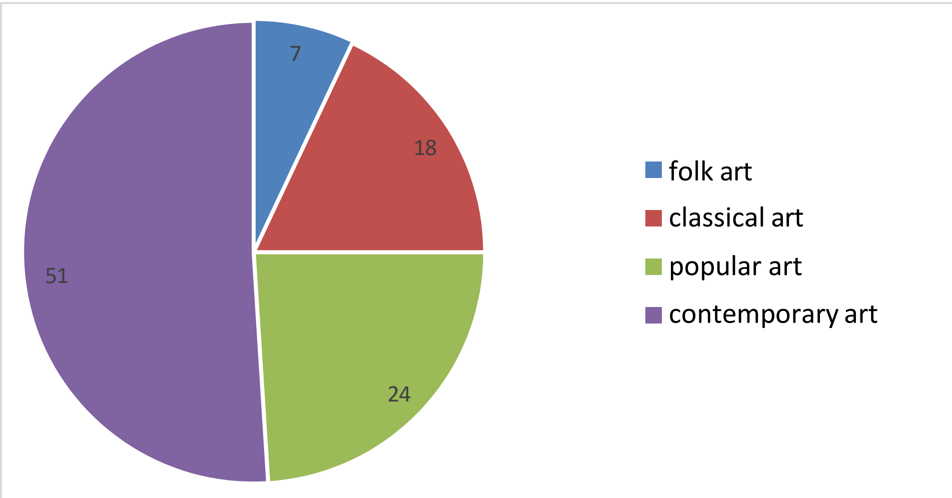

Figure 3 Diagram of adolescents' interest in art (in %).

Of particular importance in the creation of the cultural environment of a school in the context of the continuum of art is interaction with the regional cultural institutions: museums, theaters, exhibition and concert halls, libraries, etc. It is cultural institutions that preserve and reproduce the whole continuum of art of the early 21st century. As the study shows, the most effective models of the cultural environment of an educational organization are based on the integration of education and upbringing at school in interaction with the regional cultural space.

As a result of the research, it is found that despite the proximity to information and the ability to work with it quickly, the knowledge of modern schoolchildren is theoretical and poorly correlated with real life. Thus, 89% of school students have some idea of the museums and theaters of the city and region, but only 25% of them have been to these museums and theaters; 56% of adolescents hardly ever visit the city center and are not familiar with its cultural and historical monuments (that is, they do know about them but only through photos or video records on the Internet), etc. The synthesis of school education and the programs of museums, theaters, libraries, etc. in the context of the continuum of art expands the possibilities of designing a varied cultural program and promotes high results in school students' development (Olesina and Polyudova 2017 2018).

Therefore, it can be concluded that the most demanded model of the cultural environment is expressed by the integration of school education with the region's socio-cultural resources with consideration of the modern continuum of art. The detected problems in the creation of the cultural environment in schools that hinder the effective harmonious development of modern school students include:

- difficulty in attending classes in the chosen art form (remote location, lack of a specialist, inconvenient time, etc.);
- lack or absence of opportunities to engage in contemporary art;
- excess of theoretical material in the classes to the detriment of active creative work;
- insufficient use of the potential of cultural institutions in the work of schools.

4. Discussion

The problem of creating a cultural environment capable of developing adolescents in the sphere of art is explored by several researchers. The process of the development of the cultural environment of a school has its functions and features, it incorporates its specific subjects, goals, and objectives, regularities and principles, patterns of school students' development in accordance with the culture. Back in the 1920's L.S. Vygotsky (1934), based on the cultural-historical theory, defined as one of the important factors of socialization the environment in which the child finds themselves, including artistic values, aesthetic landscape, and interior design, intellectually rich communication, and the socio-cultural context of the time (which in our study we interpret as the continuum of art).

Russian cultural scientist A.Ia. Flier (2013) states: "Cultural environment is a complex of cultural preferences of the population localized within the boundaries of a certain space. And these cultural preferences are mainly expressed in the norms of people's social behavior, actually materialized in them". The environment surrounding a person should be creative, thus, the modern policy of urban development pays much attention to the creation of a special creative, aesthetic, modern, interesting, and convenient space for life and activity. According to D. Jacob (2010), a creative city has the potential to become a special creative environment, so the researcher gives an example of a creative space created in Berlin that contributes to the development of the modern continuum of art.

Naturally, educators pay particular attention to creating the cultural environment of a school, as modern children need to create and immerse themselves in a special creative environment (Boyakova and Radomskaya 2019). The creation of a creative cultural environment aimed at the organization of children and adult communities is facilitated by the organization of a variety of artistic and musical events for children of different ages and their parents. For example, in Australia, there is an arts festival for children, which is a favorable environment for family interaction where art serves not only as an aesthetic environment but also as a sphere for cultural enrichment and development (Tayler et al 2006). Many European countries have programs to support creative school projects aimed at educating students through the arts. An example is the "Creative" program in Malta, which has already had 5'000 schoolchildren as its participants (Briguglio and Debattista 2017).

H. Ivon and D. Kuščević offer a detailed examination of the school as a cultural environment influencing the formation of personal culture in school students. The integrated approach to learning immerses adolescents in the space of cultural heritage, forcing them to live the world experience, freely and reflectively interpret information, and become active participants in culture. Students' art projects inspired by the historical, cultural, and natural heritage of their environment confirm that such projects are an effective way to promote students' personal development and sensitivity to art. They teach students the importance of preserving cultural heritage and participating in the cultural life of society, educating future participants and creators of new cultural values, primarily in interaction with museums as sociocultural sites (Ivon and Kuščević 2013).

In the USA, a special study was conducted on the opportunities of the relationship between schools and museums, as modern museums are becoming an important agent of dialogue between students and the arts in a broad understanding of the cultural continuum. E. Hooper-Greenhill's study of the opinions of American educators about interaction with museums shows that 48% of the surveyed teachers see the importance of museums in giving students not only knowledge but also increased motivation for learning and development; 87% of the teachers emphasize the opportunity to develop students' social and communication skills (Hooper-Greenhill 2007).

Based on the analysis of various studies on the problem, we identify the main components of the cultural environment of a school that contributes to school students' mastery of the entire continuum of art.

1. *Cultural environment as a synthesis of all types of educational and upbringing activities:*

- development of the cultural environment of the school through the use of new forms of education and upbringing based on the material of art culture and art;
- improvement of the culture of teachers and development of the basic culture of schoolchildren;
- detection of the problems in the cultural environment of the school that inhibit the process of its development; change and improvement of the cultural environment using the continuum of art;

● organization of a unified interconnected system of education and upbringing of schoolchildren with the use of artistic and creative activities.

2. *Cultural environment as a reflection of the continuum of art.* Folk, classical, popular, and contemporary art are incorporated in lessons (lessons, extracurricular activities, collective and personal projects), in leisure activities, in the decoration of school premises, in projects related to the cultural institutions of the region.

3. *Cultural environment as an activity.*

● Cognitive activity, which results in understanding the meaning of a museum exhibition, theatrical production, library project, their significance, and specificity.

● Values activity, i.e. formation of students' needs in the process of creating an artistic product, organizing an exhibition, preparing an excursion or a performance.

● Communicative activity, which provides for the formation of communicative, informational, and socio-aesthetic competence; the culture of presentations of one's creative works in various forms and with the help of technical means; (the dialogue forms of communication with cultural objects).

● Creative activities, i.e. creation of artistically and emotionally valuable creative products (drawings, crafts, homemade books, models, etc.). To form students' creative experience, it is necessary to design special pedagogical situations that require and create conditions for creative solutions.

4. *Cultural environment as interaction with museums, theaters, libraries*. The environment is built upon the active development of the cultural space, as there must be a personal appropriation of this space by all participants in the educational process: 1) the student feels the features of the museum (theater, library, etc.) space and understands the importance of this space for themselves; 2) the student has the opportunity for creative work, at least in the sphere of modeling and imagination; 3) the student becomes a real participant in the creative process and can modify this space.

5. *Cultural environment as a virtual interaction with the continuum of art*. The use of the Internet space and computer technology enables the active introduction of a variety of interactive technologies in work with schoolchildren, which enhances adolescents' interest and motivation for the study of the holistic continuum of art.

5. Conclusion

The expected results of the efforts to create the cultural environment of a school in the context of the contemporary art continuum include:

● creating a system of pedagogical work aimed at introducing the basics of integrating the school with the cultural environment of the region, including the methods of selecting and structuring the content of education and upbringing;

● developing the scientific and methodical and didactic support on the issue of interaction between the school and cultural institutions in the region;

● organizing creative groups of like-minded people in educational institutions to implement the integration of the educational organization and cultural institutions in practice;

● identifying the cultural facilities and institutions for active interaction with schools;

● inviting prominent experts in contemporary art for meetings, master classes, lectures, and concerts;

● organizing and conducting monitoring studies (surveys, tests, etc.) in innovative platforms at the beginning and at the end of the school year to determine the level of school students' development, creativity, and independence;

● holding scientific and practical conferences with practicing teachers on the use of the art continuum in the educational process;

● improving the competence of school teachers in working with innovative methods for the creation of the cultural environment of a school;

● exchange of experience based on specific activities carried out.

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Ethical considerations

Not applicable.

Conflict of Interest

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Enhancing learning interesting for students: influencing factors and proposed solutions

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Abstract Interesting in learning is a special attitude of learners toward learning objects associated with their learning activities. For first-year students, who have just graduated from high school, and transferred to a university environment, increasing their interest in learning is a very necessary and important issue, creating pleasure and stopping. encourage learners to actively acquire knowledge. To properly assess the current situation and determine the factors affecting the learning interest of first-year students; this study conducted a survey of 153 first-year students; 22 lecturers and 12 educational administrators in some universities. From the results of that study, it was measured to measure the influence of factors affecting the interest in learning of first-year students. Research results show that eight factors affect the interest in learning of first-year students. Along with assessing the current situation and identifying influencing factors, this study proposes solutions to further enhance the learning interest of first-year students.

Keywords: interesting in learning, interesting in learning, students, universities.

1. Introduction

Interesting is an important psychological attribute of human personality. Interesting plays a very important role in learning and working, and there is nothing one cannot do under the influence of interest. M. Gorki (1917) once said, “Genius springs from love for work”. Along with self-discipline and excitement, it creates a positive perception, helps students achieve high results and is able to arouse the source of creativity. Meanwhile, the survey of teaching practice at universities in many ways (taking questionnaires from educational administrators, lecturers, and students, observing and doing objective tests on the student’s learning process) has shown that many students have no interest in learning. This is seen as both a manifestation and a very important cause of the decline in teaching quality for first-year students.

The measures to create excitement in this article come from four basic points: One is that “The real effectiveness of teaching is that students learn on their own; self-improvement of knowledge and self-training skills”, the second is “The most difficult and important task of the lecturer is to make the students enjoy learning”, the third is: “Teaching for first-year students is must make students feel that knowing more knowledge of each lesson in each subject is having more useful and interesting things from a life perspective”; fourth, “students form the necessary social skills to approach future work skills gradually”.

With these four basic points, we believe that the essence of teaching is to inspire and awaken learners’ self-learning ability (Tyler Ralph 2013). In addition, if the concept is that the teacher transmits and the learner receives, the teacher, no matter how much interest and effort, has not inspired students, has not made the learners see the good, the interesting, The actual value that knowledge brings is still ineffective (Uan et al 2005). Learners are only self-disciplined and actively learn when they are interested. Interest is not inherent, not innate. Interest does not arise spontaneously; once it is created, nourishment can also be lost if not maintained. Interest is formed, maintained, and developed thanks to the educational environment with the leading, guiding, and organizing roles of lecturers (Snoek 2011). Lecturers play a decisive role in discovering, forming, and fostering students’ interest in learning.

The teaching process consists of five basic components: teaching purposes, teaching content, teaching methods and forms, teaching means and equipment, and assessment of learning outcomes. With those components, there are many groups of measures to create interest in learning for students, and they belong to different aspects of the teaching process (Wentling 1993). There are measures to influence the presentation of lesson objectives, measures to influence the teaching content, measures to influence the methods and forms of teaching organization, measures to influence the means and teaching equipment, measures to affect assessment (including comments), and friendly interactions between teachers and students and students and students (Arie Pratama 2017; Hang and Van 2020).

For first-year students, there are many changes in life and psychological state. In particular, changes in the learning environment, learning methods, and teaching methods of lecturers; changes in test methods, course assessment, etc. All these changes require adjustment methods from lecturers, helping first-year students overcome a difficult period to gradually

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stabilize psychologically and at the same time gradually becoming accustomed to the new learning environment, creating interest in the learning process. Therefore, it is necessary to assess the current situation and determine the factors affecting the learning interest of first-year students to take appropriate measures to create interest in the learning process of students.

2. Literature Review

Related Concepts

Interesting:

According to Harold (1985): Interesting is a special attitude of an individual toward an object that is both meaningful in life and has the ability to bring pleasure. According to Nguyen Quang Uan (2005), interest is a special attitude of an individual toward a certain object, which is both meaningful to life and capable of bringing pleasure to the individual in the process of the activity. According to Nguyen Dang An Long and Le Van Thuan (2020), interest is an individual's special attitude toward an object that is both meaningful in life and capable of bringing pleasure. According to Le Thuy Hang and Vu Hong Van (2020), interest is an individual's special attitude toward some object; it has meaning to life and has the ability to bring pleasure in the process of the activity. Excitement manifests in high concentration, in fascination, attracted by the content of the activity, in the breadth and depth of interest.

Thus, interesting is an individual's special attitude toward an object, which is both meaningful to live and capable of bringing pleasure to the individual in the process of the activity. In a general way, it can be understood: Interesting is a person's attitude toward a certain object or phenomenon. Interesting is an expression of an individual's cognitive tendency toward objective reality, expressing a person's interest in certain objects and phenomena.

Interesting in learning:

According to Pham Minh Hac (2004), interest in learning is the type of interest associated with school subjects; it is a special attitude of students toward the subject, which students find meaningful and capable of bringing pleasure in learning the subject. According to Nguyen Hoai Nam and Cao Thi Quyen (2014), "Emotion of learning is a special attitude of learners toward the learning object and is associated with their learning process, creating pleasure and motivation learners actively acquire knowledge".

Learning is one of the important tasks of students in the learning process, and interest in learning plays a particularly important role in improving the effectiveness of the learning process (Hang and Van 2020; Trung and Van 2020a; Hiep et al 2022). Thanks to excitement, in the learning process, students can reduce fatigue and stress, increase attention, and promote active inquiry and creativity (Snoek 2011). Interest creates in students' active learning, the desire to approach and delve into knowledge, and discovery.

Motivation for learning:

Learning motivation is a system of factors that have both directional properties and functions to stimulate, promote and maintain learning activities (Hang and Van 2020; AnLong and Son 2022). According to Duong Thi Oanh (2013), learning motivation is a psychological factor that reflects an object's ability to satisfy learners' needs and orient, promote, and maintain learners' learning activities to dominate the subject. that statue. The right or wrong learning motivation has the meaning of determining the success or failure of the activity and the direction of human personality development. Differences in students' learning ability and motivation affect learning and teaching effectiveness (Cole et al 2004; Noe 1986). Nguyen Dinh Tho (2008), based on the research of Noe (1986), said that the learning motivation of students is the desire to attend to and learn the contents of the curriculum (Snoek et al 2011).

Learning motivation can be divided into two types. Internal motivation (internal force) is the motivation that comes from learners' needs, understanding, and beliefs regarding the true object of learning activities, which is the desire to learn. desire to acquire and expand knowledge and to be passionate about learning (Emil 2007). Extrinsic motivation is the type of motivation that refers to external influences on students' learning activities, such as meeting parents' expectations, filial piety, attraction to the lecturer's lectures, admiration of friends, etc. (Van 2019; Vuhong 2022a and 2022b). Although this motivation is negative, it also contributes to the stimulation, excitement, and demand for learners to acquire knowledge and skills in the learning process.

The Role of Interest in Students' Learning Activities:

Interesting in learning is very important in the acquisition of knowledge. If the learner is interested in a certain subject, it means that the learner is very eager to master the subject knowledge; even if there is muscle fatigue, the learner will also direct his entire cognitive process to it (Uan 2005). Excitement is also a powerful stimulus that makes cognitive processes happen at a fast speed, depth, and effectiveness. In learning activities, interest makes the processes of feeling, perception, memory, imagination, and thinking take place more focus and achieve higher efficiency (Hang and Van 2020; Trung and Van 2020b). However, interest in learning is not only a motivating force to make cognitive activities stronger and lasting but also a sustainable attribute of an individual who contributes to an individual's psychological tendency. core.

Interesting in learning reduces nervous tension and eliminates external inhibitions that hinder cognitive activities, increasing students' working power in learning (Arie Pratama 2017). Interest in learning gives rise to students' active learning. Students who have a real interest in learning often learn more actively and creatively (accounting for 69.01%) (AnLong and

Thuan 2020). Students not only pay attention to lectures in class but also conduct many other forms of learning, such as studying and doing full exercises, reading references, and paying attention to applying knowledge in practice. (accounting for 70.73%) (AnLong and Son 2022).

3. Materials and Methods

This study uses a quantitative research method with a survey method to assess the current situation and determine the factors affecting the learning interest of first-year students at a number of universities in Vietnam, concentrated in a few universities in Ho Chi Minh City and some universities in the Mekong Delta.

The research sample is 187 people, including 153 first-year students, 22 lecturers who directly teach first-year students, and 12 faculty and professional managers (including heads, Vice Deans; Heads, and Deputy Heads of Specialized Departments). This study uses a nonprobability sampling technique with a purposeful sampling method. This study used the criteria for obtaining information from students, lecturers, and administrators as a model.

To accurately assess the importance and factors affecting the learning interest of first-year students, in addition to macro assessments from state management agencies in education, in the study of some colleagues, the research team surveyed N = 187 people. The question is divided into 5 levels with conventional scores Table 1.

Table 1 Table of scale conventions.

Medium score	$1.00 \leq X \leq 1.80$	$1.81 \leq X \leq 2.60$	$2.61 \leq X \leq 3.40$	$3.41 \leq X \leq 4.20$	$4.21 \leq X \leq 5.0$
Convention point	1	2	3	4	5
Convention point	Not important	Less important	Rather important	Important	Very important

Source: compiled by the author.

Processing survey data:

Use the formula to calculate the average score:

$$\overline{X} = \frac{\sum_{i=n}^{k} X_i K_i}{n}$$

$\overline{X}$: Medium score.

Xi: Score at level i.
Ki: Number of participants rated at Xi level.
n: Number of people participating in the assessment.

Meaning of using $\overline{X}$:

The average score in the statistical results represents the degree of representation according to a certain quantity criterion of the sum consisting of many units of the same type. The average score reflects the average level of the phenomenon and compares two (or more) populations of the studied phenomena of the same type, not of the same scale.

From the theoretical basis and previous studies, the authors build a research model consisting of eight factors that affect students' interest in learning and regulation: (YT1) the learning environment, (YT2) conditions facilities and equipment for learning, (YT3) the quality of the universities' education, (YT4) the universities' training program, (YT5) the teaching methods and the popularity of the lecturers, (YT6) movements of youth unions, student unions and team clubs in universities, (YT7) students' perceptions, and (YT8) influences from family Figure 1.

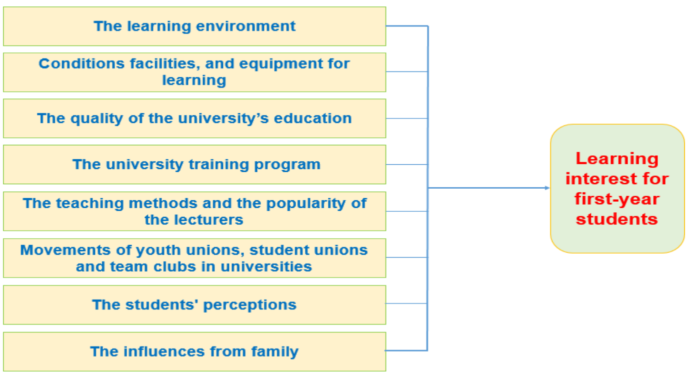

Figure 1 Proposed research model. *Source*: compiled by the author.

4. Results

The issue of the linguistic and literary educational field in the system of forming the communicative field plays an important role. The survey results in Figure 2 show that the rating of “important” accounts for the highest rate of 59.36% (with 111/287 respondents). Next, 15.51% answered “Very important” (with 29/187 respondents), and the level of “Rather important” was 14.44% (with 27/187 respondents). The level of rating “Less important” and “Not important” was 5.88% (with 11/187 respondents) and 4.81% (with 9/187 respondents), respectively.

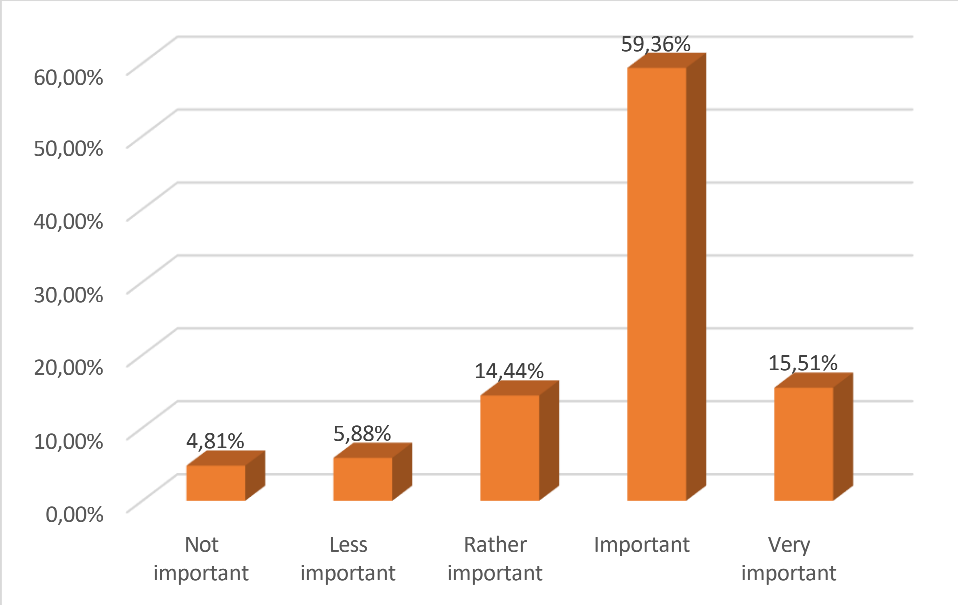

Figure 2 Assessing the importance of interest in learning. Source: compiled by the author.

The abovementioned research results are similar to those of some previous studies on learning interests for students in general and first-year students in particular (An and Thuan 2020; Hang and Van 2020; AnLong and Son 2022; Hongvu 2022a and 2022b). With the survey results, combined with some comments and assessments of previous studies, the authors went into surveying the factors affecting the learning interest of first-year students Table 2.

Table 2 Factors affecting the learning interest of first-year students.

Survey content	Frequency					$\overline{X}$
	Not important	Less important	Rather important	Important	Very important	
YT1	0	4	67	102	14	3.66
YT2	0	4	67	100	16	3.68
YT3	0	7	68	102	10	3.61
YT4	0	6	71	103	7	3.60
YT5	0	0	43	93	51	4.04
YT6	0	7	71	101	8	3.59
YT7	0	2	55	97	33	3.86
YT8	0	8	77	103	3	3.55
Total						3.70

Source: compiled by the author.

The table survey results show that the total score of the factors $\overline{X}$ = 3.70 is in the range of 3.41≤$\overline{X}$≤4.20 rated as “Important”. Of the factors identified, none are less than $\overline{X}$ = 3.41. This shows that all factors are rated as “Important”. Among the factors, there is also no factor greater than 4.20, so no factor is rated as “Very important”. However, there is the element (YT5) “the teaching methods and the popularity of the lecturers”, which is rated the highest with $\overline{X}$ = 4.04. In addition, (YT7) “students’ perceptions” is also highly appreciated with $\overline{X}$ = 3.86. Thus, along with students’ awareness, the role of the teacher is very important in the process of creating interest in learning for first-year students.

In fact, along with students’ perceptions, teachers have a great role in the learning process of students. In the teaching process with rich, diverse, and flexible methods; with broad and steady knowledge; together with the love of the profession, students will be the basis for students to form new learning habits and methods and, at the same time, form an interest in learning with the subject. Research results from previous colleagues showed that over 79.00% of people rated teachers as having a great role in the learning process of learners. However, all effects of teachers are relative, and it is important for learners to have a correct perception of their learning process; thus, all effects will bring results.

5. Discussion

The test results of Cronbach's alpha scale show that all 8 independent variables have high reliability, with $\overline{X}$ =3.70 rated as "important", and among the factors, none of the factors have a small $\overline{X}$ more than 3.41 (Table 3).

Table 3 Results of testing the reliability of the scale.

Order	Survey content	Number of variables accepted	$\overline{X}$	Cronbach's Alpha
1	YT1	7	3.66	.647
2	YT2	7	3.68	.657
3	YT3	7	3.61	.649
4	YT4	8	3.86	.705
5	YT5	8	4.04	.710
6	YT6	6	3.59	.636
7	YT7	7	3.60	.643
8	YT8	6	3.55	.615

Source: compiled by the author.

This result shows that the assessment level of each factor is at an average level, which can be further improved through policies. On the other hand, the research results show that there are eight factors affecting the learning interest of first-year students. Achieving achievements in making students always feel excited about learning is a difficult job, requiring the University's Board of Directors, Dean of Faculty, and lecturers of universities. and students must work together to improve student interest in learning and the quality of training. Here are some suggested solutions:

First, create interest in learning for first-year students by flexibly using teaching methods and forms of organization.

In addition to exploiting the interest in the teaching content itself, the interest of students is also formed and developed by the methods, methods, and forms of teaching organization suitable to the interests of the students. That is, how to organize teaching in the form of quizzes, games, role-playing activities, group learning activities, project teaching, teaching outside the classroom, etc.

Organizing learning games: In teaching practice, every class that organizes games creates an exciting, comfortable, and fun learning atmosphere (Hang and Van 2020). Research shows that learning games have the ability to stimulate interest and imagination and stimulate the intellectual development of students (AnLong and Thuan 2020). Learning games must necessarily be a part of the lesson content.

The role-playing learning game can be mentioned. This is a game that has many advantages for teaching. Role-playing in teaching and learning takes on a certain communication role to vividly represent the learning content. The form of role-playing learning is sometimes very fun thanks to the humorous and funny details created by the "reluctant actors". The role-playing form is especially effective in writing lessons to practice speaking skills; it helps students practice communication and directly observe speaking activities with a lively combination of audio media. and nonverbal factors.

Group learning activities: Group learning is a form of learning with the cooperation of many class members to solve common learning tasks. Organized scientifically, group learning will promote the positivity, creativity, capacity, forte, spirit, and cooperation skills of each team member (Leonard 2016; Van 2019). In the Vietnamese class, this measure has created a natural and favorable communication environment, which is a communication activity to exchange and share knowledge and experiences of friends. Organization of teaching outside the classroom space in traditional teaching, teaching outside the classroom or open classroom is understood very broadly, including picnics, extracurricular activities, clubs, meetings, etc.

Thus, in the teaching process, due to the new learning environment from high school to university, lecturers should not only teach theory but should combine many teaching methods into the teaching process, in addition to teaching methods. With the above method, lecturers can use some additional methods, such as group discussion methods, watching videos, raising problems, etc. Changing the teaching method of teachers can help students feel more interested in learning and create conditions for students to practice necessary skills such as teamwork skills and skills presentation skills.

Second, creating interest in learning by making students aware of the goals and benefits of the lesson Interest is a psychological attribute with individual characteristics.

Interesting is selective. Objects of interest are only those that are necessary, valuable, and attractive to the individual. Therefore, what issues attract the attention of students? Answering this question means that the lecturer has lived with the spiritual life of the students, transforming the arid learning tasks in accordance with their wants, needs, interests, and aspirations (of course, to be positive and justifiable) of students.

Interest in learning is first created by making students aware of the benefits of learning to motivate learning. This goal can be explicitly stated in the learning material or it can be presented through specific teaching situations. Right from the first day students come to school, we need to make students aware of the benefits of learning positively and practically.

Positive and proactive in learning, exchanging questions with friends and teachers; learn, apply learning methods suitable for themselves to capture the knowledge of the profession they are studying in a creative and profound way.

Thus, students' positivity and self-discipline in learning are important factors for effective learning activities because learning in a new environment requires positivity, self-discipline, and self-control. students' activities in learning, knowledge acquisition, and comprehensive development. However, the survey results show that students are not active and self-disciplined in their own activities.

Third, improve the quality of the learning environment, such as investing and building to create a dynamic, creative, and integrated learning space (common learning space, group learning exchange space, break space, recreation, etc.) in the school to meet all the needs of students in studying and researching, and the classroom space is modern, cool, quiet, and fully equipped with modern equipment to serve the needs of teaching and learning, contributing to students' interest in learning.

Other factors, such as the lack of reference materials in the library, equipment, and teaching facilities in the theory rooms, affect students' interest in learning. The sources of reference materials and textbooks are not rich, causing difficulties for students in the process of learning, researching, and deepening subject knowledge. This also reduces the positivity and enthusiasm of students for general subjects.

Fourth, universities should regularly organize learning and collective activities and movements of unions and associations to attract more students to participate, especially first-year students. This is an important environment for them to become acquainted with new friends, a new environment and conditions to show their personal abilities. That will stimulate enthusiasm for competition and healthy competition. Organizing extracurricular sessions, conversations, and exchanges between lecturers - students, students - students to overcome difficulties encountered in the learning process. From there, we find commonalities and consensus among students so that they can help each other learn better. The school needs to invest in facilities to teach general theoretical subjects, stimulating students' interest in learning.

Fifth, families should let their children learn about the professions and choose the professions that the students themselves like and want to learn. In addition, families should also encourage, encourage, support and create the best conditions for students both physically and mentally so that students do not have to worry about problems other than studying.

Each person himself will be educated in many different environments: family, school, and society. However, as we said, family is the first educational environment imprinted on the child's soul, so it has a profound impact on the formation and perfection of each person's personality. Children are born from parents who are closest to them, but if they cannot educate their children, why blame teachers and schools? Therefore, personality value education in schools and in society can only be effective when the family fulfills its educational mission in the family.

On the other hand, our country's educational program is still more about teaching literacy than teaching people. There are many good things in society but also many mistakes. Therefore, family education is the most important and indispensable educational environment, and along with values education at school, receiving good things from society will help people gradually improve their personalities, and the young generation will be the future, the pillar of the country.

Sixth, lecturers must always improve their professional knowledge and teaching experience to impart knowledge to students in the best and most effective way. Teachers must always be in a state of innovation, constantly create teaching methods and forms, and organize diverse and rich classes.

Seventh, students need to believe in the future development of the industry, be satisfied with the training program they are studying, and actively arrange their own lessons. To improve their learning results and have an interest in the subjects, students themselves must voluntarily learn and complete the tasks assigned by the lecturer, thereby arousing their passion for research. science. Each student must be aware of their own role in learning activities.

Eight, universities need to have more seminars on career orientation for students. Up to 80% of students complain that they do not know what 4 years of university means for the career path ahead. Until the end of the year, students are still struggling to find their own direction (AnLong and Son 2020; Dung 2022). Then, when I received my diploma in hand, I had to worry about the way to find a job. This is truly worrisome.

Career orientation for students is considered relatively late. Choosing a major and choosing a career should be taken care of early, right at the high school level to avoid making the wrong choice and wasting time and effort. At the student stage, you should focus on learning about the chosen industry and planning for internships and future jobs.

6. Conclusion

The research has described the current situation and learning interests of students at universities, pointed out the expressions of interest in learning, and the factors affecting the situation, especially The most basic due to little knowledge of the profession being studied. On that basis, the author has proposed a number of solutions to improve learning interest for first-year students at universities. The school regularly organizes seminars and academic clubs about the professions in the school so that students can understand the profession they are studying. Teachers need to actively innovate teaching methods, have a harmonious combination of methods, and especially focus on taking students as the central object, stimulating students to actively participate in the learning process. Students must be active and self-disciplined in the learning process, apply reasonable learning methods, and exchange questions with friends and teachers.

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Conflict of Interest

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Educating traditional cultural values through belief in worshiping the ancestor in the family

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Abstract The purpose of this study is to determine the values of Belief in worshiping ancestors in the family in order to educating the traditional cultural values of Vietnam in the context of globalization and international economic integration. To this end, this article studies ancient documents and research works of some reputable researchers on Vietnamese beliefs and culture; in-depth interviews (IDI) and focus groups discussion (FGD) were conducted to obtain genuine comprehension of Vietnamese folk belief activities. The data were evaluated using content analysis. This article reported on four aspects of problems: (i) Belief in the immortality of ancestor's souls; the blessing as well as the punishment of the ancestors' souls to their descendants; (ii) Education about the sense of origin; (iii) Education on the ethics of gratitude; (iv) Education filial piety in daily life. This study helps understand the values of ancestor worship in the family is the basis for good relationships in the family, relatives, and clan; good behavior keeps people with people in society; thereby educating the good values of Vietnam's traditional culture in the context of globalization; international economic integration. This study can be used for teaching in the Vietnam education system; contribute to the dissemination of traditional cultural values of Vietnam; shed more light on Vietnam's value systems; serve as a basis for planning and formulating policies to develop an advanced Vietnamese culture imbued with national identity.

Keywords: education, traditional cultural values, belief in worshiping the ancestor, Vietnamese family, globalization, international economic integration

1. Introduction

Ancestor worship has been established since ancient times and exists in many people around the world (Tylor 2000). In Vietnam, ancestor worship is a type of folk belief that, according to many conjectures, may have appeared since the time of the Hung Kings (Van 2003; Hinh 2007). Starting from the concept of "vạn vật hữu linh" (everything has a soul), the Vietnamese as well as other ethnic groups in the world, worship ancient gods, especially natural gods, tree gods, rock gods, mountain gods, river gods, etc. (San 1998; Giau 1973 and 1983; Ngoc 2002; Van 2017). The anthropomorphization of "nhiên thần" (natural gods) has created a turning point for the formation of the "nhân thần" (human god) system (Duy 2002; Hinh 2007; Van 2019b).

To date, ancestor worship tradition has always played an important role in the spiritual life of many ethnic groups (especially in the East Asian region) (San 1998; Ngoc 2002). However, the recognition and assessment of the role and meaning of belief in worshiping the ancestor have led to many different opinions. Facing the current trend of globalization and international economic integration, activities of religion and beliefs are growing strongly. In particular, the penetration of foreign religions is a concern of many countries, including Vietnam.

Against this backdrop, many countries and peoples have taken positive actions by revitalizing national cultural beliefs and restoring traditional values that have been lost or underestimated. The issue of preserving the national cultural identity and promoting the positive values of folk beliefs, including ancestor worship, is urgent today because it contributes to increased resistance to national culture.

Research results in recent years show that most Vietnamese people acknowledge that ancestor worship plays an important role in cultivating and educating good traditional moral qualities among family members. The survey results of the author in 2021 and 2022 showed that up to 87.41% of respondents believed that maintaining the custom of ancestor worship at home contributes to the education of family moral traditions, while the number of respondents who do not believe in this value only is 2.96%.

Those surveyed believe that ancestor worship in the family has a role in educating family moral traditions. They also believe that through ancestor worship, they help themselves and their family members cultivate many good moral qualities, such as gratitude, filial piety, kindness, sacrifice, the spirit of progress, and industriousness. The biggest impact of ancestor worship on the formation of Vietnamese people's morality is gratitude and filial piety toward generations of ancestors, grandparents, and parents.

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Gratitude is a traditional moral value of the Vietnamese nation that has been preserved and promoted through customs, practices, and beliefs. Author Nguyen Hanh (2020), in the book "Vietnamese Culture and Belief", wrote, "In Vietnamese folk beliefs, the culmination of the cosmological perspective is heaven worship, the culmination of the human perspective is human decency, in which filial piety is at the forefront, etc. The Vietnamese people's cosmological and human perspectives begin with the word "ân" or "ơn" (gratitude).

Gratitude is especially profound through ancestor worship (Y and Huy 2011). The core value of this belief is gratitude for the birth, upbringing, love, care, and protection of grandparents, parents, and previous generations for the next generation. Descendants express their gratitude to their ancestors not only in respecting, caring for, and taking care of their parents, grandparents, and great-grandparents. At the same time, they are still alive but also in having to worship them when they have passed away. It is these things that have contributed to creating the unique traditional cultural values of Vietnam.

2. Literature Review

Concepts of traditional and traditional values:

Tradition, in a general sense, is understood as a sociocultural phenomenon, including thoughts, feelings, customs, habits, lifestyles, and behaviors formed in the most historical conditions determined, preserved over the years in the material and spiritual life of different social communities and transferable from generation to generation (Giau 1973). Traditions also have certain changes when historical conditions change, rather than being constant and eternal in all ages.

Moreover, tradition often has two sides to different communities according to different circumstances: "First, tradition contributes to the veneration and preservation of what is precious, essential, and fundamental for the development, for the upward movement of the nation's community, etc. (Binh 2005; Trung and Van 2020a, 2020b). From this perspective, tradition has a positive value meaning that contributes to creating indispensable support for the nation on the way to the future. Second, tradition is also a very favorable land for the maintenance and revival of the conservative, backward, and outdated side when historical conditions and circumstances have changed (Van 2020b). This second aspect significantly affects restraining, holding back, and slowing down the development of a country or certain people.

Thus, there are traditions with positive values that promote the development of society, but there are traditions that become factors hindering the development of society, which need to be limited and eliminated. With that meaning, "traditional values are the crystallization of all the best through different historical eras of the nation to create its own identity. It is passed on to the next generations and with time, along with the progression of history will be supplemented with new values".

Concept of beliefs:

Beliefs are issues that have been studied and explained by many scientists (Giau 1973; Van 1996, 2003; Thinh 2001; Binh 2005). In Vietnam, there are religious phenomena that, according to the criteria of religion, do not fully satisfy them. Some researchers do not accept this term but call it primitive or early religions. However, the distinction between religion and belief is only relative. In social life and language, both the terms religion and belief exist. Talking about religion is talking about the process of sanctifying a character, the phenomenon that people believe in. This process may be accompanied by the mythization and historicalization of the worshiped character (Tokarev 1994; Tylor 2000).

As Dao Duy Anh (1957) explains, belief is "admiration, superstition toward a religion or ideology". In the work "Vietnamese Culture at the peak of Dai Viet", Nguyen Dang Duy (2002) wrote: "Faith is people's belief and admiration in supernatural, mystical, or because people imagine gods to the extent that they think that these forces influence and govern the life and fate of people and create a social life according to that sacred belief"; or the author Dang Nghiem Van (2003) said, "In religion, there must be a sacred element related to an invisible world, to supernatural beings, which people themselves imagine and create.

Ngo Duc Thinh (2001) gives a clearer view: "Belief is understood as a person's belief in something sacred, sublime, supernatural, or in short, belief, aspire to the "sacred", as opposed to the "mundane", an existence that we can touch and observe. There are many kinds of beliefs, but here, the belief of the faith is the belief in the "sacred". Therefore, belief in the divine belongs to human nature, it is the basic factor that creates the spiritual life of man, as well as the material life, social life, spirit, thought, emotional life, etc."

Tokarev (1994), a famous Russian religious researcher, said, "Despite rejecting the theory of the inner development of religion, we have never denied the existence of religious origin relationships between beliefs. We have already seen how conservative those beliefs are. Any belief that is firmly origins will persist among the people for a very long time, even if the conditions that produced it have changed". According to him, the earliest forms of religion were Spear totem, witchcraft, and dark magic; healing by sorcery, sex rituals, funerals, coming-of-age ceremonies, hunting cults, and cults of matriarchal clans, ancestor worship, Shamanism, Paganism, secret society cult, leader worship, tribal god, farming god, etc.

In the famous work "Primitive Culture", E.B. Tylor (2000) said, "It is important to note that different beliefs and customs have solid foundations in animism. primitive, as if they had actually sprung from it. In complex animism, they become the product of ignorance rather than the philosopher's, and exist as remnants of the old rather than the products of the afterlife, as they pass from full vitality to a state of being ruins".

With the above points of view, the forms of belief are specific to each cultural space, cultural subject and different cultural time, but they are still expressions of belief in the sacred and of admiration and worship of man. Therefore, belief is a historical cultural phenomenon, a historical category.

Concept of ancestor:

According to the Vietnamese concept, ancestors are first of all people of the same bloodline, such as father, mother, grandfather, grandmother, great-grandmother, cavalry, etc., who gave birth to me. Ancestors are also those who have contributed to creating the present life, such as the "Thành Hoàng làng" (The Lord God of a certain village) and "Tổ nghề" (the person who gave birth to a certain profession). Not only that, but ancestors were also those who had merit in protecting villages, homeland, and country from foreign invaders such as Trần Hưng Đạo, who became "Father" and was organized to worship and die in the 8th lunar month every year. The "August of the Father's death anniversary" is in many places in the Vietnamese community. Even the "Thành Hoàng" of many villages is not the one who has created the village, but sometimes the person with meritorious service to the country who was worshiped by the ancients as "the god". The ancestors in Vietnamese beliefs are also mothers of "Âu Cơ" and "King Hùng", who gave birth to all ethnic groups in the great Vietnamese family.

If considered from the perspective of family, lineage, ancestors are concepts used to refer to people with the same bloodline, such as great-grandparents, grandparents, parents, etc., had the merit of giving birth and raising the descendants but passed away.

Worshiping ancestors in the family:

In Vietnam, ancestor worship is expressed at three different levels: ancestor worship in the family, clan (family lineage), ancestor worship in the village (village god worship), and ancestor worship is the belief of worshiping Hùng Vương (ancestor worship in the whole country).

Ancestor worship in the family is all forms of rituals and worship to show respect, and morals of "uống nước nhớ nguồn", be grateful to ancestors, grandparents, and parents who gave birth and create make a life for children, who belong to the first generation of a family line, with grandparents, parents who have passed away.

Vietnam's blood relationship is quite complicated. The family is only a relatively independent unit because between families, to a certain extent, there is a binding relationship that people call kinship or clan. According to that "rule" of bloodline, many families will form a branch, and many branches form a family. Each family has a common ancestor, and ancestor worship is assigned to the patriarch.

Belief in worshiping the ancestor:

Ancestor worship (also known as grandparent's religion) is a custom of worshiping deceased ancestors of many Asian ethnic groups, especially developed in Vietnamese culture, Chinese culture, Korean, and Southeast Asian cultures. For the Vietnamese, the custom of ancestor worship has become a kind of ancestor worship. Many Vietnamese people, in addition to their own religion, often worship their ancestors. The vast majority of families have an ancestral altar in the house, at least with a solemnly hanging photo, but it is not a religion because of the Vietnamese people's respect for their parents and grandparents. This is a very important and almost indispensable belief in Vietnamese customs (Hau 1957; Giau 1973).

The custom of worshiping the ancestors of the Vietnamese originated from the agricultural economy in ancient patriarchal society. When Confucianism was introduced to Vietnam, filial piety was enhanced, giving ancestor worship a deep philosophical foundation. Family, clan, and the "honorable family" issue are emphasized (Thu 1997; Thuan 2004).

In the 15th century, Confucianism dominated society, and the Le dynasty institutionalized ancestor worship. The Hong Duc Code clearly stipulates that descendants must worship their ancestors for 5 generations (being a child themselves, counting backward for 4 generations is: Father, mother, grandparents, great-grandmother, cavalry); incense fields, incense lamp fields, economic bases to maintain ancestor worship even though poor descendants are not allowed to sell them, etc. (Quốc Triều Hình Luật 1991; Đại Việt Sử ký Toàn thư 2004). In the Nguyen Dynasty, the ancestor worshiping ritual was clearly recorded in the book "Thọ Mai Gia Lễ" (Kim 1919; Thu 1997; Van 2020d).

Currently, researchers do not agree on whether ancestor worship is a religion or a belief. Ancestor worship at first glance, can be considered a religion since most houses have altars and perform solemn and respectful rites of worship, that is, there are signs of religion. However, it is not a religion in the strict sense of the concept (Van 2020a). Ancestor worship does not have unified teachings and does not have a church with strict rules, as is often found in ancient and modern religions.

Origins of the Belief in Worshiping the ancestor:

Origins of socioeconomic:

Ancestor worship is a part of social consciousness, arising on the basis of socioeconomic conditions and subject to the regulation of social existence. Therefore, finding its origin is not in consciousness but in terms of social history, the history of practical human activities. From the point of view of Marxism-Leninism, man's inability to fight with nature is one of the social origins of ancestor worship.

The history of human society is the history of the serial development of socioeconomic forms. The economic basis of primitive society was the natural economy of hunting and gathering. Therefore, life depends greatly on the natural environment. The primitive communist society was organized in the form of clans and tribes; these are communities of people with the basic characteristics of having the same bloodline, living in a relatively stable area, cooperating and supporting each other in production, in the fight against natural disasters and wars of invasion by clans, another tribe. The relationship between members of the clan is an equal and cooperative relationship on the basis of public ownership of the means of production (Vuong and Tan 1960).

In the early period of the clan commune, the working tools were still very rudimentary, the level of labor was simple, and the labor productivity was very low (Vuong and Tan 1960). Therefore, the life of primitive people is still not far from the life of animals. Individual consciousness has not yet formed, leading to their social consciousness also being heard purely (Quynh, Lam and Han 2008). Later, when the productive forces developed, the discovery of fire and the use of bows and arrows in hunting created a radical change in the consciousness of primitive people. In this period, ancestral consciousness was an element of primitive communal consciousness, reflecting the powerlessness of man against the forces of nature. The mysterious natural world that surrounds people always threatens life by sudden disasters such as disease, rain, storms, sun, drought, and wild animals, along with the mysterious forces of nature and social forces that always dominate their daily lives (Long and Van 2020). Deadlocked in real life, people seek liberation in spiritual life (San 1998; Duy 2002).

Along with the symbol of the gods, the symbol of the stamp appeared in the matrilineal period. According to Tokarev (1994), ancestor worship in this period was only in its infancy, not a common phenomenon. Totemism is the first stage of the development of ancestor worship. During the time of the Totemism religion, people received an ancestor of an animal in the tribe to pray for them to have a peaceful and prosperous life. Therefore, there was a taboo not to insult the totem, but they broke that taboo and ate the totem meat. They see fear, fear of punishment. The limitation of man before nature and society leads to a limitation on the interpretation of human death. When dead, where does the soul go?, where does the body go or where does the soul go?, this world (the world of the living), the next world (the world of the dead), life and death like that which?, etc., they do not explain or misinterpret. Those were the premises of ancestor worship, which later developed into beliefs.

Origins of cognitive:

One of the sources leading to the formation of beliefs in general and ancestor worship, in particular, is the level of cognitive development. First, like many other peoples, the Vietnamese come from the concept of “vạn vật hữu linh” (everything has a soul) and begin with the natural world around them. Therefore, the most ancient types of gods that people worshiped were natural gods, especially tree gods, rock gods, mountain gods, river gods, etc. By mythologizing and anthropomorphizing, the gods are given the face of humans (kind or fierce) and human psychology (happy or angry).

It can be said that the anthropomorphization of natural gods has created a turning point for the formation of the human god system. This is also the period when people begin to discover themselves. Up to a certain point, the relationship between the visible and invisible world, especially between life and death, has caused people to be concerned. Nevertheless, with the concept of “vạn vật hữu linh” mentioned above, they believe that in each person, there is a “soul” (including astral) and a “body”. The only difference is that men have three souls and seven astrals, and women have three souls and nine astrals.

There is no such thing as the superior sense of “sống gửi thác về” (heaven or hell) of Christianity or the doctrine of reincarnation in Buddhism. In folk perception, the body and the soul are both attached and separate, they are attached when they are alive and separate when they die: the body has dissolved into the dust, but the soul still exists, moving to “live” in a different place, another world. That world can be called by different names, the ghost realm of the Muong people, or the underworld (the realm of the underworld) in the Vietnamese way of saying it. The realm of the underworld has all the same needs as earthly life. Archaeological documents show that the custom of burying wealth according to the dead has existed since the Son Vi culture. In the burial sites, people find tools for labor and living materials, presumably those that are provided for the dead to use in the afterlife. Thus, according to folk beliefs, death is also a new form of “life” in another environment.

Origins of psychology:

Psychological and emotional factors are subjective factors before the impact of the objective world, and ancestor worship is formed on the basis of the psychology and emotions of people and the community of people in society. One of the essential human needs is to be able to confide, send and relieve frustrations in spiritual life. Belief in worship of the ancestor was formed on the basis of belief in the immortality of ancestral spirits. That belief has helped people create a traditional cultural system of values, sanctifying the feeling of mourning and the attitude of respecting those who have contributed to creating life.

Life is a special cultural environment that is handed down from generation to generation. People live in that environment, not only in contact with the existing but also with the invisible, abstract, ambiguous, and inexplicable by reason. That is only felt by the human mind and hunch. Belief in the existence of ancestors contributes to balancing the psychological state, and sometimes even the end relieves the loneliness and unhappiness of people before death.

Death is always a terrifying obsession of people, and death means a permanent separation from the world and loved ones. However, the laws of biology make it impossible for anyone to avoid them. With ancestor worship rituals, people have contributed to explaining death and life after death, relieving fear when thinking about it. It is clear that the fear of death is alleviated through the worship of one’s grandparents and parents. In addition, gradually become the custom, tradition, the obligation to worship every family in the form of anniversaries, graves, etc. In addition to the sense of responsibility, perhaps partly because of the fear of being punished for not fulfilling responsibilities and obligations to the deceased.

3. Materials and Methods

Studying the ancient bibliographies that are also kept in museums and research institutes of Vietnam written on beliefs and religions; beliefs and religious activities of Vietnamese people, focusing on studying documents written about belief in worshiping the ancestor and activities of belief in worshiping the ancestor.

Studying ancient documents are still preserved in village pagodas, village temples, and communal houses; in particular, documents are kept in clans in some provinces and cities.

Learn, analyze, and evaluate previously published results of famous and reputable researchers on beliefs and religions of the Vietnamese people such as Tran Van Giau; Phan Ke Binh; Dang Nghiem Van, Phan Ngoc, Phan Dang Duy, Nguyen Duy Hinh, etc. At the same time, we refer to some studies of famous scholars in the world studying folklore. Inheriting and selectively inheriting the achievements of scholars, rationally using research results to serve this research work.

To study the legal documents of the Communist Party of Vietnam and the State of the Socialist Republic of Vietnam on beliefs and religions; on building and developing an advanced Vietnamese culture imbued with national identity during the context of globalization and international economic integration.

The author conducted field trips in a number of provinces and cities of Vietnam, in which the author concentrated in northern Vietnam, including 3 provinces and cities: Hanoi, Thai Binh province, and Hai Phong city; in the central part of Vietnam, there are 3 provinces and cities: Nghe An province, Thua Thien Hue province, and Da Nang city; and in southern Vietnam, there are 3 provinces and cities: Ho Chi Minh city, Can Tho city and Dong Nai province. The author will directly learn and participate in some activities and rituals to worship the ancestors of some families.

The author’s team will conduct a survey of people in the cities where the author’s team visits. The number of people surveyed was N=270. In addition, the authors will interview many reputable people in their families and clans about the value of ancestral worship for people's spiritual life in the current period.

4. Results

Confidence in belief in ancestor worship

Confidence is expressed in the perception of ancestors’ souls:

Many documents from ancient times describe souls in stories of near-death experiences, the afterlife, and communication with the dead, reflecting people’s belief in this supernatural phenomenon. Although very popular, science has thus far not recorded any convincing evidence of the existence of the soul. During interviews for the 2016 book “Ghostly Encounters: The Hauntings of Everyday Life”, Dennis and Michele Waskul found that “many participants were uncertain about the ghostly experience, due to the lack of sight of the images. The image is said to be the “tradition” of the soul. Instead, they believe that they themselves experience the phenomenon “strange, inexplicable, and full of mystery”. Thus, these experiences are more likely to converge on unusually unexplained factors.

In research on confidence in the existence of ancestors’ souls, the authors surveyed 270 people in nine provinces and cities of Vietnam. The results are shown in Figure 1.

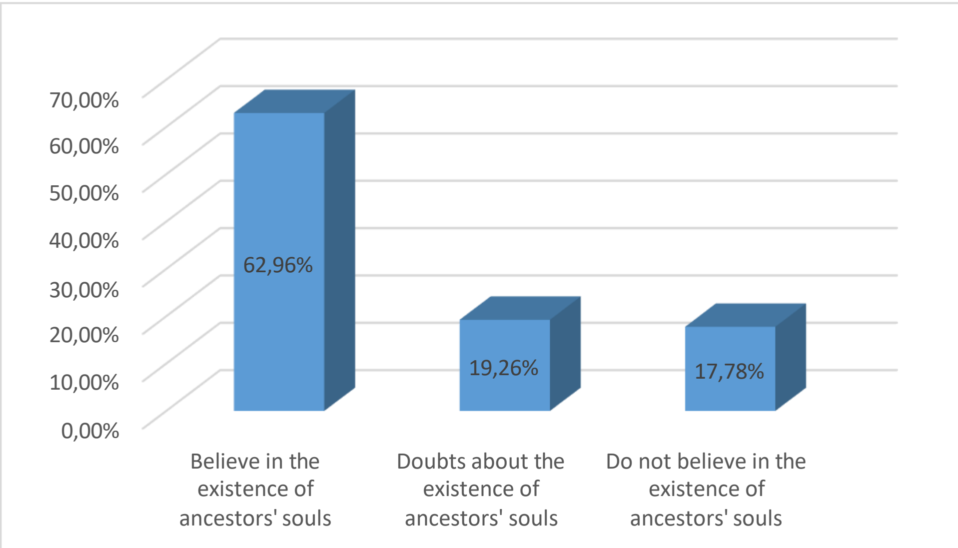

Figure 1 Confidence is expressed in the perception of ancestors’ souls. *Source*: compiled by the author.

The survey results (shown in Figure 1) show that 62.96% of respondents answered "Belief in the existence of ancestors' souls"; 19.26% answered "Doubts about the existence of ancestors' souls"; and only 17.78% answered "Don't believe in the existence of ancestors' souls". The results of this survey show almost similarity in the view of "the existence of ancestors' soul" taking place today in Vietnamese society.

To learn more about "The confidence is expressed in the perception of ancestors' souls", the authors conducted separate surveys on 2 groups of people, namely: A group of people from 20 years old to 50 years old; a group of people from 51 years old to 80 years old. The results are shown in Figure 2.

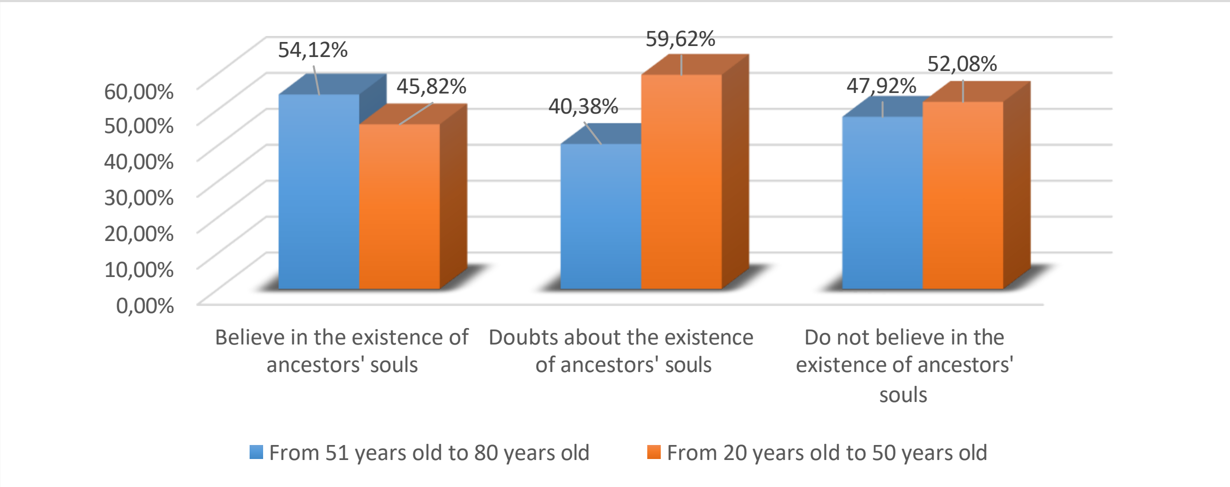

Figure 2 Confidence is expressed in the perception of ancestors' souls by age. Source: compiled by the author.

The results of figure 2 show that the group of people aged 51 to 80 years old have a higher level of belief in the existence of souls than the group of people aged 20 to 50 years old; at the same time, the suspicion and distrust of the existence of the soul are also lower. This shows that the older people are, the more people tend to look to their ancestors and origins. This is also a general trend in today's social life.

In fact, "Believe in the existence of ancestors' souls" leads to regular ancestor worship. Ancestor worship reminds people never to forget the merits of their ancestors for themselves and their families and at the same time expresses their respect and gratitude. The respectful attitude and behavior of the adults in the family toward the ancestors are of great significance to the education of filial piety for family members, especially for children.

This author draws from in-depth interviews with 30 adults (from 20 to 80 years old) in 09 provinces and cities of Vietnam. One of them said, "If you want to educate filial piety in the family, parents must be a shining example of filial piety. Parents must show love and respect for their grandparents and ancestors and always remind them of their merits for the family when they are still alive. Children who see their parents' actions like this will respect their parents, be obedient, and treat them well. Parents who do not treat their parents well, neglect to worship, and children will not respect their parents nor respect their parents' worship later when their parents have returned to their ancestors".

Thus, the survey results partly show that people are very aware that ancestor worship is a direct and effective method of educating filial piety. It can be said that with "Believe in the existence of ancestors' souls", through ancestor worship activities in the family, the tradition of gratitude, "uống nước nhớ nguồn", "ăn quả nhớ kẻ trồng cây". The Vietnamese family and the Vietnamese nation will be preserved and continue to be handed down forever even though the size, form, and structure of the Vietnamese family may change due to the impact of objective factors.

Confidence is expressed in the blessing and punishment of ancestors' souls:

Research results show that most people are very aware of the blessings and punishments of ancestors from ancestor worship to the family and society.

About the blessing of ancestors' souls Table 1:

Table 1 The blessing of ancestors' souls.

Oder	Survey content	Evaluate		
		Believe	Suspect	Not believe
1	Be blessed by the ancestors to have good health	60.37%	18.89%	20.74%
2	Being blessed by ancestors to do good business and trade	64.44%	19.6%	15.93%
3	Being blessed by the ancestors to get promoted	56.67%	22.22%	21.11%
4	Be blessed with a happy family by ancestors	65.93%	19.26%	14.81%
5	Be blessed by the ancestors for their children to study well	63.70%	20.37%	15.93%
	Total	62.22%	20.07%	17.71%

Source: compiled by the author.

The survey results in Table 1 show that the average number of people who answered “believe” had the blessing of ancestral spirits on average, accounting for 62.22% 20.07% answered “suspect” and 17.70% answered “not believe”. The answer that received the highest number of “believe” answers was “Be blessed with a happy family by ancestors”, accounting for 65.93%.

Thus, the majority of respondents believe that ancestor worship will be blessed ancestors in life. Therefore, in daily life, ancestor worship must be done regularly.

Regarding the punishment of ancestors’ souls Table 2:

Table 2 The punishment of ancestors’ souls.

Oder	Survey content	Evaluate		
		Believe	Suspect	Not believe
1	Be punishment by the ancestors to have good health	59.63%	19.26%	21.11%
2	Being punishment by ancestors to do good business and trade	64.07%	20.00%	15.93%
3	Being punishment by the ancestors to get promoted	57.41%	22.59%	20.00%
4	Be punishment with a happy family by ancestors	64.08%	22.59%	13.33%
5	Be punishment of ancestors’ souls to their descendants	67.04%	22.22%	10.74%
6	When you die without reincarnation, you can’t be liberating	64.07%	21.48%	14.45%
	Total	62.71%	21.36%	15.93%

Source: compiled by the author.

The survey results in Table 1 show that the average number of respondents who answered “believe” had the punishment of ancestral spirits on average accounted for 62.72%, 21.36% of the respondents answered “suspect” and 15.93% of the respondents. Ask and answer “not believe”. The answer that received the highest number of “believe” answers was “Be punishment of ancestors’ souls to their descendants”, accounting for 65.93%. In in-depth interviews with some elderly people in some traditional Vietnamese families, the focused answer was “If the descendants do not respect their ancestors, performing regular worship will lead to their ancestors becoming famous. anger and thus lead to punishment for their children”.

With the belief in the punishment of the ancestors’ souls for the wrongdoing of their descendants, along with the prophecy about the blessing of the ancestors’ souls, the descendants have to become the ancestral city, often worshiping on the anniversaries of the ancestors, the first day, the full moon day, day of the New Year. It is the obligatory work of descendants that does for their ancestors.

5. Discussion

The belief in worshiping the ancestors in family education about the sense of origin:

Like other ethnic communities, the Vietnamese have a need to find refuge through their spiritual beliefs (Hinh 2007). However, what is special and different is that instead of creating gods to worship according to their imagination, the Vietnamese have sanctified history and their ancestors into a common source, into gods and symbols sacred statues for worship (Van 2019a, 2019b). From historical facts, the Vietnamese have succeeded in preserving their gratitude and sense of origin through ancestor worship (Van 2020c, 2020d).

There is a symbol of the quintessence of national culture in each Vietnamese house that is very specific, sacred, and close, which is the altar of ancestors. An ancestral altar is not only for worshiping the deceased; the altar is also a symbol of the origins (Van 2020a, 2020b). Therefore, lighting an incense stick means lighting up gratitude and respect for ancestors, grandparents, and origins. The worshiping custom of the Vietnamese people started with the Vietnamese people worshiping their ancestors in their own houses. This is a custom that helps to form the house and thereby educates each Vietnamese child on patriotism and patriotism from the moment he is born.

Houses in the Vietnamese mind are built not only out of necessity to have a place to live but also to have a place to worship ancestors (Dinh 1970; Anh 2005). The Vietnamese believe that “where the children are, their grandparents are there”, so having a home means having an altar to worship ancestors and how to live properly. Every house is a family. There will be family training and creating a family name from that house. Family style is the standard of living of a family that is handed down through generations. Therefore, where does that ancestry manifest? It is at the place of worshiping ancestors in the family for people to instruct, remind and educate their children and grandchildren about the nation’s way of life that loves respect, gratitude, and the principle of “uống nước nhớ nguồn”.

The belief in worshiping the ancestors in family education on the ethics of gratitude:

Gratitude has long become a good quality of our Vietnamese people and is taught and expressed through many different folk songs, proverbs, and idioms. Gratitude is appreciating, appreciating, and reciprocating actions, good deeds, or help from others (Anh 2005; Binh 2005; Hinh 2007). Gratitude is expressed in many different aspects, such as the latter being grateful for the merits of the previous generation, children being grateful to their parents, those who are helped to be indebted to benefactors, etc. Gratitude always exists in this life and spreads very well.

Through the worship of immortals, gratitude is expressed in practical human actions. We know how to say “thank you” when others help us appreciate what others do for us to make ourselves better. In addition, the fact that we help others as soon as we can, live in harmony with everyone, and do not compare or envy anyone is also a way to spread the message of gratitude.

Living with gratitude brings important benefits and meanings to every human being. Receiving gratitude from others improves our lives, overcoming immediate difficulties, looking to the future, and having sustainable and long-term values. For each person who lives with gratitude, society will become better, more emotional, and more connected. In addition, gratitude helps us practice other good qualities, conveying positive messages to society.

The belief in worshiping the ancestors in family education on filial piety in daily life:

Filial piety is the foundation of ancestor worship, further worshiping the mother and the country. Vietnamese people worship their ancestors not only to show filial piety but also to wish good luck. Ancestor worship is not only limited to the family but also extends to the family line (Van 2020a, 2020e). All clans have an ancestor’s death anniversary, incense burner, estate property, ancestor church, family church, etc., is the material and spiritual basis for maintaining a sense of gratitude and ancestor worship, which is passed on from generation to generation.

Ancestor worship arouses and educates children’s filial piety toward grandparents and parents: “filial piety to parents is a spiritual value, a moral content in a traditional family, deep origins in the way of thinking, becoming a reason for living with each person, not only shows affection and gratitude but also the responsibility and obligation of being a child” (Sinh 2017). Ancestor worship beliefs mold love for the homeland and country for Vietnamese people and urge generations to fight to protect every inch of their father’s land. From here, contributing to the formation and development of patriotism and national pride is a valuable, transparent, and meaningful moral value for the life of Vietnamese people.

Filial piety is deeply expressed through the profound philosophies of ancestor worship through ancestor worship rituals in each family. Ancestor worship is a subtle way of dealing with dead ancestors, making the past, present, and future closely connected and organically related to each other (Thu 1997; Them 2000). It is the continuous and long-term expression of responsibility and morality of descendants toward their ancestors. That responsibility and ethics are expressed deeply and specifically not only in living behaviors, such as preserving honor and family reputation and the continuation of family traditions but also in specific behaviors and values that ancestors leave for future descendants (Van 2020d; Vu Hong Van 2021).

On the anniversary of the death anniversary, descendants and relatives gather together to pay tribute to the deceased, review together the merits and graces of parents and grandparents toward the family and each individual; together discuss and solve common problems of families and clans; mind, pray to the ancestors’ souls to bless and sustain their children and grandchildren, overcome all calamities and problems in life; and secretly promise the soul of the deceased to strive and cultivate to glorify the family and lineage so that the ancestors’ souls in the nine streams can rest in peace.

Those noble values of ancestor worship will always be preserved and developed in every Vietnamese people and family in the current context, creating a strong spiritual motivation for each individual to strive and rise in life.

6. Conclusion

The ancestor worship of the Vietnamese people plays a very important role in moral education, which is reflected in the morality of being a person, the manners of living, and the manners of the upper and lower. On the other hand, it is the beauty of family and national culture, meeting people’s spiritual needs, thereby creating a good tradition handed down from generation to generation. The country is reaching for civilization and modernity but still has to keep the good traditions of the nation. The family is the cell of society, and ancestor worship plays an important role in the life of each family in particular and the Vietnamese community in general.

Ancestor worship arouses and educates children’s filial piety toward grandparents and parents. Respect for parents is a spiritual value, a moral content in a traditional family, ingrained in the way of thinking, and becomes a reason for each person’s life, not only expressing affection and gratitude but also the responsibilities and obligations of the child’s religion. A father’s father and mother’s love is like a high mountain, the source of water can be told so quickly, so be filial to your parents during life; reverent, grateful, mourn when parents die, and return to ancestors. These beauties have become a part of the good cultural value of the nation, preserved by generations of Vietnamese people, and built and developed together in the face of the impacts of globalization and economic integration international.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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21st-century skill-based literacy learning guide for elementary schools

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Abstract Reading literacy is a basic literacy that must be learned early on. Many studies have studied solutions for improving student writing skills, but most of these studies only examine how to create learning by collaborating learning with literacy programs, making reading corners and developing books that can be used to improve basic literacy. However, the solution has not been effective in optimizing literacy learning. Therefore, this study aims to produce a Literacy Learning Guide to Skills Based on 21st Century Skills in Elementary Schools. This study uses the Four-D development model consisting of 4 stages, namely, define, design, develop, and disseminate. The subjects in this study are content experts, learning design experts, and teachers. Sampling in this study was carried out using saturated sampling techniques with samples obtained from all SD Piloting K13 in Buleleng District. The number of samples in this study was grade 3 elementary school teachers with 9 people and class III students totaling 61 students. Data collection is carried out by the method of observation and distribution of questionnaires. The data analysis technique used is qualitative and quantitative analysis techniques. The results of this study indicate that the literacy condition of reading students is still said to have not been maximized because of their ability to read and write. The results of this study also show that the Literacy Literacy Learning Guide based on Abab-21 skills is needed in elementary schools, and the effectiveness of the 21st Century Ib-Based Literacy Literacy Learning Guidelines for elementary school students is declared effective.

Keywords: literacy, learning guide, 21st century skills

1. Introduction

Industrial Revolution 4.0 is an era of computerization and digitalization that is full of technological content. Industrial Revolution 4.0 made many changes in all aspects of life (Bilotta et al 2020). One of the changes that has occurred is to automate all life processes without human intervention. It is also very closely related to technological progress (Alaloul et al 2020). Currently, humans must be able to transform and grow into humans who are able to survive the onslaught of technological advances. Humans also need 21st century skills to survive. The skills that need to be learned and imparted are known as the "4Cs", which include communication skills, collaboration skills, critical thinking and problem solving, creativity and innovation. Everyone is required to master 21st century skills so that they can overcome the challenges and problems of life in the 21st century (Redhana 2019). Communication skills are very important for students, and communication skills are basic things that everyone must master. Communication skill itself is a person's ability to convey or express his thoughts to others. In addition to communication skills, collaboration skills must also be possessed by students.

Collaboration is the ability of students to build relationships with other people, respect each other, and participate in all activities to work together as a team to achieve the same goals. In the learning process, teachers need to create situations that provide opportunities for students to learn together or in groups (Rahmawati 2019). Students who have collaborative skills can contribute to other students in the learning process (Falcione et al 2019). The ability to collaborate provides opportunities for students to improve their learning achievement (Robbins and Chad Hoggan 2019). This is due to cooperation between peers and peers helping, guiding and supporting fellow peers so that they are able to build learning through interaction and collaboration (Andersen and Watkins 2018). Furthermore, what students must have is the ability to think critically.

Critical thinking is independent thinking that generates new and innovative ideas and solves problems, reflects critically on experiences and learning processes and makes effective decisions (Indraswati et al 2020). To develop critical thinking and problem solving skills, the learning process should enable students to think critically by connecting learning with contextual problems that exist in everyday life. In addition to critical thinking, creative thinking is also important. Creative thinking includes many higher thinking skills, such as analysis, testing, communication problem solving, and scientific process skills. (Redifer et al 2021; Yildiz and Guler Yildiz 2021; Zhang et al 2021). Creative thinking includes flexibility, fluency, and novelty (Huang et al 2020; Kassim et al 2014). This will demand learning that is able to involve students actively in small group learning as well as developing thinking skills (Hardy et al 2017; Montag-Smit and Maertz 2017). Therefore, learning must create conditions for

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students to be creative and innovative. The teacher becomes a facilitator in accommodating the results of creativity and innovation developed by students. In addition to 4C skills, students are also required to master literacy.

Literacy is one of the initial steps to face the demands of the 21st century. Generally, literacy means the ability to read and write (Solikhah 2015). However, the term literacy has a broader meaning over time. Literacy is currently not only interpreted as the ability to read and write but also has meaning and implications from basic reading and writing skills to the acquisition and manipulation of knowledge through written texts, metalinguistic analysis of grammatical units to the structure of spoken and written texts, and the impact of human history on philosophical consequences. and Western social education (Musfiroh and Listyorini 2016). Literacy ability can be used as a weapon to face challenges in today's life. Through literacy, an individual will develop cognitive aspects of himself. Literacy includes various types of skills, such as reading, writing, processing information, ideas and opinions, decision making and problem solving (Tavdgiridze 2016). There are six basic types of literacy, namely, literacy, numeracy, science literacy, digital literacy, financial literacy, and cultural and citizenship literacy.

Reading literacy is a type of literacy that is already familiar. Reading literacy is the knowledge and skills to read, search, browse, process, and understand information to analyze, respond, and use written texts to achieve goals, develop understanding and potential, and participate in the social environment (Nudiati and Sudiapermana 2020). Reading literacy is considered important because it is a basic ability to continue toward other abilities. Reading is a process of absorption of information that is more effective than listening and even has a positive effect on creativity. According to Marion Lawrence quoted by Wendyataka Fauzi (2018), children are only able to remember 10% of what they hear, 50% of what they see/read, 70% of what they say, and 90% of what they do. Reading is the gateway of knowledge to intelligence. Therefore, the continuous growth of interest in reading is necessary to achieve a society that is religiously, intellectually, socially and economically intelligent so that it will not easily accept false information or news. In addition to reading literacy, writing literacy also has a very important role.

Writing activity is an activity that can explore thoughts and feelings about an object, choose what things to write about, and write it down so that readers will easily understand it clearly. Writing involves children's cognitive abilities in the form of ideas that are realized in the form of arranged words in symbolic and written form (Huber et al 2020). Writing ability is related to students' literacy skills (Hadis and Manvender 2016). Therefore, writing is an activity that needs to be mastered and become a habit because the ability to write will affect the ability to think (Ediyono and Alfiati 2019; Nisa 2020; Rosenhan and Galloway 2019) and improve communication skills (Jack 2015). For this reason, writing literacy must be well developed because literacy is not something that comes in a short time but takes a long time (Syafei et al 2019). Based on these descriptions, it can be said that literacy is very important to address the challenges of learning in the 21st century.

The reality that occurs in the field, based on literacy tests conducted by several institutions, Indonesian students' reading and writing literacy needs to be improved (Indriyani et al 2019). There is still no visible culture of children's literacy either at school or at home (Ifadah 2020). Reading and writing activities carried out by students are still lacking, which indicates that students' literacy is low (Ati and Widiyarto 2020). Furthermore, children no longer have an interest in books and instead turn to gadgets that offer various pictures and motion games, resulting in children's reading power being very low, as evidenced by libraries that are no longer crowded with students (Aswat and Nurmaya G 2019). This statement is supported by data from the 2018 PISA study report released by the OECD on Tuesday (3 December 2019) for the literacy category. Indonesian students scored 371 out of an average score of 487. In the field of mathematics, Indonesian students scored 379, which is still lower than the average score of 487. In addition, students' reading abilities combined with low students' writing abilities are still not optimal (Windarto 2020).

This condition is also supported by the results of observations showing that students who just read the text and when asked questions by the teacher are unable to answer because they do not understand the contents of the reading. Based on observations, students tend to stare directly at the lines of reading without knowing what they mean by reading the text, meaning that students do not know what they are reading. Students also seem as if they are not responsible for what they read, whether they understand it or not. As if reading only through the jungle of words without meaning. They generally do not know how to read. This condition is caused by several factors, one of which is literacy before learning, in which the teacher only uses student literacy guides provided by the Ministry of Education and Culture with literacy materials only sober reading texts.

In addition, the teacher does not use many variations of the text because the existing guidelines only emphasize 15 minutes of literacy time before learning without guidance regarding the text that must be used according to the class (low grade-high grade) where literacy is carried out. This is because teachers still have difficulty choosing texts that can improve students' literacy skills in both low and high classes. This results in students feeling bored quickly and unmotivated in participating in literacy activities. The results of the initial analysis also found that teachers are currently still using basic literacy guidelines issued by the Ministry of Education and Culture, which still need to be enriched with readings or activities that provide more opportunities for students to read and write activities. This condition is supported by the results of interviews with several teachers where the teacher needs a guide that is in accordance with the development of science and technology and according to the needs of students.

Many solutions have been made to overcome this problem. These solutions include research that states that there is a significant influence of the literacy corner on students' reading interest, where the category of student reading interest is good, with a percentage of 83.89% (Dafit et al 2020). Research states that the Wattpad application can help students hone literacy skills. The use of Wattpad is considered to provide an interesting learning experience for students. Research that states that the product produced in this research and development is a fable story learning enrichment book based on literacy for second grade elementary school students. This product is declared fit for use in terms of content, presentation systematics, use of language, and illustration design. This development product has been used as a book to support the learning process both at school and at home. In addition to being used as a means of understanding the values of character education and training students' discourse skills, this product can be used as a means of entertainment to stimulate students' imagination with the aim of having fun (Nuha et al 2019).

Based on the descriptions of the solutions described above, it can be said that the solutions that were carried out were more for creating learning by collaborating learning with literacy programs, creating reading corners and developing books that could be used to improve basic literacy. However, these solutions are still not optimal in increasing basic literacy because they have several weaknesses, namely, the lack of infrastructure. The understanding of schools that have not given priority in developing a literacy culture and the lack of understanding of teachers in translating the emphasis on literacy development in national education principles and programs, as well as the basic framework of the curriculum (Dafit et al 2020; Nuha et al 2019). To overcome the shortage of existing solutions, it is necessary to develop a guide to implementing literacy learning based on skills in 21st century education.

Guidelines for implementing literacy learning based on educational skills in the 21st Century which is a guide for implementing literacy learning based on skills in Education in the 21st Century. This guide will be developed and supplemented with guidelines on how literacy activities will be carried out by students and teachers. This guide is equipped with students' reading and writing literacy activities and learning procedures that must be carried out by the teacher. With the complete package offered, it is hoped that it will have an effect on literacy skills in addition to implementing various solutions that have been provided in previous studies. It is also hoped that this guide will be able to complement and enhance literacy learning to read and write that has been implemented in schools. The purpose of this research is to develop a 21st century skill-based reading and writing literacy learning guide in elementary schools.

2. Methodology

This research uses the type of development research. The development model used is the Four-D model. The Four-D development phase consists of four steps, namely, define, design, development, and dissemination. The defining stage is to identify and analyze the needs related to product development. The development of 21st century skills-based reading and writing literacy guide products is carried out in several stages, namely, 1) Analysis of the current curriculum, namely, the 2013 curriculum. 2) Analysis of basic competencies for the formulation of learning indicators related to literacy activities. 3) Analysis of the characteristics of students who will receive learning. 4) Analysis of learning material is carried out to match the indicators of literacy activities carried out. For the development of literacy reading text criteria, several stages were carried out, namely, 1) Analysis of the current curriculum, namely, the 2013 curriculum, with the aim of determining the teaching materials developed to suit basic competencies. 2) Analysis of the characteristics of students performing literacy activities. Analysis is important to do so that the literacy material provided matches the students who will use it. 3) Formulate criteria for reading material for literacy to limit to not deviate from the characteristics of students and the learning process that is carried out afterwards. The design stage is to design a 21st century skill-based reading and writing literacy activity guide design and reading text criteria based on (1) the results of the 2013 curriculum analysis, (2) the results of the analysis of the characteristics of students who engage in literacy activities, and (3) the results of material analysis learning that will be carried out after the literacy process. The development stage is to test the developed guidelines and reading criteria. Product design validation was carried out by 5 people consisting of 3 lecturers who are experts in their fields, including literacy experts, child development experts and learning design experts, and 2 teachers as practitioners. At this stage, an effectiveness test was also carried out, and the results of the guide effectiveness test using the t test formula obtained a tcount of 2.523. The tcount obtained was consulted with the ttable value with a significance level of 5% and degrees of freedom df = n-1. The Dissemination stage carries out packaging and product dissemination activities. Learning tools that have been developed and have been validated and tested for effectiveness as well as revised according to the input provided by experts and practitioners are then packaged and distributed to all K13 Piloting Elementary Schools in Buleleng District.

Subjects or participants in this study were content experts, instructional design experts, and teachers. The object in this research is the data collection method used is observation and distributing questionnaires. The data analysis techniques used in this study are qualitative and quantitative data analysis techniques. Qualitative data analysis was carried out by compiling data in the form of words, sentences, pictures and charts. This technique is used to analyze data obtained from suggestions and comments from experts. Meanwhile, quantitative data analysis was carried out by grouping data based on variables and performing data calculations (Sugiyono 2018). Meanwhile, quantitative analysis techniques are data processing in the form of numbers or percentages. This technique is used to analyze the needs, validity, reliability and effectiveness of the developed literacy guide. Sampling in this study was carried out using a saturated sampling technique. This sample was taken from all K13 Piloting Elementary Schools in Buleleng District. The samples in this study were grade 3 elementary school teachers with a total of 9 people and grade III students for a total of 61 students.

3. Results

This study obtained results in accordance with the objectives of this study for the first problem related to the analysis of learning needs for literacy literacy, which will be described in Figure 1.

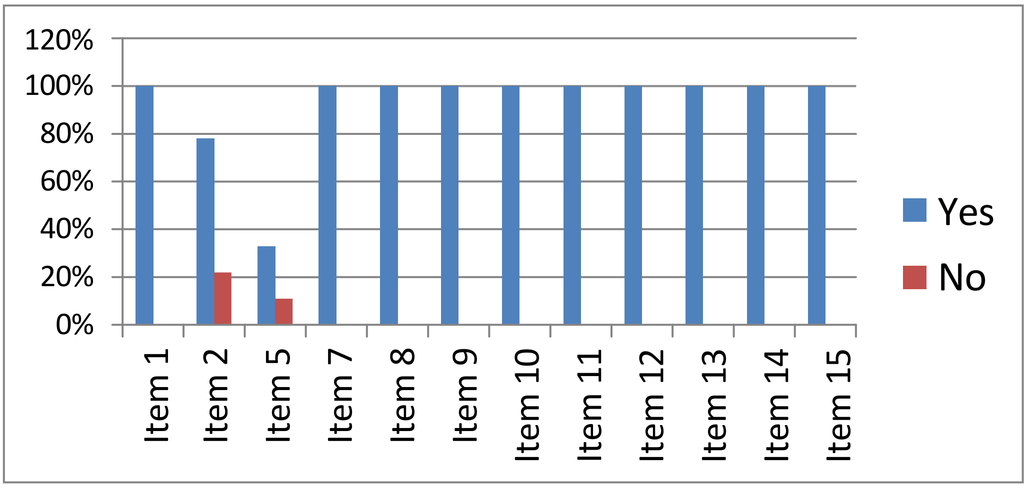

Figure 1 Analysis of Reading and Writing Literacy Learning Needs 21st Century Skills Based.

Based on the results above, it can be concluded that the need for literacy learning is based on 21st century skills that support the learning process of literacy literacy to cover deficiencies in students who still cannot read and write well. This 21st century skills-based literacy learning is appropriate as a need for literacy learning, and 21st century skills-based literacy learning is not carried out in these elementary schools. To carry out learning, various needs are needed, such as guidelines or learning guides for 21st century skills-based literacy literacy, with a percentage of 100% in the very high category. In addition to implementing 21st century skills-based reading and writing literacy learning, 21st century skill-based learning tools are needed as well, such as Learning Implementation Plans (RPP), Learning Media, LKPD, Teaching Materials, along with an assessment rubric that will be used to measure student activity or performance in learning. The percentage of this learning device is 100%, which is in the very high category, which means that the need to implement 21st century skill-based literacy learning is quite high. This needs analysis is very well done because it can determine and be a solution for the need to apply skills-based literacy learning in the 21st century.

After designing the guide, the guide that has been made is tested for feasibility, practicality, and effectiveness. The results of the content validity test obtained a percentage of 92% with a very good category based on the percentage range and PAP qualitative criteria with a scale of five. Then, the results of the language validity test obtained a percentage of 85% with a good category based on the percentage range and PAP qualitative criteria with a scale of five. Furthermore, the results of the design validity test obtained a percentage of 94% with a very good category based on the percentage range and the PAP qualitative criteria on a scale of five.

After the validity test was carried out, a practicality test was then carried out involving three practitioners. The results of the assessment from Practitioner 1 obtained a percentage of 83.92%, and the results of the assessment from practitioner 2 obtained a percentage of 78.57%. Based on the results of the practicality test percentage analysis, an average percentage or final percentage of 81% was obtained with a good category based on the product practicality conversion guide. After testing the validity and practicality, the product in the form of a reading and writing literacy guide was revised according to input from experts and practitioners. Furthermore, the effectiveness of the guide can be tested. The results of the guide effectiveness test using the t test formula were obtained as t_{count} = 2,523. The value of t_{count} obtained was compared with the value of t_{table} with a significance level of 5% and degrees of freedom df = n-1, and the obtained value of t_{table} was equal to 1.671. Therefore, if the value of $t_{table} < t_{count}$, then H0 is rejected and H1 is accepted. Therefore, it can be concluded that the use of 21st century skills-based literacy learning guides is effective for increasing the literacy literacy of third grade elementary school students.

4. Discussion

Literacy in reading and writing is important to develop because reading skill is the main skill to achieve other skills. There are five reasons for literacy to be the main skill in other literacy activities, namely, reading is a builder of meaning, reading and writing are the same knowledge, in the sense that knowledge gained from writing is based on the ability of the reading process, learning to write and read can improve achievement, reading and writing can improve the ability to communicate, and by reading and writing, students can improve critical thinking skills (Dwijayati and Rahmawati 2021). The results of the study showed that there were still students who could not read and write well. Therefore, it is necessary to have learning innovations that can improve students' reading and writing skills. For this problem, 21st century skills-based literacy learning will be designed.

This research shows that literacy in elementary schools is not optimal and maximal. Therefore, the learning process must be optimized. The learning process is an interaction carried out by students and educators or teachers; in the learning process, students are expected to be able to follow and accept the learning well (Widiatmaka 2016). In elementary schools, students are currently actively participating in learning, but in the classroom, there are still some students who cannot read and write well, with a percentage of 100%. There are obstacles experienced by teachers, but until now, teachers have always found ways to overcome existing problems. To implement 21st century skills-based literacy learning, there are several needs that need to be prepared so that later teachers can apply this learning in elementary schools. These needs consist of 21st century skills-based literacy learning guidelines. In addition to implementing 21st century skill-based reading and writing literacy learning, 21st century skill-based learning tools are also needed, such as learning implementation plans (RPPs), learning media, LKPD, and teaching materials, along with an assessment rubric that will be used to measure student activity or performance in learning. The percentage of this learning device is 100%, which is in the high category, which means that the need to implement 21st century skills-based literacy learning is quite large. This needs analysis is very well done because it can determine and become a solution for the need to apply skills-based literacy learning in the 21st century.

The results of this study also indicate that the content validity of the literacy learning guide that has been designed is included in the feasible category. This is because the content and learning steps are in accordance with the characteristics of students. The learning provided truly needs to be adapted to the characteristics of students so that learning can be carried out properly and effectively. The characteristics of students are very important to understand so that teachers can design learning to achieve appropriate learning outcomes (Munawaroh 2021; Septianti and Afiani 2020). Furthermore, the results of the validity of the language literacy guide to reading and writing are included in the feasible category. This is because the language used is straightforward and communicative. Using clear and communicative language will help the reader to more easily understand the meaning conveyed. The results of the validity of the literacy learning guide design are also included in the feasible category. This is due to the design of reading and writing literacy learning guides that are attractive and can help readers more easily understand the contents of the guide. Good design can attract readers to read the guidelines that have been developed.

Furthermore, the results of the practicality test show that the learning guide is practical to use because the guide is quite easy to use and does not require a large cost. Finally, the results of the guide effectiveness test show that literacy learning guides are effectively used to improve students' literacy literacy and 21st century skills. Learning effectiveness is a measure of the success of the interaction process in educative situations to achieve learning objectives (Rohmawati 2015). Based on this understanding, learning to read and write by applying literacy guidelines is considered successful in achieving literacy learning objectives, namely, being able to increase student literacy. Reading and writing literacy learning guides can help make it easier for teachers to plan literacy lessons so that learning becomes more effective. The learning planning process requires careful thought so that it will serve as a guide in achieving learning objectives (Putrianingsih et al 2021). Therefore, this reading and writing literacy learning guide can assist teachers in designing fun literacy learning so that the learning objectives of reading and writing literacy are achieved.

This is in line with several relevant research results regarding the significant influence of the literacy corner on student reading interest, where the category of student interest in reading is good, with a percentage of 83.89% (Dafit et al 2020). Previous research states that the Wattpad application can help students hone literacy skills. The use of Wattpad is considered to provide an interesting learning experience for students (Nuha et al 2019). These studies focus more on creating learning by collaborating learning with literacy programs, creating reading corners and developing books that can be used to improve basic literacy. However, in this research, a guideline has been developed that will guide the 21st century skills-based literacy learning process. Therefore, literacy skills and learning literacy in elementary schools can run more effectively and optimally. This guide is also different from other guides because it collaborates with 21st century skills that are needed by students.

4. Conclusions

Learning to read and write in elementary schools is said to be not optimal, so 21st century skill-based literacy is urgently needed in the learning process. In addition, 21st century skills-based reading and writing literacy learning guides in elementary schools have produced valid, practical, and effective products used in the learning process as an effort to improve the quality of learning outcomes, especially in students' literacy.

Ethical considerations

This study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of the Universitas Pendidikan Ganesha (Ganesha University of Education), Singaraja, Indonesia. Informed consent was obtained from all subjects involved in the study.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Penahelix integrated health protocol education model for Covid-19 pandemic handling based on Tri Hita Karana

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Abstract Many people have not implemented health protocols according to government advice, such as not washing hands and wearing masks in public; thus, COVID-19 pandemic transmission has rapidly occurred. This cause is mostly the citizen's lack of awareness in implementing 3 M *(memakai masker, menjaga jarak, mencuci tangan* in English read washing hands, wearing masks, and maintaining distance*).* The status quo becomes the researcher's foundation in developing a pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. This *development research* refers to the prototyping model according to Nieveen that covers (1) *preliminary research*, (2) *the prototyping stage*, and (3) the *assessment stage.* The research subjects were 100 people. The data collection method used a questionnaire of community appreciation that measures knowledge and the community's level of awareness. The data analysis used was a t test. The results of the research show that the model of pentahelix integrated health protocol education for the handling of COVID-19 based on Tri Hita Karana was effectively used to improve the community's appreciation of conducting health protocols. This is shown by the improvement of average values before and after the implementation. Thus, it can be recommended as a solution to COVID-19 prevention.

Keywords: health protocol education, COVID-19 pandemic, pentahelix, Tri Hita Karana

1. Introduction

The *coronavirus disease* 2019 (COVID-19) pandemic has spread throughout the world. The first case of COVID-19 outside China was reported in Thailand on January 13, 2020; then, over time, COVID-19 spread to countries in Asia, Europe, America, and Africa(Mahitsa and Mahardini 2020). The virus has infected more than 285 million world citizens and affected more than 5.4 million people at the end of 2021 (Huang et al 2020; Tan et al 2022). This disease is caused by a new type of coronavirus named SARS-CoV-2 (Chamseddine et al 2022) The infection is characterized by fever, fatigue, dry cough, dyspnea, and sometimes gastrointestinal symptoms (Hartoyo et al 2022). COVID-19 usually appears as an acute viral respiratory infection and many diagnoses are associated with viral cases of pneumonia, such as influenza, parainfluenza, adenovirus infections, respiratory syncytial virus infections, metapneumovirus infections, and atypical pathogens, such as Mycoplasma pneumonia and Clamydophila pneumonia infections (Wu et al 2020). COVID-19 creates new challenges in all fields, especially the health field (Asmaningrum et al 2022; Behera 2021). The rise of the coronavirus pandemic has changed social life and patterns globally (Chang et al 2020). COVID-19 rapidly infects humans through direct physical contact or indirectly, depending on the patient's immunity (Syahrani et al 2021). COVID-19 entered Indonesia on March 2, 2020, with the discovery of three positive cases infected with COVID-19 (Chairani, 2020). Based on WHO data, as of February 7, 2021, there have been 223 countries confirmed by COVID-19, with 105,249,764 positive cases and 2,298,606 deaths. Positive cases of COVID-19 in Indonesia are also high, breaking the 1 million mark in data developments on February 7, 2021. It is known that 1,157,837 have been confirmed to be positive for COVID-19, with a recovery rate of 949,990 and 31,556 deaths (Ichwan et al 2021).

Based on updated data on February 7, 2021, almost all regions in Indonesia have been exposed to COVID-19 (Muhyiddin, 2020); thus, to see the level of vulnerability to the spread of COVID-19 in an area, the government provides color coding for the COVID-19 zone, including the green zone, which indicates an area or area where there are no cases or COVID-19 infections. Activities, as usual, can run normally by implementing health protocols. The yellow zone indicates that there are several positive cases of COVID-19 with some local transmission. The orange zone indicates that the region is close to the red zone with small spreading clusters. In this area, health protocols are aggressively tightened. The red zone indicates that there are COVID-19 cases in one or more clusters with a high increase in cases. The purpose of providing zone coding in each of these

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areas is to classify areas affected by COVID-19. Color coding in an area can also be used as a special code to determine the number of confirmed cases in each area. One of the provinces experiencing a high level of COVID-19 as of June 1, 2021, is Bali. It is known that positive cases of COVID-19 per Regency in Bali Province indicate that Denpasar City is the area with the highest ratio of positive cases of COVID-19. In addition to Denpasar City, which has the most cases of sufferers and victims due to COVID-19, several regencies in Bali, such as the Badung, Tabanan, Gianyar, and Buleleng regencies, have also shown many victims infected with COVID-19. The continued increase in the number of COVID-19 patients is also due to the very high and easy transmission of the virus. How quickly and easily the transmission of COVID-19 is known to spread from person to person in a short time and with symptoms such as high fever, cough, shortness of breath, decreased appetite and tastelessness, and weakness.

Many policies are used to overcome the spread of COVID-19, and countries are competing to innovate to prevent this pandemic (Tuti et al 2022). Likewise, the Province of Bali has implemented several measures to reduce the spread of COVID-19, namely, with 3 M. The 3 M program (washing hands, wearing masks, and maintaining distance) is a series of efforts to prevent the spread and transmission of COVID-19 (Pakaya et al 2021; Sulaeman et al 2022). In addition to the 3 M, other things that the Bali provincial government has also done are closing public recreation and education places, such as schools and universities, and limiting face-to-face interactions over long distances. The Bali Provincial Government also continues to make efforts to minimize the number of people infected with COVID-19, such as following the recommendations from the central government, namely, by implementing large-scale social restrictions (PSBBs). PSBB is an activity to limit certain activities of residents in an area suspected of being infected with COVID-19 in such a way as to prevent the possible spread of COVID-19 (Permadhi and Sudirga 2020). The Bali Provincial Government carried out PSBB based on government regulation Number 21 of 2020 concerning Large-Scale Social Restrictions. In addition, the implementation of PSBB is also regulated by Minister of Health Regulation (PMK) No. 9 of 2020 concerning PSBB Guidelines as an Acceleration of Handling COVID-19. Technically, the types of community activities that are regulated include closing schools and workplaces, restrictions on religious activities, restrictions on activities in public places, restrictions on sociocultural activities, restrictions on transportation modes, and restrictions on other activities specifically related to defense and security aspects.

The Bali Provincial Government enforces the PSBB policy based on the region, both Regency/City and District, based on the severity of the outbreak, whose assessment is determined by the central government through the Ministry of Health. Although there are rules that regulate community activities during the COVID-19 pandemic, there are still many people who do not follow the health protocols recommended by the government, such as not washing their hands and not using masks when traveling so that the transmission of COVID-19 occurs so quickly due to a lack of public awareness in implementing 3 M, namely, wearing masks, washing hands and keeping a distance (Fakhira et al 2021; Fariatul Aeni et al 2022; Patilaiya et al 2019). With the increasing number of cases of patients exposed to COVID-19 and the attitude of the public who are indifferent to the threat of COVID-19, the government of Indonesia has prepared various regulatory frameworks, institutional frameworks, and financing frameworks, which are not only in response to the health emergency response conditions with the outbreak of the COVID-19 pandemic. 19 but also in preparing the social safety net and the economic impact of this multidimensional disaster, the Regional Disaster Management Agency (BPBD), as the agency that has the task of carrying out disaster management, should coordinate all stakeholders in handling COVID-19. One of the efforts made by the government as a concrete form of the COVID-19 response capability in the regions in coordinating all stakeholders is by forming related institutions that play a role. Institutions that play a role in handling COVID-19 in the regions are called the Task Force for the Acceleration of Handling COVID-19.

One of the tasks of the COVID-19 Task Force in the regions is to provide education about the importance of complying with health protocols, namely, diligently washing hands, maintaining distance, wearing masks, and conducting tests, tracing, and follow-up (Prasetya, 2022). In addition, the role of the family, local customs, and the participation of the private sector are also necessary in the chain of transmission of COVID-19. Therefore, the Task Force in dealing with COVID-19 is also assisted by the community and other stakeholders. This is because family clusters, offices, and other public places are quite large and high contributors to the transmission of the COVID-19 virus in the community. For this reason, the COVID-19 Task Force must have insight, and another thing that must also be considered is the way the COVID-19 Task Force fosters a conducive atmosphere when providing education to the public. A health protocol education model is needed. Education, also called education, is all planned efforts to influence other people, individuals, groups, and communities so that they do what is expected by education actors (Amirullah 2021). The existence of health protocol education will have a positive impact on public understanding of COVID-19 (Darmin et al 2022; Suhermi et al 2021). Therefore, it is deemed necessary to develop a health protocol education model that follows the needs of the community and the culture of public education.

One of the health protocol education models that we want to develop is the health protocol education model, which is integrated with the pentahelix-based protocol of *tri hita karana*. Another concept of the pentahelix was proposed by Igor Calzada (Kismartini et al 2020). This concept is a collaboration of many stakeholder groups (multiple stakeholders), independent of each other, to achieve their development goals, economic, and social. Calzada added nongovernmental organizations (NGOs) as the fifth spiral. Therefore, according to Calzada, the pentahelix concept is a model of collaboration that involves many stakeholders, including academics, entrepreneurs, civil society communities, nongovernmental organizations, and the government (Calzada 2020). In addition, the concept of Pentahelix is discussed further, with Pentahelix in the form of scholars who provide innovation through the latest science, the government that promotes the implementation of activities, the private sector as economic actors, borrowing capital, and commercializing products. support for NGOs and civil society communities who need to actively participate in social and economic development activities (S Halibas et al 2017). The Indonesian pentahelix concept was originally used as a model for tourism development. This is regulated in the Regulation of the Minister of Tourism of the Republic of Indonesia Number 14 of 2016. According to another explanation, the pentahelix concept applied in Indonesia uses five stakeholders, university-level scholars, business, and economics, for collaborative activities. Society, government, and media (Sudiana et al 2020). Over time, this concept has been used not only to address problems in the tourism sector. Historically, Pentahelix implementations have been used in other sectors. In addition to the Pentahelix concept in developing this educational model, it also uses local wisdom; one of the local pearls of wisdom possessed by the Balinese people is Tri Hita Karana.

Tri hita karana is one of the elements of Balinese culture inherited from ancestors, which means three causes of happiness (Mandra and Dhammananda 2020). Tri Hita Karana consists of relationships with God Almighty (Parhyangan), (2) relationships with fellow human beings (Pawongan), and (3) relationships with the environment (Palemahan) (Jaya 2019). The integration between innovative models and Tri Hita Karana can foster enthusiasm and motivation in the educational process (Narayani1 et al 2019) and create a conducive learning environment (Pradnyawathi and Gst 2019). Education with the Tri Hita Karana concept has succeeded in encouraging students to have reasoning and master a concept that can be used to help them in solving problems (Winaya 2019). Based on this description, it can be said that the integration of Tri Hita Karana has a positive impact on the learning process. The development of a health protocol education model when integrated with pentahelix based on the tri hita karana concept in handling COVID-19 in Buleleng Regency has never been developed before in handling the COVID-19 pandemic in Buleleng. Therefore, the novelty of this research is to produce a product in the form of a health protocol education model if it is integrated with pentahelix based on the tri hita karana concept in handling COVID-19, which can later be used as a model for dealing with the pandemic, not only the COVID-19 pandemic but also other pandemics In addition, the novelty of this development is also based on local Balinese wisdom, namely, tri hita karana. The concept of Tri Hita Karana (THK) is a concept of harmonization of relationships that are always maintained by the Balinese Hindu community, including Parahyangan (human relations with God), Pawongan (human relations), and Palemahan (human relations with the environment). By adhering to local Balinese wisdom, namely, the THK concept, it is hoped that the Balinese people, especially Buleleng, will be able to face various epidemics/diseases or pandemics in the future.

2. Materials and Methods

The research is *development research that* refers to *the prototyping* model according to Nieveen, which covers (1) *preliminary research*, (2) *the prototyping stage*, and (3) the *assessment stage*. *Preliminary research* has several purposes, such as identifying problems that appear in the implementation of health protocol education in Buleleng Regency and collecting information regarding the handling of COVID-19, the education model of the health protocol used, and infrastructures used by the COVID-19 task force in Buleleng. Model edukasi protokol kesehatan yang digunakan, dan sarana prasarana yang digunakan satgas Covid-19Buleleng dalam penanganan Covid-19. To reach the goals, preliminary field research was conducted. The preliminary research was conducted by spreading a questionnaire, interviewing the task force, and observing the COVID-19 handling process in the Buleleng regency. After analyzing the problem and needs, a literature study is carried out. In the literature analysis stage, the collection of theoretical studies that will answer the existing problems is carried out. In addition, a review of the research results that can be used as a background for future research is also carried out. The study conducted was a study of the pentahelix integrated health protocol education model based on Tri Hita Harana. Furthermore, the 3 M and 3T health protocol education models are used because the characteristics and principles of 3 M and 3T are considered capable of making the handling of COVID-19 better in Buleleng Regency. The study of literature related to the characteristics of the Buleleng community (covering the background and level of public knowledge about the COVID-19 virus) became the material for planning a health protocol education model. The study of the handling of COVID-19 in 2020 in Buleleng Regency became the basis for developing a health protocol education model. A literature review on the characteristics of 3 M and 3T was also carried out to design the process of handling COVID-19, which will be applied in implementation activities in the field, especially in Buleleng Regency. In the end, the information obtained based on problem analysis and literature study was used as material for product development design, namely, the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana along with its supporting devices and instruments to assess product quality.

The prototyping stage covers two steps: 1) The design stage. After conducting a needs analysis and literature review, a design of the product to be developed is drawn up. At this stage, a draft of the pentahelix integrated health protocol education model in handling COVID-19 based on Tri Hita Karana in Buleleng will be designed along with supporting devices in the form of a health protocol and product quality assessment instruments for development. The health protocol education model intended for handling COVID-19 in Buleleng is the 3 M and 3T health protocol education model. This health protocol model was further designed to include components of the COVID-19 health protocol education model for handling COVID-19. The design of the health protocol education model was then presented in the form of Draft I of the health protocol education model book for handling COVID-19 in Buleleng. 2) Evaluation and Revision Phase. The evaluation aims to test the validity based on expert judgment. Draft 1 produced at the product design stage is then assessed for validity by experts. The instrument for assessing the quality of the health protocol education model for handling COVID-19 was asked for expert opinion and assessment from Ganesha Education University (UNDIKSHA) lecturers, the Buleleng COVID-19 task force, the community, and the private sector. This is done to obtain suggestions and improvements to the assessment instrument that will be used in this study. For the validity of the model and supporting devices for the implementation of the model, 3 people from the Buleleng COVID-19 task force will be asked for expert opinion and assessment. After being validated by experts, an analysis of the validation results will be carried out. If the results of the data analysis of the validity of the first draft are valid, then the product can be used in trials. If it is valid and feasible with minor revisions, then revisions are made as suggested by experts, and the revised product can be used in trials. However, if the results of the analysis show that it is not valid and not feasible, then a major revision is carried out. The results of major revisions must be revalidated by experts and practitioners to obtain a valid and feasible revision product. Furthermore, the results of this validity evaluation are referred to as Draft II. In the assessment stage, a field trial was conducted on draft II, which had been obtained from the previous development stage. This trial was carried out by applying the health protocol education model and its supporting devices in its implementation in Buleleng Regency. This is intended to determine the practicality and effectiveness of the implementation and use of development products in the field. After the trial is carried out, the analysis of the test results will then be carried out. If the results of product analysis data have met the criteria of practicality and effectiveness, then the resulting draft is the final product. If the results of the analysis show that they do not meet the criteria of practicality and effectiveness, then a product revision is carried out. The results of the revision must be retested until a practical and effective revision product is obtained.

The subjects of this research trial were the people in the Buleleng subdistrict. The Buleleng Covid-19 Task Force and the community were given an assessment questionnaire to determine the effectiveness score of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and its supporting devices and to obtain suggestions for consideration in revisions. The trial subjects consisted of expert trials, in this case, 3 people from academia, 3 people from the Buleleng COVID-19 task force, and 1 person from the public and private sectors. Field trials are intended to see the effectiveness of the application of the developed product. Draft II of product development was piloted at Battalion 741 Buleleng. The instruments used in this study include instruments to assess product quality, which include aspects of validity and effectiveness. Before the instrument is used to assess the validity and effectiveness of the product, it is first necessary to validate the instrument to be used by asking for expert judgment to provide an assessment and suggestions for improvement directly on the instrument text. Therefore, a research instrument validation sheet is needed that will be used by experts to assess all instruments that will be used in research. Validation of all instruments in the study includes aspects of instructions, content, and language. The expert judgment from the components of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and the completeness of the procedure is used to obtain data on the validity of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and the completeness of the procedure. The assessment on the validation sheet uses a five-point Likert scale: invalid (score 1), less valid (score 2), moderately valid (score 3), valid (score 4), and very valid (score 5). The indicators of the pentahelix integrated health protocol education model for handling COVID-19 are based on Tri Hita Karana and the completeness of the health protocol, which includes 3 M and 3T.

The Covid-19 task force practical questionnaire in Buleleng was used to determine whether the pentahelix integrated health protocol education model for handling Covid-19 based on Tri Hita Karana that was developed could be applied to the people of Buleleng Regency based on the assessment of the supervisor. Thus, the practical aspects are based on the assessment of the Buleleng COVID-19 Task Force, which includes ease of implementation, the accuracy of estimated time allocation with implementation, and the possibility of achieving the goal of implementing the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. Furthermore, the value scale used is a Likert scale with a scale of five, namely, strongly disagree (score 1), disagree (score 2), doubtful (score 3), agree (score 4), and strongly agree (score 5). **The** assessment questionnaire of the Buleleng regency community. The data collected with this instrument are an assessment from the people of Buleleng Regency regarding the ease of implementing the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, which is implemented in Buleleng Regency. This Buleleng Regency community assessment questionnaire consists of several questions that represent the ease of use aspect, with the available answer choices in the form of "Yes" and "No". Furthermore, to determine the implementation of the components of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, an observation sheet on the implementation of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was used. **The** effectiveness assessment instrument, the effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, was determined by the following criteria. (1) The people of Buleleng Regency appreciate the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. This questionnaire was used to measure the appreciation of the people of Buleleng Regency toward the Tri Hita Karana-based integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. Furthermore, the data from this questionnaire will be used to determine the effectiveness of the Tri Hita Karana-based integrated health protocol education model for handling COVID-19 based on Tri Hita Karana.

The effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana that was developed is determined by the following criteria. (1) The people of Buleleng Regency appreciate the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. This questionnaire was used to measure the appreciation of the people of Buleleng Regency toward the Tri Hita Karana-based integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. Furthermore, the data from this questionnaire will be used to determine the effectiveness of the Tri Hita Karana-based integrated health protocol education model for handling COVID-19 based on Tri Hita Karana.

The data validity analysis level, which is a validator response score obtained through the validation sheet, is converted into interval data. In the validation sheet of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, five options are provided to provide feedback on the validity of the developed model, namely, very valid (5), valid (4), fairly valid (3), less valid (2), and invalid (1). The scores obtained from the validators are summed, and the average score is determined to be the actual score for the validity of the implementation procedure (X1), the actual score for the validity of the system using the model (X2), the actual score for the principle of the model (X3), and the actual score for the impact of the model (X4). The practicality of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was measured based on the results of an assessment from the Buleleng Covid-19 Task Force related to the ease of implementing the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and its supporting devices in the field. The scores obtained from the practicality questionnaire from the Buleleng Covid-19 Task Force are then added up to become the actual practicality score from the Buleleng Covid-19 Task Force. The education model of the integrated health protocol pentahelix for handling COVID-19 based on Tri Hita Karana that was developed is said to be practical if the assessment from the Buleleng COVID-19 Task Force shows that the actual practicality score of the Buleleng COVID-19 Task Force is at least in the practical category. If the level of practicality is below practical, it is necessary to make a revision based on input from the Buleleng COVID-19 Task Force. The revised results will be used in the next trial. The practicality of the model is also measured based on the results of community assessments obtained from the community response questionnaire instrument. This analysis is carried out by categorizing the level of practicality of the community. The assessment is determined by summing all scores from the community and determining the average community score to be the actual practicality score of the community response. Furthermore, based on the overall analysis, the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana that was developed is said to be practical if 80% of the community gives an assessment that shows at least the practical category. In the practicality questionnaire from the public's response, there are two aspects: the ease of understanding the model and the ease of implementing the model. After the analysis is carried out as a whole, it is also necessary to carry out an analysis of each aspect. The analysis is carried out by summing all scores from the community and determining the average community score to be the actual practicality score for each aspect of the community response. The effectiveness analysis level*, the effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, is known based on public appreciation questionnaire data for the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and based on data obtained from the COVID-19 task force of Buleleng Regency.*

The effectiveness assessment based on the Buleleng community appreciation questionnaire for the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana is determined by summing all the scores obtained by the people of Buleleng Regency and determining the average community score to become the actual score of the effectiveness of the Buleleng Regency community appreciation. Furthermore, the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana is said to be effective if the actual score of appreciation of the people of Buleleng Regency toward the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana is at least in the effective category. The analysis of every aspect of the appreciation of the people of Buleleng Regency toward the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana is carried out by determining the average score for each aspect of the appreciation assessment.

In this study, two stages of testing were carried out, namely, the validity test and the practicality test. From the validity test, the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was declared valid in the Very Valid category with a score of 92.87. For the practicality test of the pentahelix integrated health protocol education model for handling COVID-19 based on the Tri Hita Karana, the assessment results from the COVID-19 Task Force showed a score of 94.56, which indicates a value that is very practical to use. While the practicality score of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, which was developed, was measured based on the results of community assessments obtained from community responses, a score of 90.76 was obtained, which is very practical. The next step is to test the effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana with a public appreciation questionnaire for the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana and based on data obtained from the COVID-19 task force. 19 Buleleng Regency.

3. Results and discussion

3.1. Result

The results of testing the effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana show that this educational model is effectively implemented because it can increase public appreciation of implementing health protocols. This is shown from the knowledge and level of public awareness in carrying out existing programs on the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, namely, 3 M (Wearing masks, Keeping distance and Washing hands) and 3T (Test, Search, Follow-up). This can be seen from the increase in the average score from before to after being given the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. More complete data are shown in Table 1. From the results of the analysis, it was found that the difference in public appreciation before and after the implementation of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was 3.11. This means that there has been an increase in public perception after the use of the Tri Hita Karana-based education model for the pentahelix integrated health protocol for handling COVID-19. To strengthen these results, a t test was carried out again to show the effectiveness of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana.

Table 1 Descriptive Analysis Of Public Perception.

Statistic	N	Range	Minimum	Maximum	Mean	Std. Deviation
Community appreciation after	100	29.00	71.00	100.00	86.11	6.80
Community appreciation before	100	27.00	68.00	95.00	83.00	6.63

Before the t test, the prerequisite test was carried out, and the prerequisite test was the normality test and homogeneity test. Normality test with Kolmogorov–Smirnov. The results of the analysis show that all data come from groups of data that are normally distributed, which can be indicated by the value of Sig. > 0.05, which is presented in Table 2. After the normality requirements are met, the next prerequisite test is the homogeneity test. In this study, the homogeneity test was carried out with two analyses, namely, the homogeneity test of variance with *Levene's test of equality*.

Table 2 Normality Test with *Kolmogorov–Smirnov.*

Statistic	Treatment	Kolmogorov–Smirnov[a]			Shapiro–Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Community Appreciation	After	0.09	100	0.06	0.98	100	0.06
	Before	0.09	100	0.07	0.96	100	0.01

The results of the homogeneity analysis carried out show the same meaning, namely, the research data come from homogeneous data groups, which can be seen from the sig value in Table 3. Shows a value of more than 0.05. Value of Sig. Levene's Test of Equality test is 0.64 with an F value of 0.23. The results of the prayarat analysis show that the research data come from the normal and homogeneous data group, so the t test can be carried out. The results of the t test show that the value of sig. Shows <0.05, which is 0.00, which means that there is a difference before and after the implementation of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana.

Table 3 Independent Samples Test.

Statistic		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Community Appreciation	Equal variances assumed	3.09	198	0.00	2.93	0.95	1.06	4.80
	Equal variances not assumed	3.09	197.88	0.00	2.93	0.95	1.06	4.80

3.2. Discussion

The results showed that the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was effectively used to increase public appreciation for implementing health protocols. This increase in public perception can be seen from the increase in public knowledge about COVID-19 and the target for doing 3 M and 3T. With the implementation of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana, of course, the public will have better knowledge. The existence of education that follows the character of the community will be able to grow public knowledge (Indy et al 2019; Leal Filho et al 2018). In addition, education that involves all components will make the educational process more conducive (Darling-Hammond et al 2020; Usman 2016). Likewise, this educational model is integrated with the pentahelix. The pentahelix in question is (government, community, academia, private sector, and health service provider facilities)(Latif et al 2020). The collaboration with the pentahelix model based on regional values or local wisdom can be used as an alternative to reduce the spread of the COVID-19 virus(Ardiansyah Fikky and Pradana 2021). The pentahelix model collaboration is believed to be able to realize community independence more quickly so that they are not too dependent on the government during or after a disaster occurs (Rizkiyah et al 2019). Therefore, it can be said that the role of Pentahelix in disaster prevention is very effective. What more by involving local wisdom? In this case, the local wisdom used is Tri hita Karana.

Tri Hita Karana is a relevant and universal concept that teaches us to always maintain three harmonious relationships (Adhitama 2020; Handayani et al 2017). The concept of Tri Hita Karana teaching introduces the values of the reality of living together in terms of inculcating religious values, civilizing social values, respecting gender, inculcating the value of justice, developing democratic attitudes, inculcating an attitude of honesty, showing an attitude of honesty, increasing attitudes and fighting power, developing an attitude of responsibility, and respect for the natural environment (Jaya 2019; Pradnyawathi and Gst 2019). Tri Hita Karana can be used as a reinforcer and foster the growth of education rooted in local wisdom with a global perspective for sustainable education development (Mudana 2017; Sriasih et al 2019). In life, this world by nature has a unity that is interrelated with one another. Therefore, a harmonious life can be realized, and there is mutual need among creatures in the life of this universe. The concept of the Tri Hita Karana teachings has summarized these relationships, whether it is the relationship with God, with others, or with the natural environment. This concept appears closely related to the existence of social life in Bali. Not only does it result in the realization of a territorial alliance and a living partnership for common interests in society, but it is also a partnership in the common belief to worship Sang Hyang Widhi Wasa, God Almighty. Based on this, what characterizes traditional villages in Bali has at least three main elements, namely, territorial, community, and sacred places to worship God/Sang Hyang Widhi Wasa. The harmonious combination of these three elements is the basis for creating a sense of life that is comfortable, peaceful, and peaceful both physically and mentally.

In handling COVID-19 cases with the Tri Hita Karana concept, people are accustomed to increasing the Prahyangan, pawongan, and weakening concepts. The activities carried out by the community related to this are Prahyangan 1) diligent in praying closer to God; 2) praying, punama, tilem, carrying out the god yadnya, of course, all by obeying the applicable health protocols; 3) making ceremonial means to repel reinforcements, pandanus medui, segehan wong-wongan; 4) performing yadnya sesa and daily prayers; 4) organizing the Segara Kerti ceremony, organizing religious activities by only involving the main parties; and 5) will not recede in the determination to perform Yadnya or offerings. Religious ceremonies continue to take place during the COVID-19 pandemic as long as they continue to apply health protocols, and there are many other activities that involve a harmonious relationship with God. Efforts to avoid COVID-19 according to the Hindu concept need to make efforts on a scale and niskala, both of which are carried out as a form of devotion to God. Regarding efforts to tackle the coronavirus outbreak, Hindus believes that in addition to being on a scale, it is also necessary to carry out niskala efforts, following various government recommendations, and adherence to health protocols is an effort on a scale, while niskala can be done by carrying out rituals/traditions handed down by the ancestors (Mertayasa 2020). The implementation of religious values seems to be increasing during the COVID-19 pandemic, and victim ceremonies and chanting of prayers are carried out more intensely in line with the development of the outbreak, which has caused many casualties. This is a form of improving human relations with God in the form of complete surrender because everything that happens, including the COVID-19 pandemic, is the power of God (Lilik 2021). Surrendering oneself to God will make a person's heart calmer and able to control himself to prevent the spread of COVID-19.

The concept of Pawongan is the relationship between humans and fellow human beings (Adhitama 2020). The implementation of pawongan in Balinese indigenous peoples can be seen from the presence of members of indigenous peoples called krama adat, social relations or relationships that exist in Balinese society such as family, and social groups based on professions known as *sekaa* (Yasa 2020). The activities carried out by the community related to the pawaongan concept include 1) Keep your distance; 2) Keep good relations between each other, greet each other but keep your distance from others, do not shake hands but include both hands in front of the chest to say hello to others; 3) Help others, remind each other to stay at home, share with each other masks, share if you have more fortune to those in need; 5) When wearing a braya at a neighbor who has an event, still comply with health protocols and reduce crowds; 6) Communicating only by telephone because in the conditions of covid 19 it is not allowed to meet face to face with many people or with friends, even though making calls with good and polite words; 7) Doing mutual cooperation (ngayah) while also paying attention to health protocols and reducing the crowd to a maximum of 12 - 20 people; 8) Carrying out pawongan always speaking or speaking, always saying good words and thinking positively; and 9) Implementing clean and healthy living behavior by keeping a distance, using a mask and washing hands with running water with soap and hand sanitizer. By carrying out these activities, harmonious relationships will continue to run well while maintaining health protocols. The existence of a harmonious relationship in the community will certainly have a good impact on the community. Given that to prevent the spread of COVID-19, it does not just take a few people, but togetherness is needed. This can be created by the concept of pawongan.

The concept of Palemahan is the concept of a harmonious relationship between humans and the environment (Parmiti et al 2021; Parwati 2021). The essence of Palemahan is to take care of the surrounding environment so that it benefits the lives of creatures (Lilik and Mertayasa 2019; Pradnyawathi and Gst 2019). This palemahan concept can develop attitudes and behaviors to maintain sustainability and balance the natural environment to keep it clean and healthy (Suanthara 2021). Therefore, the existence of the palemahan concept will develop an attitude of caring for environmental cleanliness. Activities carried out by the community related to weakening activities include 1) always taking care of nature, not over-exploiting nature, and making use of nature in moderation; 2) inviting the public to take care of nature and maintain the cleanliness of the surrounding environment; 3) maintaining personal hygiene and the surrounding environment to minimize COVID-19; 4) planting trees and cleaning the aquatic environment in the clean water area of the village; 5) keeping the environment clean without germs by spraying disinfectant in our environment; 6) not throwing used masks in any place so that during the pandemic, the environment remains clean and sterile; 7) preserving the environment by carrying out the tumpek wariga ceremony for these plants so that they remain sustainable; 8) maintaining personal hygiene and the surrounding environment to minimize COVID-19; and 9) keeping the environment clean by throwing garbage in its place. Therefore, with these activities, of course, a healthy and clean environment can prevent the spread of COVID-19 by maintaining environmental cleanliness.

STherefore, the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana is effectively used to increase public appreciation for implementing health protocols. The novelty of this research is to produce a product in the form of a health protocol education model if it is integrated with pentahelix based on the tri hita karana concept in handling COVID-19, which can later be used as a model for dealing with the pandemic, not only the COVID-19 pandemic but also other pandemics. In addition, the novelty of this development is also based on local Balinese wisdom, namely, tri hita karana. The concept of Tri Hita Karana (THK) is a concept of harmonization of relationships that are always maintained by the Balinese Hindu community, including Parahyangan (human relations with God), Pawongan (human relations), and Palemahan (human relations with the environment). By adhering to local Balinese wisdom, namely, the THK concept, it is hoped that the Balinese people, especially Buleleng, will be able to face various epidemics/diseases or pandemics in the future. The weakness of this research is the limited number of samples used to test the effectiveness. Therefore, it can be recommended for research with a larger number of trial samples.

4. Conclusion

The results showed that the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana was effectively used to increase public appreciation for implementing health protocols. This is shown by the increase in the average score before and after the implementation of the pentahelix integrated health protocol education model for handling COVID-19 based on Tri Hita Karana. Therefore, it can be recommended as a solution to prevent COVID-19.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare that they have no conflict of interest.

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Aceh Local Political Party: The rise, victory, and decline

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Abstract Local political parties are one of the important mandates of the MoU Helsinki, which once became the realization of Aceh's peace. Their presence has significantly contributed to the development of post-conflict Aceh, and their victories in multiple Aceh political contests have guided Aceh's peace journey for the past seventeen years. However, the last election in Aceh in 2019 showed that the local political parties were starting to lose their power and become more powerless. Therefore, this study aims to describe the dynamics of local parties in Aceh, especially in relation to their rises, victories, and signs of decline. This study uses a qualitative method with a descriptive model. The data in this study were obtained from an in-depth interview and relevant literature review and then analyzed with an interactive model. This study shows, first, that the rise of local political parties in Aceh relates to and is inseparable from the context of peace post-MoU, which provided access for ex-GAM and the Acehnese community to form local political parties. Second, the strengthening of Acehnese ethnonationalism in post-conflict was able to be represented by local parties in various social and cultural symbols, which made them trusted by the Acehnese and led to victory in the election. Third, the decline of the local parties' power in the 2019 election is closely related to the failure of political actors to realize their promises while in power and the occurrence of various internal conflicts in their party organizations, which dropped community trust. At the same time, the local parties failed to pass on Acehnese ethnonationalism to the younger generation, and as a result, they are likely to lose voters.

Keywords: Aceh, local political party, rise, victory, decline

1. Introduction

Local political parties are one of the essential mandates of peace in Aceh and have become an inseparable political phenomenon of the Aceh peace journey (Ilham 2015; Nurhasim 2009, 2012). When the laws for Aceh local parties were enacted, thirteen local political parties were formed, but only six passed the requirements for the 2009 election. In 2014, three local parties participated in the election; in 2019, four local parties participated. Their participation has made the local political parties exist and thrive and has colored the socio-political life of Acehnese society. As of now, the Aceh peace journey is mostly in the hands of local party elites as a result of their victories in numerous political contestations. Indeed, not all local parties, but there are local parties have succeeded in dominating and become representing the local party's victory in Aceh, that is, the Aceh Party. Since its emergence, the Aceh Party has dominated and won any political contestations in Aceh (Amirulkamar and Ismail 2019; Ikramatoun and Amin 2018; Karya 2018). However, the last election showed that the victory of the Aceh Party had begun to show the opposite trend. The Acehnese people's trust in the local party started declining and caused the Aceh Party to lose most of its parliamentary seats. This is evident from the drop in votes for local Aceh parties in the 2019 political election.

In this regard, the study of local political parties in Aceh is not a new subject. Some researchers have extensively studied and provided their analysis of local political parties in Aceh. They noted that local political parties are a socio-political phenomenon that cannot be separated from the context of the Aceh conflict. Several existing studies also generally discuss the dynamics of local political parties in two categories. First, it explores the phenomenon of the emergence of local political parties by stating that local Aceh parties are the result of the transformation from an armed movement to politics (Akmal et al 2018; Aliabbas 2008; Andriyani 2017; Aspinall 2007; Hillman 2012; Ikramatoun et al 2019; Nurhasim 2009; Risky and Hasan 2019; Stange and Patock 2010; Zainal 2016). Second, studies explore the dynamics of local parties after the Aceh peace by focusing on the role and existence of local Aceh parties in the dynamics of the social and political life of the post-peace community (Andriyansyah 2020; Bahrum 2016a, 2016b; Daud et al 2018; Fattaqun 2017; Hamdan 2018). Besides, there are also studies discussing the involvement and domination of local parties in post-peace political contestations (Amirulkamar and Ismail 2019; Ikramatoun and Amin 2018; Syarif 2019).

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This article attempts to complement the abovementioned studies by emphasizing several different aspects. This study aims to describe the dynamic of local parties in Aceh, especially the emergence, rise, victory, and decline. From several existing local parties, this study focuses more on the Aceh Party (PA) discussion; how this party rose, was victoried, and then suffered a setback. This party was chosen because several local parties were present and involved in political contestation; only the Aceh Party showed its consistency. The successful three elections (2009, 2014, 2019) evidence this consistency, and the Aceh Party always managed to victory.

The study argues that the emergence and rise of local Acehnese parties are closely related to Aceh's conflict and peace dynamics. But there is something about a conflict that encouraged local parties to succeed in political contestation, namely the awakening of Acehnese ethnonationalism, which later became the political base of local parties. At the same time, the Aceh Party is also considered a representation of the Acehnese struggle, and its presence can represent the interests of the Acehnese people. This representation then helped the Aceh party gain trust and win the political contest in Aceh. However, internal conflicts within the local party's organization, as well as local parties' failure to reproduce Acehnese ethnonationalism, caused and implied that public trust was gradually eroding and the local party's powers were gradually declining.

2. Materials and Methods

This study was qualitative research with a descriptive model that was conducted from March to July 2022 in Banda Aceh and Pidie Regency. According to Neuman (2014) , the descriptive study is used to present a picture of the specific details of the situation, social setting, or relationship, and the outcome is a detailed picture of the subject. The objective of this study was to describe the rise, victory, and decline of Aceh's local political parties in political contestation in post-conflict Aceh. To compile the data for this study, we conducted a review of the relevant previous study as well as in-depth interviews with selected informants.

A relevant literature review was conducted by gathering the pertinent literature on the primary subject of this study from a variety of sources, including journals, books, and newspapers, both online and in printed form. We also conducted an in-depth interview with a number of informants belonging to Aceh's local party elites and academics in Aceh who were concerned about Aceh's local political parties. For the data analysis, we used the interactive analyst technique proposed by Miles and Huberman (1994), which is divided into several stages starting from data collection, data reduction, data display, and conclusion drawing/verification. Using this technique, the data analysis process has essentially begun since the data collection process

3. Results and discussion

3.1 The Emergence of Aceh Local Political Parties

A political party is an organized group whose members share the same orientation, values, and ideals. The establishment of political parties aims to gain political power and seize political positions constitutionally to carry out their programs (Budiardjo 2008). Article 1, paragraph 1, of Law Number 2 2011, concerning Political Parties, explains that "a political party is an organization that is national in nature and is formed by a group of Indonesian citizens voluntarily on the basis of the same will and ideals to fight for and defend the interests of the people of Indonesia, society, nation, and state, and maintain the integrity of the Republic of Indonesia in accordance with the mandate of Pancasila and the 1945 Constitution of the Republic of Indonesia." Based on this law, the local political parties in Aceh are basically the same as other political parties in Indonesia. However, the local party only exists in Aceh (Syarkawi et al 2021). The formation of a local political party in Aceh has its own background and is inseparable from Aceh's conflict and peace history (Fakhruddin et al 2019; Geno Berutu 2021).

The end of the Aceh conflict marked the beginning of a new social order in post-conflict Aceh. The main post-conflict agenda was to realize the points of the peace agreement contained in the MoU of Helsinki. One of the points that got the immediate attention of the Acehnese people and the formers of the Free Aceh Movement was forming a local political party. Although it had become a polemic at the time of the negotiations for peace, the phenomenon of local parties in the Indonesian context was not ahistorical. Indonesian history has shown that local parties existed in the 1955 election (Saputra et al 2020; Syarkawi et al 2021). At that time, several local parties were listed as contestants for the 1955 election, namely the Village People's Party (PRD), the Free Indonesian People's Party (PRIM), the Sunda Choice Movement, the Indonesian Farmers Party (PTI), the Banteng Movement (in West Java), and Gerinda (in West Java), the United Daya Party (in West Kalimantan), the United Indonesia Raya NTB (in NTB), and AKUI (in East Java) (A.W. 2009; Adnan 2005; Hillman 2012).

Besides, forming a local political party in Aceh is a must because it has become a mandate for the peace agreement. In the Helsinki MoU agreement, point 1.2.1, it is stated that:

"As soon as possible and not later than one year from the signing of this MoU, GoI agrees to and will facilitate the establishment of Aceh-based political parties that meet national criteria. Understanding the aspirations of Acehnese people for local political parties, GoI will create, within one year or at the latest 18 months from the signing of this MoU, the political and legal conditions for the establishment of local political parties in Aceh in consultation with Parliament. The timely implementation of this MoU will contribute positively to this end".

The point above is a solid basis for forming local parties in Aceh. This basis was even stronger when the Local Aceh Government Law (LoGA/UUPA), which was also part of the agreement, mandated the same thing. In Article 1, number 14, of the LoGA, it is stated that "local political parties are political organizations formed by a group of Indonesian citizens domiciled in Aceh voluntarily on the basis of equality of will and ideals to fight for the interests of members, society, nation and state through election members of DPRA/DPRK, governor/deputy governor, regent/deputy regent, and mayor/deputy mayor." This mandated provision illustrates that the regulations regarding local parties only apply in Aceh Province and follow the special laws and regulations in Indonesia (Muzaffarsyah et al 2022).

After the peace agreement was implemented into the 2006 LoGA, the rules regarding establishing local political parties were also regulated in Law No. 20 of 2007 concerning local political parties in Aceh. This law is a more detailed description of local political parties that have not been regulated in the LoGA. The Aceh government has also ratified Qanun No. 3 of 2008 concerning political parties, which explains that the participation of local parties in general elections in Aceh adheres to the same principles as general elections on a national scale (Geno Berutu 2021). The presence of these laws and regulations opens up opportunities for the whole of the Acehnese community to establish and register local political parties. The general public was also allowed to form and establish local parties, not just the former Free Aceh Movement. As a result, in 2007, there were thirteen local political parties that the people of Aceh successfully formed (A.W. 2009). After verifying thirteen local political parties that have been formed, as previously mentioned, the regional office of the Ministry of Law and Human Rights and the Independent Election Commission (KIP) stated that only six local parties met the requirements that are the Aceh Party (Partai Aceh/PA), the Aceh Safe and Prosperous Party (Partai Aceh Aman Sejahtera/PAAS) formed by senior political figure Ghazali Abas Adan, the Aceh United Party (Partai Bersatu Aceh/PBA) led by Ahmad Farhan Hamid, the Aceh Sovereign Party (Partai Daulat Aceh/PDA) initiated by the ulama group, the Aceh People's Party (Partai Rakyat Aceh/PRA), and the Aceh People's Independent Voice Party (Partai Suara Independen Rakyat Aceh/SIRA). PRA and SIRA parties were formed by 98's activists and the referendum movement. Those local political parties contested the 2009 legislative elections (Basyar 2008; Gade 2012; Jafar AW and AW 2014; Kawilarang 2008). Then in the 2014 election, only three local parties succeeded in participating (PA, PNA, and PDA), and in 2019, four local parties participated (PA, PNA, PDA, and SIRA). Of all the existing local parties, not all of them managed to get the support of the Acehnese people. Some get support, and some fail (Ikramatoun and Amin 2018).

In this regard, the dynamics of local political parties in Aceh post-conflict are objectively related to the conflict and the Aceh peace process. Some literature notes that forming local parties is the most crucial point in the Aceh peace process (Aspinall 2008; Feith 2006; Kingsbury 2006; Nurhasim 2012). If the Indonesian government does not agree on the formation of a local Aceh party during the peace process, peace in Aceh is unlikely to be realized. The importance of local parties' points in the peace negotiation process in Helsinki was also confirmed by the peace negotiator at that time. Hasan Wirajuda, one of the negotiators from the Indonesian side at the Conference on the 17th Commemoration of Aceh Peace, which the Aceh Global Diaspora organized, said:

"The issue of the Local Party at the end of the negotiations is crucial because it can result in peace or no peace at all..."

Sofyan Djalil, the negotiators from the Indonesian side at that time, also conveyed the same thing. He revealed one of the crucial moments of the negotiations. Sofyan Djalil said:

"... it's 8 o'clock at night, everything is done, but it can't be continued because the Local Party. GAM asked the Local Party to be written in the Peace Agreement (MoU)...".

Then, Nur Djuli as negotiator from GAM also stated same thing. As cited by Ilham, Nur Djuli said:

"...had the establishment of local parties not been approved by Indonesia during peace process in Helsinki, then peace would probably not have occurred on that day..."

Muhammad, a former Pidie DPRK member from the Aceh Party, also expressed the same. He said:

"... the Aceh local party issue is indeed an important issue, because that issue could be a hindrance to the peace agreement at that time..." (Interview, June 2022).

Those statements above clearly indicate that the emergence of the local political parties is inherent to the dynamics of Aceh's peace and conflict histories. It also means that the existence of local political parties is Aceh's peace product.

3.2 The Rise

Forming a local political party was the main agenda in post-conflict Aceh, not only for the former of Aceh Free Movement but also for Acehnese generally. Since MoU Helsinki in 2005, Aceh local parties have participated in three times elections, that are 2009, 2014, and 2019. From these elections, there was one party that consistently got the Acehnese people's trust and managed to win the political contestation, namely the Aceh Party (PA). This party is superior to the national parties in winning seats in the DPRK, DPRA, and Aceh governments in elections. Almost half of the parliamentary seats in the DPRA and its districts/cities are held by the Aceh Party.

The Aceh Party was the only party that consistently represented local parties in Aceh and was a political platform for the entire former Free Aceh Movement (A.W. 2009). he formation of this party officially began when the Political Leader of the Free Aceh Movement (GAM), Malik Mahmud, gave a mandate to Tgk Muhammad Yahya Mu'ad to form a local political party on February 19, 2007, and this party was officially established on June 7, 2007. At first, this party was determined to maintain the identity of their movement by naming their party as "Partai GAM" and retaining the flag of the former movement. However, it caused criticism among national parties in Jakarta, and the Indonesian government also prohibited it. Therefore, on April 8, 2008, the GAM Party changed the party's name to Partai Aceh (PA). Then, with that new name, the Aceh Party held a campaign prioritizing the implementation of the Peace Agreement/MoU Helsinki (Bahrum 2016b). In the first general election contested by the Aceh Party in 2009, they failed to live up to high expectations but achieved a convincing victory. Despite running for the first time in elections against 38 national political parties and five other local political parties, the Aceh Party won the provincial, district, and city legislative elections with landslide victories (Hillman 2012).

During the general election that took place in Aceh in 2009, local parties were able to garner the majority of the vote. Out of a total of 69 seats in the Acehnese Parliament, the Aceh Party holds control of 33 of those seats, and the PDA holds one seat. In the election that took place three years later, in 2012, the power of local political parties gradually came to the forefront with the win of their nominee for the office of governor. Furthermore, in the 2014 elections, local parties again won 33 parliamentary seats, with the PA winning 29 seats, the PNA winning three seats, and the PDA winning one seat. As a result of the aforementioned facts, it is possible to deduce that the local political party in Aceh has experienced growth since the end of the conflict. Even though other local political parties in Aceh, such as the PDA, PNA, and SIRA, have not achieved the same thing, the victory of the Aceh Party is evidence that Aceh local parties exist and have always participated in each election. Related to the rise of a local political party, one informant said:

"In Aceh post-conflict, there was an opportunity to establish a political party, and everyone was competing, from combatants to activists to academics. This is positive because this opportunity is actually a bridge for building and sustaining peace, and the Acehnese can choose their own leaders through the election mechanism. This opportunity also provides a chance for local parties to grow and exist. Even if all local parties lose, other local parties will definitely be born because this is possible in Aceh and guaranteed by law. In addition, the existence of local parties in post-conflict Aceh actually provides new hope for Aceh, which has long been trapped in a conflict zone. But if the political leadership of local parties is the same as that of national parties, yes, there is a big possibility that local parties will also lose influence..."(Otto, interview, Mei 2022)

The rise of political parties in Aceh was inseparable from the conflict context and the peace process. The transformation of the Free Aceh Movement into a local party and the dynamic of the peace agreement's implementation, which delivered several regulations, made local political parties in Aceh exist for a long time. Besides legal regulation and the victory achieved, the rise of the local political parties also derived from the dynamic of conflict in the past that made Acehnese disappointed in the Indonesian government and also in a national party, so they preferred the local party. A long-running Aceh conflict has also impacted the rise of Aceh's ethnonationalism and made Acehnese trust the party that was considered to represent them. In his study, Ishak (2013) stated that in Aceh, post-conflict contestation had occurred between three variants of ethnonationalism, which are Aceh, Islam, and Indonesia, and those represented in the form of political parties. The formation of Acehnese ethnonationalism is inevitable and is the result of the Aceh conflict. In another sentence, it can be stated that the Aceh conflict has encouraged the growth of Acehnese ethnonationalism. Then this becomes the local party's political base, especially the Aceh Party. It means the rise of Acehnese ethnonationalism is in line with the victory of the Local Party in the Aceh political contest.

3.3 The Victory

Although the first post-conflict general election was held in 2009, signs that local parties would win the election could be seen as early as 2006, when Irwandi-Nazar won the Aceh regional election. At that time, local political parties had not officially formed, so the majority of Aceh's governor candidates were still dominated by candidates affiliated with national parties. However, the election result shows that Irwandi-Nazar successfully achieved victory. They are candidates closely tied to the Aceh Free Movement who advanced independently. That victory was an early step in the process that led to local political parties winning elections in post-conflict Aceh.

Irwandi-Nazar's victory as governor of Aceh made the transformation of GAM into a local political party smoother because Irwandi was part of it at the time. The Aceh Party, which was later formed, became the perfect forum for former GAM members to be actively involved in practical politics. Although many people doubted it, the Aceh party proved to be successful in coming out as the winner in the 2009 election. The Aceh party won decisively in a number of districts and cities in Aceh and at the provincial level, with almost 50% of the parliamentary seats in the Aceh DPR under their control. This victory surpassed the Democrat Party, which was the winner of the national election (Barter 2011). As a beginner in the legislative elections, the Aceh Party was fabulous because they successfully shifted the position of the national parties that had been in Aceh politics for a long time (Ikramatoun and Amin 2018). This victory shows that the Aceh Party, as GAM representation, has a robust social base at the grassroots. Moreover, its victory also proved that the past conflict dynamics have been related to the victory of the local political party because the Aceh Party is a result of the transformation of the Aceh Free Movement.

Before the 2014 election, there was discord in the Aceh party over the nomination for governor of Aceh. This discord gave birth to a new local party, which was also filled by former GAM members, namely the PNA, led by Irwandi Yusuf. Indeed, the election results showed that the Aceh party's gain decreased from 33 in 2009 to 29 in 2014, but at the same time, other local parties got parliamentary seats: the PNA got three and the PDA got one, the same as in the 2009 election. So, the internal conflicts did not significantly affect the local party's victory because, cumulatively, local parties still managed to get 34 parliamentary seats. This achievement still shows the victory of local parties because the 2014 election was won nationally by PDIP, but in Aceh, PDIP did not get a place at all. Furthermore, in the 2019 election, local political parties still dominated Aceh's parliamentary seats. Local parties generally still dominate, with a total of 28 seats in Aceh's parliament. Local parties have mostly won the three post-conflict general elections in Aceh and have controlled the Aceh government. The following graph (Figure 1) shows the victory of local parties in three political contests in Aceh, which the authors have collected from various sources:

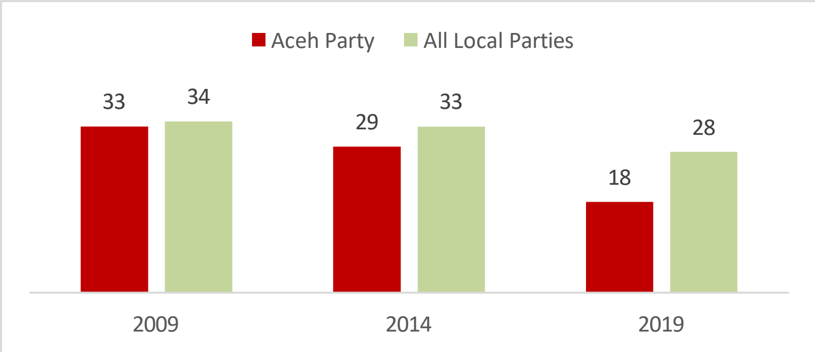

Figure 1 Local Parties' Victory.

Regardless, the post-conflict victory of local political parties in Aceh demonstrated that local parties had the resources to participate in and win political contestation. The victory is certainly influenced by various factors and conditions, especially the Aceh Party. Hillman (2012) noted that the victory of the Aceh Party in 2009 was influenced by propaganda, intimidation of the voters, and a network of combatants that were successfully used to mobilize voters. Mukhrijal et al (2021) stated that the Aceh Party's victory related to the Acehnese identity that was represented by the Aceh Party's elite and figures. In line, Barter (2011) concludes that the victories of the Aceh Party were related to their identity as Acehnese and former GAM because, in the ethnically heterogeneous districts of the interior and southwest, they fared poorly, losing to national parties. In addition, several informants argued that the victory of local parties was caused by the Aceh conflict, which evoked a sense of Aceh ethnonationalism. This sense makes people prefer to trust fellow Acehnese, and the Aceh Party is the most rational choice because they are Acehnese, so they are considered to be able to fight for the interests of the Acehnese people (Interview result 2022). Hence, it can be stated that the victory of local parties is related to the strengthening of Acehnese ethnonationalism that is represented through local parties in Aceh post-conflict. In other words, the strengthening of Acehnese ethnonationalism in post-conflict was able to be represented by local parties in various social and cultural symbols, which made them trusted by the Acehnese and led to their victory in the election.

3.4 Sign of Decline

Generally, signs of a decline in local parties' powers in Aceh can be seen from the decline in parliamentary seat gains in the elections. In the 2014 election, cumulatively, local party parliamentary seats were only reduced by one seat. However, compared to the number of parliamentary seats, the decline is quite significant because, in 2009, local parties won 34 of the total 69 seats and, in 2014, obtained 33 of the total 81 parliamentary seats. A drastic decline occurred in the 2019 elections, where local parties only won 28 of 81 parliamentary seats. In this context, the Aceh Party experienced the most drastic decline, from 33 seats in 2009 to 29 in 2014 and 18 in 2019. The following graph (Figure 2) is a victory percentage of Aceh's local party parliamentary seats, compiled by the authors from various sources:

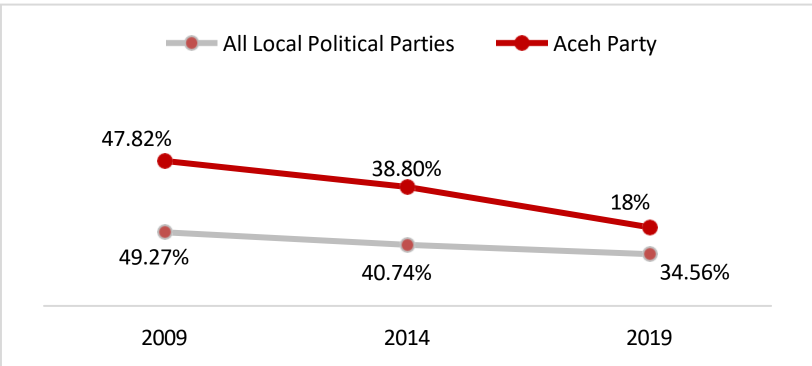

Figure 2 Victories Percentage of the Local Party Parliamentary Seats.

From the data above, it is clear that the percentage of local party wins continues to decline. The Aceh Party, which initially won a significant victory, seems to be getting worse. Local parties previously controlled 49.27% of Aceh's parliamentary seats, but in 2019, only 34.56% remained, and the Aceh party's victory fell from 47.82% to 18%. This statistic indicates that local parties are starting to lose their power in Aceh. Several studies state that the decline in local parties in Aceh is caused by internal conflicts and the failure of local party actors to fight for the interests of the Acehnese people (Muzaffarsyah et al 2022; Tasar 2015; Usman 2021). In line with the previous study, this one also shows the same impression that internal conflicts, political actors, and the organizational aspects of local parties are the causes of the decline of local political parties in Aceh. Internal conflicts occur because the differences in political views and interests among party elites determine political leadership and elite political positions in a party's organization or in participating in elections. Within the Aceh Party, internal conflicts caused this party to split and made the elites clash with each other. This condition began to heat up since the Aceh local election in 2012 and continued until the 2014 election, the 2017 local election, and the 2019 election. These conflicting political actors made the Acheneses unsympathetic to local parties. The internal conflict also depletes the energy of local parties to take care of their own internal conditions, so they forget to fight for the aspirations of the Acehnese people. According to several studies and informants, the human resource capacity of local parties and party organizations that have not been established further degrades public trust. This condition is made worse by a number of facts that show some of the local party elites are more dedicated to power than they are to the well-being of the Acehnese people. (Interview Results, August 2022).

Those things above caused the Acehnese people's trust to continue to decline. The local political parties were evidently unable to do much with the power that the Acehnese people mandated. They have failed, and they admitted that failure was caused by their own mistakes in managing political power, especially concerning policies, actors, and party organizations. One of the informants from the local political party said:

"We are quite pessimistic because the current local political parties have lost the public's trust. The reason is that it's our fault too. If we had kept the people's mandate ten years ago and worked well, maybe it wouldn't be like this... but it has already happened. So now it's getting harder for local parties. Public trust has been lost…." (Zulfadli Interview, August 2022).

Another informant, a former local party elite, said:

"Our problem with the Local Parties right now is because they do not maintain the trust of the Acehnese people. The local parties are too euphoric about the power they get that they forget to think about the people. They forgot to fight for the interests of the Acehnese people, so now they have lost the public's trust.." (Muhammad Interview, August 2022).

In line with that, one of the local party officials said:

"... in my opinion, apart from the problem of public trust, the problem is with the party itself. Because sometimes parties don't send the right people, people who can fight for their aspirations. There are even people who are more concerned with personal interests. Sorry, sometimes even the interests of their own constituents are often forgotten…." (Riki Interview, August 2022).

In addition, there are other indications for the power decline of local parties in Aceh, as stated by some informants, including the failure of the Aceh party to reproduce Acehnese ethnonationalism for the young generation of Aceh voters. Local parties are trapped in the euphoria of victory, and they forget Aceh's ethnonationalism as the important aspect that brought them victory (Interview Result, June 2022). It means that local parties need to keep up Acehnese nationalism if they want to keep their political standing in Aceh. Hence, the decline of the local parties' power in the 2019 election is closely related to the failure of political actors to realize their promises while in power and the occurrence of various internal conflicts in their party organizations, which dropped community trust. At the same time, the local parties failed to pass on Acehnese ethnonationalism to the younger generation, and as a result, they are likely to lose voters.

4. Conclusions

Local political parties are one of the important mandates of peace and have become a political phenomenon inseparable from the dynamics and journey of peace in Aceh. This study concludes that the emergence, rise, victory, and decline of local parties in Aceh are closely related to the context of the conflict and post-peace political dynamics. The local political parties are Aceh's peace product, and the rise of Acehnese ethnonationalism is in line with the victory of the local party in the Aceh political contest. Versa, the decline of the local parties' power is closely related to Acehnese ethnonationalism and also to the failure of political actors in the local parties to realize their political promises while in power and the occurrence of various internal conflicts in their party organizations. The local political parties that initially expected turned out unable to do much with the power that the Acehnese people had mandated. Thus, to recover the trust of the Acehnese people, various changes and transformations within the local parties' organization are required, particularly in policy, actor conduct, and institutional aspects. Otherwise, then the Aceh local political party will continue to decline.

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Ethical considerations

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Conflict of Interest

The authors declare no conflicts of interest.

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