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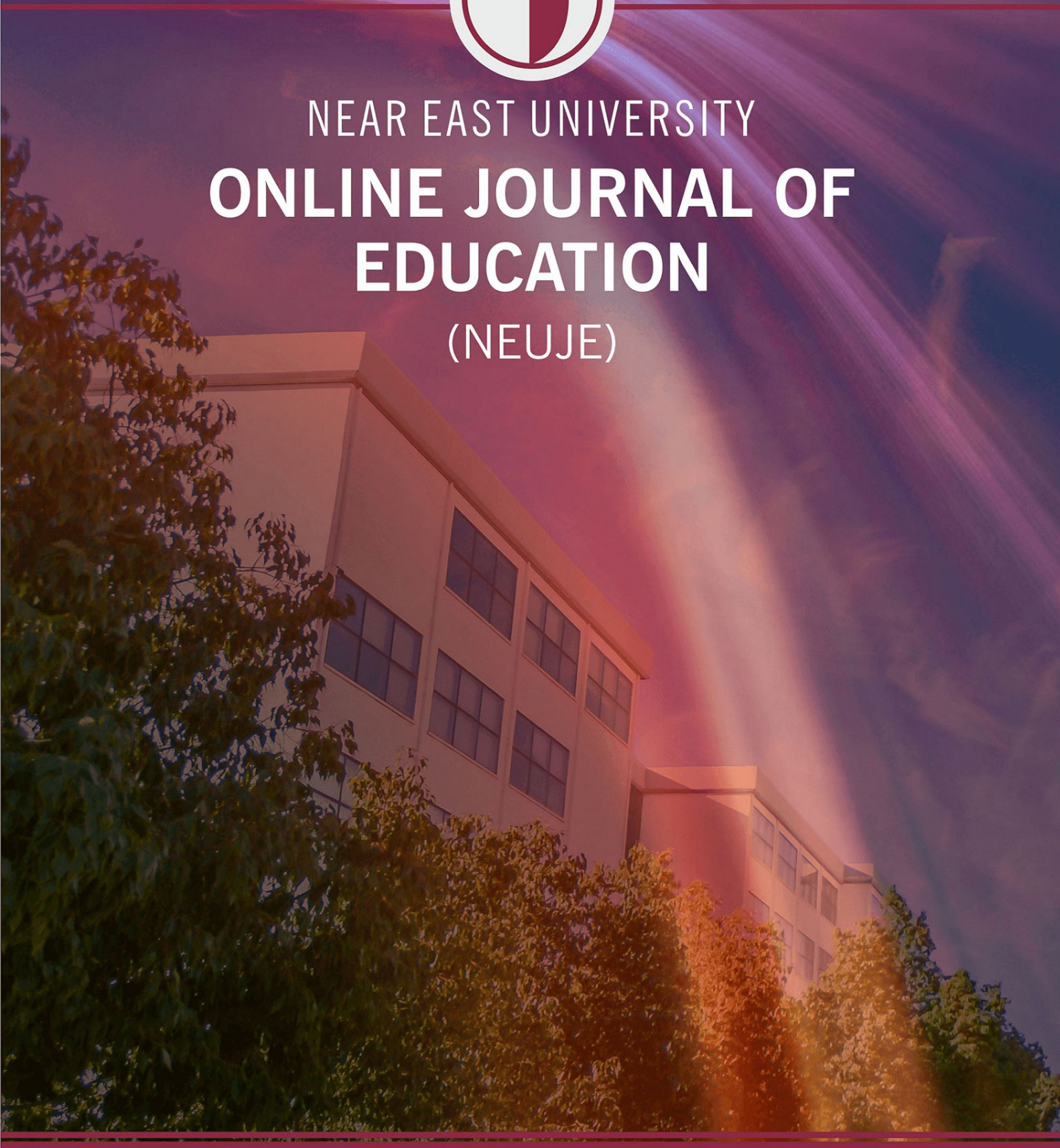

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THE PSYCHOLOGY OF TEACHERS AND STUDENTS DURING THE PANDEMIC PROCESS AND THE WAYS TO COPE WITH STRESS

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Abstract

The aim of this study is to investigate the changes, uncertainties and differences experienced at every stage of education during the current pandemic process, teacher and student psychology and ways of coping with stress within the framework of the researched literature. Although it is an important situation for teachers and students to move forward by accepting the reality of the process we are in, every person in the world has their own responsibilities. In this study, document analysis which is a qualitative research method, was used. Education and training processes have a very important place in the current pandemic conditions. It is known that doing things that can be done from home during the pandemic is a good method to save lives. At this point, it was seen as inevitable that education should continue from home. All positive and negative situations experienced in this process are important on the psychology of teachers and students in education life. By using technology, getting out of the usual situation and giving education as a teacher and trainer from home and getting education as a student are among the most important factors that create stress. It is best to minimize this stress level and to use the most appropriate methods of coping with stress and to turn this situation into a positive one with the cooperation of teachers and students. In the process, the psychological effects of distance education system on teacher and student have shown differences and similarities according to each level. Active participation of students in their lessons, providing a good learning environment and motivating teachers to their students will reduce the level of negative stress in the process in a psychological sense. At this level of stress, personal responsibility is more important in the distance education system. This study examines the teacher and student psychology related to the pandemic process and the scientific literature on coping with stress, and it is considered important in terms of contributing to the field and guiding the researchers who will work in the field.

Keywords: Distance education, teacher, student, psychology, stress.

Introduction

Distance Education

Distance education is a teaching method based on the active use of information technologies for the realization of lessons and facilitating learning, while teachers and students are at different time intervals or at different places (Uşun, 2006).

Distance education is described as a form of education in which the teaching and learning process is mostly separate from the learner and the teacher, and where documents, visuals and videos are frequently used, which are not face-to-face. In other words, distance education can be defined as a systematic form of education that provides individuality, flexibility and independence (Tuncer and Taşpınar, 2007). In this context, it is seen that the most important point in education is the fact that the source and the receiver take place in different environments and the active use of information technologies.

Lessons in distance education can usually be conducted synchronously or asynchronously. Simultaneous lessons are defined as synchronous, while simplex lessons are defined as asynchronous. The synchronous lessons are made possible by the virtual classroom environment, where teachers and students can communicate live at the same time, while simultaneously asking questions, discussing, repetitions about incomprehensible subjects and having the opportunity to discuss with each other (Serçemeli and Kurnaz, 2020).

In lessons conducted asynchronously, students can access and easily follow the course materials, visuals and course videos they want, whenever they want, through the registered system (Serçemeli and Kurnaz, 2020).

Moore and Kearsley (2012) defined the learning and teaching process in which the teacher and the learner are in different places and designed in a planned way by a private institution by communicating with technology as distance education (Moore and Kearsley, 2012).

İşman (2011) defines the distance education process as the activities carried out by using communication technologies in educational activities where students and teachers are in different places (İşman, 2011).

The distance education process, which appears as a major digital change, is defined as the process of combining information processing, interpersonal relations, communication and technology in order to adapt to these changes and to become more positive (Vial, 2019).

Method

In this study, document analysis which is a qualitative research method, was used. Document analysis is a qualitative research method used to rigorously and systematically analyze the content of written documents (Wach, 2013). Document analysis is a systematic method used to examine and evaluate all documents, both printed and electronic materials. Like other methods used in qualitative research, document analysis requires the examination and interpretation of data in order to make sense of it, to form an understanding of the relevant topic, and to develop empirical knowledge (Corbin & Strauss, 2008).

Findings

Studies on Distance Education

Many studies have been carried out regarding distance education and the pandemic process. In a study, it was concluded that in the distance education process, most of the students could not attend live classes because they did not have devices such as computers and tablets, and some of them did not have internet access. Therefore, it was stated by the teachers that students had problems with absenteeism. The teachers participating in the research also stated that the parents acted indifferently during the pandemic process, did not follow the students while they were at the computer, and therefore the students were left uncontrolled (Bayburtlu, 2020).

In another study, more than half of the participants stated that they could not participate actively in distance education courses due to the high number of siblings and this was not possible due to the inadequacy of technological tools. It is indisputable that the socio-economic situation has an important place in the distance education process applied in accordance with this information. It can be stated that the inequality of opportunity arising

from settlements has arisen. Again, in the same study, due to problems with technological tools, the teacher said that they are waiting for feedback that their students understand or do not understand when presenting and after presenting courses, but the distance education system cannot meet the expectations mentioned (Derkuş, 2020).

Another 2020 study found that 41% of distance education teacher candidates considered themselves professionally "adequate", 39% of teacher candidates "needed development" and 21% of teacher candidates felt "inadequate". It was concluded that 68% of teacher candidates considered themselves adequate in the field of attitudes and values, knowledge of the professional field and felt less adequate (Eti and Karaduman, 2020).

From a psychological point of view, studies show that teachers have developed strong emotional and social bonds during this time spent with their students. Another study concluded that students become fragile, weakened and difficult to communicate in the process (Çetin and Anuk, 2020).

In another study, it was tried to determine the interests and attitudes of the students towards the courses given by distance education and whether they wanted the courses they took to continue with distance education or not. As a result of the study, it was determined that both male and female students did not want to take the courses with distance education when looking at the gender (Bircan et al., 2018).

According to the results of a similar study, students' perspectives on the distance education system resulted in a negative result. Students stated that they do not find distance education courses as productive and positive as face-to-face education and they do not want to take them. Considering the results obtained in line with the answers of the students in the study, which aims to determine the follow-up, satisfaction and success levels of the students, they thought that providing education with the distance education system would be an efficient and positive practice if the students were provided with internet access in the places they stayed and therefore the courses were followed regularly (Metin et al., 2017).

In another similar study, teachers' opinions about in-service training through distance education emerged negatively due to reasons such as lack of infrastructure and interaction (Arslan and Şahin, 2013). In another study, it was concluded that the distance education process was negatively affected by technological reasons such as internet connection and various technical problems among the answers given by the participants (Birişçi, 2013).

Finally, when the results of a different study are examined, it has been determined that factors such as usability, interaction, functionality, interoperability, and easy access stand out as success factors in distance education among the answers given by the students (Tanrıkulu et al., 2010).

The Teachers and the Psychology of the Teachers during Distance Education Process

Education is defined as a system that shapes the future of both the individual and the society, contributes to economic, political, social and personal developments and changes, and is affected by these areas (Barlett and Burton, 2020). In this difficult process, the education system has been greatly affected by social change and development. Therefore, the Covid-19 virus epidemic, which has the power to affect the society and emerged unexpectedly, has affected the education system deeply as well as affecting all social orders (Kırmızıgül, 2020).

The concept of distance education is defined as an institutional-based education in which the learning group, that is, the students, is physically in different places, and interactive communication systems are used to bring together educational resources and educators (Schlosser and Simonson, 2009).

Teacher competencies are generally defined as "the knowledge, skills and attitudes that must be possessed in order to fulfill the teaching profession effectively and efficiently" (Ministry of Education, 2008).

A qualified teacher should have characteristics that have competence in the subject area, can share their ideas using effective communication skills, discuss all aspects and use knowledge in other areas. However, appropriate strategies need to be implemented for good teaching. Effective teachers set specific goals and make plans to achieve them, rather than leaving things to what they will be (Özkan, 2005).

The fact that teachers and students do not have the necessary motivation in the education process means that they will not be able to pass the education process in a quality way. Effective teachers turn educational tasks into creative and stimulating activities, which increase the quality of education (Yılman, 2006).

In order for a teacher to be successful, he must have important features such as he must first love his profession, he must have sufficient knowledge in his field, be aware of all developments related to his profession, have a general culture level, have effective communication skills, use time effectively, treat all students equally, constantly renew himself, adapt to technology, be open to criticism (Şahin, 2004).

Minimizing stress during the pandemic period by collaborating with students is a very difficult situation to balance for the teachers. Maintaining distance education with students under stress, not boring them with homework and activities, not distracting them from the process, trying to motivate them and supporting them in all circumstances has an important place in educational life (Bozkurt, 2020).

The qualifications of information technology teachers in online distance education are stated as having technical competence, pedagogical competence and having willingness to continue uninterrupted communication (Aydın, 2005). For this reason, it has been tried to be used efficiently by teachers and students in the same way during the pandemic process we are in.

While it is difficult to balance the discipline, development follow-up and attendance that are tried to be provided in the classroom environment, conducting these elements remotely in the same way increases the workload of teachers and causes them to experience more stress levels. (Collie and Martin, 2020).

Technological tools began to be used more in education during the pandemic process with the advancement of technology. Technological tools such as television, online platforms, internet and mobile applications were provided to support students. In this process, it has been tried to ensure that teachers support students academically and are included in the distance education process in this difficult process (Şenol and Yaşar, 2020).

Many people can face challenging situations at different periods of their life. Coping methods in these cases vary from person to person. Outstanding concepts include flexibility, resistance, robustness, psychological resilience, and perspectives on psychological well-being (Gilligan, 1997). Resilience is defined as the capacity of individuals to overcome adversities.

In other words, it is expressed as being able to cope with the negative conditions experienced by people and returning to their previous mood (Doğan, 2015).

Although there are natural conditions that people are collectively exposed to, such as earthquakes, floods and hurricanes, the pandemic process, which oppresses all humanity, has negatively affected the entire society psychologically. Therefore, the conditions that people are exposed to reveal their negative mood states. In this case, people want to save themselves and recover quickly and try to cope with psychological resilience (Başaran et al., 2020).

While teachers are trying to adapt to distance education, they also spend a busy period trying to motivate students, use effective methods to cope with stress, and use time effectively. For this reason, the situation they are in can negatively affect both teachers and students psychologically (Özkan, 2005).

There are many psychological changes experienced by teachers in the distance education process. The fact that a teacher, who has not taught even once from home until the pandemic process, gives lessons over the computer for months, can create negative psychological effects on people and therefore factors that can cause stress. These effects can reflect on students from time to time. For this reason, teachers need to make more efforts for the order and discipline of education, as well as using many different methods to ensure the participation and motivation of the students in the lessons, to follow the learning process and to support the students remotely (Papagiannidis et al., 2020).

Teachers have been away from their students and colleagues, and from their schools in terms of space, and they have changed and lost their old daily life practices. In addition, teachers tried to adapt to many experiences that they could not experience before during the pandemic process (Allen et al., 2020).

Due to personal differences, it is very difficult in the classroom environment to organize the teaching process according to the needs of each student, taking into account the individual differences; organizing the teaching process and taking responsibility with distance education makes it more difficult for teachers (Yılman, 2006).

The Students and the Psychology of the Students during Distance Education Process

Starting from a very young age, people first take part in the family. Afterwards, they begin to take place in the education system as a student. Student psychology covers their positive or negative moods. Therefore, it is important to get professional support when student psychology is negatively shaped. At certain times, students can believe that everything else will continue with the same failure as a result of the slightest failure, together with the emotional changes caused by the developmental period characteristics they are in (Yalın, 2001; Kurnaz and Ağgül, 2018).

Student-teacher and student-student interaction has a valuable place in both face-to-face education and distance education. The importance of classroom or distance learning environments is emphasized for students to collaborate and share their knowledge, ideas, thoughts and feelings in a comfortable and stress-free way (Johnson and Johnson, 2000).

One of the most basic elements in learning is that the student should be active in the process. In order for learning to take place effectively, it is not enough for students to listen to what the teacher tells, observe what they do and behave, repeat the learned information and act with the teacher's instructions. However, while listening to the teacher, students should

focus their attention, reflect on what they have listened or read, ask what they do not understand, repeat and relate new information to previously learned information. (Bekir, 2003).

In order for learning to take place, the conditions related to the sound, heat and light conditions and order of the chosen environment are effective in both face-to-face education and distance education. Students' preferences and choices regarding these show personal differences. There are many factors that must be present for effective learning on students. One of them is to focus attention on the learned subject (Bekir, 2003).

Another positive factor in learning is motivation. Motivation is defined as a source of power that activates a person to learn. The motivated student has a responsibility to learn, enjoys learning, and constantly strives to realize learning (Gelişli, 2015; Bekir, 2003).

In the distance education process, students generally follow their lessons every day on their smart phones. Problems such as the small phone screen and the full internet quota are among the negative aspects of the lessons being followed by their smart phones. These reasons put students in a difficult situation (Serçemeli and Kurnaz, 2020).

In the distance education process, students also experience the effects of almost similar psychological experiences of teachers. The fact that students who communicate face to face with their friends and teachers in the classroom environment quickly adapt to working at the computer all day and are faced with situations such as preparing a work schedule from home is a factor that creates stress. While these challenges create an atmosphere of uncertainty and a difficult process to adapt, coping with stress is also an important factor. (Öztaş and Kılıç, 2017; Hamilton et al., 2020).

During the pandemic process, it is seen that students experience anxiety and stress due to the problems in their use of technology. The fact that almost all students and families do not have equal equipment, opportunities and the ability to use technology stands out as the most important of these problems (Livari et al., 2020).

On the other hand, technological inequality can cause students to fall behind in classes and experience absenteeism problems. Therefore, it is observed that students in these negative situations experience more stress and they may need professional support to cope with stress (Başaran et al., 2020; Birişçi, 2013).

Enabling students to be motivated comes about through teachers' patience, self-sacrifice, tolerance, understanding and empathy. The concept of motivation emerges as an important issue in the distance education process as it enables the learner, that is, the students, to struggle against various difficulties and to achieve their learning goals (Uçar and Kumtepe, 2019).

From a psychological point of view, the following situations can be given as examples for students to feel positive and use positive ways to cope with stress in the distance education process: the lessons can be watched whenever they want, the education needs can be met during the pandemic process, the awareness on the importance of technology in education is increased and the environment provides ease of learning (Almaghaslah and Alsayari, 2020). During the pandemic process, students felt safe and peaceful if technological opportunities were used more effectively (Andoh et al., 2020).

From another point of view, there are aspects of the distance education process that negatively affect students. Examples of this are lack of measurement and evaluation, loss of

motivation, lack of internet and computer, lack of interaction, technical problems, lack of socialization and being unprepared for the process (Ramos-Morcillo et al., 2020).

Stress and Ways to Cope with Stress

When the definitions of stress in the literature are examined, it is generally discussed that stress is a negative and harmful situation. While stress has a painful side that disrupts the harmony of people, it can also lead people with whom it can be coped forward, to happiness and success. (Levi, 1965). While the concept of stress was used in the form of disaster, trouble, trouble, grief in the 17th century, it began to be used in the form of power and pressure in the 18th and 19th centuries. (Torun, 1997).

Stress is also defined as a person's reaction to threatening environmental characteristics. Each situation that affects the physiological and psychological balance of a person can be perceived as a source of stress, that is, a stressor, and accordingly, people can give different reactions (Bingöl, 2001).

The perception of a stressful life is linked to the self-esteem one develops. The self-esteem that a person develops affects the level of stress that they experience in this perception, as well as how they perceive themselves as a talented, important, valuable and acceptable person (Esenay, 2002; Yörükoğlu, 1986).

There are many stress factors in our lives, and the pandemic process we are in has a negative stress effect on all humanity. The epidemic in the pandemic process causes physical inactivity and limitation in social activities, fear and anxiety for themselves or their loved ones, and sudden and radical lifestyle changes (Brooks et al., 2020).

There are many positive ways to reduce stress. The first thing to do is to identify situations that create tension in personal and professional life. It can be stated that adaptive coping mechanisms are used when constructive behaviors are initiated to change a stressful situation. The next step is to develop coping mechanisms that will remove these tensions and actively overcome them. Defining the problem, identifying the source of stress, planning the action process and evaluating the results are the steps to be taken, and getting professional support is an active role for coping with stress during the pandemic process (Işıkhan 2016; Cao et al., 2020).

In a study on the subject, it was found that university students felt high stress, mild general anxiety, and low satisfaction with life. It has been revealed that physical inactivity during the anxiety and pandemic process significantly affects perceived high stress. It has been stated that students' mental health is at high risk during the pandemic (Bayar et al., 2020). Stress experienced by university students negatively affects their academic performance (Garrido et al., 2020).

In a similar study conducted with nursing students during the Covid-19 pandemic in the literature, it was determined that there was no statistically significant difference between the students' stress levels and the class variable. It was understood that the gender variable resulted in significant results and the perceived stress level of female students was higher than the perceived stress level of male students (Savitsky et al.,2020).

Conclusion and Recommendations

The distance education process is a challenging process for most teachers. It has many positive and negative effects in terms of technological tool proficiency, psychological resilience and time management. Distance education can affect students indirectly, as it affects teachers who are under these difficult conditions. In this process, it is of great importance that teachers and students take time for themselves. A teacher and student who can spare time for themselves will become more productive in terms of psychological resilience and a better teaching-learning process will be experienced. In the distance education program, scheduling time for breaks, meal breaks, exercise and sleep as if you are planning a lesson, and trying to act as if our life was normal as it used to be, will cause us to spend this process with less stress.

When the pandemic process is handled in a psychological dimension, it will be beneficial for teachers to be in contact with their colleagues in this process. It will be comforting for teachers to share their ideas, experiences, concerns and stresses with their colleagues.

In addition, teachers' strong communication with students also creates psychologically positive effects for both teachers and students. Teachers who keep in touch with students will feel more comfortable and more productive. Conditions such as radical changes in the education system and the restriction of students' social spaces may cause students to experience more stress in this process. It is of great importance that the relevant institutions implement strategies and provide support so that students and teachers can manage this stressful process. It can be beneficial to use stress coping methods for both teachers and students during the pandemic process.

Counseling services can be provided for the students in this difficult period we are in, in order to evaluate them positively in terms of their psychological well-being. With the counseling service to be provided, positive results will emerge in reducing stress in line with coping strategies for students who experience high levels of stress. Students who talk to experienced consultants who are experts in their fields on this subject will create an environment where they can experience stress at a minimum level.

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CONTENT ANALYSIS OF CURRICULUM DEVELOPMENT RELATED STUDIES DURING: 2000 – 2019

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Abstract

This study purposes to perform a content analysis to define the general framework of studies related to curriculum development. For this reason, 100 articles were studied between 2000 to 2010 related to curriculum development in terms of journals, the year of publication, countries, aims, development mechanism, methodology. The qualitative approach was used to analyze and describe data through frequency and percentage. The findings indicated that strategies and methods of teaching and needs assessment, implementation, and evaluation are the topics that discussed in studies frequently, the most studies related to curriculum were noticed to have been that discussed between 2015 to 2019, and it was revealed the order of countries which concern to curriculum, the qualitative research approach was most utilized in studies. Future studies should concentrate on curriculum development.

Keywords: curriculum, curriculum development, content analysis.

Introduction

Nowadays, as a result of the increased evolution of scientific knowledge, and scientific openness in the world, the most important is how to use it correctly. So, the journals are the most significant sources that provide us scientific knowledge, the curriculum is considered a significant component in teaching and learning for it supplies a strategic framework to the achievement of the purposed learning results (Akdemir, Karameşe and Arslan, 2015). Effective learning environment is necessary for implementing the learning process, there are many items that form a quality learning environment, and thus that the correct understanding of the learning environment, leads to adopting it is in curriculum design (Jawabreh, Danju and Salha, 2020). So, the objective of curriculum development should be to meet the needs and requirement of educational institution including student, teacher, and society, involving all stakeholders who participate in the educational process in curriculum development can be both a challenge and an important factor in the success of curriculum development, so still curriculum development under constant change (Johnson, 2001). Curriculum development is a mechanism which goes through various stages and is implemented after every specific period defined by an educational institution concerned, an approach to develop curriculum should encompass: Designing, Selection of Content, Planning, Implementing, Strategies Methods of Teaching, Evaluating and Needs Assessment (Khan and Law, 2015). The curriculum must be effective and adaptable to changes in the educational community (Alsubaie, 2016). The curriculum development process needs the involvement of curriculum team in designing, planning, implementing and evaluating, Curriculum development is a

never-ending process, and it always aspires to continue improving (Ornstein and Hunkins, 2013).

The current era is the era of science and rapid changes that exceed human perceptions. Every individual in this world must be able to adapt to this explosion of knowledge that taking place, to advance in his community, nation and state (Jawabreh, Salha and Barakat, 2019). Because the objectives of education can be realized only through a valid, reliable curriculum for developing and meeting cognitive and scientific needs. So, in this research, content analysis will use through articles that used curriculum development in the years from 2000 to 2019.

The purpose of the research

At the turn of the twenty-first century, and the ministries of education in many countries proposed the mechanisms to develop the curriculum. So, this study purposes to accumulate and analyze studies related to curriculum development, and that has been carried out from 2000 to 2019, to identify the similar topics and learn how they relate to curriculum development. After analyzing the studies performed between 2000 and 2019, there were several aims that were grouped into three topics, at first, to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented. In addition, involvement teachers and stakeholders in curriculum development, and explore their perception, and there are some studies that had more than one aim.

The research questions

The following research questions have been determined:

1. What are the journals that published studies related to curriculum development?
2. How have the studies been distributed in relation to curriculum development according to the year of publication?
3. How have the studies been distributed in relation to curriculum development according to countries?
4. What were the aims used in studies related to curriculum development?
5. What was the development mechanism used in the studies related to curriculum development?
6. What was the methodology used in the studies related to curriculum development?

Literature review

Mohanasundaram (2018) stated that designing is endeavor to process four curriculum components: Why do we study, What are the goals we want to achieve, How do we link learning with life experiences, and what actions we take according on the instructional program, and most curriculum designs is different in how they address these components, because of the curriculum philosophy according on model which a design is based. Morales (2014) said that the planning, implementing, and evaluating are as part of curriculum development, also added that there is a set of steps that must be followed in order to develop a curriculum for any subject, regardless curriculum developers choose, they will do common steps, though the order may vary.

Madadlou and Gharaaini (2014) suggested that content selection is a component of the curriculum development, and plays a very significant in achieving the objectives of education in the community and is viewed as a key element in all approaches and perspectives. Tyler (2013) stated that teachers are responsible to supply students with positive experiences in order to continue studying and discovering new things, so learning experiences should be meticulously planned and teachers are to think outside the box when choosing methods and materials to deliver their instruction so that they can give their students an opportunity to learn something meaningful and valuable for their life. Primrose and Alexander (2013) referred that the curriculum development process mentions the improvement, change or modification on current educational programs, because of the fact that curriculum development is a changeable variable.

According to Patankar and Jadhav (2013), curriculum development offers several strategies and methods teaching for teachers in order to assess student progress, and without monitoring of a curriculum, teachers cant' ensure that they have provided the necessary, correctly knowledge for students. Hussain, Dogar, Azeem, and Shakoor (2011) referred that evaluation is an operation part of curriculum development, plays a significant role in education process accordance with the aims of education, the curriculum development mechanism undergoes change because of many developments in education, and the evaluation keeps it valid, reliable and goes on it in the right direction. Carl (2009) explained that planning is being one of the curriculum development phases, it possesses different actions such as situation analysis, the formation of objective, and determination of criteria for the selection and classification of content.

Methodology

This study was used the content analysis method, and it is considered a reference source includes description and explanation the patterns in curriculum development, content analysis refers to analyzing articles that contain similar themes about the curriculum development.

Data collection and analysis

The main criteria used to identify which articles were analyzed are: studies that discussed curriculum development, in addition, only studies which published between 2000 and 2019, 100 articles were found. Tables were prepared to present the themes concerning each research question, and these topics are according to titles of journals, the year of publication, countries, development mechanism, aims and methodology. Content analysis is collect similar data within the framework of certain concepts and themes, and to interpret it in an organized way, and describe the data in frequency and percentage values.

Results

This section presents the results and discussions according to research questions, from 2000 to 2019. The first research question was answered by showing the frequency and percentage of the studies distributed according to the journal by Table 1.

Table. 1
Studies related to the journal

Studies related to the journal	Frequency	Percent
Journal of the Curriculum	16	16%
Journal of Education and Practice	6	6 %
Journal of Theory and Practice in Language Studies	6	6%
Journal of Canadian Center of Science and Education	4	4%
South African Journal of Education	4	4%
Journal of Nurse Education Today	2	2%
Journal of Language Teaching and Research	2	2%
Journal of Cukurova University Faculty of Education	2	2%
Kastamonu Education Journal	2	2%
The Turkish Online Journal of Educational Technology	2	2%
Journal of Medical Education and Curricular Development	2	2%
Journal of Canadian Center of Science and Education	2	2%
Journal of Australian Social Work	2	2%
Journal of University Teaching and Learning Practice	2	2%
Journal of Theory and Practice in Language Studies	2	2%
International Online Journal of Educational Sciences	2	2%
Journal of Medical Teacher	2	2%
Journal of Applied and Advanced Research	2	2%
Design & Technology Education	2	2%
International Education Studies	2	2%
European Journal of Science and Mathematics Education	2	2%
Early Childhood Education Journal	2	2%
Asia Pacific Journal of Education	2	2%
Journal of School of Education	2	2%
Journal of Scientific Research and Studies	2	2%
Journal of Scientific Research and Studies	2	2%
Journal of High Education	2	2%
Indonesian Journal of Curriculum and Educational Technology Studies	2	2%
South African Journal of Education	2	2%
Eurasia Journal of Mathematics, Science & Technology Education	2	2%
Journal of Physics	2	2%
The Journal of Physician Assistant Education	2	2%
Journal of Asia-Pacific Education	2	2%
Journal of Science Education	2	2%
International Journal of Education Policy and Leadership	2	2%
Journal of Social and Behavioral Sciences	2	2%
Journal of Cyprus University of Technology	2	2%
Journal of the Scholarship of Teaching and Learning	2	2%
International Journal of Teaching and Learning in Higher Education	2	2%
Total	100	100%

The studies were analyzed according to the journal, as a result of that, it is detected that the 16% of articles are from Journal of the Curriculum and 6% of articles are from Journal of Education and Practice, also 6% of articles are from Journal of Theory and Practice in Language Studies, 4% of articles are from Journal of Canadian Center of Science and Education, and the same percentage from South African Journal of Education, and the proportion was 2% of articles are from others journals.

The second research question was answered by showing the frequency and percentage of the studies distributed according to the year of publication by Table 2.

Table 2.
Studies by year of publication

Studies by year of publication	Frequency	Percentage	Studies by year of publication	Frequency	Percentage
2000	0	0%	2010	6	6%
2001	0	0%	2011	2	2%
2002	0	0%	2012	4	4%
2003	0	0%	2013	4	4%
2004	0	0%	2014	4	4%
2005	0	0%	2015	14	14%
2006	6	6%	2016	14	14%
2007	0	0%	2017	2	2%
2008	4	4%	2018	18	18%
2009	2	2%	2019	20	20%
Total	50			Percentage = 100%	

With respect to analyze the studies according to the year of publication, it is obvious that 20% of them are in 2019 and 18% of them are in 2018, and the same percentage 14% in both years 2015, 2016, it is clear that the number of studies increased until 2010, and decreased after that year, and the top number of the publications is realized in 2019, it also shows that there are no studies between 2000 to 2005.

Then, the third research question was answered by showing the frequency and percentage of the studies distributed according to countries by Table 3.

Studies revealed the descending order of countries from the existing frequency in a table(3): USA and UK, Turkey, Iran, other countries.

Table 3.
Studies related to countries

Studies related to countries	Frequency	Percentage	Studies related to countries	Frequency	Percentage
USA	14	14%	India	2	2%
UK	14	14%	Kenya	2	2%
Turkey	12	12%	China	2	2%
Iran	8	8%	Singapore	2	2%
Palestine	4	4%	Nepal	2	2%
Australia	4	4%	Hong Kong	2	2%
Saudi Arabia	4	4%	Nigeria	2	2%
Denmark	4	4%	Spain	2	2%
Indonesia	4	4%	Korea	2	2%
South African	4	4%	Cyprus	2	2%
Scotland	4	4%	Sweden	2	2%
Taiwan	2	2%	Russia	2	2%
Total	100			Percentage = 100%	

In 2000 to 2019, there were 100 articles about curriculum development published in several journals, after analyzing the articles according to countries, it is realized that 14% of articles were in the USA, and the same percentage was also in the UK, was 12% in Turkey, also 8% in Iran, and the proportion of other countries is between 4% and 2%.

The fourth research question was answered by showing the frequency and percentage of the studies related to aims by table (4).

It demonstrates that studies were mostly identified by two aims, and they are: (1) To involve teachers and stakeholders in curriculum development and explore their perception, (2) To discuss the literature to curriculum development in institutions of higher education on

framed strategic and investigate how curriculum development was interpreted and implemented, (3) and there are some studies that had more than one aim. The studies' aims are consistent with their titles, additionally, the content includes how the curriculum is developed, and it presents changes occurring in the world.

Table 4.
Studies related to aims

Studies related to aims	Frequency	Percentage
The first aim	62	62%
The second aim	30	30%
Had more than one aim	8	8%
Total	100	100%

As can be seen in Figure 1, studies related to aims of the 100 articles were analyzed, it revealed the following ranking of aims from the most to the least: the first aim to involve teachers and stakeholders in curriculum development, and explore their perception and its proportion was 62%, the second aim to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented and its proportion was 30%, and there are some studies that had more than one aim and its proportion was 8%.

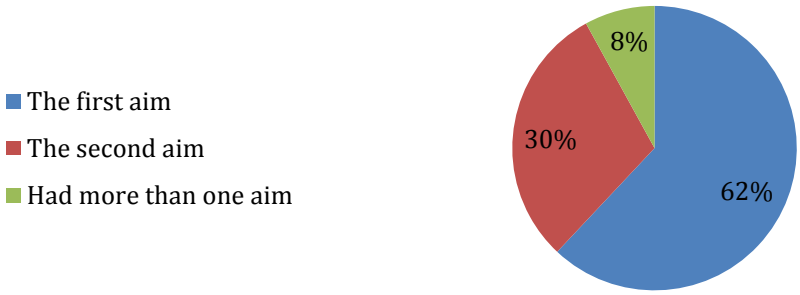

Figure 1. *Studies related to aims*

The fifth research question was answered by showing the frequency and percentage of the number of developmental mechanisms in the chosen studies by Table 5. The studies that were analyzed have several curriculum development mechanisms: Strategies and Methods of Teaching, Needs Assessment, Implementing, Evaluating, Selection of Content, Designing, Planning and Monitoring, and there are some studies that had more than one mechanism to curriculum development.

Table 5.
Studies related to curriculum development mechanism

Studies related to curriculum development mechanism	Frequency	Percentage
Strategies and Methods of Teaching and Needs Assessment	54	54%
Implementing and Evaluating	18	18%
Selection of Content	12	12%
Designing, Planning and Monitoring	16	16%
Total	100	100%

As can be seen in Figure 2, the studies related to the curriculum development mechanism of the 50 articles were analyzed, which detected the following ranking of articles from the most to the least common of the curriculum development mechanism: Strategies and Methods of Teaching and Needs Assessment and its proportion was 54%, Implementing and Evaluating proportion was 18%, Designing, Planning and Monitoring proportion was 16%, Selection of Content proportion was 12%.

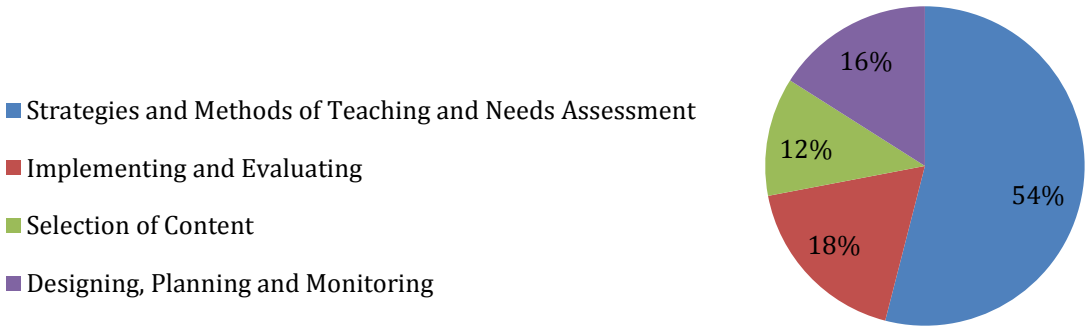

Figure 2. *Studies related to curriculum development mechanism*

The sixth research question was answered by showing the frequency and percentage of the number of studies according to research methods in the chosen studies by table (6).

As can be seen in table (6), the qualitative research approach was utilized most often in studies, and the quantitative research was less utilized, it was observed that qualitative research design was used more than the quantitative research design, also the mixed-methods was utilized, this means that the quantitative and qualitative approach was used together, there are some studies that do not have a specific methodology, and they were related to literature review.

Table 6.
Studies related to research methods

Studies related to research methods	Frequency	Percentage
Quantitative	12	12%
Qualitative	46	46%
Mixed-Methods	6	6%
Literature Review without method	36	36%
Total	100	100%

As can be seen in Figure 3, the research methodology followed in the curriculum development demonstrates that the majority of them are qualitative 46%, and the quantitative approach proportion was 12%, while a minor portion of them are 6% mixed-method studies and the proportion of studies that do not have a specific methodology 36%.

Figure 3. *Studies related to research methods*

Discussion

Curriculum development is a renewable process, in addition, it is a changing, and ongoing process that requires lots of keeps up with the scientific explosion. consequently, curriculum developers should consider many aspects when developing a curriculum, also they must have a broad understanding of the curriculum needs, to include the student, teacher, and the entire community.

As can be seen in the Table 2, there was an increase in the number of studies related to curriculum development in 2012, 2013, 2014 and 2015. In these same years, the curriculum had been developed such as Soto (2015), Khan and Law (2015), Preez and Simmonds (2014).

Figure 3 demonstrate that the research methodology followed in curriculum development. The qualitative research methods have been generally preferred in studies, were consistent with the results of previous studies, such as Zohrabi (2011), Alsubaie (2016), Moona and Joob (2015), Hojgaard and Solberg (2019), and the quantitative research was less utilized such as Eriş and Kılıçoğlu (2019).

There is a limited number of mixed methods that combined qualitative and quantitative research that discussed the curriculum development and produces accurate data in terms of its application such as Li (2006) was used questionnaire and semi-structured interview. And in approximately half of the studies, the research methodology is not specified such as Nyabero (2016).

Figure 2, demonstrates that the strategies and methods of teaching and needs assessment, implementation and evaluation are the topics discussed in studies frequently, and these results are consistent with Zohrabi (2011), Adesoji and Tinuke (2019), Hwang and Kwon (2019). On the other hand, the least common topics are designing, planning and monitoring, and these results are consistent with Nyabero (2016), Moona and Joob (2015).

According to the results of Akşan and Baki's (2017) study which examined the curriculum development, that was used content analysis by finding frequency, percentage.

Some studies published were incomplete in their data collection and analysis, therefore they did not present any findings, they were as literature review, such as Soto (2015), Nyabero (2016).

Some studies aimed to involve teachers and stakeholders in curriculum development and explore their perception such as Alsubaie (2016), Adesoji and Tinuke (2019), Hojgaard and Solberg (2019). And the other aimed to discuss the literature to curriculum development in institutions of higher education on framed strategic and investigate how curriculum development was interpreted and implemented such as Nyabero (2016).

Conclusion

- It is pertinent that we know who the individuals that affect the development of any curriculum, the curriculum developers should be knowledgeable about to plan, implement, and evaluate the curriculum, in addition, the teachers themselves are curriculum developers when they plan their classes, they are developing curriculum, briefly, curriculum development cannot be developed by one single person, it is a cooperative group work, so it is necessary the involvement of many people starting from the students, teachers community as sources for curriculum development.
- Strategies and methods of teaching and needs assessment, implementation and evaluation are the topics discussed in studies frequently, on the other hand, the least common topics are designing, planning and monitoring, so, the research topics have similarities and are not complementary to each other.

- The studies should not only deal with the teachers or students and their perception, but also the perception of the parents, academic staff, and officials, In order to have detailed information on the design and implementation of the curriculum.

Recommendations

According to content analysis, this research explained the following:

- Curriculum development must focus on: Review of curriculum documents, Review of textbooks and other educational materials, Materials may need to be developed, Methods are to be trained and implemented, Evaluation of practice, Revision of curricula.
- A whole approach should be adopted for the curriculum development, and involvement of the whole staff.
- The studies should not only deal with the teachers or students and their perception, but also the perception of the parents, academic staff, and officials, In order to have detailed information on the design and implementation of the curriculum.

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THE VIEWS OF ADMINISTRATORS' REGARDING THE USE OF TECHNOLOGY IN EDUCATION

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Abstract

The goal of this study was to look at the perspectives of administrators at public and private secondary and high schools in the Turkish Republic of Northern Cyprus on the use of technology in education. To adequately study this topic, a qualitative method was used with semi-structured interview questions as the data-gathering technique. The study's participants were 34 administrators who worked during the Spring semester of the 2020-2021 academic year. These individuals were chosen at random from the several schools that volunteered to take part in this study. "Zoom and Google Meet" applications were used to conduct the interviews with the participants. This study included more females than males, with the bulk of participants coming from public schools. According to the findings, the majority of students took part in visual tracking Slide Share presentations. Finally, the data revealed certain benefits of using technology, such as quick learning and access to materials, as well as some drawbacks. Regarding the drawbacks, most participants called for an increase in the standard of student assessment. Teachers may be skeptical of the feedback they receive during evaluations that are not done on camera.

Keywords: administrators, feedback, technology usage, education.

Introduction

School administrators confront numerous hurdles throughout their professions. The rapid outbreak of Coronavirus (SARS-CoV-2) known as Covid-19 rocked the entire world, especially in early 2020. The education industry was thrown into disarray as a result of this situation, and school administrators were pressured to switch to an online management model in a matter of seconds. It happened out of nowhere, and most of the administrators were caught off guard. Technology's impact on education cannot be overstated, since it has enhanced access, productivity, and the effectiveness of online administration and education. New issues have emerged as a result of online possession and education, compelled administrators to seek solutions to issues like laptop and Internet connectivity keeping educators, learners, and family members engaged, preserving the standards of assessments, maintaining education and parenting, and many others.

Technology in education delivers materials, knowledge, interaction, student engagement, and improved educational reform to schools (Desai, 2010). In the past, most classrooms were lecture-based, and professors were the ones who provided all of the materials. Teachers now are more of a guide, a partner, a coach, and a companion in acquiring talents and expertise than they are a core source of learning and knowledge (Mascolo, 2009). During this epidemic, the introduction of online learning in education would enable students in the classroom to become more interested in the educational process. Learners can be more engaged, self-reliant, and student-centered rather than just teachers being the center of

attention. Students have options for how they access, generate, and apply knowledge. Students will be more likely to succeed while studying at home and will have a higher degree of confidence as a result of this. Technology in education has been shown to have a favorable impact on a student's education process and academic performance (Mbugua et al., 2015). Technology will have a huge impact on education when it is integrated with appropriate teacher methods of teaching.

Technology in education has quickly become one of the fundamental building blocks of modern civilization, and learning the fundamental concepts and skills of technology is at the heart of education, alongside numeracy, reading, and writing, is critical (UNESCO, 2002).

During this pandemic, the demanding idea of integrating technology into the learning process has created a pressing need for school principals to successfully use appropriate distant learning technologies in their schools. According to Flanagan and Jacobsen (2003), several factors contributed to the ineffectiveness of technology integration in schools, including the school principal's vision and belief in the integration of distance learning technology, a lack of foresight in the institution as an organization in promoting the integration of technology in active learning, a lack of financial resources, and teacher skill in distance education technology. According to Albugami and Ahmed (2015), many school leaders still have insufficient understanding and capacities when it comes to properly incorporate technology into instructional methods. A solution for adopting online education, and teachers and school administrators can utilize it to conduct out learning online (Naibaho, and Ambrosia, 2019). According to Hayes (2006), distant learning requires the support of the school leader to be successful. In this setting, school leaders must be equipped and have prior knowledge of the abilities, talents, and capacities that technology may provide in the classroom. Even if the school has vast resources and advantages that would aid in the integration of technology in distant learning, this advantage cannot be realized to its maximum capabilities without the support and values of the school principal.

It is widely accepted that the first significant endeavor of all people in leadership roles in schools should be to improve the quality of learning and teaching. The school principal's opinions and attitudes in applying the remote learning model, as a pedagogical director, can have a considerable impact on the success of the learning and teaching process during the COVID-19 pandemic. Administrator. Microsoft Teams, Zoom, and other online learning management systems are among the information technologies used to enable online learning adoption during the Pandemic. Managers, educators, and learners had many complaints about the unpreparedness of the resources they owned after a few months of adopting online learning. Before doing online teaching, instructors must arrange teaching materials and tutorial videos (Digeyasa and Naibaho 2020). The use of proper educational programs and education platforms would assist students in both the short and long term, and it is commonly acknowledged that school principals must take the lead and drive this effort. The utilization of information technology in assessment tasks through online learning systems demonstrates its usefulness in helping learning and assessment when used effectively and with sufficient carrying capacity (Nadeak and Naibaho 2020). According to Hargreaves 2020, when school resumes, the principal will have to realize that technology has both aided and profoundly altered the learning process. The school leadership has radically and hopelessly changed as a result of everyday distant learning. It is, however, a critical and vital influence in keeping the education system running in the year 2020. The process of managing learning can be defined as the process of organizing planning, regulating (guiding), and assessing activities connected to the learner's learning process by incorporating numerous aspects to achieve goals (Nadeak

and Naibaho 2020). The instructor carries out several steps of activities spanning from planning learning, arranging to learn, guiding, and assessing the teaching carried out when it comes to managing learning (Pedaste, 2015). The concept of learning administration can be construed broadly in the sense that it encompasses all activities related to teaching students, from teaching planning to learning evaluation according to the authors (Macfadyen and Dawson, 2010). Principals are increasingly isolated leaders who are separated from the teachers and workers they supervise. Separated from the other students by a considerable distance. For principals, this is a difficult, strange, odd, and unpredictable situation. As a result, the well-being of the administrators should be one of their top objectives in order for them to remain healthy and pillar the academy's members. Because leading distant learning needs support and help from families and the society around the institution, parental and neighborhood leadership became increasingly important.

Statement of the problem

The teaching and learning process must not stop. For some few months now, the activities of schools have been going on at a distance. Facilitated through the usage of technology. School administrators had to take an impromptu turn to technology in order to continue with the management of the school; give instructions, direct, guide, and assess. The notion of whether the usage of technology influences education positively or negatively has been limited. Reason why the researchers decided to carry on a study on the perception of school administrators on the usage of technology in education.

Aim of the study

This research aims to analyze the school administrators' point of view on the usage of technology in education. It will bring to light the advantages and disadvantages of the use of technology in education.

Using information technology to facilitate educational activities presents several opportunities and difficulties (Rapanta et al., 2020). As a result, examining the benefits and drawbacks of using technology in education will aid in raising educational standards.

Research Questions

The research was guided by the following questions;

1) What are the views of administrators on the use of technology in education?
2) What are the advantages and disadvantages of the use of technology in education?
3) What should be done to improve the use of technology in education?

Method

Research Model

The study was carried out in a qualitative approach. Qualitative research methodologies, according to Merriam (1998), are exclusively ideal for recognizing the value that participants attach to events that they encounter, which is why they were used for this study.

Universe and Sampling

Administrators from public and private colleges in Nicosia, Turkish Republic of Northern Cyprus, who volunteered to participate in this study are the participants. 34 administrators agreed to participate in this study.

These meetings lasted for an average of an hour per participant. The demographic variables obtained are listed in table 1 below.

Table 1.
The participant's demographical variables

Demographical Variables		**f**	**%**
Gender	Male	12	35.3
	Female	22	64.7
School	Public	20	58.8
	Private	14	41.2
Teaching	16-20	10	29.4
Experience	21- 25	13	38.2
	25 and over	11	32.4
Total		34	100

Table 1. shows that the majority of the participants came from public schools. The female gender took part more than the male gender. Most of the participants had taught for twenty-one to twenty-five years. In all, thirty-four participants took part in this study.

Data Collection Tools

These semi-structured interview questions were created by the study's goal and primary research questions. Three demographic questions were included in these questions. Then five questions are related to the primary research questions that was done to obtain administrators' in-depth perspectives on the usage of technology in education.

Data Collection Methods and Process

"Zoom and Google Meet" interviews were used to allow participants to answer the interview questions at a time that was convenient for them. The attendees were allowed to express their opinions throughout these discussions. Codes ranging from A.1 through A.34 were used to document the meeting. The researchers reviewed the recordings after all of the subjects had been interviewed to come up with the findings.

Validity and Reliability

During data collection and analysis, the researcher protected the participants and their data to ensure that the study's reliability and validity. No personal information was required; such as names or dates of birth. To assure the research's validity, the researcher followed some key steps. The reliability of data interpretation determines the validity of a qualitative investigation (Eisenhart and Howe, 1992).

Data Analysis

The data was written and analyzed using descriptive research methodology, which is known to be one of the approaches of qualitative data analysis. The statements from the interviews were explicitly used while applying the descriptive-analytical model. For each question in the interview recorded participants' responses were categorized into related themes. According to Yıldırım and Şimşek (2013), the results can be created by examining the data within the selected theme and considering the cause-effect relationship. The writers agreed on the patterns that might be derived from the responses after verbatim transcription of the responses.

Findings and Comments

Table 2.
The participants view of technical problems

Technical Problems	**f**	**%**
Screen freeze	15	25
Can't share their screen	13	21.7
Loose connection	12	20
Visual problem	9	15
Lack of appropriate content on devices	7	11.7
Need activation	4	6.6
Total	60	100

Table 2 presents the analyzed technical problems in view by the administrators. The views of the administrators were mostly on how their students were affected. That was professional for them as they have their students' interest. The problems highlighted were; screen freezing during lessons, difficulties in sharing their screen during presentations. Loss of or low connection, visual problems, lack of appropriate content on devices and the need to activate or motivate them.
In it all, screen freezing seems to be the most technical problems faced by the students, followed by their screen sharing during presentations and loss of internet connections during lessons.

"I would like to say that the students' screens freeze and because of the internet they used to lose their connection especially at the beginning of online education (A:17)."

"When the students are asked to prepare and present a PowerPoint presentation, it seemed that they couldn't share their screen (A:30)."

Table 3.
The participants view of the activities done during online

Activities	**f**	**%**
Presentation of visual tracking slide share	19	25
Listening activities	17	22.4
Watching videos	15	19.7
Sharing question-answers	15	19.7
Sharing the book with the students	10	13.2
Total	76	100

Table 3 presented the activities done online. According to the administrators, most of the students had the opportunity to follow the above activities during an online class. Most of them were active in the presentation of visual tracking slide sharing, followed by listening

activities. Watching videos and sharing question-answers was the next most participated activity while sharing the book with the students was the last activity that students were interested in.

"During online education, the students had the opportunity to do listening activities and watching videos even if they lost their connection because their teacher used to send the link to them so, during the lockdown, I can say that our students had the chance to practice their listening and speaking skills (A:28)."

"Most of the students in our school could follow their lessons easily because sharing the book with the students was obligatory (A:21)."

Table 4.
The positive impact of online education on the learning process

Positive impact	**f**	**%**
Quick access to information	12	26.1
Quick learning	12	26.1
Being self-confident	10	21.7
Ease of classroom management	7	15.2
Permanent learning	5	10.9
Total	46	100

Table 4 brought out some advantages of online education. From the administrators' point of view, online learning had some advantages. Quick learning and access to information were regarded as the main advantages of online education. Followed by the development of the students' self-confidence. The ease of classroom management during online education was the next advantage, while permanent learning was seen by the administrator as the last advantage of online learning.

"*It can be said that some of the students had a chance to develop themselves and that's why one of the positive impacts of online education is that it helps the students to be self-confident (A:20)."*

"During Covid-19 closing of schools, didn't entirely stop education. It only changed the way of teaching and learning. So, I believe that if a student wants to achieve something, s/he will study more than before since Covid-19 won't lead to a permanent loss in learning (A:32)."

Table 5.
The negative impact of online education on the learning process

Negative impact	**f**	**%**
Failure of evaluating students	25	24.3
Lack of communication	21	20.4
Lack of motivation and interest in studying	20	19.4
Waste of time	20	19.4
Permanent Loss	17	16.5
Total	103	100

Table 5 analyzed some of the weaknesses of online education. The administrator also presented some disadvantages of online education. Most of them propagated that failure of evaluating their students properly was their main worry. They faced communication difficulties. The students lack motivation, the interest to study which led to waste of time.

"Especially with the change of season, many of our students' interest and motivation for the course has decreased (A:3)."

"Many of the students experienced uncertainty as various alternatives related to year-end evaluation were offered. For this reason, it is possible to say that there has been a significant decrease in motivations towards the course (A:5)."

Table 6.
The views of the participants through evaluation

Evaluation	f	%
Successful	8	23.5
Not successful	26	76.5
Total	34	100

Table 6 shows how administrators view the evaluation of students during online education. The administrators' views on evaluating the students were remarkably not successful.

"According to my point of view, I strongly believe that this year teachers couldn't evaluate the students' academic performance and knowledge since the system doesn't allow them to do anything. At the end of each course, the teachers should ask some questions related to what has been done (A:7)."

"In my humble opinion, the system didn't give any opportunity to the teachers to evaluate their students as they want. I think formative assessment was the best way to evaluate the students' knowledge (A:10)."

Discussion and Conclusion

The study's goal was to determine the administration's perspective on the use of technology, including their thoughts on the benefits, drawbacks, and how the use of technology may be improved. These studies were guided by three key research topics, and in order to get thorough answers to these key topics, five semi-structured interview questions were developed. The participants' responses to these interview questions yielded the above-mentioned findings, which will be explored in this section. It's important to remember that school administrators are in charge of school activities during this conversation. Their main responsibility is ensuring that the school's learning program is successful. Learning management is defined as the method of organizing how to teach the student with actions ranging from planning, organizing, guiding or regulating, and assessing" in the broadest meaning (Naibaho, 2019).

The students faced some technical problems with regard to the administrators' point of views. They were always facing issues of screen freezing. They also had a loss or low network connections. These problems faced by these students are technical problems that are beyond their control. Technical problems related to screen sharing may be due to the lack of technical knowledge of the students. This implies the student needs some technical knowledge to remedy the situation.

Looking at the activities carried online, students are more interested in activities such as presentation of visual tracking slide share, listening activities, watching videos, sharing question-answers, and less concerned about Sharing a book. This proves that students are more active when they have visual activities. In addition, this finding of the current study is also supported with the study conducted by Köprülü et al. (2020) as it was pointed out that

using technological devices in foreign language teaching has a notable level of dominance. Since students are interested in listening activities.

Quick learning and access to information were the outstanding advantages of online education. Information is available anywhere when it comes to online education. Perhaps this contributed to the quick learning. Self-confidence was improved as the students could get materials online, learn quickly and become filled with knowledge. Class management was poor. Perhaps due to the fact that students can be replying to text messages or distracted with movies while lessons are going on. In this situation, it is difficult for the teachers to manage the classroom since it is at a distance. Permanent learning was poor. Implying attendance is difficult to control.

The negative impact or disadvantages of online education, according to the administrators, were high. Difficulties in accessing the student, lack of communication, motivation, and interest in the aspect of learning were presented.

The last point of view of the administrator on online education that seems to be a call for concern in this study is failure to carry out proper evaluation. At times, it was difficult for the teachers to be convinced that the feedback they got from students was genuine. This was so because most of the evaluations are not done on camera.

Recommendations

The following resources are recommended by the researcher for a better knowledge of this research topic:

1) Similar research should be carried out in other countries to better understand the viewpoints of school administrators on online education.
2) If the study is replicated in the Turkish Republic of Northern Cyprus, a larger number of participants and schools should be recruited to validate the research's topic.
3) Quantitative research methods should be utilized to either confirm or bring to light the same results.

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EXAMINATION OF TEACHER TRAINING PROGRAMS OF COUNTRIES WITHIN THE SCOPE OF COMPARATIVE EDUCATION STUDIES: A SCOPING REVIEW STUDY

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Abstract

The aim of this research is to examine the various aspects of the article studies of countries on teacher training from past to present. For this purpose, articles on this subject were accessed via Google Scholar, Web of Science and ERIC. Comparative articles made by countries on teacher training between 2017-2021; The year they were published, the language they were published in, the number of authors, the distribution of authors by gender, the method, the countries that made the most research on the subject examined. While obtaining the data, articles related to the subject other than the subjects that compare the teacher training programs of the countries scanned as "Teacher Training", "Teacher Education", "Teacher Training Systems", "Teacher Training Programs", "Comparative Education" was not included in the study. In the study, the document analysis method was used within the scope of qualitative research design. In the data analysis part, the content analysis was included and the results were obtained were presented in tables.

***Keywords*:** teacher training, comparative education, teacher training programs, scoping review.

Introduction

With the increasing developments in the field of science and technology, it is becoming very difficult to keep track of the pace of changes in the century we are in. These changes have led to differences in human and inter-communal relations and based on the idea that there is a race between science, technology, industry and economics among the countries of today's world, countries have sought to reach a higher level in the field of science, technology, industry and economics in order not to distance themselves from this situation. Education is also at the heart of this quest (Roehrig, Wang, Moore and Park, 2012; Danju et al., 2020). Education is an effort to develop one's own thoughts, social skills and behaviors as desired or to acquire different objectives and knowledge (Akyüz, 2015; Demir, Yucesoy and Serttas, 2020). In other words, it describes it as a lifelong process of behavioral change (Senemoglu, 2015). Training involves creating behavioral changes only for formal and widespread education. All movements of renewal and development in education affect all segments of society. Education must adapt to changes before other systems. Because education is responsible for the changes and developments in society (Ereş, 2005; Demir, 2020).

Within the scope of planning educational activities, states have moved to establish and implement education policies with their relevant institutions in line with the needs of the

age and the country. As a result of these policies, many factors can be mentioned in achieving the desired qualifications of the education given to individuals but considering that teachers are the practitioners of the policies created and the decisions taken, it can be easily accepted that one of the most important factors in achieving the desired goals is the teacher element (Duman, 2017). For this reason, it is seen that in countries preparing for the twenty-first century age, great importance is attached to teacher training, selection and training of people who will become teachers.

The reason why teacher training studies are so important is because the teaching profession has its own methods and techniques. These methods and techniques were developed over a long period of time with application and later scientific research (Gelisli, 2018). From here, it can be said that teacher education and the teaching profession have been a subject that has been studied with great importance for many years (Abide, 2020). Teacher training requires continuous, operational and renewable studies, both quantitatively and qualitatively. For this reason, there is always a concern about looking for the better in teacher training and raising the more qualified. Continuous innovations, constant changes, following the age and other countries are the most crucial points of the planning of the teacher training process (Köse, 2018). In order not to fall behind the process of change and transformation, which has a dynamic structure in the society in which teachers are constantly in development, existing policies that increase teacher qualifications should be examined and new policies should be proposed based on the findings to be obtained. In this context, it is thought that teacher training activities for all levels within the education system and targeted policies for teacher training and development are of great importance. Developing Social systems, state policies and competition between countries, as well as comparison of education programs and teacher training systems, have allowed comparative education studies to come to the forefront (Tekgöz,2017). Comparative education is a science applied in various societies, countries, regions, and historical periods, sometimes by comparing education systems as a whole and sometimes in several ways, and from this it is a science that is used in educational theory and practice, education policy, education planning and reforms, in the softening of international relations and in providing a peace environment (Ergun, 1985; Tekgöz, 2017; Dertli, 2021). Comparative education is an area that examines national education systems considering political, social and cultural factors and discusses the meaning of primary and secondary education (UNESCO, 2012). Based on these definitions, comparative education can be said to be an area that shows that although the educational problems in the world are similar, these problems occur differently in different countries and solutions may be different.

With comparative education research, a broader approach to educational practices in a country can be introduced. Indeed, it is important to investigate where an application in the field of education is mainly inspired in order to fit the application into a more robust framework. In this context, the main purpose of this research is to examine the researches comparing the teacher training systems of the countries based on this general purpose;

1. What is the distribution by publication years?
2. At what level is the distribution according to the languages in which they are published?
3. What is the distribution according to the methods they use?
4. What are the distributions according to the number of authors?
5. What is the distribution of authors by gender?
6. What is their distribution by bibliography ranges?

7. What is the distribution of the countries involved in the most studies? Your questions will be answered.

Method

Model of Research

Qualitative research method was used in this research, which examined the teacher training programs of countries within the scope of comparative education studies Qualitative research is defined as the investigation and evaluation of any event, phenomenon, situation within the existing conditions (Yıldırım, 2010). What is done in qualitative research is the discovery and identification of the existing situation without a general theory or explanations (Büyüköztürk et al., 2009). One of the qualitative research methods, document review, is to examine and analyze written materials for existing facts and events (Yıldırım and Simsek, 2006). Document review is a systematic process for the examination and evaluation of printed and electronic data sources. The purpose of the research is prioritized when determining a study design (Creswell, 2016). This study includes the process of researching documents based on research purposes and questions, determining and categorizing the boundaries of the obtained documents, evaluating and interpreting them by analyzing them. Therefore, one of the qualitative research methods, document review method was used in this study. In this study, the data collected through documents were analyzed by content analysis method, which is one of the data analysismethods. Content analysis is a method by which qualitative or quantitative data can be used to address an inductionist or deductive approach, but it is a technique that allows the summarization of words in text with smaller categories in light of certain rules (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2018).

Screening Criteria

In this study, which examined the researches comparing the teacher training systems of the country's in terms of various variables, accessing the data in Google Scholar,Eric,Tylor And Francis and Ulakbilim databases as "Teacher Training", "Teacher Training" "Teacher Training Systems" "Teacher training programs" were not included in the research.

Analysis of Data

The data obtained as a result of the scans performed in the analysis of the data were analyzed using percentage and frequency from the descriptive statistical methods Yıldırım and Simsek (2018) stated that frequencies and percentages can be used to increase the objectivity and reliability of textual data, as well as to give a repeatable working quality and to enable comparisons between categories. In light of this, the percentages of the data were calculated depending on the frequencies as the answer to each sub-problem and the results obtained were interpreted by supporting them with graphs and tables.

Findings and Comments

Distribution of Researches by Year of Publication

In this section, the distribution of the research comparing the teacher training systems of the countries according to the years in which they are published will be included.

Table 1
Distribution by the Years of Publication of Articles

Release Years	Number of Researches	Percentage %
2017	13	%28,3
2018	9	%19,5
2019	15	%32,6
2020	6	%13,1
2021	3	%6,5
Total	46	%100

When we looked at the distribution of the researches according to the published years, it was determined that the year with the most publications was 2019 with 15 researches and 32.6%.2019 was followed by 2017 with 13 researches, while 2018 was the third year with 9 researches.In 2020, 6 researches were published and took the fourth place. The least published year was 2021 with only three studies and a rate of 6.5%.

Distribution of Researches by Published Languages

The results of the scan of the languages in which the researches comparing the teacher training systems of the countries were published are given in Figure 1.

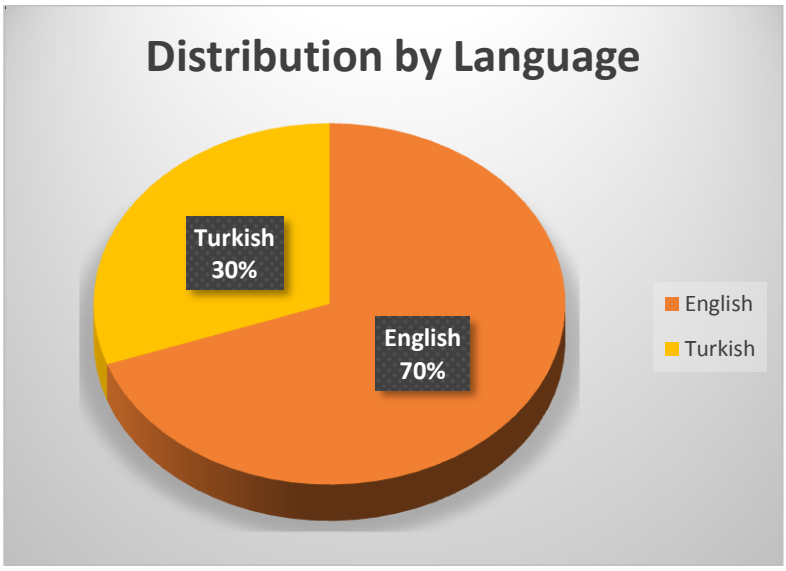

Figure 1. *Distribution of articles by Published Languages*

When the distribution of the 46 articles obtained in the study according to the languages published was examined, it was concluded that 32 articles were published in English and had a rate of 70%, while 14 articles were published in Turkish and received 30%.

Distribution of Methods Used in Research

Distribution of scientific research methods used in researches comparing teacher training systems of countries is given in Table 2.

Table 2.
Distributions according to the methods used in research

Method of Research	Number of Researches	Percentage %
Qualitative	43	93%,5%
Quantitative	2	4.4%
Mixed	1	2.1%
Total	46	%100

When table 2 was examined, it was determined that qualitative research methods were the most used research method in 43 studies and with a rate of 93.5%, qualitative research was concluded that there was only one article using mixed research method while quantitative research was followed by 2 studies and Quantitative studies with 4.4%.

Distribution by Number of Authors in Research

According to the number of authors included in the articles, their distribution is given in Figure 2.

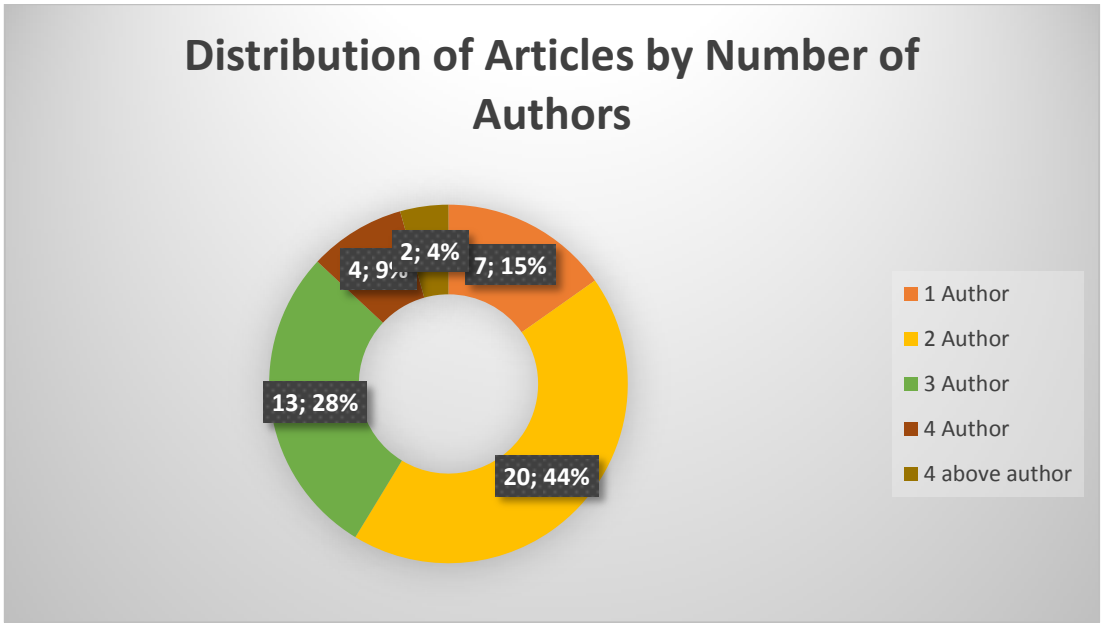

Figure 2. *Distribution of Articles by Author Numbers*

When figure 2 was examined, it was determined that there were no more than 20 studies and 44% of the articles with two authors, followed by 13 studies and 28% of the articles with three authors, while single-author articles took third place with 7 studies and 15% rate.

The four-author articles ranked fourth with 4 studies and 9% rate, while there were 2 studies above 4 authors.

Distributions of Authors In Researches By Gender

The percentage distribution of the researchers in the articles by gender is shown in Figure 3.

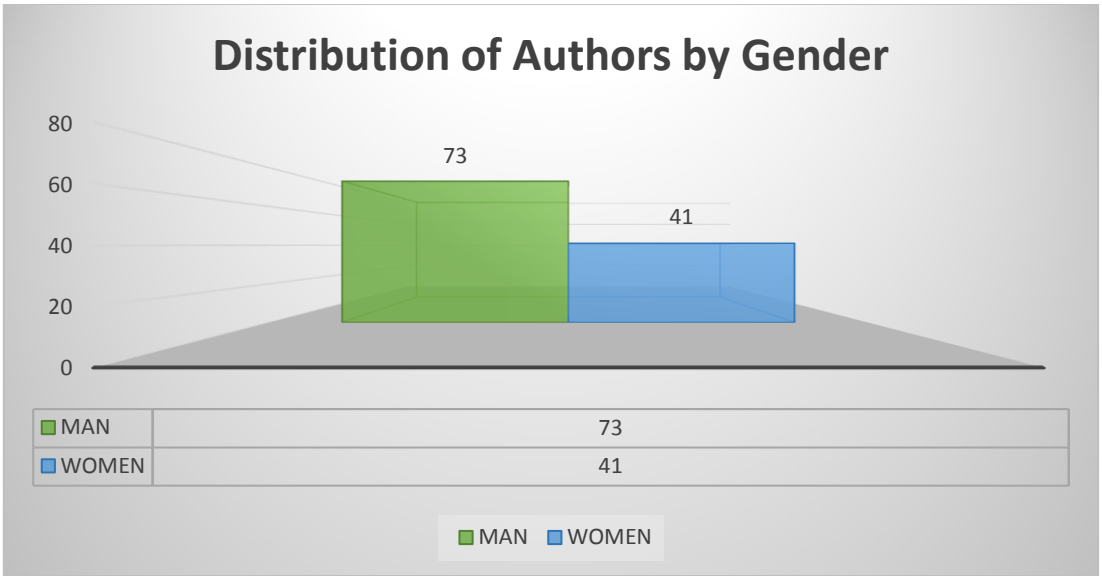

Figure 3. *Distributions of authors by Gender*

When we looked at the distribution of the authors who published the articles comparing the teacher training programs of the countries according to their gender, it was concluded that 64% of the 114 researchers and 73 people were male and 41 were female with 36%.

Distributions of Research by Bibliography Ranges

The distribution of the resources in the studies according to the intervals determined by the manuscripts is given in Table 3.

Table 3.
Comparison of Researches by Bibliography Ranges

Bibliography Ranges	Number of Researches	Percentage %
0-10	13	%28,3
11-20	28	60%,8%
21-30	4	8%,8%
31-40	1	2%,1%
Total	**46**	**%100**

When we looked at the bibliography ranges in the articles comparing the teacher training systems of the countries, it was determined that there were no more than 28 articles and 60.8% and 11-20 bibliography ranges, with 13 articles and 28.3% 0-3% While following

the studies in 10 bibliography ranges, it was concluded that there were 4 articles with a rate of 8.8% in the 21-30 bibliography range and only 1 study with a rate of 2.1% in the 31-40 bibliography range.

Distributions of Countries Included in the Researches

In Figure 4, it is seen how many studies countries are involved in and how many countries are involved in studies comparing the teacher training systems of the countries.

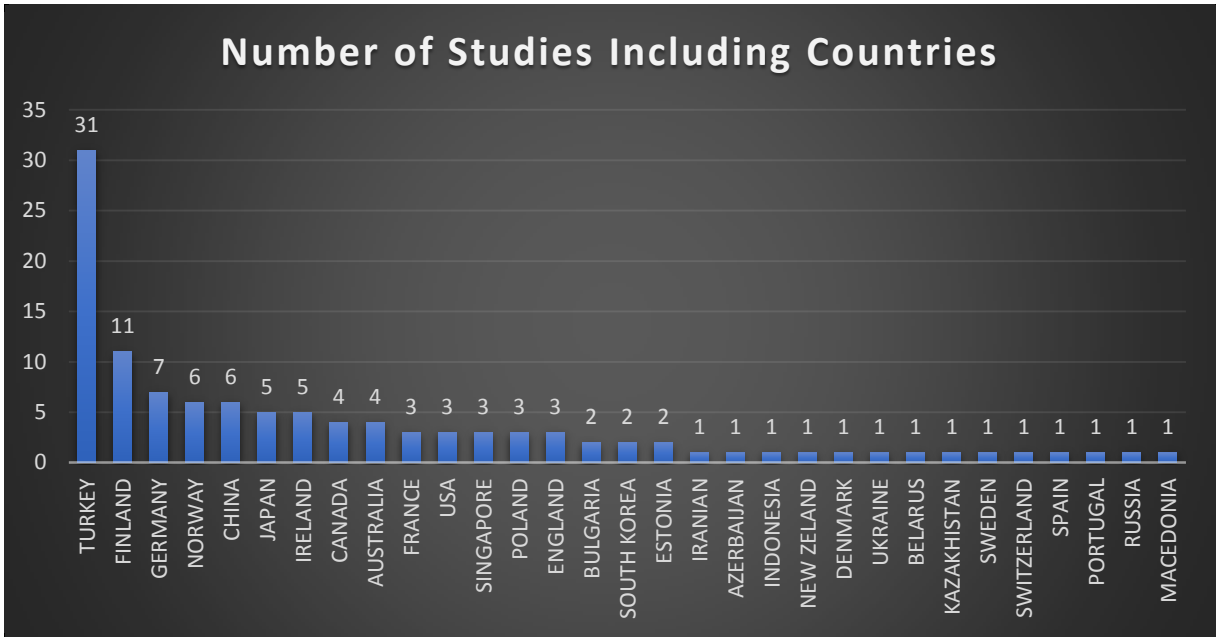

Figure 4. *Comparison of Countries involved in research*

When we look at the researches comparing teacher training programs of the countries, it is seen that Turkey is the first one in the most 31 studies, followed by Finland with 11 studies and Germany with 7 studies, Norway and China took the fourth place with 6 studies, followed by Japan and Ireland with 5 studies. Canada and Australia ranked sixth among the countries with the most studies, while France, USA, Singapore, Poland and the UK were the most compared countries with 3 different articles. Bulgaria, South Korea and Estonia are the eighth countries in the most studies, taking part in 2 different studies. The countries examined only once between 2017 and 2021 are Iran, Azerbaijan, Indonesia, New Zealand, Denmark, Ukraine, Belarus, Kazakhstan, Sweden, Switzerland, Spain, Portugal, Russia and Macedonia.

Conclusion Discussion and Recommendations

When we looked at the results obtained for the distribution of the teacher training systems of the countries with the first sub-objective of the study by year, it was concluded that the year with the most publications was 2019 and the least published year was 2021 from the 46 studies obtained between 2017 and 2021. Karakoç (2018) examined the postgraduate thesis in the field of teacher training in Turkey and determined that the year with the most publications was 2012, contrary to the result obtained in this research. Based

on this result, it can be said that the distribution of the thesis on teacher training and the researches comparing the teacher training systems of the countries can be different according to the years. Especially in recent years, educational programs and teacher training systems of the movements aimed at keeping up with the age of countries are affected, and it is recommended to pay attention to the studies comparing the teacher training systems of the countries in thesis and article studies.

When we looked at the distribution of the studies with the second sub-dimension of the study according to the languages in which they were published, it was concluded that Turkish articles published in English received 70% and Turkish articles received 30% and English articles were published more intensively. Selçuk, Palancı, Kandemir and Dundar, (2014) The trends of the researches published in the journal Education and Science have examined the distribution of the researches according to the languages in which they are published and the results are that English articles are published more intensively in support of the result in this research. Based on this result, it can be said that the languages used in the publication phase in the researches in the journal Education and Science are in the same proportion as the researches comparing teacher training systems.

When the third sub-dimension of the study was looked at the distribution according to the methods used, it was determined that qualitative research methods were the most used research method. Qualitative researches were followed by quantitative research and articles using the mixed research method, respectively. Kozikoglu and Senemoglu (2016) when they analyzed the content of doctoral thesis in the field of Education programs and teaching, they concluded that mixed research methods are used more frequently, contrary to the results obtained in this research. In the light of this result, it can be said that studies based on educational programs are more focused on studies supported by mixed research methods than studies comparing teacher training programs of countries. Danju et al. (2020) When they looked at the distribution of researches according to their methods in their content analysis studies for new orientations in education, they concluded that qualitative studies in research on social learning theory were at the forefront of support for the results obtained in this research. Based on these results, it can be said that the researches for the teacher training system and the studies in social knitting theory match the methods used and emphasize qualitatively supported studies.

In the light of the data obtained according to the fourth sub-objective of the study, it was determined that there were no more than two authors and at least 4 authors. From this result, it can be said that multi-author studies will be important and will be extremely important in terms of increasing collaborative studies. Zorlu (2020) stated that it is the process that allows them to work in cooperation in heterogeneous groups for a common purpose and thus increase the capacities of both themselves and other individuals by taking responsibility. When we looked at the distributions according to the bibliography range, which is the sixth sub-objective of the study, it was concluded that there were only 2 articles in the 31-40 bibliography range while there were no more than 11-20 bibliography. In his work in the field of basic design education, Felek (2020) examined the distribution of bibliography of articles and thesis and concluded that on average, 11 bibliography were used to support the result in this research. From here, it can be said that the bibliography ranges used in other fields can be the same as the researches comparing teacher training systems and that the use of a large number and variety of bibliography in the researches will increase validity and reliability.

Compared to the countries involved in the studies, which were the seventh and final sub-objectives of the study, it is seen that Turkey was involved in up to 31 studies. Turkey was followed by Finland, Finland, Germany, Norway and China Japan, Ireland, France, USA, Singapore, Poland and The United Kingdom Bulgaria, South Korea, Estonia, Iran, Azerbaijan, Indonesia, New Zealand, Denmark, Ukraine, Belarus, Kazakhstan, Sweden, Switzerland, Spain, Portugal, Russia and Macedonia. Çubukçu, Yilmaz, Ince (2016) Comparative Education Programs have examined the distribution of countries involved in comparative education studies in their content analysis study for determining research trends. Contrary to the conclusion obtained in this study, the country involved in the most comparative education studies is the United States and Germany. Based on this result, it can be said that comparative education studies may differ in the variables of the studies compared only by teacher training studies in general. In addition to these results, research is limited only to the variables specified. In addition to variables, studies in different variables and different indexes can be examined and compared with the results obtained in this study. In this study, studies between 2017 and 2021 were examined and it is recommended to examine the research in different years and compare them with the results included in this research. In addition, when the studies in literature in the last 5 years were scanned, it was determined that there were only 1 thesis comparing the last countries related to teacher training systems. When choosing thesis subjects, it is recommended that researchers choose topics that can compare teacher training systems.

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TEACHER'S OPINIONS ON THE EDUCATION OF INCLUSIVE STUDENTS

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Abstract

The purpose of this research is to examine the views of primary school teachers in the education process of inclusive students. The participants of the research were Şht. Mustafa Kurtuluş Primary School teachers. Our participant group of 10 consists of classroom teachers. Research data were collected by semi-structured interview technique, one of the qualitative research methods. The data obtained from the research were analyzed descriptively. As a result, considering the difficulties faced by classroom teachers in inclusion practices in primary schools, and the research findings in order to make mainstreaming education more successful, it can be suggested that all school personnel, especially classroom teachers, be conscious of mainstreaming practices and that sufficient resources and materials should be accessed for resource education. It shows that primary school teachers stated that students with special needs develop academically and socially during the inclusive education process, and that the inclusion practices that they want to be in the TRNC for students with special needs can be achieved with the participation of the families of the students with special needs and the cooperation with the guidance teacher and special education teacher. Classroom teachers support each other by exchanging ideas with other teachers the most. In inclusive education, a more successful inclusive education is considered when the difficulties experienced by classroom teachers in the support education service for students with special needs are minimized and the inclusive practices that are desired to be in the TRNC are realized.

Keywords: inclusive education, teachers' views, students with special needs.

Introduction

In Turkey, with the Special Education Services Regulation (2006), which was legalized with the Law No. 2916 on Children in Need of Special Education, which came into force in 1983, and the inclusive education practices, where good developments have been seen in Turkey and the TRNC for about 37 years, have been achieved in general education environments. It is said that there are educational practices that can be applied and accepted. This application covers education through mainstreaming, "For individuals in need of special education, formal and private support education services training together with their normally developing peers; Preschool, primary education, secondary education and non-formal education institutions are defined as "continuation principle and special education practices, and it is seen that support education services are emphasized in this definition. With the same information, Support Education Services are defined as "medical and educational evaluation and diagnosis applications of individuals in need of special education, expert personnel, equipment, training and consultancy services to their families, teachers and school personnel".

Common points in definitions; The education of individuals with special needs with their normally developing peers in general education environments is at the forefront of the special service training that these children and their teachers will need. Special needs education is one of the main aspects of education in general education classrooms (Akçamete, 2009).

In recent sources, it is frequently emphasized that inclusion should not only be for students with special needs but also for all students (Wood, 2002; Friend and Bursuck, 2006).

The success of mainstreaming practices depends on their ability to receive special education needs, the required special education and normal education services as needed. If these services are adequately explained, some conditions may be met (Kırcaali-Iftar and Batu 2007; Causton-Theoharis, Theoharis, Bull, Cozier and Dempf-Aldrich, 2011).

Especially teachers have pre-needs regarding inclusion and readiness. In mainstreaming practices, the most responsibility falls on the classroom teacher. Teachers who will be teachers of the inclusive classroom, which is as important as preparing the teacher for inclusive education, should be willing and accepting special students during the mainstreaming phase (Salend and Garrick Duhaney, 1999; Kargın, 2006; Kırcaali-İftar and Batu, 2007).

Classroom teachers have the opportunity to follow up with students with special needs and spend extended time with them. For this reason, teachers are the people who give the most healthy classroom information to the family, are a consultant or an expert for the student with special needs, and implement the regulations for the education of the student. For this reason, classroom teachers have an important role in inclusion practices (Friend & Bursuck, 2006; Diken, 2007).

There are many factors that can affect teachers' attitudes towards inclusion. These factors are; These factors include the age of the teacher, the level of the teaching class, the learning disability group with special needs, the degree of disability, professional seniority, inclusive education and the level of support from the teacher's school and support service program (Kırcaali-İftar and Batu 2007; İmrak, 2009). In fusion applications; it is stated that students' special needs are not accepted by their peers, legal deficiencies are not eliminated, supervision is not appropriate, teachers cannot adapt their programs to mainstreaming students, and there are problems in evaluation and graduation (Sucuoğlu, 2004).

When inclusive education of classroom teachers is evaluated in general in the literature, it seems as if classroom teachers have negative opinions (Bilen, 2007; Önder, 2007; Rakap and Kaczmarek, 2010) and negative attitudes (Diken and Sucuoğlu, 1999; Avcıoğlu, Özbey and Eldeniz Çetin, 2005).

However, inclusive teachers do not receive support for inclusive education (Bilen, 2007; Önder, 2007) and they need support (Kwapy, 2004; Horne and Timmons, 2009). Classroom teachers' opinions and attitudes informative studies (Türkoğlu, 2007; Metin, Güleç and Şahin, 2009) and support education services (McLeskey, Waldron, So, Swanson and Loveland; 2001; McLeskey and Waldron, 2002) seems to be changing in a positive way.

In our country, the inability to provide support services to students and classroom teachers, which are special in inclusion practices, causes the entire burden to be left to classroom teachers. Such classroom teachers have difficulty in overcoming problems with their special students (Sucuoğlu and Kargın, 2008; Guzel Özmen, 2009). This situation has led classroom teachers to think a little more complex about their opinions and suggestions for special needs solutions. In addition, it is thought that the opinions of the teachers working in

different regions of our country will be given in order to identify the problems they experience and to make the inclusion studies in the country more concrete.

In this context, the general purpose of this research is the problems encountered by the teachers of Mustafa Kurtuluş Primary School in the inclusive schools in the region they work, the methods they use to solve them, and their opinions and suggestions regarding the education of the mainstreaming students.

Method

This section contains information about the research model, study group, data collection tools, data collection and data analysis. The Research Model was designed to be done using the semi-structured interview technique, one of the qualitative research methods. Ethics committee approval was obtained for the research.

Study Group

The study group of the research consists of 10 classroom teachers working at Mustafa Kurtuluş Primary School. Necessary permission was obtained from the TRNC Ministry of National Education and Culture. The study group was determined by criterion sampling, one of the purposive sampling methods. In criterion sampling, observation units can be formed from persons, events, objects or situations with specified qualifications. In this case, units (objects, events, etc.) that meet the criteria determined for the sample are taken into the sample (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2006). In the study, it was determined as a criterion that the teachers had students who received inclusive education. The teachers were given codes as K1, K2, K3, K4, K5, K6, K7, K8, K9, K10.

Demographic information about the classroom teachers participating in the research is shown in Table 1.

Table 1.
Demographic Information on Classroom Teachers

Occupational Seniority	f	Gender Women	Male
less than 5 years	2		
6-10	1	6	4
11-15	3		
16-20	3		
21 and over	1		
Total	10	6	4

Looking at Table 1, 4 of the teachers are male and 6 of them are female. The vast majority of teachers have 11-15 and 16-20 seniority years. In addition, 2 of the teachers have 1-5 years of seniority, 1 of them has 6-10 years of seniority, and 1 of them has a seniority of 21 and above.

Data Collection Tools

A structured interview form, one of the qualitative methods, was used in data collection of the research. The post-research interview form consists of 7 open-ended questions to reveal the views of classroom teachers on inclusive education for children. After the literature review, the interview questions were finalized by taking the opinions of 3 experts on the interview form. Open-ended questions were asked to reveal the views of teachers on inclusive education practices. Information about the pandemic situations was collected via e-mail. The questions in the qualitative interview form;

1) What difficulties do you have when working with students with special needs in your classroom?

2) How would you like inclusive education in TRNC to be?

3) What are your views on a successful inclusion practice?

4) How do you meet your information needs while working with the inclusion student in your class?

5) Do you need in-service training while doing inclusive education?

6) Can you describe the relationship of the student with special needs who receive inclusive education with their peers? And what kind of activities do you do to increase the student's relationship with their peers?

7) How would you describe the involvement of the family of your student with special needs in your classroom? Were you able to involve the family in the education process?

Data Analysis

Descriptive analysis technique was used in the analysis of the qualitative data obtained in the research. Themes were formed from the views of teachers on inclusive education. Based on the themes, comments were made on the subject. In order to support the comments, citations and the information of the people quoted are included.

Findings

The findings obtained as a result of the analysis of the data collected within the scope of the research and the comments on the findings are presented in tables.

Table 2.
Classroom Teachers; Opinions on Difficulties Experienced While Working with Special Needs Students

Teacher Expressions	f	%
Class size	4	26.6
Inability to focus	3	20
Reading and learning	2	13.3
Lack of Material	2	13.3
Communicating	2	13.3
IEP preparation	1	6.6
Lesson durations	1	6.6
Total	15	100

As seen in Table 2, most of the classroom teachers stated that the reason for the difficulties they experienced while working with students with special needs was the size of the classroom and the inability to focus on the student with special needs. In addition to these

difficulties, students with special needs stated that they have problems in reading and learning, and that they have difficulties in communicating with their teachers and peers. It can be interpreted that the teachers stated the difficulties they experienced in preparing the IEP and preparing materials for the students with special needs. Some of the participants' statements were as follows.

K3: While working with the student with special needs in my class, I have difficulties due to lack of materials.

K5: I cannot show special attention because of other students in the class because they need special attention. In addition, time is not enough.

K8: We have problems with the behavior of not attending the class in the first lesson hours, the lesson change bell. Each bell is perceived as a break, and the 40-minute class is boring. The last 15 minutes are tough.

Table 3.
Classroom Teachers;Their Views on How They Want Inclusive Education Practices in TRNC

Teacher Expressions	**f**	**%**
Making the diagnosis more convenient	3	25
Special Education Act	2	16.6
Should be Supported According to Interests	2	16.6
In-Service Training	2	16.6
Increasing the Number of Special Education Teachers	1	8.3
Integration Practices	1	8.3
Fully equipped institution	1	8.3
Total	12	100

As seen in Table 3, most of the primary school teachers stated that the diagnosis should be made more accurately for inclusive education practices. They stated that inclusive education practices could be better with the Special Education Law. Teachers stated that inclusive education practices can be better when they are supported according to the interests of students with special needs. Teachers stated that they could overcome the lack of knowledge about inclusive education with in-service training. They stated that inclusive education can be better by increasing the number of Special Education Teachers and increasing fully equipped institutions. Some of the participants' statements were as follows.

K1: First of all, there must be an effective law.

K9: I would like there to be inclusive education where there is more education about inclusive education, there are special education teachers in every school, family education and legal rights are more for children with special needs.

Table 4.
Classroom Teachers; Views on a Successful Inclusion Education Practice

Teacher Expressions	f	%
Cooperation	5	31.2
Orientation to interests	3	18.7
IEP	3	18.7
Peer acceptance	1	18.7
In-Service Training	1	6.2
Class size	1	6.2
Special Education Law	1	6.2
Fully equipped institution	1	6.2
Total	16	100

According to Table 4, the majority of the classroom teachers interviewed stated the importance of cooperation for more successful inclusive education practices. Teachers stated that inclusive education practices can be better when they are supported according to the interests of students with special needs. Three of the teachers stated that the success of inclusive education can be achieved with IEP preparation. They stated that peer acceptance, in-service training, and a fully equipped institution are necessary for a successful inclusive education. They stated that inclusive education practices could be better with the Special Education Law. Some of the participants' statements were as follows.

K4: Individualized Education Programs should be implemented.

K8: The teacher must be knowledgeable and equipped about special education. Class size must be suitable.

K10: There should be an integration in which the student's development is followed through cooperation.

Table 5.
Classroom Teachers; Their Views on the Information Needs Emerged While Working with the Inclusion Student

Teacher Expressions	f	%
Cooperation	10	71.4
Research	4	28.5
Total	14	100

According to Table 5, most of the classroom teachers stated that they consulted the Special Education Teacher and Guidance Teacher to meet their information needs while working with the Inclusion Student, and that they could meet their information needs by collaborating with experienced teachers. Four of the Classroom Teachers state that they meet

their information needs by doing research. Some of the participants' statements were as follows.

K2: I tried to meet my information needs by consulting and asking Special Education Teachers and Counselors.

K4: I tried to meet my information needs by researching different sources on the subject.

Table 6.
Classroom Teachers; Opinions on In-Service Training Needs While Providing Inclusive Education

Teacher Expressions	**f**	**%**
Yes	7	70
Sometimes	2	20
No	1	10
Total	10	100

According to Table 6, the majority of the classroom teachers who participated in the interview stated that they needed in-service training while performing inclusive education practices. Two of the teachers stated that they needed it sometimes. One of the teachers stated that she did not need in-service training. Some of the participants' statements were as follows.

K4: Of course I do.

K1: Sometimes I need it.

Table 7.
Classroom Teachers; Opinions of Students with Special Needs Receiving Inclusive Education on Peer Relationship

Teacher Expressions	**f**	**%**
Communicating	5	45.4
Social acceptance	4	36.3
Teacher attitude	2	18.1
Total	11	100

According to Table 7, the classroom teachers interviewed stated that the students with special needs who receive inclusive education can have a good communication with their peers. They stated that with the social acceptance of students with special needs by their peers, inclusive education could progress in a more positive direction. Two of our classroom teachers stated that the peer relations of these students depend on their teacher attitudes. Some of the participants' statements were as follows.

K5: The attitudes of peers to students with special needs who receive inclusive education are very important. In order to achieve this, studies should be carried out to improve teacher attitudes in a positive way.

K8: If the student with special needs feels accepted by their peers, they will want to behave like their peers.

Table 8.
Classroom Teachers; Opinions of Special Needs Students in their Class on Family Participation

Category	f	Themes	Indication f.
Yes	7	Cooperates with family	6
		Unable to communicate with family	1
No	3	Communication with shadow teacher	1
Total	10		8

According to Table 8, the majority of the classroom teachers interviewed stated that the family of the student with special needs in their class should participate in the inclusive education process. One of our teachers stated the necessity of family participation, but stated that she had difficulties in communicating. Three of our teachers stated that family participation is not necessary for inclusive education in any way. One of our teachers stated that communication with the shadow teacher was provided instead of communication with the family. Some of the participants' statements were as follows.

K1: I am in contact with the shadow teacher in the classroom, not with his family.

K4: His family usually makes him do the work that needs to be done at home.

K7: The family should be informed through periodic meetings.

Conclusion and Discussion

In this study, it was aimed to determine the opinions of classroom teachers who are inclusive students about inclusive education. The views of classroom teachers were determined in order to reveal the difficulties they encountered during the teaching arrangements for inclusive students and the support they received to overcome these difficulties. It is seen that teachers' views on how inclusive education can be better and what the participating classroom teachers do to overcome the difficulties related to inclusive students are progressing in a positive direction. The difficulties faced by classroom teachers who have inclusive students in their classrooms; lack of special education field knowledge, lack of time, social acceptance of students, lack of materials, cooperation outside of school and the failure to implement an appropriate special education law.

Most of the classroom teachers stated that the difficulties they experienced with students with special needs were the size of the class size and the inability to focus on students with special needs. Fuchs (2009-2010), Kuyini and Mangope (2011) and Vural (2008) reached similar results in their studies. Although there is a picture of class size in classes with mainstreaming students, this is not applicable in some schools. In the 23rd article of the "Special Education Services Regulation" in the Official Gazette number 26184 in force at the time of the study, the class sizes of the individuals who continue their education through mainstreaming were included in the regulation.

According to this; It was stated that class sizes would not exceed 25 students in classes with two people in need of special education, and 35 students in classes with one individual.

In the "Special Education Services Regulation" entered in the Official Gazette dated 7 July 2018 and numbered 30471, this number has been regulated as 15 in subparagraph d of 23 article. As classroom availability increases, it may be difficult for the teacher to coordinate instructional arrangements for the inclusive student with normally developing students. In addition to these difficulties, they stated that students with special needs have problems in reading and learning, and have difficulties in communicating with their teachers and peers.

Teachers stated the difficulties they encountered in preparing Ip and materials for students with special needs. Material is an indispensable element of education. The characteristics of the mainstreaming student and the materials learned are important educational tools in achieving success in teaching arrangements. The studies carried out are consistent with the findings of this study. Participants stated that one of the obstacles they faced was the lack of materials prepared for the inclusion student. The problem caused by the lack of material has been emphasized in some studies (Schumm and Vaughn, 1992; Vural, 2008; Kuyini and Mangope, 2011).

Most of the classroom teachers express more accurate diagnosis for the first time in inclusive education practices. They state that inclusive education practices can become better with the Special Education Law. Decree Law No. 573 has established that education services for individuals with special needs should develop student-centered programs according to their own philosophy, and created education services for individuals with special needs in order to provide education and increase them without labeling children with special needs (Vuran and Sarpdağ, 2001). They state that a successful inclusive education can be achieved with the existence of a special education law in the TRNC. They express their opinion that inclusive education can be better by increasing the number of Special Education Teachers and by increasing fully equipped institutions.

Most of the classroom teachers stated the importance of cooperation for more successful inclusive education. Teachers stated that inclusive education practices will be more successful when they are supported according to the interests of students with special needs. Three of the teachers stated that the success of inclusive education can be achieved with IEP preparation. In parallel with many studies (Sopko, 2003; Gartland, 2007; Fetter & Steketee, 2008; Russel, Hoffmann and Higgins, 2009), inclusive education practices of classroom teachers will be successful with the preparation of IEP (Çuhadar, 2006; Güven and Gürsel, 2010).

They stated that they consulted the Special Education Teacher and Counselor to solve the knowledge transfer while working with the Primary School Inclusion Student and that they could cooperate with the classroom teachers to get information. Collaboration is a way to encourage teachers to support each other. However, collaboration with teachers seems necessary to help meet the needs of students with special needs (Friend and Cook, 2012).

Majority of the classroom teachers stated that they needed in-service training while performing inclusive education practices. It can be said that the realization of a thought consistent with the conditions in education is related to the training of teachers through in-service training (Budak, 1999). Classroom teachers stated that students with special needs who receive inclusive education can have a good relationship with their peers. They stated that a successful inclusive education can be realized for students with special needs through group work, to make the student feel a sense of success through what the student can do, to give the student the responsibilities that he can do, to explain the situation of the student to his peers, to organize games that he can play with his peers, to encourage the student and not

to separate him from other students. Teachers should not only consider their academic achievements, but also try to be supported and accepted by their peers in special needs social environments. In order to achieve this, they want to direct the student to different activities and areas where they can be successful at school and in the classroom (Olçay-Gül and Vuran, 2015). They stated that the social acceptance of the students by their peers and their special needs can lead to a more positive progress in inclusive education. Two of our classroom teachers stated that this high peer relationship depends on teacher attitudes.

As a result, it will be prevented that the classroom teachers feel inadequate to eliminate the lack of knowledge of in-service trainings and to provide more successful inclusive education by increasing these trainings. A successful inclusive education can be achieved by ensuring that classroom teachers establish the necessary communication with their students with special needs and by supporting them in these social environments and trying to be accepted by their peers. With the support of overcoming these problems, a successful inclusive education can be realized in the TRNC.

Suggestions

In line with these results obtained in the research, the following suggestions can be made:

1. Trainings for students with special needs can be organized for primary school teachers, parents and interested parties.
2. Cooperation of administrators (classroom teacher, school counselor, administration, parents, etc.) can be provided to support them in social environments with special needs and to be accepted by their peers.
3. In an effective and learnable way, special learning-teaching practices can be arranged in a way that attracts the attention of the student and can be learned.
4. The classroom teacher can be provided with the necessary course to cope with the learning-teaching process. Inter-institutional cooperation can be seen as important.

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EVALUATION OF MANAGERS' ORGANIZATIONAL COMMITMENT AND DEVELOPMENT SITUATIONS IN EDUCATIONAL ORGANIZATIONS PRE-COVID PERIOD AND ONGOING COVID PERIOD

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Abstract

Through education, societies raise the awareness within future generations and shape them as they wish. Due to the importance of educational institutions, organizational commitment of employees in educational institutions is also important. Detection and comparison of organizational commitment before and during the pandemic will be an important source of data in this challenging period. The aim of the research is to evaluate the situation of providing and developing organizational commitment with 20 teachers and 20 administrators in public primary schools in the 2020-2021 education period. When the participants were mentioned about organizational commitment, it was concluded that the thought of the work commitment. The results show that before the pandemic; administrators organized dining events according to the teachers' and the administrators' views in order to ensure organisational commitment. The teachers defend that an equal and fair environment should be reached when developing organisational commitment while the administrators think the environment should be motivating. In order be maintain the organisational commitment, teachers believe that it is important to be equal and fair and the administrators believe that constructive criticism should be present. Results during the pandemic period; to ensure organizational commitment, organize online meetings according to participant opinions. While teachers mention the need to be in close dialogue to develop organizational commitment, administrators say that there should be an effective communication environment. Also, according to the teachers, be maintaining organizational commitment, it is necessary to be motivating, it is achieved through good communication according to the views of the administrators.

Keywords: Manager, pandemic (Covid-19), education, organizational commitment.

Introduction

The disease caused by a new type of coranavirus, which emerged in Wuhan, China in December 2019, causing mild and severe acute respiratory syndromes, is defined as Covid 19. It is known that this disease, which spread rapidly to the world, was detected for the first time in the TRNC on 10-03-2020. TRNC Ministry of Health (2020). Infectious epidemic diseases that cause disease and death in animals and humans and spread to a wide geography, continent or the whole world are defined as pandemics (Aslan,2020;35) In this context, it is

also stated that the Covid 19 pandemic is a global health crisis, United Nations Development Program – UNDP (2020) announced by.

In order to reduce the effects of the Covid 19 pandemic, it is stated that identifying and isolating patients, operating the quarantine process of contacts or contacts, limiting international travels, as well as alienating individuals from social life and physical contact are important factors in reducing the number of infections and saving lives. World Health Organization - WHO (2020) UNDP (2020) states that many countries are struggling to control these factors. In this context, preventive activities have started to be implemented and measures have been taken in many areas such as social, economic, health and education throughout the world. In the field of education, which affects large masses, measures have been taken and implemented as a priority. The decision to suspend education within the scope of these measures has affected more than 90% of the student population in the world (United Nations Educational, Scientific and Cultural Organization- UNECSO, 2020). Viner, Russell, Croker, Packer, Ward, Stansfield, Mytton, Bonell, and Booy (2020) state that there are predictions about the long-term probability of these measures and methods should be determined for students to continue their education safely. In this context, many countries carry out distance education activities. Distance education, which is carried out by teachers and students communicating in different places synchronously or asynchronously (Odabaş, 2003), is given via internet and television in the TRNC. Although this situation seems like an innovation in the education process, it has led to the emergence of some situations that need to be evaluated.

People act together by bringing together the opportunities they have in order to overcome the tasks that they could not achieve on their own for centuries and to live more easily. Individuals spend most of their time in these naturally occurring communities. Life starting with small family society; it continues with inclusion in communities that continue in the form of school, work, and state (Çavundurluoğlu, 2016). Mankind, who has to deal with many problems in all organizations that he is involved in throughout his life, starting from the family structure, develops various methods to cope with these problems. Since the human factor is thought to affect the success of the organization in today's organizations, where the human factor is effective in their existence, it has revealed the need for many studies on people and the organizations they belong to. With the increase in knowledge accumulation, the value given to knowledge has also increased, and in parallel, societies have become more information societies. The state of a society that constantly renews itself has also caused a change in the organizations that make up the society. Globalization, technological changes, economic pressures, changes in the structure of employees and customers affect the new relationship between the organization and employees (Sabuncuoğlu et al., 2016). The human factor has a very important role in the efficiency of organizations. In order for organizations and employees to achieve their goals, they need to work in harmony with each other and by considering the interests of both parties. In this context, the support that individuals receive from their organizations while fulfilling their duties can increase their satisfaction with their work and their commitment to their organizations. As long as organizations and individuals mutually meet each other's expectations, this mutual expectation is likely to continue. This reveals the importance of organizational commitment in the success and continuity of organizations.

Organizational commitment is the willingness of the individual who accepts the goals and values of the organization, has a strong belief in these goals and values, makes an effort for his organization and continues to be a member of the organization (Mahmutoğlu, 2008).

Organizational commitment is the degree to which teachers are integrated with the school they work in and the school It reveals the extent to which they work in harmony towards their goals (Doğan and Özdemir, 2016).

The quality of working conditions is very important for teachers to provide effective education. The way teachers perceive working conditions plays an important role in their attitudes towards their profession, institutions and students. It can be said that one of the important determinants of this attitude is the commitment of teachers to their organizations.

The rapid change in education and training and the unpreparedness of the stakeholders for this sudden change required school administrators to take the lead in the disruption of education by rapidly changing their methods and focal points (Kunnath, 2020). It has been extremely important during the pandemic process that school administrators, as instructional leaders, are determined to meet the needs of schools by responding to the expectations of stakeholders and achieving common goals (Sergiovanni, 1998) and to ensure the continuity of organizational commitment. School administrators with high organizational commitment identified with the goals of the school will enable teachers to adopt these goals, and in this way, the positive contribution of the teacher to the school will increase. Because school administrators and teachers with a high level of organizational commitment, while thinking about the future of the organization, will also support decisions and innovations that will contribute to the development of the organization by suggesting new views and changes that will contribute positively to the organization. In this context, the evaluation of organizational commitment according to the opinions of administrators and teachers during the pandemic period revealed the necessity of finding an answer to the question of what the factors affecting the organizational commitment of employees, who have an important place for organizations, are during the pandemic period. However, thanks to the answers to this question, it will be possible to take some steps to increase the organizational commitment of the employees.

Method

The research is a qualitative research, and the data to be used in the research are obtained through the participants' answers to the knowledge, skills, experiences, feelings and thoughts of the participants through open-ended questions (Patton, 2014). It is a method that allows to investigate existing problems and events within itself and delve deeply (Neuman, 2012). The obtained data should be given together with the literature review (Creswell, 2013).

The sample from which the research findings were obtained is shown in Table 1 below. In Table 1, demographic characteristics of 20 teachers and 20 administrators working in public primary schools in the Turkish Republic of Northern Cyprus in the 2020-2021 academic year are given.

Table 1.

Demographic characteristics of teachers and administrators.

		Teacher		Manager	
		f	**%**	**f**	**%**
Gender	Female	12	60	9	45
	Male	8	40	11	55
Age distribution	31-35	4	20	0	0
	36-40	2	10	4	20
	41-45	9	45	6	30

	46-50	2	10	8	40
	51 and above	3	15	2	10
	B.A	15	75	7	35
Graduation	M.A	5	25	11	55
	Ph.D	0	0	2	10
	6-10 yrs	4	20	0	0
	11-15 yrs	2	10	0	0
	16-20 yrs	5	25	8	40
Length of service	21-25 yrs	5	25	6	30
	26-30 yrs	4	20	4	20
	31 yrs and above	0	0	2	10

As can be seen in Table 1, the participant teachers: According to their gender; 12 of them are women (55%), 8 of them are men (40%). According to their age; 4 people between the ages of 31-35 (20%), 2 people between the ages of 36-40 (10%), 9 people between the ages of 41-45 (45%), 2 people between the ages of 46-50 (10%), 3 people Age 51 and above (15%). According to their educational status; 15 people have a bachelor's degree (75%), 5 people have a master's degree (25%). According to professional seniority; 4 people 6-10 years (20%), 2 people 11-15 years (10%), 5 people 16-20 years (25%), 5 people 21-25 years (25%), 4 people worked for 26-30 years (20%). Participating managers: According to their gender; 9 of them are women (45%), 11 of them are men (55%). According to their age; 4 people are between the ages of 36-40 (20%), 6 people are between the ages of 41-45 (30%), 8 people are between the ages of 46-50 (40%), 2 people are 51 years old and over (10%). According to their educational status; 7 people have a bachelor's degree (35%), 11 people have a master's degree (55%), 2 people have a doctorate (10%). According to professional seniority; 8 people are 16-20 years (40%), 6 people are 21-25 years (30%), 4 people are 26-30 years (20%), 2 people are 31 years and above (10%).

In the research, it was aimed to obtain data with 7 questions. With the data collection tool, it was aimed to determine the organizational commitment of the administrators in their schools during and before the pandemic period. The questions prepared were directed to the participating teachers and administrators via remote video calls due to the pandemic through social media and answers were received. The research data obtained from the participants were obtained between 10 March and 30 March on the basis of the volunteers of the participants.

After the research questions were prepared, I received opinions from 2 colleagues. In line with the opinions, the necessary places in the questions were changed and questions were asked to 4 teachers for the pilot application. It has been determined that the questions are clear and understandable, and the data obtained are in line with the research goal. That the obtained data was sufficient was again fixed with the opinion of 1 expert and it was seen that it was sufficient by all researchers to obtain the desired data. Obtaining opinions during the creation of the scale and during the application, as well as the agreement of the researchers, show that the research is valid (Yıldırım and Şimşek, 2008).

During the interviews with the volunteer participants, the interview was recorded and reported on paper with the consent of the participant. The data obtained were divided into sentences and numbered separately. The numbered sentences were grouped and then the sentences were grouped. The groups were combined to form wholes. The whole formed the themes of the research. During this process, in order for all researchers to be in agreement,

sentences that were perceived differently were stopped until they agreed and necessary corrections were made.

Having more than one researcher in the study, including an external researcher in the analysis of the data, and conducting a literature review show that the research is high in terms of reliability (Yıldırım and Şimşek, 2008).

Due to the confidentiality of the identities of the teachers and administrators who expressed their views in the research, the opinions are given in quotation marks and the participant number (code) determined by the researcher is included at the end.

Example Participant:
Y: Manager
Ö: Teacher
"....." (Ö; 1)
"....." (Y; 2)

Results

Dimension I: Findings about what comes to mind when organizational commitment is mentioned.

The first dimension of the study was created to obtain the findings about what comes to mind of participant teachers and administrators when organizational commitment is mentioned. For this purpose, 20 participants were asked, *"What comes to your mind when organizational commitment is mentioned?"* question has been asked. The findings are given in table 2 in the form of themes.

Table 2.
Descriptive statistics on the themes and distributions of what comes to mind when organizational commitment is mentioned.

Themes	**Teacher**		**Manager**	
	f	**%**	**f**	**%**
Work commitment (loyalty)	13	18	8	18
Success	7	10	0	0
Sense of belonging	6	8	4	9
Effort	6	8	0	0
Common Goal	6	8	6	13
Work efficiency/Performance	5	7	2	5
Emotional Commitment	4	6	2	5
Labor	3	4	0	0
Take your time	3	4	0	0
Love for the Organization	2	3	4	9
Socialization	2	3	0	0
Joint Event	2	3	0	0
Motivation	2	3	2	5
Ownership	2	3	6	14
Intra-organizational harmony	2	3	0	0
Good communication	2	3	0	0
Family	1	1	0	0
Teacher	1	1	0	0
Guardian	1	1	0	0

Student		1	1	0	0
Serenity		1	1	0	0
Respect		1	1	0	0
School		0	0	5	11
Responsibility		0	0	3	7
School Culture		0	0	1	2
Union		0	0	1	2
	Total	73	100	44	100

In the first dimension of the study, the majority of participating teachers and administrators mentioned that when organizational commitment is mentioned, they think of work commitment (loyalty). Some of the views of teachers and administrators regarding this finding are as follows. *"When it comes to organizational commitment, the most important thing that comes to my mind is the commitment to my job." (Ö; 5)*

"I think of loyalty to work. " (Y; 2)

II. Dimension: Findings on what activities the managers did to ensure organizational commitment before the pandemic.

In the second dimension of the study, it was desired to reveal the findings about what kind of activities school administrators carried out in their schools in order to provide organizational commitment to the participants before the pandemic. For this purpose, the findings obtained from 20 participant administrators and 20 teachers are given in table 3 in the form of themes.

Table 3.
Descriptive statistics on what kind of activities the managers did to ensure organizational commitment before the pandemic.

Themes	**Teacher**		**Manager**	
	f	**%**	**f**	**%**
Meal Arrangement	11	19	12	23
Being Together on Special Occasions	10	17	6	11
Decision making together	10	17	6	11
Holding a Meeting	9	16	10	19
Preparing a Fair Environment	4	7	5	10
Social Gatherings	4	7	0	0
Creating a Peaceful Environment	3	5	1	2
Appreciate / Give Thanks	3	5	0	0
By Exchange of Ideas	2	3	3	6
By Organizing Excursions	1	2	3	6
with ceremonies	1	2	0	0
By Valuing	0	0	2	4
By Preparing a Communication Environment	0	0	2	4
Completing Missing Materials	0	0	2	4
Total	58	100	52	100

As can be seen in Table 3, the majority of administrators and teachers regarding the activities carried out to ensure organizational commitment before the pandemic; they mostly

mentioned that school administrators organize meals. A few comments on these findings are as follows.

"Our manager used to organize meals and social gatherings for us as the whole school to ensure organizational commitment." (Ö; 13)

"Before the pandemic, when everything was normal, we used to go to dinner, celebrate birthdays and have frequent meetings as a school." (Y; 9)

III. Dimension: Findings on what activities managers do to ensure organizational commitment during the pandemic period.

In the third dimension of the study, it was aimed to reveal the findings about what kind of activities school administrators do in their schools in order to ensure organizational commitment during the pandemic period. For this purpose, the findings obtained from 20 participant administrators and 20 teachers are given in table 4 in the form of themes.

Table 4.
Descriptive statistics about what kind of activities managers do to ensure organizational commitment during the pandemic period.

Themes	**Teacher**		**Manager**	
	f	**%**	**f**	**%**
Online Meeting	9	29	12	37
Online Information	8	26	6	18
No Events	5	16	0	0
Online Thanks	3	10	0	0
Continuous communication	3	10	8	24
Providing a Healthy Environment	2	6	0	0
Encouraging Speech	1	3	0	0
Joint Decision Making	0	0	2	6
Thanks to Online Programs	0	0	2	6
With Delegation of Authority	0	0	1	3
Celebration/ Messages on Important Days	0	0	1	3
By being honored	0	0	1	3
Total	31	100	33	100

In the third dimension of the study, the activities of teachers and administrators to ensure organizational commitment during the pandemic were investigated. As seen in Table 4, both participating teachers and administrators mentioned that online meetings are the most common activity to ensure organizational commitment during the pandemic period. Some of the opinions of *teachers and administrators related to this are as follows.*

"Since we cannot be in close contact with each other during the pandemic, we only hold online meetings as an event." (Ö; 7)

"During this period, I try to ensure organizational commitment by holding online meetings the most." (Y; 5)

IV. Dimension: Findings on what managers paid attention to in developing organizational commitment before the pandemic.

The fourth dimension of the study was created to reveal to the participants the findings about what managers paid attention to in developing organizational commitment before the

pandemic. For this purpose, semi-structured questions were asked to the participating administrators and teachers. The findings are given in table 5 in the form of themes.

Table 5.

Descriptive statistics on what managers paid attention to in developing organizational commitment before the pandemic.

Themes	Teacher		Manager	
	f	%	f	%
To act equally and justly	17	22	10	17
Good Relationship	12	16	6	10
Motivation-enhancing Activity	8	10	14	23
Improving the Working Environment	6	8	7	12
Peaceful and Safe Environment	5	6	0	0
Being transparent	4	5	0	0
Being With Your Employees	4	5	0	0
Consensus	3	4	5	8
Being a Leader	3	4	0	0
Being a Guiding	3	4	0	0
Expressing Ideas Freely	3	4	6	10
With cooperation	2	3	2	3
By guiding	2	3	2	3
Moving the Organization Forward	2	3	1	2
With good analysis	1	1	1	2
With Sharing Responsibility	1	1	1	2
Giving importance to teacher opinions	1	1	4	6
With the Count of Love	0	0	1	2
Total	77	100	60	100

The results regarding the fourth dimension of the research are given in Table 5. As can be seen in Table 5, the majority of the participating teachers mentioned that the administrators act most equally and fairly in developing organizational commitment. Participant managers, on the other hand, mentioned that they mostly do motivation-enhancing activities in developing organizational commitment. The opinions of teachers and administrators about the findings obtained are as follows.

"In the school, everyone should be treated equally and fairly, and should not make any privileges." (Ö; 11)

"When there is equality and fairness, the organizational commitment of the school employees is ensured and developed." (Y; 5)

Dimension V: Findings on what managers pay attention to in developing organizational commitment during the pandemic period.

The fifth dimension of the study was created to reveal to the participants the findings about what managers paid attention to in developing organizational commitment before the pandemic. For this purpose, questions were asked to 20 participating administrators and 20 teachers. The findings are given in table 6 in the form of themes.

Table 6.
Descriptive statistics on what managers pay attention to in improving organizational commitment during the pandemic.

Themes	Teacher		Manager	
	f	%	f	%
To Close Dialogue (Continuous Dialogue)	11	19	8	19
Making an Online Meeting	9	15	4	9
Using the Computer Well	6	10	0	0
To motivate	6	10	7	16
Giving importance to teacher opinions	6	10	1	2
Finding Solutions to Problems	5	9	6	14
Equal Division of Labor	5	9	2	5
Effective Communication	5	9	10	23
Prepare a Healthy Environment	4	7	2	5
To Treat Equal and Fair	1	2	3	7
Total	58	100	43	100

As seen in Table 6 above, while the participating teachers talked about the importance of close dialogue in developing organizational commitment during the pandemic; The majority of the participating managers talked about effective communication. According to the findings, some of the participant opinions are as follows;

"In order to get through this difficult process, our manager should be in constant dialogue with us and motivate us." (Ö; 5)

"Using effective communication skills in the pandemic, teachers should find solutions to problems and provide better education." (Y; 12)

VI. Dimension: Findings on how managers behaved in providing, developing and maintaining organizational commitment before the pandemic.

In the sixth dimension of the research, it was created to reveal the findings about how managers behaved in providing, developing and maintaining organizational commitment before the pandemic. For this purpose, questions were asked to 20 participating administrators and 20 teachers. The findings obtained from the questions are given in table 7 in the form of themes.

Table 7.
Descriptive statistics on how managers behaved in providing, developing and maintaining organizational commitment before the pandemic.

Themes	Teacher		Manager	
	f	%	f	%
With Justice and Equality	15	19	10	16
As an Embrace	9	11	4	6
By motivating	8	10	0	0
With Joint Activities	7	8	0	0
As a Leader	5	6	3	5
For example	5	6	9	14
By Acting Balanced	4	5	4	6
By Self-Devotion	4	5	4	6
Candidly	3	4	1	2
By Empathizing	3	4	0	0

As Owner of the Vision		3	4	0	0
Making Constructive Criticism		2	3	12	19
Using Effective Communication		2	3	6	9
By owning		2	3	2	3
Tolerantly		2	3	2	3
As a Router		2	3	1	2
With a Smile		1	1	0	0
As available		1	1	0	0
With Positive Communication		1	1	0	0
As Confidence		0	0	6	9
	Total	79	100	64	100

As it is seen in Table 7, according to the opinions of the participant teachers, they mentioned that before the pandemic, the most equal and fair treatment was done in providing, developing and maintaining organizational commitment. Managers' opinions, on the other hand, mentioned that constructive criticism is important in providing, developing and maintaining organizational commitment before the pandemic. Participants' opinions on this subject are as follows.

"In the past, our manager provided and developed our organizational commitment fairly. He would also not discriminate against anyone by treating us equally." (Ö; 7)

"When there is equality and fairness, organizational commitment is provided and developed. Everything starts with equality and justice." (Y; 14)

VII. Dimension: Findings on how managers behave in providing, developing and maintaining organizational commitment during the pandemic period.

In the sixth dimension of the research, it was created to reveal the findings about how managers behave in providing, developing and maintaining organizational commitment during the pandemic. For this purpose, questions were asked to 20 participating administrators and 20 teachers. The findings obtained from the questions are given in Table 8 in the form of themes.

Table 8.

Descriptive statistics on how managers behave in providing, developing and maintaining organizational commitment during the pandemic period.

Themes	Teacher		Manager	
	f	%	f	%
As a motivator	14	25	4	7
By Providing Good (Effective) Communication	10	18	16	28
Making Constructive Criticism	5	9	9	16
As a Leader	5	9	3	5
Being Close	5	9	7	13
Transparently	4	7	0	0
Cooperating	4	7	4	7
As a Supporter	3	6	0	0

By Example (As a Role Model)		2	4	7	13
Solving Problems		2	4	3	5
By Acting Balanced		1	2	0	0
With Contingency Approach		0	0	1	2
Indulgently		0	0	1	2
By owning		0	0	1	2
	Total	55	100	56	100

As can be seen in the table above, teachers mostly mentioned that their managers were motivating in providing, developing and maintaining organizational commitment during the pandemic period. Their managers, on the other hand, stated that they communicated best and ensured, developed and maintained organizational commitment during the pandemic period.

"It exhibits motivating behaviors in the current conditions." (Ö; 19)

"In this process, I can only communicate well with school staff in the name of organizational commitment." (Y; 15)

Discussion and Conclusion

In the results part of the research, the results obtained from the interviews with the participant administrators and teachers affiliated to the Ministry of National Education of the Turkish Republic of Northern Cyprus are given. The dimensions were interpreted separately and compared with previous studies.

When organizational commitment is mentioned in the first dimension of the research, the most important thing that comes to mind of participant administrators and teachers is loyalty. In Demirel's (2009) study, it was stated that employees' commitment to work also affects their organizational commitment. In the study of Benligiray and Sönmez (2011) it was found that there is a positive relationship between organizational commitment and job commitment. In their study, Tanrıverdi and Kılıç (2016) mentioned that the increase in organizational commitment will increase the commitment of employees to their work. The things mentioned in these studies show parallelism with the research findings. Devotion or loyalty to his job results in his ownership of that workplace. Teachers and administrators may have mentioned this because it reveals organizational commitment.

It was concluded that meals were organized according to the opinions of the participants in order to ensure organizational commitment before the pandemic. In Kervancı's (2013) research, he mentioned that lunch breaks positively affect organizational commitment. In the study of Erdem and Duman (2016), they mentioned that the food eaten in the organization positively affects organizational commitment. Çakır (2006) mentioned in his research that he improves organizational commitment thanks to the meals made with the employees. The subjects mentioned in all these studies support the research findings. The reason for the finding obtained in the research may be due to the fact that all school employees catch a common and sincere atmosphere at meals and the relationship between them develops and this leads to further organizational commitment.

It was concluded that the managers held online meetings to ensure organizational commitment according to participant opinions during the pandemic period. In the study of Sökmen et al. (2017), it was mentioned that thanks to the meetings held with the employees,

they became socialized and their commitment to the organization increased. In the study of Kılınçlı and Oğrak (2020), it was mentioned that in-organization meetings affect success positively and increase organizational commitment. Göven and Şentürk (2019) mentioned the importance of formal and informal meetings to ensure organizational commitment at school. In addition, in some of the researches, they mentioned the importance of meetings held within the organization (İra, 2004; Demirtaş et al., 2008; Tümkan and Altınay 2021). The findings here support the research finding. Thanks to the meetings, everyone can freely express their opinion and this may be because the employees are also stakeholders in the decisions taken and because they own the decision and the organization.

Teachers talked about being equal and fair in developing organizational commitment of administrators before the pandemic. In the researches, it is mentioned that managers develop organizational commitment as a reflection of being equal and fair (Crawford and Nicklaus, 2000; Czaja and Lowe, 2003; Sarros, Cooper and Santora, 2008; Okçu, 2014; Dulkadir, 2017).

According to the opinions of the managers, they mentioned that organizational commitment was developed with motivation during the pandemic period. Uçar (2016) mentioned how important motivation is in distance education in his research. It is also mentioned that motivation provides the necessary organizational commitment to achieve success (Uzun and Keleş, 2010; Yeşil and Topbaş, 2018; Sırakaya and Sırakaya, 2018; Tunca and Şahin, 2014). The findings here show parallelism with the research finding.

The fact that administrators talk about teachers being equal and fair in ensuring organizational commitment is among the basic concepts of motivation mentioned by administrators. They may have advocated this view because when there is equality and justice in an organization, the motivation of the employees will also be ensured.

Considering the situation of administrators to develop organizational commitment during the pandemic period, teachers mostly mentioned tight dialogue (continuous dialogue). In Enli and Skogerbo's (2013) research, continuous dialogue was mentioned in social media mediated environments. In the research of Aktürk, Özen and Üzüm (2014), he talks about the constant dialogue between the manager and the employees. In Şeker's research (2014), it is mentioned that it is possible to decide what to do through continuous dialogue. These findings support the views of teachers in the study.

Managers, on the other hand, talk about effective communication in improving organizational commitment during the pandemic period. Studies have mentioned the importance of effective communication in schools (Kavanagh and Ashkanasy, 2006; Claypool, 2003; Şener and Özan, 2019; Aytekin, 2019). All these studies also support the aforementioned research finding.

In the finding in the fifth dimension of the research, teachers talked about close dialogue and administrators talked about effective communication in developing organizational commitment. Both findings support each other. Both sides may have defended these views, since effective communication can be established through close dialogues between teachers and administrators.

In the sixth dimension of the study, it was concluded that most of the participating teachers talked about being equal and fair about providing, developing and maintaining organizational commitment before the pandemic. In other studies, it is stated that managers are equal and fair, and that they develop organizational commitment as a reflection of this

research finding in support of the research finding here (Crawford and Nicklaus, 2000; Czaja and Lowe, 2003; Sarros, Cooper and Santora, 2008; Okçu, 2014; Dulkadir, 2017).

It has been found that constructive criticism is important in providing, developing and maintaining organizational commitment before the pandemic. In the research conducted by Saraçoğlu, Gürışık, and Furak (2018), it was found that teachers made constructive criticism towards each other. In addition, Ostrosky et al. (2013) stated in their research that constructive criticism among teachers affects teachers positively. In Yıldırım's (2012) research, teachers and administrators mentioned the importance of constructive criticism according to their views. All these findings support the research findings.

In this dimension of the research, teachers talk about equality and justice in providing, developing and maintaining organizational commitment. Because where there is equality and justice, teachers may feel safe and organizational commitment is ensured. On the other hand, managers use constructive criticism to ensure, develop and maintain organizational commitment. Managers may have given this answer because teachers can achieve better things in the organization thanks to constructive criticism and therefore they will be satisfied in the organization.

Most of the teachers mentioned that their managers are motivating to provide, develop and maintain organizational commitment during the pandemic. Studies have found that motivation and organizational commitment affect each other positively (Korkmaz, 2011; Dunn et al., 2012; Thamrin, 2012; Çoğaltay et al., 2014; Gündüz, 2015; Dulkadir, 2017).

Unlike this result obtained with the opinions of the teachers, the participant administrators mentioned that they provided, developed and maintained organizational commitment during the pandemic period with effective communication. Some of the similar studies mention the importance of effective communication in schools in leading schools to success (Kavanagh and Ashkanasy, 2006; Claypool, 2003; Şener and Özan, 2019; Aytekin, 2019; Tümkan and Altınay, 2021). The ones mentioned in all these studies support the findings of our study.

In the pandemic period, teachers talked about their motivation in providing, developing and maintaining organizational commitment. Here, the motivation of teachers decreases due to distance education and social distance rules during the pandemic period, so they may be talking about the importance of being motivated in this period. Managers, on the other hand, may be talking about effective communication due to the disruption of face-to-face communication due to the pandemic.

In conclusion the following conclusions were reached: When the participants were mentioned about organizational commitment, it was concluded that the teachers and administrators thought of the work commitment (loyalty). The results show that before the pandemic, administrators organized dining events according to the teachers' and the administrators' views in order to ensure organisational commitment. The teachers defend that an equal and fair environment should be reached when developing organisational commitment while the administrators think the environment should be motivating. In order to provide, develop and maintain the organisational commitment, teachers believe that it is important to be equal and fair and the administrators believe that constructive criticism should be present. It has been concluded that during the pandemic, to ensure organisational commitment, the administrators arrange online meetings according to the teachers' and the administrators' opinion. While teachers mention the need to be in close dialogue (continuous dialogue) to develop organizational commitment, administrators say that there should be an effective communication environment. Also, according to the teachers, in providing,

developing and maintaining organizational commitment, it is necessary to be motivating, it is achieved through good (effective) communication according to the views of the administrators.

Suggestions

- Managers should ensure organizational commitment by holding more online meetings during the pandemic period.
- Managers should always treat their employees equally and fairly.
- Managers should be in effective communication with their teachers in order to increase their motivation and ensure their organizational commitment during the pandemic.
- The Ministry of National Education should open a course for managers to increase organizational commitment during the pandemic period.
- In the pandemic, teachers should also open a course by the Ministry of National Education to develop or maintain their organizational commitment.
- In the study, the dimension of organizational commitment was discussed. Researchers can work with a different dimension.
- The research was carried out in primary schools. It can also be applied to Secondary and Higher Education.
- The research was handled as a qualitative research. It can be reconsidered in a different way.

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EVALUATION OF THE TEACHING TECHNIQUES OF THE PIANO ARRANGEMENT OF AL YEMENI MOR YEMENI SONG

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Abstract

In this study, AI Yemeni Mor Yemeni piece is mid-level piano arrangement is aimed to evaluate the teaching stages of the students in line with the opinions of field experts. The research was analyzed using descriptive analysis and interview method which is one of the qualitative research methods. The appropriateness of the piece was asked to 10 field experts by a semi-structured interview form. The evaluation of the work by field experts in terms of piano teaching techniques according to the piano arrangement has been examined under three sub-titles; the basic information used in the arrangement, the technical equipment used in the arrangement and the interpretation of the work. Within the scope of basic information, number of measures, time repeats, dal segno, D.S.al Fine, octave sign, tie, modifier signs; within the scope of technical expression, pedal, arpeggio, tie and slur, chord transition, closed and open position transition; within the scope of the interpretation of the work, the concepts of nuance and pedal were examined. The findings were analyzed by describing them in accordance with the feedback given by the field experts. As a result, the research was concluded that the arrangement of *Al Yemeni Mor Yemeni* is appropriate for an individual who plays the piano at an intermediate level. In this direction, the suggestions of the experts in the field were evaluated.

Keywords: Cyprus folk song, piano arrangement, piano teaching techniques.

Introduction

The type of music that has been performed with sincere feelings, within the framework of original rules that are independent of the traditions of the society, is defined as traditional music. Music, in which the feelings are sincerely expressed in a simple and clear way, is considered to be first class due to its originality in terms of artistic quality (Özarslan, 2010). In Cyprus, music has begun to form its shape from 1975 during the civil war (Moody, 2016). Also, Turkish songs were rarely taught in schools until 1983. By the establishment of T.R.N.C., local songs were taught more frequently as a result of the new education system (Gorgoretti, 2019). During the mid. 1980's, it has been observed that the Turkish songs of Cypriot composers started to be taught as a part of music education in schools as well as the songs reflecting Cypriot traditions (Selçuk, 2019).

Kamran Aziz has an important place in the history of Cypriot-Turkish music with her compositions and contributions to the Turkish Cypriot music culture. She found the Western

music ensemble with her friends during the 1950s (Vurana, Aksaygın, Uluöz, Keleş and Özakıncı, 2020). She added new values to our culture by composing various music genres such as valse, lament, March and tango (Kafkas, 2001). With the music ensemble she found, Kamran Aziz was re-arranging and translating tango, valse and foreign language popular songs of that period to Turkish and she was bringing them to the society. As well as these arrangements, her own compositions also came to the fore. Through her compositions, she brought Cyprus issues and motifs as a value to Turkish Cypriot community and shed light on other composers (Kanal Sim, 2018). Kamran Aziz's compositions have been ingrained in our culture since then and have been inherited by the society as they started to be taught as a part of Turkish Cypriot music education. Compositions of Cyprus which are our cultural heritage today, enrich our cultural repertoire by playing an important role in education. Getting access to the notations (written notation sources) of the music that has become an indispensable part of the Turkish Cypriot tradition can sometimes be difficult due to the lack of resources. It has been essential to arrange the song *Al Yemeni Mor Yemeni* instrumentally as a piano solo.

In Al Yemeni, the depictions of women through the use of Yemeni, Henna, beautiful, coy and eloquent show that the traditional Cypriot-Turkish music has Anatolian characteristics (Direktor, 2018). Lyrics praising Cypriot girls have a rich syntax by the use of local features.

Editing means making a change to the order of a piece written for a certain voice or an ensemble so that it can also be performed on the other instruments. As a result of this definition, it is possible to make additions to the melody of the piece and also to change the melody; the purpose of an arrangement made for an instrument with different characteristics is to redesign the piece in accordance with the instrument (Madanoğlu, 2019). The original notation of *Al Yemeni Mor Yemeni* song is for voice. In order to announce the main melody written for the voice and to continue music by the piano as a melodic accompaniment, the arrangement of the song in the form of an instrumental piano solo was done by taking into account of the interpretation of the lyrics. As in the piano arrangements of traditional music, the piano arrangement of *Al Yemeni Mor Yemeni* did not start with the chorus melody in the original version of the song but with the melody of the lyrics was used in the introduction. Bulut (2011) compared the original notation of the folk song *Hoş Gelişle Ola* with the piano arrangement, and he decided that the saz entrance part of the song is not included in the introduction part of the piano arrangement.

Playing the piano is a comprehensive process that includes all cognitive, sensory and psychomotor skills. Described as technical competence at the beginner level, it is important for people to acquire behavioral skills such as correct posture in front of the piano, correct position of the hands, touch dominance and agility in a controlled and correct manner in order to be able to develop and take these acquired skills to the next level. At the intermediate level, the difference in articulation and touch sensitivity between the two hands are controlled (Ertem, 2011). Playing advanced three-voice chords, suddenly changing contrasting nuance transitions, chromatic transitions, expressing the sentences in the piece as interpretations by using ties and nuances together, detecting the non-tonal sounds used in the piece and using the pedal in accordance with the accompaniment model on the left hand are the skills that are acquired by individuals who play the piano at the intermediate level (İlkay and Sarı, 2020). The piano arrangement of the song *Al Yemeni Mor Yemeni* was written considering the intermediate level piano playing skills, and the teaching stages were determined accordingly. The teaching stages prepared by the researcher are as follows: the quavers that come as 2+3 in the piece are explained to the student by the time signature of 5/8. Firstly, the first beats of 1-2, 1-2-3 are uttered slowly by the teacher respectively in numbers and this teaching style

will continue as such. Then, using body percussion, the student is asked to hit her chest by her right hand on 1st beats as a unit beat while the teacher sings each beat of the 5/8. In these exercises, the student is asked to do at least 8 measures. Afterwards, the weak strokes are asked to be done by hitting the leg by the left hand right after the right hand's strokes. Finally, with singing the quavers in the measure, it is required that the unit strokes, which are done by hitting the hand in such a way that the hand is full of clap, while the weak strokes are done by hitting the palm of the other hand by only the fingertips of one hand. These exercises continue until the time signature is grasped by the student and after the student does the transitions between the measures without a hitch, the sight-reading of the piece is started. Before starting to do the sight-reading of the piece, the student is reminded of the nuances, slurs, ties, sharps, voltas, segno and pedal expressions in the piece accompanied by the questions of the teacher. The teacher tells the student to start as 1-2, 1-2-3 slowly by both applauding and saying the numbers, and the instruction is given to students so that the first two measures are done in silence, and the student starts to do the sight-reading in a slow tempo in the line with the instructions by obeying everything except pedalling. In this direction, the piano arrangement of the song *Al Yemeni Mor Yemeni* and the evaluation of the teaching stages by the field experts constitutes the problem of the research.

Aim of this Research

It is aimed to evaluate the Cypriot folk song *Al Yemeni Mor Yemeni* for intermediate piano students in accordance with the opinions of the field experts in their teaching stages. For this purpose, answers to the following questions were sought.

1. In terms of teaching the basics,
2. In terms of teaching theoretical knowledge,
3. In terms of interpretation, what are the opinions of the field experts on the evaluation of the teaching stages?

Methodology

This study is a qualitative research method which was carried out in order to describe the expert opinions by determining the suitability of the song *Al Yemeni Mor Yemeni* in terms of piano teaching methods. Studies in which the problem situation was associated and connected with people's feelings, thoughts and experiences are defined as qualitative (Ilgar and Ilgar, 2013). The method that present people's own perspectives, personal experiences and individual feelings together with subjective values is called the interview technique (Karataş, 2015).

Research Strategy

Descriptive analysis which is one of the qualitative research methods was used. In this study, the answers and suggestions received from the field experts were described and the findings of the study were formed. Descriptive analysis is a method that requires superficial explanation and does not require details in the processing of the data (Baltacı, 2019).

Research Instruments

In this study, data was collected by the 'semi-structured interview form'. The field experts were asked questions about being able to analyze the sub-objectives of the research by the semi-structured interview form.

The research method that aims to determine the differences and compare the feedback to be given to the questions directed in accordance with the questions prepared in advance, is the interview technique (Gedik, Altıntaş and Kaya, 2018).

Data Analysis

The piano arrangement stages of *Al Yemeni Mor Yemeni* song were analyzed by taking the opinions of the field experts in accordance with the sub-problems of the study. The field experts were asked questions about 3 different dimensions of the study. In the research, teaching basic information, teaching the theoretical information and evaluating the teaching stages in terms of interpretation have been examined. In this direction, the answers given by the field experts to 3 different dimensions were described and analyzed.

Results

In this section, the sub-problems were formed under three sub-headings by taking expert opinions.

Opinions of the Field Experts in terms of Teaching the Basic Information

The part A of the 1st question asked in line with the basic information is as follows; "What is your opinion about the ability of a student playing the piano at intermediate level to understand the basic information used i the arrangement (time signature, volta, segno, octave sign, tie)?". The basic information used in the arrangement was deemed appropriate by 10 field experts in terms of the perception of a student playing the piano at intermediate level. Field experts said, A2: *"Syncopated rhythms can be applied at an intermediate level. Also, the 'augmented' chord in bar 6 is important for an intermediate learner's hearing ability. Other technical equipment is also very basic concepts and it is not enough to go over"*, A3: *"I think that the basic information used in the arrangement will not pose a problem for the perception of an intermediate piano student. The information used is included in the curricula of musical hearing, literacy and piano lessons, which are among the most basic courses in music education, in the first year of fine arts high schools and education faculties music teaching programs, and are taught to students as basic information"*, A4: *"A student who plays the piano at an intermediate level can perceive the basic information used"*, A6: *"Although determining the suitability of a piece for a piece depends on the readiness level of the student, in general, the volta, segno, D.S. features such as al Fine, octave sign, tie are suitable for an intermediate piano player. The anxiety I feel intensely here is whether all students at intermediate level can perceive an irregular time signature such as 5/8 or not"*, A8: *"The basic information in arrangement is perceptible and applicable for a student who can play the piano at intermediate level"*, A9: *"The basic information given is appropriate for an intermediate level student"*. In this section, field experts generally mentioned that the arrangement of *Al Yemeni Mor Yemeni* is suitable for the intermediate level in piano and that it is easily perceptible and applicable for piano students at this level.

Although there are music educators who defend its appropriateness by having the same opinion, the level of popularity of the work was also mentioned by two field experts; A5: *"It is at a level that an intermediate piano student can perceive and learn. First of all, listening to the piece is important in understanding the basic information"*, A7: *"In this piece you have arranged, the basic information is expressed in a very clear and simple way, and I think it is at a level that can be easily perceived by an intermediate piano player. Mentioning the tempo of the piece will be more useful to someone who hasn't heard of this piece before"*.

It was pointed out by A7 that the metronome mark was not specified at the beginning of the piece and that if it was specified, a person who does not know the song would easily increase the level of perception of the piece. The metronome mark issue mentioned here is also addressed by A3 in part A of question 2.

Feedback received to the question "Is the prepared teaching method suitable for the teaching of the basic knowledge of the intermediate piano student?" which was asked in part B of the 1st question; it was deemed appropriate by 10 field experts in terms of comprehending the basic knowledge of the intermediate piano student. A5, one of the field experts, stated that it was deemed appropriate in line with her piano teaching method and A6 stated that it would be appropriate by referring to the arrangement accompaniment model. Feedback given by A5: *"The time signature may seem unusual for the student, therefore, the rhythm must be played by hand strokes by dividing the piece in one note. Since 5 is divided as 2+3 or 3+2, the student may have some difficult. First of all, the song should be played and sung to the student and the student should listen to segno. Then ask what he heard and get an answer from the student. It should definitely be asked until awareness arises. If the answer is received, it should be studied. Then, a map should be created by giving signs to the parts of the piece and the traffic of the piece should be grasped by the student… The plan I mentioned is suitable for the intermediate level student. After the traffic of the piece occurs, the right and left hands should be studied and taught separately"* and the feedback given by A6 is as follows: *"If we do not count the wide jumps on the left hand between the arpeggios, that is, the rapid change of the intervals in bars 9-15, the nuances, the structure of the accompaniment, the contrasts captured with the octaves by the support of the nuances, and other musical elements, the prepared teaching plan is suitable for the teaching of the basic knowledge of the intermediate piano student".*

Opinions of the Field Experts in Terms of Teaching Theoretical Information

Feedback to the question "What are your opinions on the students' perception on the technical expressions used in the arrangement (pedal, arpeggios, slur, chord transition, close and open position transition)?", which was asked in part A of the 2nd question; the field experts evaluated the piano arrangement of the song *Al Yemeni Mor Yemeni* according to their teaching methods, and 9 field experts stated that it was generally suitable for intermediate piano students at a perceptible level. Some of the answers given by field experts who gave were positive as; A1: *"Intermediate level student should be able to perceive"*, A2: *"Intermediate level student should be prepared for various arpeggios in both five finger positions and an octave. The pedal use should be learnt properly as the bass and harmony change. The one-flat minor tone can be grasped easily for an intermediate level student, not only to raise one's hand, but also to convey the unwritten nuances used in phrase formation"*, A5: *"It is suitable for the learning of the student at intermediate level… The student already knows technical signs, pedal, arpeggiso, ties, chord transition. The information should be repeated and reminded, and the right hand and the left hand should be practised separately and then combined"*, A8: *"The technical expression is clearly and understandably expressed in the arrangement"*. Among the feedback received from 9 field experts, 3 of them made criticisms about the written arrangement and expressed their individual opinions: A6: *"Technical signs, ties, chord transition and pedals are reasonable in terms of students' perception. With the arpeggios between bars 9-15, the transition between closed and open positions can be difficult to perceive"*, A7: *"If I evaluate the technical expression from a general point of view, I think it would be better to reduce the chord transitions to a level where they can be performed more easily, and if the student's ear is not prone to dissonant*

sounds and sound groups, it would be better to harmonize such sounds in order to make them sound consonant. I think that specifying the finger number ar the points where the position changes occur will help the student to predict what he/she will do and will contribute to the learning to take place more easily. Finger numbers are indicated at many points, which is fine. I think that just a few more points should be added. Especially in position changes. In general, it would be a lie if I say that I did not think about whether it would be possible for the transitions on the left hand to be smoother throughout the work. Apart from these points, I do not think that there is an essential point that will cause problems in students' perception", A9: *"Technical expression is appropriate for intermediate level"* A3 expressed her personal opinion on the arrangement of the song as: "I think grouping the individually written quaver notes as in the right hand of the 1st bar would make it easier for the student to read and perceive the rhythm more easily while sight-reading, and if the notes in the arrangement was written in the same style, it would be easier to read and write a more accurate note. Specifying the tempo with a metronome mark at the beginning of the piece together with the unit beat would help the student to perceive the tempo. If it is desired to extend the chord in the left hand in the part with "pointorg" in the volta, it would be correct to add the sign of "pointorg" to the left hand. By adding the dominant 7 chord to the last meter on the D sound and playing it by breaking it, you can feel the sound of the piece's staying in the air" The metronome mark, which was specified by A3, was mentioned in the first question by A7 under the title of 'Basic Information'. Again, the writing styles of the notes, which were mentioned by A3, were also mentioned by A9, and the comments of the two field experts supported each other. The writing style suggestion made by A9 is as follows: *"...it is an important detail that the notes should look the same in grouping. The grouping of notes in all bars should be 2+3"*.

Feedback received to the question "Is the prepared teaching plan suitable for the interpretation skill of the intermediate piano student?"; it was found appropriate according to the field experts. In addition to this, 4 field experts expressed their personal opinions. A3: *"I think it would be more appropriate if the issues I mentioned in part A were revised".* In part A, there are issues such as notational styles, specifying the tempo at the beginning of the song with the metronome mark, adding the 'pointdorg' sign to the 3rd beat of the left hand in the 16th bar, and adding the dominant 7th chord on the D note in the left hand in the last bar. In line with the issues mentioned here, in addition to the technical expresssion, the field expert suggested adding a chord, which is thought to be more pleasing to the ear individually, in the last part. A5: *"Intermediate level students can play this piece if the path I mentioned above is followed. Only 5/8 rhythm should be studied well"* The path suggested here is: *"The student already knows technical signs, pedal, arpeggios, tie, chord transition. The information should be repeated and reminded, and the right hand and lelf hand should be practised separately and then together",* A6: *"The prepared teaching plan is generally appropriate, but from bar 10 to 11 and bar 12 to 13. Technical equipment such as arpeggio figures that make the transition to the bar should be reconsidered and arranged",* the point mentioned by the field expert here is between the 3rd octave left and the 2nd octave F, and the 3rd octave F to the 2nd octave E; they are 9-point range transitions found with the 2nd finger and 5th finger numbers. A7*: "As I just mentioned, from a general point of view, we can say that this plan is suitable for the technical expression of the intermediate piano student"*, the chord transitions mentioned in the part A of the question, replacing the dissonant sounds with sounds that should be heard in harmony, putting finger numbers to the missing places in the position changes, and parts related to left hand accompaniment are suggested. The examples of accompaniment given in detail by A6 have been mentioned by A7 with a general point of

view. A9: *"It is suitable. Pedals can also be added from bar 9 throughout the work"*, referring to the use of pedals by the field expert, it was commented that pedal use can also be considered as more frequent use.

Opinions of the Field Experts on the Evaluation of Teaching Stages in Terms of Interpretation

Feedback to the question "What are your opinions on the interpretation of the piece from the beginning to the end (nuance, pedal) reflecting the character of the piece?"; the work was generally evaluated in terms of nuance and pedal use, and it was reported by field experts that it reflected the character. A4: "*The nuances and pedals used are suitable for the character of the piece"*, A5: *"The nuance/pedal used from the beginning to the end of the piece reflects the character of the piece…"*, A8: *"Simple and understandable nuances are used. It suits the character of the piece"*, A9: *"It was a nice a-b-a. The arpeggios in the middle filled the work very well…"*, A2: *"The most defining feature of the piece is that it consists of a lame rhythm, it should be waited on the last eighth note and it should not be rushed to the new bar. The opposite dynamics will be decisive in terms of showing the transitions in both the color palette of the student and the form of the piece. Always paying attention to the finger numbers will play a big role in eliminating the problems that may occur during the interpretation. Care should be taken to the left hand accompaniment, which consist of intense notes. Do not overwhelm the right hand"*; in the feedback given by the field expert, the interpretation process of the work was evaluated within the framework of the field expert's own teaching method; it has been suggested that by paying attention to the nuance differences in the arrangement, it will be useful in the teaching process of the contrasting dynamics, that the finger numbers will be specified in detail, it will be easier to follow in terms of teaching, and in terms of teaching method, the left hand should be lighter than the right hand as it is the main melody with the melody of the words on the right hand. A3: *"The use of pedals on the 3rd stave will help the left hand feel more 'legato'* ", A7: *"When I look at the piece from beginning to end, it is clear that it has a quality that reflects the character of the piece in terms of nuance and pedal. I think maybe more pedals can be added to some points"*, A9: *"It was a nice a-b-a. The arpeggios in the middle filled the work very well. Pedal use can also be increased overall for the arpeggios section in the middle"*; 3 field experts stated that pedals should be added to some non-pedal dimensions in the arrangement. A3: *"…in addition to the interpretation, 'ritardando' can be added in order to increase the purpose of the staying effect of the harmony in bars 33 and 34, and 'ritardando' can be added in bars 17 and 18 in order to give a feeling of ending"*, A6: *"…if 'ritardando' can be added in bar 34 and a pointdorg/fermate sign is placed at the end of the bar, the interpretation can be more effective and rich"* Here, A3 and A6 seggested adding 'crescendo' and 'diminuendo' to some bars in the arrangement as well as 'ritardando' to the ending parts of the sentences.

According to the feedback received to the question "Is the prepared teaching plan suitable for the interpretation skill of the intermediate piano student?"; the field expert also found the teaching plans suitable for the piano student's ability to interpret. The feedback received to the question is completely positive, and A5 mentioned the points to be considered in terms of teaching methods in her answer: *"…the student should listen to the piece well and know it. It may be difficult for the student to interpret. This can be studied by repeating, listening and dividing it many times"*. Some of the feedback received are as follows: A4: *"An intermediate piano student can do the nuances and pedals used in the piece"*, A6: *"Yes, the prepared teaching plan is suitable for the interpreting skill of an intermediate piano student"*, A7: *"I think the prepared teaching plan is suitable for the interpreting skill of an intermediate piano*

student".

Discussion and Conclusion

In terms of teaching the basics, feedback to the question "What is your opinion about the ability of a student playing the piano at intermediate level to understand the basic information used in the arrangement (time signature, volta, segno, octave sign, tie)?"; *"A7:…specifying the tempo of the piece would be clearer for someone who has not heard of this piece before…", "A3:…specifying the tempo with a metronome mark at the beginning of the piece together with the unit beat would help the student to perceive the tempo…"*. Field experts has suggested specifying the tempo would be more useful. Tempo is usually indicated in the upper left corner of the introduction part of the piece (Elmas and Köse, 2021). In accordance with the suggestions of the field experts, the metronome mark was added as 185 bpm with the unit beat of eight note to the introduction part of the piece, and as a result, the deficiency in specifying the metronome mark was eliminated. *"A2:…syncopated rhythms can be put into practice at an intermediate level…, A5:…the time signature may seem unusual for the student, therefore, the rhythm must be played by hand strokes by dividing the piece in one note. Since 5 is divided as 2+3 or 3+2, the student may have some difficulty…, A6:…the anxiety I feel intensely here is whether all students at intermediate level can perceive an irregular time signature such as 5/8 or not…"* A2 emphasized the appropriateness of the time signature; A5, on the other hand, stated that the time signature used is in a different pattern than simple and compound time signatures, and it was suggested that the time signature would be applicable if explained how it operates in accordance with the preferred teaching method. A6, on the other hand expressed her hesitations about the perception of 5/8 time signature: these kind of time signatures are formed by the combination of simple time signatures divisible by 2 and compound time signatures divisible by 3 (Özgür and Aydoğan, 2009). The time signatures that are formed by both simple and compound time signatures are called irregular time signatures. Since unit beats are strongly indicated in the time signatures containing double and triple units, as unit beats are formed by the note groups that come in 2 and then 3, in *Al Yemeni Mor Yemeni*, unit beats are stated as 2+3 in the time signature of 5/8 (Özgül, 2017). In the research on the use of irregular time signatures in school songs, Yöndem (2016) concluded that the time signature of 5/8 was used the most as 2+3 among the irregular time signatures. On the other hand, Özdinçer (2010) suggested that in the teaching of Turkish folk dances, students should learn by counting the beats in the measures while dancing. Therefore, it is possible to teach *Al Yemeni Mor Yemeni* to a piano student by counting the piece as 1.2 – 1.2.3, and having the student sing the song at the same time she plays it. A6 stated her concern about being able to teach all the students the time signature of 5/8, however, in accordance with the available resources, it can be concluded that the song can be taught to the students at intermediate level. While it is recommended to teach the songs piano students by using different teaching methods, especially the songs with irregular time signatures which are also found in our traditional music, the views of field experts A2 and A5 on the arrangement of *Al Yemeni Mor Yemeni*, compromise with the sources in the literature.

Feedback to the question "Is the prepared teaching method suitable for the teaching of the basic knowledge of the intermediate piano student?": the teaching of the song *Al Yemeni Mor Yemeni* was found appropriate by the field experts. A6 expressed the opinion that it is not suitable between certain bars: *"If we do not count the wide jumps on the left hand between the arpeggios, that is, the rapid change of the intervals in bars 9-15, the nuances, the*

structure of the accompaniment, the contrasts captured with the octaves by the support of the nuances, and other musical elements, the prepared teaching plan is suitable for the teaching of the basic knowledge of the intermediate piano student" A7 expressed the similar opinions in part A of the 2nd question: *"…I think it would be better to reduce the chord transitions to a level where they can be performed more easily, and if the student's ear is not prone to dissonant sounds and sound groups, it would be better to harmonize such sounds in order to make them sound consonant…"* Jacobson, Lancaster and Mendoza (2015) state that as a result of the literature review, among the recommended pieces for beginner students, there is Bach's *Musette in D Major (BWV Anh. 126)*. In the piece, there is an octave transition between the 24th and 25th bars on the left hand, from the D note in the 3rd octave to the D note in the 2nd octave with the 5th finger which is a full octave interval. In the arrangement, the transitions between the bars 9-15 are happening between the close notes, between bars 10-11 and 12-13, there is a left hand note being played by the 2nd finger on the 5th beat of bar 10 and the F note on the first beat of bar 10 played by the 5th finger. There is the F note played by the 2nd finger on the last beat of bar 12 and the E note on the first beat of bar 13 which is also 9th interval. Although the transitions between these bars are 9th intervals, the left note in bar 10 on the 2nd finger comes with the note D on the 5th finger in the same position. Here, the transition between bars 10-11 done by 5th finger is between D-F which is 6th interval. In the same way, since the F note in bar 12 is on the 2nd finger, there is a C note on the 5th finger. In this case, the transition of the C note on the 5th finger and the E note at the beginning of bar 13 is again 6th interval transition. The 5th finger jump in Bach's work, which is considered to be a beginner level piece, requires an octave interval transition and the widest interval in the arrangement among the same fingers has a smaller interval of 6. Again, the suggested accompaniment model at the beginner level is the broken chord model (Kalkanoğlu, 2020). The accompaniment model specified between bars 9-15 consists of arpeggios made up of broken chords. In the arrangement of *Al Yemeni Mor Yemeni*, it was composed at intermediate level by developing the right hand and left hand combinations of the points indicated at the beginner level. Therefore, despite the interpretation and opinion by A6 on bars 9-15, the suitability of the arrangement for intermediate level has been proven in accordance with the academic sources. The issues that field experts stated the intermediate level students may have difficulty with, are at the beginner level.

In terms of teaching theoretical knowledge, feedback to the question "What are your opinions on the students' perception on the technical expressions used in the arrangement (pedal, arpeggios, slur, chord transition, close and open position transition)?", in line with the suggestions of the field experts in terms of writing style; it was emphasized that the notes should be grouped in unit beats according to the number of 5/8 irregular time signatures in the form of 2+3. A3: *"…I think grouping the individually written quaver notes as in the right hand of the 1st bar would make it easier for the student to read and perceive the rhythm more easily while sight-reading, and if the notes in the arrangement was written in the same style, it would be easier to read and write a more accurate note…"*, A9: *"…it is an important detail that the notes should look the same in grouping. The grouping of notes in all bars should be 2+3"* are the comments fully supported by the academic resources that helped in the correction and re-arrangement of the song *Al Yemeni Mor Yemeni*. In the source where the examples of simple time signatures are given, it is stated that the notes corresponding to unit beats should be grouped separately (Gerou, 1996). Attention should be paid to the fact that 5/8 time signatures are formed as 2+3 by the combination of simple and compound time signatures (Taylor, 2014). The musical notation programme Musescore 3 used for the arrangement made by the researcher suggests grouping the notes as 3+2 generally for the

time signature of 5/8. Although the steps stated in Musescore 3's guide (musescore 3) were tried, the note grouping method could not be changed. In the first version of the arrangement, which was written temporarily by the researcher to be corrected later on, in order to be easily read by the field experts, the groups of 3 were written in single quavers in order not to be written as 3+2 groups according to the grouping originated from Musescore 3.

A7: *"...I think it would be better to reduce the chord transitions to a level where they can be performed more easily, and if the student's ear is not prone to dissonant sounds and sound groups, it would be better to harmonize such sounds in order to make them sound consonant..."* this comment of the field expert would be more suitable for the beginner level piano students. Some of the subjects to be percieved and applied by piano pedagogues to intermediate level students; the independence of the hands, changing finger numbers, changing touch between the hands and expressing the differences in expression (Ertem, 2011). The technique in the intermediate piano piece should be repeated in order to be reinforced, and the students who will be guided by the teacher's instructions according to the perception and capacity of the student, paying attention to the finger number and the sound balance between the two hands, and the difficulties that may arise during the learning phase should be returned to the student as new gains, and the student's paying technique should be improved (Winston, 2003). In order to improve the existing technique, the suggested repetition situations were provided by similarly repeating the repetitive left hand accompaniment styles in the arrangement.

A7: *"...I think that specifying the finger number ar the points where the position changes occur will help the student to predict what he/she will do and will contribute to the learning to take place more easily. Finger numbers are indicated at many points, which is fine. I think that just a few more points should be added. Especially in position changes..."* the field expert commented on the incomplete writing of finger numbers in position changes. Finger numbers are indicated in the position changes in bars 9, 11, 17 and 19. The change of position in the 2nd beat of bar 24 and bar 32, the position change in bar 11; since the position changes in bar 19 and 27 are the same, the finger numbers from the same position changes were not written. The issue of repeating finger numbers, which is also avoided in advanced piano pieces, is an important situation that should be considered especially in intermediate level pieces (Kalkanoğlu, 2020).

In terms of interpretation, what are the opinions of the field experts on the evaluation of the teaching stages? Feedback to the question "What are your opinions on the interpretation of the piece from the beginning to the end (nuance, pedal) reflecting the character of the piece?"; A3: *"Using pedal also on the 3rd stave would help the left hand feel more 'legato' "*, A7: *"I think maybe more pedals can be added to some points"*, A9: *"Pedal use can be increased in general for the arpeggios section in the middle"*. As a result of the suggestions of the field experts, pedal was added to the arrangement of *Al Yemeni Mor Yemeni*. It has also been suggested to add tempo terms to the arrangement: A3: *"...in addition to the interpretation, 'ritardando' can be added in order to increase the purpose of the staying effect of the harmony in bars 33 and 34, and 'ritardando' can be added in bars 17 and 18 in order to give a feeling of ending"*, A6: *"...if 'ritardando' can be added in bar 34 and a pointdorg/fermate sign is placed at the end of the bar, the interpretation can be more effective and rich"*. These comments were taken into account, however, the researcher did not change the arrangement of the song because by the tie placed on the same notes according to the time signature of 5/8, the value of the notes was extended by 5 beats in bars 18 and 34 which is sufficient. A6: *"From bar 19 to 34, it would be better if a slur was added*

to indicate the phrases on the right hand". The field expert suggested adding slur by this comment. The pedals used between bars 19 and 34 gave the legato effect that the field expert suggested. The slurs specified to be added were also considered by the researcher during the writing of the arrangement, evaluated according to the paragraph of the lyrics and it was considered as a possible solution to put a slur between bars 19 – 26 and 27 – 34. It was considered unnecessary to specify two lines of 'legato' expression and it was suggested to have the student do it by the use of the pedals as interpretation in teaching methods. A6: *"…(19-34) and bars 9-16 could have been supported with more crescendos and diminuendos…"* there has been no change in the arrangement as there were more than one expression and interpretation by the researcher that the intermediate student would pay attention to. Apart from the suggestions of the two field experts, the interpretation of the song with the use of nuances and pedals was found appropriate for the intermediate piano student.

Feedback received to the question "Is the prepared teaching plan suitable for the interpretation skill of the intermediate piano student?"; it was found appropriate according to the field experts' own teaching methods. The arrangement of *Al Yemeni Mor Yemeni* was examined under 3 sub-dimensions. In line with the feedback received from the field experts to the teaching of basics, the teaching of theoretical information and the evaluation of the teaching stages in terms of interpretation, it was concluded that the arrangement and teaching techniques are found to be appropriate. Details such as Sorgudong (fermata), pedal and the same style of writing were re-evaluated by the researcher and, additions and changes were made to the arrangement as a result of the opinions of the field experts. The first and final versions of the arrangement of *Al Yemeni Mor Yemeni* can be found in the Appendix.

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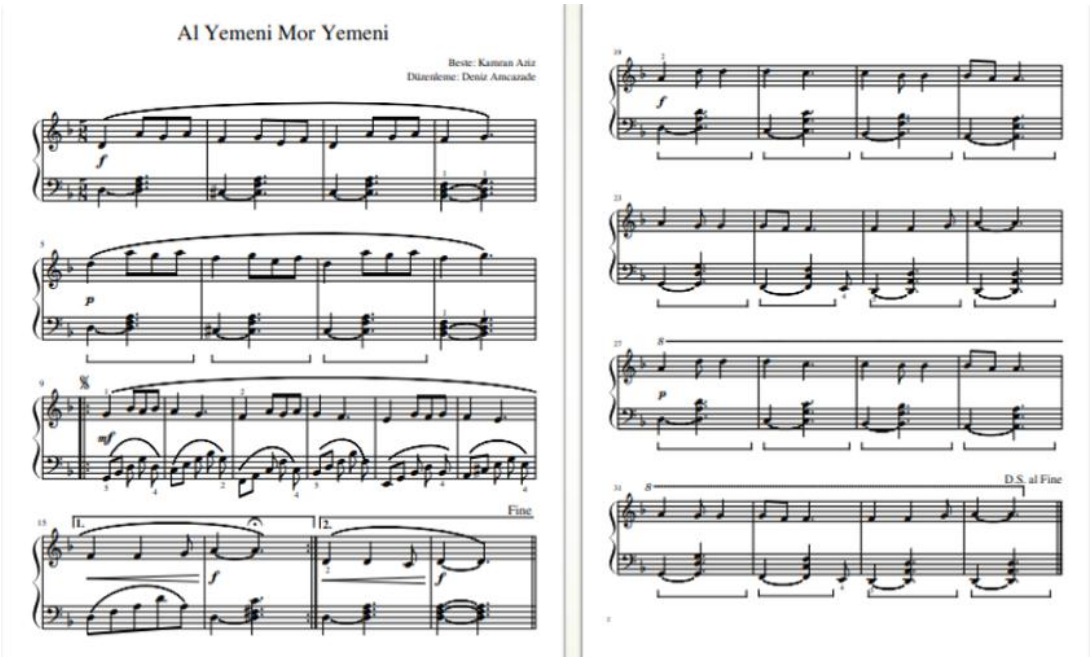
Appendix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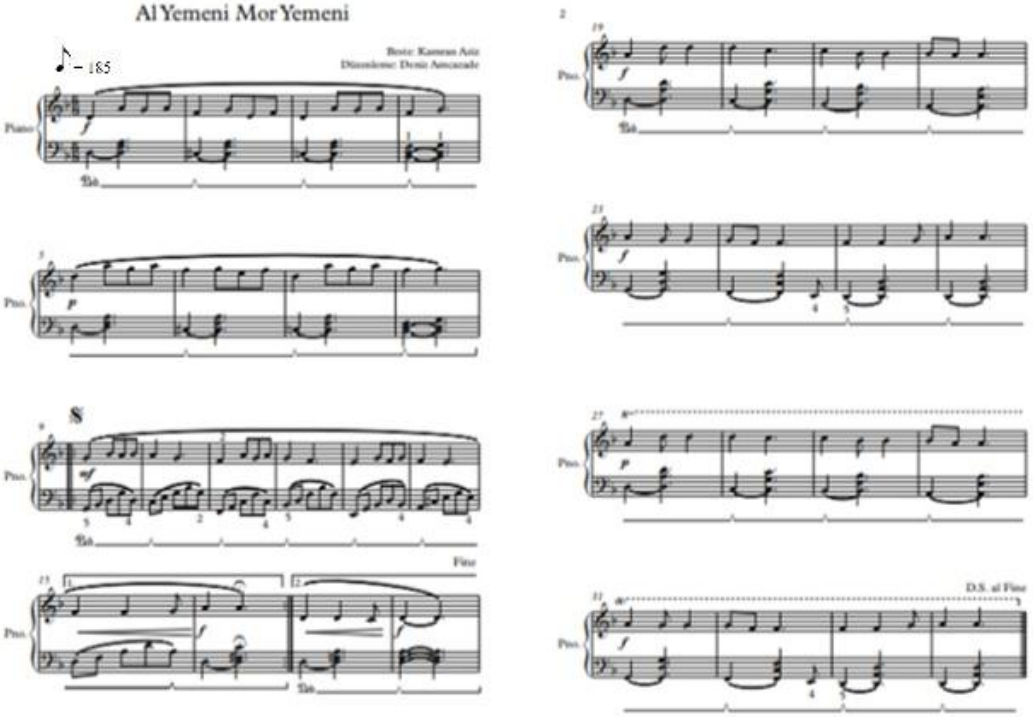
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A COMPARATIVE STUDY ON TURKEY, NORTHERN IRAQ, AND THE REPUBLIC OF CAMEROON ENGLISH EDUCATIONAL SUB-SYSTEM

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Abstract

The aim of this research is examine the educational systems of Turkey, Northern Iraq, and the English Sub System of Cameroon. This examination was done by analyzing the educational structures of Turkey, Northern Iraq, and the English Sub System in Cameroon to bring out their similarities and differences. The study method a qualitative research approach, with a descriptive analysis after reviewing documents containing the educational systems of these countries. Following the study, result of that these countries' educational systems shared many similarities and few differences in their educational framework and some educational policies can be applied to all three systems at some levels. The Pre-school and Masters' levels are similar to all the three countries; Primary school level in Turkey and Northern Iraq was similar while at the undergraduate level, there were some differences in all the three countries.

Keywords: comparison, educational system, Turkey, Iraq, and Cameroon.

Introduction

Research in the field of education is based on different foundations and systems. Today, several different methods and research methods lead the researcher to the details of an event and the desired answer. In this sense, comparative education methods, especially used in the field of social sciences, offer the opportunity to compare different elements of different countries in the field of education. Comparative education is a well-established academic field of study that looks at education in one nation or country (or a group of nations or countries) utilizing data and ideas from other nations' methods and situations (Miralay 2020; Manzon, 2011). Getao (1996), defined Comparative Education as a discipline, the study of educational systems in which one seeks to understand the similarities and differences among educational systems. He defines the comparative evaluation of two or more countries as the comparison of education systems applied in historical or important periods, sometimes as a whole and sometimes from different aspects (Zjada and Rust, 2021). Miralay (2020), argues that it is a branch of science that is studied in determining common or different aspects in education, theory, practice, educational planning, providing a peace environment and softening international relations within the scope of these relations. In line with this

information, when we look briefly at the historical process of the Turkish education system, during the years of the war of independence in Turkey, there were two education ministries: The Ministry of Education of Ottoman Government (Maarif Nezareti), in Istanbul and Turkish Grand National Assembly, the Ministry of Education in Ankara.

After the opening of the Turkish Grand National Assembly on 23th April 1920, the Minister of Education took part in the Council of Ministers, which consisted of 11 members established by the law no:3 and 2nd May 1920. The organizational structure of the Ministry of National Education in Turkey has been exposed to changes by various legal regulations and its current structure is determined by the Decree Law No. 652 on the Organization and Duties of the Ministry of National Education, which came into force on 14.9.2011 (MNE, 2015). Information emerges. Although this historical process varies according to countries, it also shows that there are differences when certain factors are considered. For example, if we talk briefly about Iraq's education system. The Ministry of Education in Northern Iraq was founded by two main political parties: they did not emphasize on academic principles and basic education rules, in contrast, they had a problem with the taking position in ministry. Besides, the structure of the ministry was an imitation of Saddam's regime; this formulates the system a undeveloped system. The ministry takes on more political issues rather than educational matters; this is because of the conflicts between the two main political parties (Salih, 2018). Since 2008, Northern Iraq has undertaken an ambitious reform of the kindergarten through grade 12 (K–12) education system (Vernez et al., 2016). On the other hand, it is known that before the 1990s, Iraq's education system statistically outstripped its neighbors in terms of gender equality, access, and literacy. However, almost three decades of wars and brutal sanctions have retarded these advances. Educational programs in Iraq are based on Western patterns, but also include religious education (Issa and Jamil, 2010). It can be said that the education systems of some countries in different geographies are different. Therefore, when we return to the African continent outside the Middle East, the situation in the Cameroon education system can be discussed. Cameroon's Government Ministries, as established by Decree Number 2004/320 of December 8, 2004, have four ministries responsible for education. The Ministry of Basic Education, Ministry of Secondary Education, Ministry of Higher Education, and Ministry of Employment and Vocational Training are the four ministries Cameroon's Educational System is outstanding in Africa. East Cameroon's education was based on the French model, while West Cameroon was based on the British model. As a result of Cameroon's unification, several schools in the French-speaking regions of the country now provide English-language education and vice versa (Flinders and Thornton, 2013).

This study focuses on the similarities and differences between Turkey's educational framework, Northern Iraq's educational framework, and Cameroon's education system and their English sub-system.

Table.1. The Countries' Demographic Variables			
Name of State	Turkey	Cameroon	Northern Iraq
Capital	Ankara	Yaounde	Erbil
Government	Parliamentary Republic	Presidential	Parliamentary System
Official Language	Turkish	French, English	Kurdish - Arabic
Religion	Muslim	Christianity, Muslim	Muslim
Currency	Turkish Lira (TRY)	Franc CFA	Iraqi dinar
Area	785,350 km²	475,442sq km/	40,643 km²
Population	83,614,362	27,048,056	5,123,000
Annual population growth	(%) 1.34		2.75 %
Weekly Working Hour	46.4 hours	46 hours	45 hours

Figure 1. *The Countries' Demographic Variables*

Problem Statement

There is globalization in the world today. Everything is merging into one, even the educational system. Educators and professionals gather at worldwide conferences and academic institutions to share their expertise and interact at an internal level to seek solutions related to global problems affecting the world's education. In this light, in this study, the socio-economic method, one of the comparative approaches, was used, and this study focuses on the similarities and differences in the educational frameworks of Turkey, Northern Iraq, and Cameroon, particularly in the English Sub System and their education structures and systems.

Aim of the Research

The aim of this research is to examine the educational systems of Turkey, Northern Iraq, and the English Sub System of Cameroon according to socio-economic method. This examination was done by analyzing the educational structures of Turkey, Northern Iraq, and the English Sub System in Cameroon to bring out their similarities and differences.

Methodology

This study, which was conducted to comparative approaches of the educational systems of the English Subsystem and school system of Turkey, Northern Iraq and Cameroon, according to socio-economic approach and qualitative study. This study, the document analyzing which allows visual and written materials to be obtained and examined, was used (Sonmez and Alacapınar, 2018). Any written material that provides information about the subject to be investigated is called a document (Balcı, 2006). Document review or analyze can be done in five main stages (Çepni, 2018); (1) accessing documents, (2) checking for authenticity, (3) understanding documents, (4) analyzing data, and (5) using data.

Data Collection

In this study document review was used as a single data collection method. In the document review method, the researcher can access the data it needs by making document analysis without interviewing and observing (Yıldırım and Şimşek, 2008). Firstly, the

documents were reached, and as a result of a detailed research, it was decided which dimensions would be considered in the process of examining the education systems. These dimensions are the main indicators (geographical, political and economic structure) and the school system (from preschool to the end of graduate education).

As a second step, the official agency reports of the state in which the most current data of all three countries were published were examined to ensure that the information in the examined documents was current and accurate. In the third stage, official documents were read and understood according to two predetermined dimensions. In the fourth step, the documents of all three countries were analyzed by the researchers. At the last stage, the similarities and differences between the systems of the countries were tried to be revealed.

Data Analysis

The data on the structure of the educational systems of Turkey, Northern Iraq and the English sub system of the Republic Cameroon, which constitute the sample of the research, were collected by document analysis method. The data obtained in the research were collected in accordance with the descriptive analysis approach. The document analysis method includes the analysis of written materials related to the social facts to be investigated and the data were compared according to their similarities and differences in line with these purposes. During the analysis of the data, the researchers independently analyzed the data and compared the analysis results side by side. The systems of the countries were analyzed considering their English sub-system and educational system.

Findings

The information given below is selected and presented in the light of the information obtained as a result of various literature reviews. This information explains the basic education systems of three different countries in a general framework.

Education System in Turkey

Pre-School or Pre-Primary Education: It is an optional education for children between 3-5 years of age.

Primary Education: With a new Law in 2012, four years of Elementary school + four years of Middle school is compulsory for all boys and girls at the age of 5,5, (1st, 2nd, 3rd, 4th grades) and the age group of 10 to 14 (5th, 6th, 7th, 8th grades) today.

Secondary Education: It is compulsory for four years (used to be 3 years until 2005) and covers general, vocational and technical high schools aiming children at the age of 14 to 17 (9th, 10th, 11th, 12th grades).

Higher Education: After a four-year faculty, one can go further for his/her Master's Degree which lasts for two years with thesis and non-thesis options. Access to doctoral programs requires a master's degree and has a duration of minimum four years with a doctoral thesis at the end. The graduates of Medicine, Veterinary Medicine and Dentistry can directly apply to PhD/Doctorate programs.

Education System in Northern Iraq

Pre-school Education: For children aged (4-5) years is provided for two years (optional and not compulsory).

Primary Education: Before it was (6) six years primary and (3) three years secondary, now both levels are regarded as one 9-year level basic school (compulsory) for all boys and girls at the age.

High schools: It is compulsory for (3) three years, and covers general vocational schools that include agriculture preparatory institute, computer, health, trade, industry institutes, and teacher training, and technical high schools.

Higher Education: Students are accepted to university according to their grade that they accomplish in the baccalaureate exam in the last year of high school. After completing a four-year program, students can pursue a Master's Degree, which lasts two years. Access to doctoral programs requires a master's degree and a duration of minimum four years with a doctoral thesis at the end (Vernez et.al. 2016).

The Basic Education in Cameroon

Kindergarten: Children begin kindergarten from the age of two. It is commonly known as the Nursery Schools. They are taught for (2-3) two to three years and are brought up to the ages of four or five years old ready for Primary studies.

Primary School: This curriculum lasts six years and culminates in the First Leaving certificate and the common entrance examination, which prepares students for secondary school. This level of education is considered free but mostly parents do have minimal levy to pay in Government schools. This Levy is known as the PTA levy (Parents Teachers Association levy). Primary education in Private schools is not free. Primary education is mandatory for all children.

Secondary Education: Following primary school, students have three options to continue their education, which vary depending on their family's financial status as well as their general exam results. Secondary Schools with general education, secondary schools with technical education, or vocational schools are available for students after primary school. These various schools can be public or private schools.

The general section is five years and is completed by having at least four (4) subjects in the Cameroon Ordinary Level General Certificate of Education (G.C.E. O Level). While the technical section the technical section writes the G.C.E. Technical O level after five years of study. This leads them into high school.

High School: Following secondary school, students have three options to continue their education, which vary depending on their family's financial status as well as their general exam results. High Schools with general education, high schools with technical education, or vocational schools are available for students after secondary school. These various schools can be public or private schools.

The high school is a two-year course that ends with the Cameroon General Certificate of Education Advanced level for the general section or Cameroon General Certificate of Education Advanced level technical. Students have the choice of being either an arts or a science student. Here in the general section, the students can choose either to study in the Arts section or the Science section. This section is completed in passing in at least two subjects

Higher Education: Here Cameroon has Universities; public, mission and lay-private Universities. Generally, the undergraduate course is 3 years, master's 2 years, and doctorate 4 years. Some other higher institutions are affiliated with the public Universities known as the state universities. Students can study for 3 years to obtain a diploma in some of these higher institutions and then move on to the affiliated Universities to get the first degree.

Table 1.
Education System of Turkey, Cameroon and Northern Iraq

Education in Turkey		Education in Cameroon		Education in Northern Iraq	
Academic levels	Typical ages	Academic levels	Typical ages	Academic levels	Typical ages
Doctor	24-27	Doctor	23-	Doctor	Employee in government 26-29 Unemployed 22-25
Masters	22-24	Masters	21-23	Masters	Employee in government 22-24 Unemployed 20-22
Bachelor	18-22	Bachelor	18-21	Bachelor	17-20
High School Education (Secondary)	14-18	GCE A GCE O	16-20 11-16	High School Education	14-16
Primary School Education	6-14	First School Leaving Certificate and the Government common entrance exams	5-11	Basic School Education	6-14
Pre-school Education	3-6	kindergarten	3-5	Pre-shool Education	3-6

Discussion and Conclusion

This research is based on a general comparison of the education systems of Turkey, Iraq and Cameroon. In line with the findings obtained it was realized that the three countries' educational systems shared many similarities and few differences in their educational framework. When the results of the research are examined, it is seen that the basic education level is closely similar to each other (starting age and level) in all three countries. Then, it was determined that all three countries are within the scope of compulsory education at primary education level, but there are differences between Cameroon and Iraq. It has been observed that the education system implemented in Turkey is similar to Iraq in terms of age and levels. According to this information, it would be appropriate to mention the following findings.

The Preschool levels are similar to all the three countries. Primary Level have some similarities and differences. This level of education is compulsory to all the three countries. This gives them an aspect of similarity. The difference is that Northern Iraq and Turkey are having the elementary and the middle school fused together at primary level. While the English Sub system of Cameroon has just the elementary level and the secondary (middle) school separately. Secondary Level in three countries seem not to have some similarities. In Turkey educational system, the secondary level is the level that leads to the university. In a real sense, it should be the High school section. This is so because the secondary (middle school) is linked to the primary level. Northern Iraq is not having the secondary level; perhaps this section was considered linked to the primary level. While in the English sub system of Cameroon, this level is clearly identified. Dupraz (2019) attributes the differences

in the Cameroon education system to French colonialism. In this sense, it can be thought that the foreign language is different and rich in the education system applied in this country.

High School Level of Turkey's education system does not have a high school level. It is the appellation that changes. We have the same function as the high school level in Iraq and Cameroon. In this country, students leave secondary school. Northern Iraq has the high school level which is also the same in structure as in Cameroon's English Sub system of Education. And University level of these countries apparently the same. They consist of the same structure, undergraduate, master, and doctorate program. The Pre-school and Higher Education levels are similar to all the three countries; Northern Iraq and the English Sub System of Cameroon shared some similarities at the level of high school which is not existing in the educational system of Turkey. Northern Iraq and Turkey have four levels of Education on their framework while Cameroon has five levels. In their study, Fadhil and Sökmen (2014) underline the importance of the finding that the differences in the education system are that girls get married at an early age and receive less education than boys.

Despite these differences, the number of years used to complete these various levels of education is the same (24years). This will depend on the number of years spent at preschool, which is optional. All the three systems have the Primary level, which is compulsory. This makes them similar; but differ from each other in the sense that they all have different numbers of years at this level. There was a remarkable difference in the ministries that are responsible for education in these countries. Turkey has one ministry responsible for education, Northern Iraq two and Cameroon four ministries. It can be concluded that, due to the large similarities in the structure of the educational framework of these countries, a general policy can be implemented to three countries. For example, Primary education is compulsory in the three countries. This policy was applied differently but now it is clear that it could have been applied generally to the three countries. In a nutshell, these 3 systems can unanimously take a common decision on a policy to be applied to their educational systems regarding global issues.

Recommendations

After presenting a framework of the various systems of education, presenting their similarities and differences, the researchers recommend an in-depth examination of the various levels of education to bring out their policies and functions regarding education. In line with the findings obtained in the research, it can be said that preschool and primary education stages need basic English education. In this context, it is suggested that the education programs to be developed should include basic English education. In addition, it is recommended to create an education program or an annual strategy plan, taking into account the needs of students in the countries and the process they are going through. The diversity of education systems undoubtedly contributes to the development of a values education program, but it should not be forgotten that it is essential to take a successful education program as an example and to restructure the weak one. In this direction, it is recommended that English education should be added to appropriate education situations by examining socio-economic conditions.

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GAMIFICATION IN COMPUTER SCIENCE COURSES: A LITERATURE REVIEW

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Abstract

The complicated, boring problems in computer science learning make them lack motivation during the COVID-19 pandemic. The further exciting and appealing educational setting is the more significant learners' participation in the learning challenge. A traditional setting was not appealing too much, creating a dull environment that has no learning motivation. Gamification is often used as an instrument for motivating learners and increasing their commitment. A study analyzes several previous research types in this field to assess gamification's effect on higher education students in a computer science course. The results conclude that gamification enhances the interest and encouragement of the learners. Also, it improves computer science curriculum training and knowledge of a complicated topic, providing learners with optional barriers. While they are beneficial, pedagogical games may have drawbacks that impact either emotionally and physically learners. The most popular gamification elements used during computer science classes were badges, leaderboards, score, level, and feedback. They were the most commonly known feature of the game in learning computer science. Implementing components of gamification in education is a resource that can motivate learners in computer science education. Gamification can give positive outcomes for students' achievement and the teaching and learning process framework, which teachers increasingly accept. Further research is required to determine if this transforms into an effect on finished performance and governs particular group impacts. Students' academic achievement and results in the computer science curriculum must develop a broader amount of knowledge on the utility through gamification.

Keywords: gamification; higher education; computer science course; elements of gamification; motivation.

Introduction

One of the most challenging problems of today's society is the adverse effects of the COVID-19 pandemic on education. Health authorities took various measures to control this pandemic. One of the measures they have been taken is to allocate lockdown. Most schools have been closed worldwide, and as an urgent result, learning and teaching have been switched online. Therefore, it can be easily said that there are many negative effects of this pandemic on education. In many studies conducted during the pandemic process, it was determined that educators experienced challenges in teaching methods, choosing the appropriate online tools, ensuring interaction, and motivating students in e-learning (Hasan and Bao, 2020; Kyrkjebø, 2020).

For this reason, there are many studies in the literature regarding the interaction of gamification applications with e-learning environments and increase student motivation. A concept named "gamification" has been given particular heed to the rapid growth of multiple

applications together with video game attitudes (Kayımbaşıoğlu and Hacı, 2016). Gamification is the un-gambling mechanism in terms of gaming-design elements and game theories (Al-Azawi, 2016). It may also be described as a range of actions and mechanisms while using or implementing the game sections' properties to overcome problems (Kiryakova et al., 2014). Gamification typically utilizes game design parts to enhance users experience operational effectiveness, movement, training, crowdsourcing, recruiting and assessment of staff, the convenience of use, program efficiency, regular exercise, violations of traffic, public apathy, etc. (Robson et al., 2015).

A research review shows that several gamification study results believe it has significant impacts on participants, promoting such behaviors in a consumer (Butler, 2014). A game turn in other realistic and scholarly areas, and that process will continue. Gamers willingly use their capability to resolve various games' issues and improve self-abilities, including the sedulity, imagination, and versatility in extended games (Seaborn and Fels, 2015). The gamification seeks to employ using the game's meditative force to address real-world issues (Nicholson, 2013). Because of the multitude of benefits from this definition, this is not hard to believe that companies of multiple dimensions, while in various sectors, focused on using the game theory (Hamari and Koivisto, 2015). Also obtained considerable power throughout the production of goods, telecommunications, and procedures and gambling in companies via a mighty scale, is rising (Nicholson, 2015).

Gamification alludes to technology, which aims to encourage fundamental motives towards various behaviors, usually through game-characteristic programming (Hamari et al., 2015). Standard gamification elements involve accomplishments, points, reviews, leader boards, specific objectives, and narrative, for instance (Chen and Pu, 2014). Gamification was extended to just about all areas of society (Iosup and Epema, 2014).

Use gamification through education becomes a strategy to inspire students to understand in learning milieu by using computer game development and game components (Tejada-Castro et al., 2018). Learners are now digital citizens, so they provide a digital identity (Su and Cheng, 2015). They have grown up using emerging technology and have specific learning patterns, a new mindset towards the process of learning, and great learning and teaching requirements (Tsai et al., 2016). Low student participation and loss of learning enthusiasm are the key challenges faced by school teachers, students, and academic researchers (Hu, 2019). Teachers face real problems and have to address critical issues connected to adapting learning to learners' wants, expectations, and requirements (López and Flores, 2018). Teachers must use various strategies and techniques to teach that encourage students to have been active entrant with high incentives and dedication for their learning (Turan et al., 2016). Current educational modes of thought and patterns strengthened the use of ICT, build preconditions in use with new methods and strategies to incorporate learning. One such phenomenon is the gamification of coaching (Kiryakova et al., 2014). Technology can boost learning through many mechanisms, like offering instant feedback to learners, making additional tools available, or enabling them to exercise their skills at their speed and evaluate their information (Sanchez et al., 2020). Training and learning in the education sector are the most apparent benefit of Gamification (Varannai et al., 2017).

Gamification introduced in higher education has grown during the last decades; it is among the most common college departments (Hamari and Koivisto, 2015). In the literature, computer science courses in higher education have problems with high attrition levels, there are many topics on view, and challenging subjects, often, students consider computer science teaching challenging, content description tedium (Butler and Ahmed, 2016), as well as a

lakelet of avail and incentive (Khaleel et al., 2017). Due to such a software disillusionment that derives from a supposed student's challenges and a shortage of motivation towards student learning (Ortiz et al., 2017). There is a strong connection in both the student's engagement and participation throughout a class. Thus, improved academic success in computer science and coding topics will contribute to increased participation and likely success (Abdool et al., 2017).

Today education evolves with innovations, current and traditional teaching styles (Azmi et al., 2016). Technologies in Use studying-based Personal computers, tablets, laptops, and smartphones (Sanmugam et al., 2016), are used to inspire individuals and promote positive actions towards different persons and groups (Hamari and Koivisto, 2015). Gamification creation indicates that technologies and gaming designing can also be applied in motivation-enhancing activities (Hamari et al., 2015). Because many young people involved in playing games environments (ESA, 2014), although computer games are technological objects, gameplay provides a possibly fruitful way is increasing learner participation and commitment toward Computer Science learning (Mejias et al., 2015).

Games be a component of a student's life shown to be successful, like enhancing encouragement and supporting the student, particularly during the education process (Maia and Graeml, 2015). Gamification does positively impact educational outcomes and behavior towards the course because of its dynamism (Yildirim, 2017). However, it has effectively improved background involvement and interest (Dicheva et al., 2014). Another explanation gameplay system is useful for Computer Science education is because efficient educational strategies are standard through playable demo development (Li et al., 2013). Games represent essential learning precepts that teachers should imitate (Ibanez et al., 2014).

Since games 'educate' notions via designing goals and involving issue-solving, concentrating emphasis on core elements of gaming issues, and structuring issues such that participants draw on past conceptions (Gari, 2019). Designing for issue-solving and simplifying knowledge to draw on previous experience effectively maps the analytical thought techniques (Costello and Lambert, 2019). Gamification could also be applied in computer science with any topic through development, like data structure (Hakulinen and Auvinen, 2014), cloud services (Epema and Iosup, 2014), programming course (Fotaris et al., 2016), 3D computer animation (Villagrasa and Duran, 2013), pure computing (De-Marcos et al., 2016), network node (Zhamanov and Sakhiyeva, 2015), web browsing, database (Domínguez et al., 2013), and AI algorithms (Grivokostopoulou et al., 2016). Using gamification is a way to resolve the problems of actively integrating video games through the classroom (Hanus and Fox, 2015). Gamification's influence upon learners' learning is among the positive effectuation because of its drive; it has a beneficial impact among learners, particularly in education (Ortiz et al., 2017).

Several earlier research pieces contribute to Gamification in higher education Computer Science (CS) courses: Gamification plays a constructive role in CS education. There is another result to the class that seldom hires PCs either technologies (Yildirim, 2017). Learners who regularly watch video games became inspired, yet learners who occasionally utilize software also had strong gamification performance (Varannai et al., 2017). Adopting gamification through education could be a resource which might inspire and attract students and produce their success through studying CS more successful and appealing (Butler and Ahmed, 2016). Gamification may be one of the approaches to rising CS learning issues in university education (Sanmugam et al., 2016). Throughout (Ibanez et al., 2014), researchers recognize motivation as a critical variable required to decide learners will understand useful

computer sciences, and gamification may perform a significant factor in enhancing commitment. The stated drawback is that specific anti-plagiarism methods must be established, too, as a program could require fraud. According to Uskov and Sekar (2014), gamification is an increasingly expanding phenomenon and, relying upon through the academic questionnaire, notes that 90 percent of learners loved gamification strategies being introduced throughout computer science classes. Many types of research, such as (Abdool et al., 2016; Azmi et al., 2017; Ortiz et al., 2017) also receive positive outcomes after implementing gamification throughout the software engineering courses, computer programs, and forcing the use of such techniques in colleges and universities. Besides, gamification applications to increase students' motivation in the pandemic process and improve interaction with the learning process become essential (Suppan et al., 2020). This research examines gamification effects for students throughout the higher education computer science course by reviewing the existing articles.

By finding the answers to the following research questions, the effects of gamification for students in the higher education computer science courses are illustrated:

Q1: What are the advantages of gamification in computer science education?

Q2: What are the disadvantages of gamification in computer science education?

Q3: What are the most gamification elements commonly used in computer science courses?

Q4: Does the introduction of gamification elements into computer science courses improve student's motivation?

Methodology

A literature review was carried out to achieve the aim of the study. It is an academic article that discusses scientific understanding through empirical results and theoretical and methodological approaches to a specific subject. They are secondary sources that will not mention any original or new research (Oztemel and Gursev, 2020). In this study, the term gamification in computer science education is used as an initial search criterion; this paper's review is limited to work published in the journals earlier during 2014 as the start of gamification in computer science education search 2020. The choice to restrict the analysis to this time is focusing on the question regarding the relevance. The search will carry out using the following preferred electronic sources to obtain a global perspective. It is preferable because most of the papers connected to the university library, through the library, the largest and most popular online databases, and search engines are available:

IEEE Xplore publishing many conferences and journals, Web of science, science direct, SpringerLink, and Scopus to provide a detailed explanation of the research results on Gamification in Computer Science Education; all data are collected using the following keywords; "Gamification," "Gamification in education," "Gamification in computer science education," "Gamification elements used in computer science education." The initial resources were chosen via papers relevant to the topic, checked the study's abstracts, and determined if the information was pertinent to the parameters.

Resource assessment was based on:

- Inclusion Criteria

1. The findings were submitted between 2014 and 2020 to get the most current research articles.
2. The paper is written in English.
3. The paper discusses some fracture of gamification.
4. The papers are related to gamification in the field of computer science education.
5. Papers available in full text.

- Excluding Criteria

1. Duplicate articles.
2. Non- English articles

Results

This literature review research looks towards discovering the effects of gamification for students in the higher education computer science course; the following subsection provides descriptions of the review results.

The Advantages of Gamification in Computer Science Education

Gamification was implemented in the area of computer science as well as in physical classes and online classes. Gamification is a modern technology that will enhance the educational experience, which has a significant influence on how computer science training is taught and learned (Begosso et al., 2018). Gamification enhances the interest and encouragement of the learners (Ortiz Rojas et al., 2017). Also, it improves computer science curriculum training and knowledge of a complicated topic (Hakulinen, 2015). Here are several of the advantages of gamification:

- Mental evolution: Games can give learners the ability to understanding another computer science (Borna and Rad, 2018).
- Gamification raises the level of dedication and encouragement in the classes that the learners want specifically. As gamification is incorporated into computer science classes, learners are likely to become increasingly active throughout the topics that become taking are studying (Dichev and Dicheva, 2017). Gamification offers numerous possibilities to create Computer Science training more interesting and exciting by presenting a particular thing in new ways. Also, gamification may promote increasingly successful engagement throughout the education environment (Butler and Ahmed, 2016). It can be challenging to accomplish in a typical lecture setting (Zahedi, 2019). Internet connectivity already provides learners with access to such a wide variety of tools for conducting a study across different contexts, improving participation (Iancu, 2019).
- Gamification accelerated job speed for learners; owing to learning abilities, nobody trains the same style (Borna and Rad, 2018). Gamification offers fantastic ways to make education increasingly accessible to those who have specific needs. Moreover, technology will create many resources for learners suffering or disabilities (Morreale et al., 2019).

- Gamification allows learners to develop an activity plan as well as to select the top-ranked activities and also to earn further marks first. It makes students feeling recognized enough for their most robust efforts (Zahedi, 2019).
- Learners tried to cope stronger: human contact among learners by talking, listening, and effectively debating ideas arises while learners become presented with a question, proposing answers, supporting one another in the event of challenges (Rahman, 2018**;** Elshiekh and Butgerit, 2017).
- Improvement of behaviors; Learners may acquire unhealthy habits throughout computer programming, like stealing and sometimes hack (Butler and Ahmed, 2016). Pedagogical games will direct learners in their career and academic growth to understand certain behaviors. Many results may be accomplished through gaming but are not specifically applicable to computer science education: movement abilities, behavioral and mental results, and physiological outcomes (Borna and Rad, 2018).
- Learners liked playing the game: learners are supposed to appreciate gamification lessons increasingly. It offers various feelings, including inquisitiveness to anger, happiness, and beneficial psychological experiences, just like hope or confidence (Ibanez et al., 2014). It focuses on learners' passion, unrelenting motivation, which students love and are fantastic about (Permana et al., 2018).
- Gamification offers an excellent opportunity for timid learners to show themselves, so both learners mark themselves overtly. It provides learners with optional barriers and allows them to use their abilities and participate in the course. It changes a standard guidance process within computer science classes (Morreale et al., 2019).
- Students can lose and attempt again without any adverse consequences. It reduces a lack of motivation among learners and improves learning chances (Ortiz Rojas et al., 2017).
- Direct feedback to learners that they could focus through different choices and questions relevant to the curriculum content and provide direct feedback, guidance is immediate (Zahedi, 2019). Throughout the learners' viewpoint, assessments and tasks and many other tasks offer various concentrations/manner of input while the participants realize what they learn or everything they want to understand (Elshiekh and Butgerit, 2017).

Digital education engagement gamification is correlated via various training theories-successful education, issue-oriented trying to learn, public studying, Theories of functionalism, and collective training. It will also improve morale yet often promote learners' development to define negative and positive positions (Iancu, 2019).

In the digital classroom, gamification is about making education an enjoyable activity (Rahman, 2018**)**. Through this direction, students gain valuable abilities to the actual world and develop information (Buckley & Doyle, 2016). Gamification in computer science education includes benefits: it encourages functionality, it slowly participates in the process of learning – that provides a range of exercises and assignments that evoke attention, direct feedback as well as prize, it stimulates imagination, develops rational thought and issue solution, builds abilities for use (Ortiz Rojas et al., 2017; Butler and Ahmed, 2016; Elshiekh and Butgerit, 2017).

It will provide educators with the materials required to guide and inspire their learners to turn the process of training towards a positive one (Zahedi, 2019). Gamification has the power to help enhance teaching. Educators may utilize various applications to improve conventional teaching methods and make sure learners are most involved (Ibanez et al.,

2014). Virtual teaching methods, automated testing, and online evaluations will help educators save a great deal of time. The precious time is used to work towards learners with learning disabilities (Frącz, 2015).

Disadvantages of Gamification in Computer Science Education

The use of gamification in learning Computer Science has demonstrated beneficial effects. Many research types showed that the gamification dimension would inspire and involve the learner during computer science education. Through academics, successfully applied gamification to boost a learner's awareness, the interest, and ability of a learner with gamification computer programming training have been enhanced. While they are beneficial, pedagogical games may have drawbacks that impact either emotionally and physically learners (Mejias et al., 2015).

For both learners and educators, gamification has a few adverse effects, such as:

- Gamification will create unsanitary competition and unneeded conflict between learners. That may be a detrimental and inappropriate gamification impact via course action (Ortiz Rojas et al., 2017; Schulz et al., 2015).
- The quick-paced and direct feedback gives rise to a participant's term memory question (Baxter et al., 2016). Learners may start anticipating and do not have the same answers across all aspects of academic learning, contributing to disappointment (Furdu, 2017).
- The expense from gamified training varies according to the particular program use, costs for preparation, software costs, and instructors' training costs may arise (Faiella and Ricciardi, 2015). Such expenses are often carried on to the undergraduates via fees and course instructions that need to be bought, increasing the overall number of obstacles to entering the learning environment. Sometimes there are program-associated costs to promote or services that are offered internet or are sponsored in the university atmosphere (Mejias et al., 2015).
- Gamification may trigger poor personality-esteem or bad behavior, particularly if learners lose at a game (Schulz et al., 2015).
- When teachers pick gaming, this has not always seemed obvious how well the game outcomes would be related to the evaluation of a curriculum (Gari, 2019); although many platforms provide an automated method to measure performance, teachers may have to start turning the success of the individual student match through achieving goals. Finding a suitable match between popular products and the course content is often not straightforward (Hakulinen, 2015). Establishing the game to the course takes much proper planning as well as lecturer procurement. Almost all of an occasion's educators would need to watch the simulation first, requiring time to complete until they thoroughly know the game and goals (Haaranen et al., 2014).

Not that all learners who were inspired through gamification of education have not experienced any impact in applying gamification since they have also won full badges or points (Ortiz Rojas et al., 2017). According to Baxter et al. (2016), Participants have variations in either the result for gamification, that most often utilize technology and participants who never use it, such as IT students and students from non-IT. The distinction between IT and non-IT learners becomes non-IT, which is generally driven through necessity and accessibility, while non-IT learners were not. That is because students with IT are similar to whole technologies. The learning environment may not influence the project's degree of

objective quality throughout the game, which might decide whether simple or hard to use, yet learners who regularly play computer games have been more inspired than learners who enjoy playing a computer game. Non-IT learners indeed have a straightforward achievement in applying to gamification.

Most Used Gamification Elements in Computer Science Education

Gamification is often characterized as utilization throughout the non-game background of gamification components, which increases the learners' encouragement and motivation, as it does in computer science education, there are many gamification elements used (Rahman, 2018). Depending on the primary research findings, a most popular feature of gamification used during computer science classes were *badges, leaderboards, score, level* as well as *feedbacks,* and they were the most commonly known feature of the game throughout learning at computer science (Rojas-López and Rincón-Flores, 2018; Koivisto and Hamari, 2014). Badges and Leader boards have become the critical ability to improve training performance (Falkner and Falkner, 2014). Gamification elements that are most commonly seen in computer science training is as follows:

Points: Some researches explored the effect from points showed the good effects throughout computer science education since the point offered immediate feedback and made the participant engaged or inspired with computer science teaching (Sprint and Cook, 2015; Oktaviati and Jaharadak, 2018; Rojas-López and Rincón-Flores, 2018).

Badges: According to Smiderle et al. (2019); Oktaviati and Jaharadak (2018) and Rahman, (2018), badges highlighted good effects that could inspire or include learners during computer science learning; it will inspire learners to provide enjoyable learning experiences and therefore can assess the skill of the individual, learners feel encouraged to complete the assignment and enjoy the extra acknowledgment will gain as they receive the badges. Badges may improve the learner's interest or involvement in studying computer science, but perhaps the main crucial thing has become an effective structure; it will be more straightforward or more challenging for the learner to obtain (Baxter et al., 2016). There will be variations of learning trends among learners with the information stage; learners of poor performance may be most motivated for engaging, whereas learners of higher motivation become provided hon abilities badges (Falkner and Falkner, 2014).

Leaderboards: Depontes et al. (2018) found that for some learners, they get the beneficial effect that offers inspiration, although often students hate the competitive components like the leaderboards incorporated into computer science class. Students would like to carry through the role of trying to achieve the best scoreboard spot. That offers learners the right motivation to actively engage further throughout the events and climb higher (Smiderle et al., 2019).

Levels: They positively affect learning computer science, like motivating and engaging learners (Oktaviati and Jaharadak, 2018). Another key would be to maintain sufficient product railings, growth, and series to be effective through gamification, neither frustrating the users but maintaining the students' correct amount. Typically, often grouped through lines, effectiveness, when the student wins certain marks, progresses to another stage (Baxter et al., 2016).

Feedback: It can prevent missing or frustrated learners from being noticed that direct feedback became a crucial feature through gamification, reinforcing the link between right-doing and getting praised for it (López and Flores, 2018).

Cooperative creating group Programming to computer engineering learners, one common goal is to write software programs besides competitive type issues. A series of discussion topics are produced in which an Association for Computing Machinery (ACM) programming competition form of the challenge becomes presented for encouraging the learners (Smiderle et al., 2019). Every person, or team of learners, can add the workable answer as responses to the main subject; learners involved in the issue have to see other learners' ideas, have input and comments, and ideas for other ideas (Sherriff, 2016). It offers learners an excellent means of communicating, cooperating, developing their rate, and, most significantly, gain from one another programming abilities (Rahman, 2018). The learners produced significant participation from those discussion topics; the above gamification element makes it attractive for all the learners to learn on the difficulties of programming competition form and get training from classmates (Elshiekh and Butgerit, 2017).

Based on Oktaviati and Jaharadak (2018) and Begosso et al. (2018) in the computer science curriculum, the most commonly known gamification components are badges that are directly accompanied by both points and leaderboards. Academic achievement impacts on gamification indicate that it is a successful method incorporated into the teaching material. Gamification also has a more in-depth knowledge of learners with their contributions. Also, leaderboards had observed to be the primary motivating, although points seemed further successful than certain gamification elements. Experiments already found that the learner's performance increased significantly since using these gamification elements. Badges, Leaderboards, awards, level, and point seem to be the more factors explored throughout studies (Sprint and Cook, 2015).

Effects of Gamification Elements on Student's Motivations in Computer Science Courses

Motivation is the step to continue the action and even to direct it. Learning motivation may be described as the willingness of the student to encountering (Lister, 2015). Gamification's main goal was to improve motivation and success by structured elements targeting various activities and ability creation. It gives rise to numerous theoretical frameworks, often using motivational templates (Frącz, 2015). The philosophy of self-determination speaks of two main types: internal and external motivation.

The gamification component's implications through teaching students computer science could even enhance engagement and motivation between the learner and the learner who has appreciated doing their job (Borna and Rad, 2018; Buckley and Doyle, 2016). Gamification training is a resource for helping learners, and teachers gain knowledge and make the educational quality more successful and attractive (Zahedi, 2019; Wenzl and Miladinovic, 2018). Using game technology can divert attention to a participant throughout teaching practices, as well as some participants would diminish attempts to learn much more about the component (Morreale et al., 2019). Consequently, this is necessary to ensure that gamification will not make learners negligent when applying rivalry (Butler & Ahmed, 2016). The architecture of assignments and classroom materials there at an appropriate level is essential for learners (Elshiekh and Butgerit, 2017). Several study results have explored the efficacy regarding gamification elements throughout the field of computer science; the elements more often tested in the studies have been: points, rates, badges, and accomplishments, as well as leaderboards that can motivate several fields of computer science (Iancu, 2019; Rahman, 2018; Ibanez et al., 2014; Azmi et al., 2016). Gamification has a beneficial effect on learner motivation (Buckley and Doyle, 2016).

ARCS motivation method, as it is the best method to increase educational process efficacy, encourages externally and internally motivation (Pinter, 2020). Keller created it in 1987 for computer science courses to identify several motivational approaches that would be applied throughout learning (Sherriff, 2016; Čisar et al., 2020; Sprint and Cook, 2015; Lister, 2015) to provide and promote the encouragement of learners can be found through gamification elements such as:

- Gamification elements Provide learners with a feeling of command that helps them identify their objectives and decide how to meet them.
- Describing the goals: learners often understand what to do to gain points and be best put throughout the ranking.
- Use constructive rivalry: it will inspire learners to work better and study more to score higher.
- Providing prizes: Learners earn incentives by placing them on the leaderboard as well as obtaining badges. All who perform more get a reward, and rank higher encouragement is indeed a perfect way to inspire.
- Offer accountability to the learners: what rating would appear, which badges are next, based on whether involved the individual is. The shifted obligation will get the learner motivated.
- Creating exciting lessons: learners are actively interested in attending lessons as they miss leadership roles or earn different badges.
- Keeping expectations high and achievable: each learner becomes informed on creating the right place and the leaderboard by attending and contributing to classroom work.
- Gamification elements Providing feedback: Students receive feedback mostly on points, badges, and location on the leaderboard. The learners can see through themselves if they could do better or try to change it.
- Success track: grades, awards, and leadership positions show the participant's performance throughout actual time.
- Fun is among the factors that encourage computer game participants to enjoy and keep returning for further. Gamification appropriates the concept of fun through computer games to obtain the students' dedication and improve motivation in such a right way. Picking up badges as well as points is something of a game. Competition by game among classmates keeps the whole process enjoyable (Ortiz Rojas et al., 2017).
- Include resources for achievement: the framework presents two strategies to boost a leaderboard role. Next, each learner earns points through course attendance. Much visiting indicates further points.

Based on studies by Begosso et al. (2018), Permana et al. (2018), and Dolgopolovas et al. (2014), gamification plays a significant function in inspiring teachers and students for learning algorithms and coding principles and the main topics of introductory object-oriented programming to engineering and computer science learners, because it is further enticing towards learners and offers more powerful opinions and relationships than conventional strategies. Studies that have carried out experimental data on using gamification elements conclude mostly on the beneficial impact on learners' academic achievement and overall success via immediate results and communication (Butler and Ahmed, 2016). Several

scholars reported promising findings suggesting higher levels of probability and increased comprehension and interaction of learners when gamification technologies are added to the classroom atmosphere (Alsawaier, 2018; Ibanez et al., 2014).

Iosup and Epema (2014) and Lister's (2015) experiments have significantly improved learners' success while using gamification elements. The training efficacy has a good influence; once the gamification elements have been removed from the program, learners' accomplishments decrease, user involvement decreases, and interaction reduces.

According to Haaranen et al. (2014). not all students become motivated by the gamification components or advantage from them. In reality, the amusement elements for gaming can divert the participant from the game's teaching practices and the participant's attempts to analyze information (Lister, 2015) further. Some research results indicate that students are not motivated in certain situations, which reduces their intrinsic motivation (Gari, 2019; Hanus and Fox 2015; Rojas et al., 2017). For this reason, gamification applications can be used instead of a single type of motivating factors.

Discussion

Students have some problems in computer science courses, especially programming language courses. It is not easy to understand. So, there must be a way of encouraging students to practice study and exchange ideas; they need to be motivated. Gamification is used as an instrument for inspiring students and growing their dedication (Elshiekh and Butgerit, 2017; Cadavid and Corcho, 2018). Gamification plays a significant part in learning computer science because it is much more appealing to young learners and offers connections and experiences that are more powerful than conventional methodologies. The gamified learning environment has enhanced learners' involvement and boosted enjoyment, even as learners are required to accomplish a task, increase product preservation, and improve learning morals. Researchers have reported beneficial effects with gamification on academic success (Iancu, 2019; Dichev and Dicheva, 2017; Butler and Ahmed, 2016; Zahedi, 2019; Morreale et al., 2019; Rahman, 2018; Elshiekh and Butgerit, 2017; Borna and Rad, 2018; Permana et al., 2018; Morreale et al., 2018; Ortiz Rojas et al., 2017; Buckley and Doyle, 2016; Elshiekh and Butgerit, 2017; Ibanez et al., 2014; Frącz, 2015).

Gamification also has little negative impacts for both the students as well as the teachers. Studies have highlighted a disadvantage for learners due to Gamification (Ortiz Rojas et al., 2017; Furdu, 2017; Faiella and Ricciardi, 2015; Mejias et al., 2015; Schulz et al., 2015; Gari, 2019; Hakulinen, 2015; Haaranen et al., 2014; Baxter et al. 2016).

Most successful gamification elements being utilized in computer science courses have been badges, leaderboards, ranking, level, and feedback. Based on the preliminary investigative research results Rahman (2018)**,** Rojas-López and Rincón-Flores (2018), Koivisto and Hamari (2014), Falkner & Falkner (2014), Sprint & Cook (2015), Oktaviati and Jaharadak (2018), Smiderle et al. (2019), Depontes et al. (2018), Elshiekh and Butgerit (2017), Oktaviati and Jaharadak (2018), Begosso et al. (2018), Sprint and Cook (2015).

Throughout understanding computer science, the gamification elements can boost engagement and motivation between some of the learners and the learner who has liked doing their job. Gamification education is also a way to help learners, and teachers understand how to make ones educational success extra efficient as well as good looking (Lister, 2015; Frącz, 2015; Borna and Rad, 2018; Buckley and Doyle, 2016; Zahedi, 2019; Wenzl and Miladinovic, 2018; Morreale et al., 2019; Elshiekh and Butgerit, 2017; Iancu, 2019; Pinter,

2020; Ibanez et al., 2014; Sprint and Cook, 2015; Butler and Ahmed, 2016; Hakulinen and Auvinen, 2014; Sherriff, 2016; Azmi et al., 2016; Čisar et al., 2020; Begosso et al., 2018; Permana et al., 2018; Dolgopolovas et al., 2014; Alsawaier, 2018; Iosup and Epema, 2014).

Not all learners become motivated through or benefit from the gamification elements (Haaranen et al., 2014; Lister, 2015). Some researches were carried out in which students were not motivated in some instances, reducing one's inherent motivation may harm learners (Gari, 2019; Hanus and Fox 2015; Rojas et al., 2017). Specifies that gamification has become too centered following an external source of motivation because the motivation effects with gamification would not be consistent for individual teaching students.

According to the research results, it is suggested that the students are not motivated enough within specific rules in the classroom and should use motivating practices such as gamification.

Conclusion and Recommendations

Use technologies in education today, and having modern forms for teaching. Gamification becomes a resource for learning to support learners, particularly computer science training. This study reviewed the literature regarding gamification within computer science and software engineering learning classes and their characteristics. Research results showed that incorporating gamification elements in computer science education can positively affect students studying from different perspectives, particularly their successes, participation, and motivation in educational activities. In particular, gamification techniques enhance the enjoyable components and behave as a motivational tool for learners to be much more active in the learning process.

Throughout their experimental studies, only a few researchers found harmful effects on gamification. The most popular gamification elements that were mostly applied in the previous research in computer science learning and teaching processes were points and leaderboards, feedback, and digital badges, resulting in beneficial results between learners about student motivation. Introducing gamification to education can become a resource that can inspire and participate in the learner to practice computer science, to render their success most successful and appealing. Gamification could offer beneficial results to the learners' performance, and it should be increasingly embraced among educators in the learning and teaching system.

This study's limitations are that the review paper examined gamification research just in computer science. During the literature review, the study test revealed that nomenclature besides gamification elements may not always be excellently described or reliable throughout research results. Therefore, there was not even a significant body for evidence-based articles limited with gamification throughout computer science courses, and we have taken our inference in the findings of those studies. A few of the research performed utilized qualitative analyses that were not applied toward a standardized experiment to get further evidence for such results.

By this study, some recommendation needs to be considered for future investigators as follows:

- The study is limited to make conclusions on the effect of gamification on educational achievement and students' academic performance—greater involvement in education. Classroom attendance has been seen as an outcome of gamification and is also significantly

linked to enhanced students' performance. Further research about students' academic achievement and results throughout the computer science curriculum must develop a broader knowledge of utility through gamification.

- Further research is required to determine if this transforms into an effect on finished performance and governs particular group impacts. Research needs to focus on several other gamification components like cooperation; Experience, and explore the system along with the widely utilized elements. Additional work is also required to examine fun, happiness, and attitudes about gamified active learning on the learners.

Abbreviations

CS: Computer Sciences

ICT: Information Communication Technology

IT: Information Technology

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