An investigation of the effects of teaching methods used in secondary education in TRNC on students according to the opinions of school administrators

Uma investigação dos efeitos dos métodos de ensino utilizados no ensino secundário no TRNC sobre os alunos de acordo com as opiniões dos administradores escolares

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ABSTRACT

The main objective of this research is to determine the suitability of the teaching methods used in accordance with contemporary conditions, ensure their proper implementation, and aim to create a positive impact on students. A qualitative research model was implemented in the study. Among the qualitative research approaches, the semi structured interview method was applied. In the research, purposive sampling was used as a type of sampling method, specifically snow ball-sampling. A semi-structured interview form was developed by the researcher for the study. The collected data were analyzed to reach the results. According to the obtained data, the secondary education institutions in the Turkish Republic of Northern Cyprus (KKTC) suffer from a lack of technological infrastructure and physical inadequacies. Results show that school administrators have expressed the view that the underlying causes of the problems lie in the lack of infrastructure, overcrowded classrooms, and insufficient physical facilities.

Keywords: Northern Cyprus, Teaching. School administrator, Teaching methods, Case Study.

RESUMO

O principal objetivo desta pesquisa é determinar a adequação dos métodos de ensino utilizados de acordo com as condições contemporâneas, garantir a sua implementação adequada e visar criar um impacto positivo nos alunos. Um modelo de pesquisa qualitativa foi implementado no estudo. Dentre as abordagens de pesquisa qualitativa, aplicou-se o método de entrevista semiestruturada. Na pesquisa, a amostragem proposital foi utilizada como um tipo de método de amostragem, especificamente a amostragem de bola de neve. Um formulário de entrevista semiestruturada foi elaborado pela pesquisadora para o estudo. Os dados coletados foram analisados para chegar aos resultados. De acordo com os dados obtidos, as instituições de ensino secundário na República Turca do Norte de Chipre (KKTC) sofrem de falta de infra-estruturas tecnológicas e de inadequações físicas. Os resultados mostram que os administradores escolares expressaram a opinião de que as causas subjacentes dos problemas residem na falta de infra-estruturas, salas de aula sobrelotadas e instalações físicas insuficientes.

Palavras-chave: Norte de Chipre, Ensino, Administrador escolar, Métodos de ensino, Estudo de caso.

Introduction

Education is an important element for societies throughout human history. Fidan (2012) defined education as raising individuals in the light of certain purposes. In the century we live in, faster developments in information and communication technologies change education systems, methods and approaches used in teaching, and increase the necessity for individuals to have the qualifications to adapt to the 21st century. At this point, the constructivist approach undoubtedly plays an important role in the process of restructuring education.

In the constructivist approach; It is very important for learners to reshape their new knowledge in logic by comparing it with their existing knowledge, their individual characteristics and educational activities that will make them more active in the lesson (ÖZMEN, 2015). From this perspective, learning in the constructivist approach is more important than teaching, and it is important for learners to research and question the knowledge they have acquired and associate it with their lives. With the constructivist approach; It is aimed to develop learners' perspectives, experiences, personal differences, making more accurate decisions, problem-solving skills, analytical thinking (ÇEPNİ & ORMANCI, 2018).

Nowadays, faster developments in information and communication technologies change education systems, methods and approaches used in teaching,

and increase the necessity for individuals to have the qualifications to adapt to the 21st century. Tan (2007) explains the teaching method as the shortest and regular way planned to learn a subject or to achieve the purpose of the learning unit. However, teaching methods are examined under two different headings as traditional teaching methods and active teaching methods. Designing education-teaching processes suitable for the century we live in and preferring teaching methods that can meet the requirements of our age instead of traditional teaching methods have undoubtedly turned into more of an imperative than an imperative in this century we live in.

Education and technology are among the most important factors that are effective in measuring the quality of life of individuals and societies, measuring the development limits of societies, and shaping relations with the influence of nations (İNEL, EVREKLİ, & BALIM, 2011). Using technology in teaching and learning processes provides further enrichment of learning environments. It enables students to increase their interest and desire for the lesson in rich learning environments, and offers concrete learning experiences by simplifying their information (İŞMAN, BAYTEKİN, BALKAN, HORZUM, & KIYICI, 2002).

In the century we live in, education systems should use innovative technologies to ensure that students receive a versatile education that is suitable for different learning styles independent of traditional learning approaches. Undoubtedly, technological tools can provide benefits such as enriching learning materials, students being more active in interactive learning environments, and teachers being able to follow students better. In this way, students can be trained as individuals who can express themselves better, think creatively, analyze and synthesize information, solve problems and cooperate (KİBAR, 2006).

As a result of the literature review, Öznacar and Dericioğlu (2017) revealed in their study the barriers in terms of physical and technological infrastructure that school administrators who work in public schools in Northern Cyprus encounter in schools. However, school administrators working in secondary schools and high schools in Northern Cyprus stated that they agreed that teacher-centred education is at the forefront and that STEM education should be implemented in our country

(DERİCİOĞLU AND ÖZNACAR, 2020). Finally, there were significant positive differences as a result of the tests applied to 12-year-old students before and after STEM education at the Famagusta Campus of Northern Cyprus Istanbul Technical University (DERİCİOGLU, ÖZNACAR, & KÖPRÜLÜ, 2022).

Objective of the Research

The objective of this study, with the changing and developing world in the century we live in, the needs in the field of education and training, as in every field, change. In this direction, it was carried out with the aim of examining the effects of the methods used in the teaching process on the cognitive, sensory and psycho-motor behaviors of the students in the dimension of school administrators. It is seen that the method used affects the student not only under the roof of the school, but throughout his life. School administrators need to guide the teacher in order to use the teacher's teaching methods efficiently. For this purpose, answers were sought for the following qualitative sub-problems related to the research.

1. What are the thoughts of the School Administrators on the Use of Technology in the Educational Process?
2. What are the Evaluations of School Administrators on Student-Centered Education and Teacher-Centered Education?
3. What are the thoughts of the school administration on the Physical Infrastructure and Technological Equipment in the Use of Teacher-Centered or Student-Centered Teaching Methods?
4. What are the thoughts of the school administrators about the teachers following the Current Teaching Methods and Teaching Approaches?
5. What are the thoughts of the School Administrators about the In-Service Training Organized for Teachers by the Ministry of Education?
6. What are the thoughts of the school administrators about the teaching methods preferred by their teachers in teaching?

Methodology

Research Model

Qualitative research methods were used in this study. Qualitative research can be defined as revealing natural events as a whole and analyzing from specific to general (DEMİRLİ, 2007). Case study, one of the qualitative research models, was used in our research. Merriam (2013), on the other hand, defines a case study as an in-depth description and examination of a limited system. According to another definition, case study can be defined as a methodological approach that involves in-depth examination of a limited system using multiple data collection to collect systematic information about how it works and works (CHMİLİAR, 2010).

Study Group and Sampling

The study group of the research consists of school administrators who work in secondary education institutions in 3 different districts of TRNC (Famagusta, Nicosia and Kyrenia). Some codes were used to keep the identities of school administrators confidential.

Purposeful sampling, one of the qualitative sampling methods, was chosen in this study. Purposeful sampling is preferred to increase the credibility of the research conducted with the aim of reaching rich data. In this study, snowball sampling, which is one of the purposeful sampling types, was used. It refers to the process of selecting a person related to the subject of the research as a reference, reaching other people through this person and obtaining the necessary information. Participants participating in the research direct the researcher and in this context, the sample expands (NOY, 2008).

Data Collection Tool

An interview form consisting of open-ended questions was prepared in the research. A semi-structured interview form was used as a data collection tool in the research. This interview form was prepared by the authors of the interview form consisting of 7 questions, which was prepared for the evaluation of the opinions of

the school administrators working in the TRNC secondary education about the "effect of the teaching methods used on the students". The demographic questions in the interview form consisted of questions about their years of experience and positions.

While developing the form, the opinions of 5 experts were consulted. In line with the feedback received from the experts, the interview form was finalized. Within the scope of the research, it was applied to 20 school administrators. Data were recorded using voice recorders during the interview. The most common technique used in qualitative research is known as semi-structured interviews (PATTEN & NEWHART, 2018). The main feature of a semi-structured interview is that the number of questions is limited and they can be derived with a follow-up question at the end (ROULSTON, 2010; RUBİN & RUBİN, 2012).

Analysis of The Data

Qualitative data analysis was applied in the interview, one of the data collection tools used in this study. The most preferred way to analyze data in qualitative studies is to perform data analysis simultaneously with data collection (MERRİAM, 2013). In the analysis of the data, descriptive analysis of the data obtained in the study was used. Kümbetoğlu (2005) in order to make a descriptive analysis, it is aimed to make a descriptive analysis based on the words, expressions, the language used, the structure and features of the dialogues used in qualitative analysis, the symbolic expressions used and analogies. The data obtained according to this approach are briefly summarized and interpreted according to the predetermined theme. The themes are revealed by considering the questions or dimensions used in research questions, interview or observation processes (YILDIRIM & ŞİMŞEK, 2013). After the interview with the school administrators, the collected data were analyzed and themed into 7 different dimensions. These dimensions are presented through 7 different tables.

Results

Findings Regarding Teachers' Self-Efficacy on STEM Structure of the Institutions Participating Teachers Work and Descriptive Information on the Names of These Institutions.

Table 1 – Evaluation of school administrators in our study group

Gender	N	%
Female	11	55
Male	9	45
School administrators		
Principal	5	25
Deputy Principal	15	75
Total Working Time		
17-21 years	3	15
22-26	6	30
27-31	9	45
32 years and above	2	10
Total Working Time in Teaching		
15-19 years	6	30
20-24	10	50
25 years and move	4	20
School of Participants		
Canbulat Özgürlük Secondary School	5	25
Çanakkale Secondary School	3	15
Oğuz Veli Secondary School	5	25
Demokrasi Secondary School	3	15
Osman Nejat Konuk Secondary School	4	20

Source: Authors results.

In the research; The characteristics of school administrators working in Oğuz Veli Secondary School, Osman Nejat Konuk Secondary School, Democracy Secondary School, Çanakkale Secondary School and Canbulat Freedom Secondary School were taken into account. Information on the socio-demographic information of school administrators is given in Table 1. It was stated that 55% of the school administrators were female and 45% male. 25% of the participants are managers and 75% are assistant managers. The years of service of the participants were 15% between 17-21 years, 30% between 22-26 years, 45% between 27-31 years and 2%

with more than 32 years of service. Considering the total working time of the participants in teaching, it is seen that 30% between 15-19 years, 50% between 20-24 years and 20% over 25 years. The total working time of the participants was 70% between 1*5 years, 20% between 6-10 years and 10% over 11 years.

Table 2 – School Administrators' Evaluation of the Use of Technology in the Education and Training Process

THEMES	N	%
Teachers have difficulty of use technology in different age groups	1	4.17
Technological appliances have high price	4	16.67
Schools haven't technological infrastructure therefore students haven't used technology	6	25
Facilitating access to knowledge with the use of technology	2	8.32
Schools have crowded classrooms	3	12.49
Teacher and student have insufficient communication	1	4.17
Schools have weak internet in class	4	16.67
Students have better knowledge with technology	1	4.17
Teacher's inability to use technology effectively	2	8,34

Source: Authors results.

As seen in Table 2, it consists of 10 themes. The majority of school administrators expressed an opinion based on the fact that the technology desired to be used in schools haven't used effectively due to insufficient infrastructure. They said that technological appliances have high price also schools have weak internet in class on the other hand schools have crowded classrooms lastly school administrators said our education system has insufficient technology use in school. When we look at the table, 25% of the school administrators said their schools haven't technological infrastructure therefore students haven't used technology, 16.67% of them said technological appliances have high price also schools have weak internet in class, 12.49% of them schools have crowded classrooms affect the use of technology in education.

Table 3 – School Administrators' Evaluation of Student-Centered Education and Teacher-Centered Education

THEMES	N	%
Administrators were thought teacher based	2	4.76
Administrators think students should be active	15	35.71
Teachers are should be a leader	1	2.38
Teachers are should active in class	12	28.59
Students should be learning by doing	2	4.76
Teachers used only narration method in class	5	11.90
Teachers should consider the student's needs	5	11.90

Source: Authors results.

In Table 3. Most of the school administrators stated that student-centered education requires students to be active and learn by doing, and that teacher-centered education requires a structure in which the teacher is active. According to the research, 35% Administrators think students should be active, 28% Teachers are should active in class, 12% Teachers used only narration method in class, 12% Teachers should consider the student's needs results have been achieved.

Table 4 – Evaluation of Physical Infrastructure and Technological Equipment in the Use of Teacher-Centered or Student-Centered Teaching Methods

THEMES	N	%
Because of the curriculum	4	19.05
Physical Infrastructure and Technological Equipment better condition than in the past	2	9.52
Classrooms have crowded in schools	3	14.29
Physical Infrastructure and Technological Equipment have insufficient in schools	10	47.6
The use of smart boards in schools should be increased	1	4.76
In-service training is organized by the ministry of education	1	4.76

Source: Authors results.

In Table 4, Most of the participants said that the physical infrastructure in the schools was insufficient and the classes were crowded. According to the research, administrators said classrooms have crowded in schools 14.29%, also administrators defined Physical Infrastructure and Technological Equipment have insufficient in schools 47.6%, also Physical Infrastructure and Technological

Equipment better condition than in the past 9.52%, finally administrators defined have thought because of the curriculum results have been achieved.

Table 5 – E valuation of Teachers' Follow-Up of Current Approaches to Teaching Methods and Teaching Approaches

THEMES	N	%
In-service training should be increased by the Ministry of Education	2	9.52
In-service training hasn't attendance by the teachers	2	9.52
In-service training hasn't been provided in all branches	1	4.76
New teaching approaches have been followed by teachers.	8	38.12
Traditional teaching approaches have been still used.	6	28.56
New teaching approaches haven't been followed by teachers.	2	9.52

Source: Authors results.

In Table 5, Most of the school administrators defined that teachers have followed new approaches on the other hand teachers have applied traditional methods in class. According to the research, administrators defined that teachers have followed new approaches 38.12 %, however, most of the school administrators said that teachers have applied traditional methods in class 28.56%, finally school administrators defined that teachers haven't followed new approaches 9.52% results have been achieved.

Table 6 – Evaluation of In-Service Training's Organized by the Ministry of Education for Teachers

THEMES	N	%
In-service training should be increased by the Ministry of Education	3	13.64
In-service training hasn't attendance by the teachers	10	45.5
In-service training hasn't been sufficient	4	18.2
School administrators have thought that the content of in-service training should be updated	5	22.75

Source: Authors results.

In Table 6, According to the research, school administrators defined In-service training should be increased by the Ministry of Education 13.64%, also 45.5% most of the school administrators defined in-service training hasn't attendance by the teachers. On the other hand school administrators said in-service training hasn't been sufficient 18.2%. Finally, that teachers have followed new approaches 38.12 %. However, most School administrators have thought that the content of in-service training should be updated results have been achieved.

Table 7 – Evaluation of Teaching Methods Preferred by Teachers in Teaching

THEMES	N	%
According to school administrators, teacher-centered education has preferred by teachers.	15	75
According to school administrators, student-centered education has preferred by teachers.	5	25

Source: Authors results

In Table 6, According to the research, 75% school administrators defined teacher-centered education has preferred by teachers. On the other hand school administrators said, student-centered education has preferred by teachers results have been achieved.

Dıscussıon

According to the findings of the study, it was stated that with the introduction of technology into education, teachers in different age groups had difficulties in using it, so they could not use it effectively, the necessary infrastructure was weak and the price of technological devices was high. Other studies show that the physical characteristics of schools have an effect on students motivation (ÖZER, 2014). Having a good infrastructure is an important part of the effective learning-teaching process (AYDIN, 2014).

Student-centered education is defined by school administrators as a lesson in which the student is active and learns by doing, and teacher-centered learning is a lesson in which the teacher is active and made with plain instruction. The learning

process in which students take an active role is defined as student-centered education (ELEN ET AL., 2007).

Based on the results of school administrators, the difficulty of choosing technological devices as a teaching method was determined due to the high number of subjects in the curriculum, insufficient technological infrastructure and crowded classroom population. In crowded classrooms, disruptions occur in learning activities due to the inability of teachers to provide classroom control (ÖZTÜRK, 2003).

In the constantly developing and changing century we live in, it is the result of increasing the in-service training in order to follow and prefer new teaching approaches and the courses opened to appeal to teachers from all branches. Although in-service training activities are trainings to develop teachers, they are planned on different subjects every year and are applied periodically (GÜLŞEN, 2021).

School administrators stated that they preferred teacher-centered education because the teacher could not separate time for each student due to the crowded classroom population. With the small number of classes, it was also revealed that the teacher could spare time for each student and the students could teach more actively. If the number of classrooms is large and the physical capacity is insufficient, it affects the education negatively because the teacher will have difficulty in classroom management and will have to apply teacher-centered education instead of student-centered education (YILMAZ & ALTINKURT, 2011).

It has been observed that in classes where the number of students is low, students are less attendance, and their participation and productivity are higher (ÖĞÜLMÜŞ & ÖZDEMİR, 1995). Altun (2016) states in his study that crowded classes either do not teach the lesson incompletely or at all, or do not have a lasting effect on students.

In the 21st century we are living in, newly appointed teachers adopt more innovative education models together with better use of technology. In order to adapt information and communication technologies to the lesson, the teacher

should develop a strategy according to the interests and needs of the student by having knowledge about these methods. (DEMİRASLAN AND USLUEL, 2008).

Nowadays, which is the age of technology and information, it is desired to bring individuals with technological equipment to the society, where they can easily access information and compete with their peers (ENGİN & SARSAR, 2015). From the results obtained, suggestions were made to develop the technological infrastructure, to provide in-service training for the use of technological devices, and to include the technology in the education processes of the teachers.

Conclusıon

According to the research, technology hasn't been used effectively and efficiently in schools affects the education process because due to the lack of technological infrastructure

Another result of the research shows; It has concluded that the crowded classroom population negatively affects the quality teaching process in the classrooms.

According to the research, foreign students haven't known Turkish due to It was concluded that there were problems in the teaching process.

Another result of the research shows; schools have lacked infrastructure and have crowded classrooms in the school. Therefore teachers couldn't use teacher-centred teaching methods in teaching in the school.

According to the research, school administrators said teachers has given a heavy curriculum by the Ministry of Education. Therefore teachers don't prefer teacher-centered education.

Another result of the research shows; school administrators said our teachers follow new teaching approaches. However, teachers prefer classical approaches to teaching instead of current approaches.

According to the research, in-service training organized by the Ministry of National Education has sufficient for new teaching approaches. On the other hand teachers don't participate in these in-service training.

Another result of the research shows; school administrators have budget problems, infrastructure problems and population problems in schools. Because of these reasons, it has been concluded that traditional teaching methods continue to be used in classrooms.

According to the research, school administrators said they have thought that technology in the developing world should be used by integrating it into education in order to ensure the development of 21st-century skills in our country.

Recommendations

In line with the findings of the research, the following recommendations are presented:

Technological infrastructure needs to be developed by the Ministry of Education.

The Ministry of Education should work on the integration of technology with education.

Efforts can be made to increase the number of classes and schools.

Studies can be realized out to create environments where student-centered lessons can be taught.

Additional courses for foreign students should be organized by the Ministry of Education.

Efforts should be made to increase the participation rate of teachers in in-service training by the Ministry of Education.

Efforts should be made to ensure that teachers prefer student-centered education instead of teacher-centered education.

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