

Editor

Prof. Fethi KAYALAR , Ph.D.

**PIONEER AND
CONTEMPORARY STUDIES
IN EDUCATIONAL
SCIENCES**

**PIONEER AND
CONTEMPORARY STUDIES
IN EDUCATIONAL SCIENCES**

Editor:

Prof. Fethi KAYALAR, Ph.D.



Pioneer and Contemporary Studies in Educational Sciences
Editör: Prof. Fethi KAYALAR , Ph.D.

Editor in chief: Berkan Balpetek

Cover and Page Design: Duvar Design

Printing : JUNE-2023

Publisher Certificate No: 49837

ISBN: 978-625-6945-82-1

© Duvar Publishing

853 Sokak No:13 P.10 Kemeraltı-Konak/Izmir/ Turkey

Phone: 0 232 484 88 68

www.duvar yayinlari.com

duvarkitabevi@gmail.com

TABLE OF CONTENTS

Chapter 1	5
Entrepreneurial Universities and Effectiveness of University Strategy in Entrepreneurship Education <i>Pinar OZDEMİR</i>	
Chapter 2	29
Artificial Intelligence in Educational Sciences and Real World Applications <i>Akın ÖZÇİFT</i>	
Chapter 3	43
The Interplay Between Listening Comprehension, Locus of Control and Gender among Iranian Learners <i>Hossein MİRZAİE, Çağlar DEMİR</i>	
Chapter 4	63
An Innovative Teaching Method: Blended Mobile Language Learning (BMLL) <i>Mehmet ASLAN</i>	
Chapter 5	81
Bullying & Peer Bullying <i>Meltem TÜRKER, Ferhat BAHÇECİ</i>	
Chapter 6	125
Design and Management Processes of Online Education: Insights from Expert Interviews <i>Murat CULDUZ</i>	
Chapter 7	139
Multimodal Analysis of Gender Identity in ELT Textbooks <i>Serda GÜZEL</i>	

Chapter 8

157

An Implementation for the Use of Mathematical Games in the
Development of Secondary School Students' Spatial Abilities

Yağmur Dilan DEMİR, Şevval GÖKCEN, Hasan ÜNAL

Chapter 9

177

Evaluation of English Syllabus from Different Aspects Used at
State Elementary Schools in Turkey

Necmettin KÜRTÜL

Chapter 1

Entrepreneurial Universities and Effectiveness of University Strategy in Entrepreneurship Education

Pinar OZDEMIR¹

¹Asst. Prof. Dr.; Piri Reis University Maritime Vocational Higher School.
pozdemir@pirireis.edu.tr ORCID No: 0000-0001-9878-8139

ABSTRACT

In the 21st century, it has become one of the goals of universities to be entrepreneurial and to give entrepreneurship education. An effective and sustainable entrepreneurship education in universities requires the interaction of many actors. To create harmony among these actors and to make use of them to their full extent, it is necessary to have a good strategy and to apply it successfully. In this study, after giving some information on entrepreneurial universities, the actors playing a role in university entrepreneurship education will be discussed. These actors are grouped under six dimensions: strategy, institutional infrastructures, teaching and learning, outreach, development, and resources. Of these, strategy is considered the most important one. This chapter aims to determine the extent to which the strategy of a university affects other dimensions of entrepreneurial education. The data for the analysis was obtained from 93 universities in Turkey through a survey. The results indicate that the development, outreach, and teaching & learning dimensions are positively affected by the strategy dimension. On the other hand, having a good strategy doesn't contribute positively to the institutional infrastructure and resources dimensions of the university in providing a good entrepreneurship education all the time.

Keywords: Entrepreneurship, Entrepreneurship Education, Universities, Strategy, Entrepreneurial Universities

INTRODUCTION

In today's world, a big change embraces all fields in every area, and universities are no exception. The external and internal landscapes of universities, as well as their ambitions, are changing in a fundamental way. The present field of developments calls for a new perspective and a new paradigm of universities, rather than just adding a department of technology transfer or an incubator for technostarters (Wissema, 2009). Universities, being aware of this situation, have taken the necessary precautions to adapt themselves to changing conditions and undergone a range of changes to undertake the "third mission", which means commercialization of academic research and involvement in socio-economic development. (The Triple Helix Concept, 2012). In order to realize this, universities must first and foremost have an entrepreneurial perspective, educate students in a way to give them entrepreneurial mindset, have an entrepreneurial structure and organize its activities to support and promote entrepreneurship. This means that universities should become entrepreneurial universities. Researchers define entrepreneurial universities by emphasizing its different aspects. Some of these definitions are as follows:

In very general terms, an entrepreneurial university is a university that not only provides education and training but also encourages research and entrepreneurship (Etzkowitz, 2003; Gibb, 2014).

An entrepreneurial university is a university that plays an active role in the process of commercialization of the research that comes out of itself, that does not wait for the contribution to the economy from outside but tries to establish a business, and whose graduates, professors and employees create new companies are called entrepreneurial universities (Erkut, 2014). Entrepreneurial University means that the university should have entrepreneurial characteristics just like a private enterprise, and that everyone from faculty members to employees and all students should have an entrepreneurial spirit (Aktan, 2007).

In the broadest definition, an entrepreneurial university is a university that creates value for society, creates innovative perspectives, makes a difference, finds, establishes and develops innovation, innovative systems, people, rules, methods. Entrepreneurial universities are also universities that develop networks of relationships with stakeholders, cooperate, break down strict hierarchical rules and rigid walls between disciplines and departments, and build new structures while breaking them down, conduct interdisciplinary studies, establish teams, in other words, produce value, in a sense (Şerifoğlu, 2012).

The Entrepreneurial University model started in the late 1800s in the US universities such as MIT and Stanford, with academic staff providing consultancy services in industry and commerce. In the 1990s, European universities also

adopted the entrepreneurial university system, adding new features and functions to the university (Sakinç and Bursalıoğlu, 2012). The role of American universities in the creation of world-class information technology companies and the thousands of jobs they have created shows the importance of universities in the formation of technology-based enterprise clusters. Companies in these clusters have established research agreements with universities and have made attractive job offers to graduates. Recognizing the huge economic and employment benefits of market-oriented academic institutions, European universities, with the support of governments, have sought to follow this trend (Wissema, 2009). Today, in the globalized world, it is seen that distance, proximity, time differences deriving from being in different regions have completely disappeared, and the focus is on intellectual capital instead of financial capital. Now, not only the borders of the global world, but also its tools, methods, understanding of democracy and visions have lost their validity (Gürdoğan, 2014). In today's globalized world, the platforms for information, conversation, discussion, communication and organization are social media networks such as Google, Facebook and Twitter, which enable communication and interaction on a national and international scale. With social media networks, the whole world has turned into an 'Open Education Faculty' without doors. This world is the most democratic, participatory, egalitarian, informative and libertarian stage in human history (Gürdoğan, 2013).

Today, research conducted by universities has also changed its dimension in parallel with the needs of the age, and research and development studies have moved from a single disciplinary dimension to a multidisciplinary dimension, requiring scientists, engineers and designers from many disciplines to work together. The financial dimensions of such interdisciplinary studies, which require highly qualified people from different disciplines to work together, have also been quite large. This has been one of the reasons for universities to seek funding other than that provided by the state and to become entrepreneurial universities (Wissema, 2009).

Another important reason is that the funds provided to universities by the state are insufficient and universities are in search of new funds. This is due to the increasing competition in higher education and the number of students that increased with the transition to mass education. For these reasons, universities in search of new resources have entered a process of "corporatization" in which students are seen as customers. However, there are also some criticisms of the entrepreneurial university model. In the book "University in Ruins" by Readings (1996), it is stated that universities are affected by the processes of globalization and Americanization. Under the influence of these two processes, American

universities have started to operate like bureaucratic institutions or a market-oriented companies and focus on the idea of technological innovation. In this structure, academics are faced with the pressure to commercialize the knowledge they produce (Çetinsaya, 2014). Another criticism is that universities in search of new resources enter a process of corporatization in which students are considered as customers. (Gür & Küçükcan, 2009). There is also a view that criticizes the concept of entrepreneurial university by arguing that these universities put aside the research that does not generate income and give importance to the research that generates income.

Features of Entrepreneurial Universities

In recent years, with the impact of globalization and the information age, changes in all areas concerning universities have begun to be felt, and universities have begun to undertake the tasks of producing knowledge and putting this knowledge into practice, thus contributing to economic and social development, in addition to their duties of educating high quality work force in academic terms.

This process, which started with the expansion and diversification of the duties of universities and imposed new duties on universities, has led to the emergence and rapid spread of entrepreneurial universities. In order for universities to gain this new identity, they need to make some arrangements within and outside the university and internalize some features in their management approach and practices. The characteristics that entrepreneurial universities should possess have been the subject of research by various sources and individuals at different times.

One of the most comprehensive studies on this subject was commissioned by the European Commission on behalf of the OECD and the characteristics that entrepreneurial universities should have were grouped under 7 headings. These topics, called the "Guiding Framework", were prepared to respond to the requirements of universities in need of advice, ideas and guidance for the effective implementation of institutional and cultural change and to provide a starting point for assessing their own situation. The dimensions covered by the framework are given below. (OECD, A Guiding Framework for Entrepreneurial Universities, 2012) Leadership and management: The university needs to have a management team that supports entrepreneurship and provides the necessary leadership to develop it.

- Organizational capacity: The organizational structure of the university should be arranged in a way that supports entrepreneurial activities, attention should be paid to creating a synergy among internal and external

stakeholders and in their relations with each other, and a reward and incentive mechanism should be implemented.

- Entrepreneurial development in teaching and learning: The university should be structured in such a way as to create an entrepreneurial mindset and develop entrepreneurial skills, make use of as many different methods and people as possible in teaching entrepreneurship, and frequently reflect innovations in this field in the programs.
- The paths entrepreneurs should follow: Emphasizing the importance of entrepreneurship at the university and developing entrepreneurship awareness and skills among internal stakeholders are important factors. Internal entrepreneurship should be supported and staff and students should be encouraged to have entrepreneurial experiences and to translate ideas into action.
- University-business/outside relations for knowledge exchange: The University should make it part of its institutional policy to exchange knowledge through collaboration and partnerships with industry, society and the public sector, recognizing the importance of developing entrepreneurship through multi-stakeholder engagement. Staff and students should take every opportunity to participate in entrepreneurial activities.
- The entrepreneurial university as an internationalized institution: Being an entrepreneurial university is not a prerequisite for being international, but a truly entrepreneurial university must be an international university. This means having an international character in terms of students and academics, taking part in international projects and networks, and diversifying its activities, education and training to appeal to the global market.
- Identifying the Impacts of an Entrepreneurial University: An entrepreneurial university should measure its impact on the environment, from local to global, and on people from internal stakeholders to external stakeholders, and make necessary adjustments in its strategy and entrepreneurship education and training accordingly to be more effective, if necessary.

Another view suggests that the most important characteristics of entrepreneurial universities can be summarized under the following headings: (Odabaşı, 2007; Röpke, 1998).

An entrepreneurial university is a university that takes entrepreneurship into account in its strategy, in the basic elements of education and training and in all

its practices, and takes action to create an entrepreneurial perspective and create entrepreneurial skills. It is a university that uses learning techniques to support entrepreneurship and develops leadership skills that can motivate students to engage in the entrepreneurial process and enable them to make appropriate and correct decisions throughout the process.

A university that attaches importance to cooperation with its external stakeholders and thus has the opportunity to both implement the innovations it produces and generate income.

A university that is able to contribute to regional, national and global development and develop its surroundings while developing itself.

Objectives of Entrepreneurial Universities

The objectives of entrepreneurial universities, which set out with the aim of educating students who will be the pioneers of innovation and change and who have adopted entrepreneurial culture and thinking, can be summarized under the following headings: (Alberti, Sciascia and Poli, 2004; Entrepreneurship Education: A Road To Success, 2014) To provide students with entrepreneurial culture, thinking, mindset and skills, and to enable them to become entrepreneurs who try to realize their ideas by taking risks in the future,

- To turn graduates into job creators, not job seekers,
- Keeping a finger on the pulse of the world of commerce and industry, identifying their expectations and wishes well and giving importance to training in line with their needs,

Making entrepreneurship management an interdisciplinary research area to enable start-ups to cope with the challenges of development,

- When conducting research, the aim is not only to publish academically, but also to develop business ideas for new companies and to create changes in society and the economy,
- To ensure that not only students but also all employees gain entrepreneurial perspectives. In order to realize its goals, the entrepreneurial university must have developed and innovatively changed its educational content, structures and practices according to the needs of both students and the business world. To do this, it should start by organizing its strategy in this regard.

In all its decisions, the University acts in line with the principles set out in its strategy for the realization of both short-term and long-term goals. Strategic plans differ from institution to institution, so a university that aims to become an

entrepreneurial university should reflect this goal in its strategic plans and shape its short and long-term goals within the framework of this strategy. Although they differ from institution to institution, there are some common points that should be included in the strategies of all institutions. On the other hand, it is normal that there are fundamental differences between the strategies of businesses and the strategies of universities, even though the strategies basically serve the same purpose.

Formulation of a University Strategic Plan

It is of utmost importance to formulate a strategic plan that is effective, understood, shared, and adopted by all stakeholders of the university, and that all stakeholders will work hard for its realization. The strategic planning process consists of the following steps that need to be taken with care:

Firstly, it is necessary to assess the current state of the university fully. To achieve the goals in higher education, the Higher Education Institution (HEI) and its environment should be studied closely, its goals should be made clear, its distinctive features as well as weaknesses should be identified, and vision and mission statements should be written precisely. Besides the university should determine its goals and which steps should be taken to achieve these goals. Schools are complex institutions involving many stakeholders with different goals, expectations, and needs. They are vulnerable to changes that take place in technology, society, or policy, which means they have to be proactive and adapt to these changes to realize their goals, which is possible by preparing long-term strategic plans. That is; the university should consider its needs while preparing strategic plans. Besides, it shouldn't be forgotten that to have a strategic plan that works well the university should focus on the opinions, expectations, and needs of all stakeholders including faculty, students, alumni, people from the prospective workplaces of the graduates, and people from the community where the university is located.

Secondly, the university should have a clear, comprehensive, realistic, and forward-looking vision and mission statement. Current and prospective stakeholders of the university should know what to expect from the university and what they are expected to do upon reading them. These statements should be university-specific, reflect the culture of the university and create a sense of belonging in the students.

Thirdly, the university should determine the key areas to concentrate on. If the key areas are a lot in number, the university may lose focus, or if they are few it may be too vague. These are the areas on which the university will focus all its activities, where research will be conducted, and where the work of students and

faculty members will be directed. They are determined by considering the specialization areas of the universities or the expectations of the society. The aim is both to ensure that the R&D activities to be carried out at the university are directed towards the university's main research area and to ensure that the university conducts studies for the development of society.

Fourth is the stage of taking action, in other words, putting the plans into practice. This stage is also a process that requires small steps to be taken. At this stage, the main goals are taken into account and small goals are set to achieve them. For example, a university whose goal is to enter the top 10 in the ranking of entrepreneurial and innovative universities, but which is currently outside the list, may first aim to enter the list. It can then plan to take steps to be among of the top 10. In universities, as in other institutions, all faculties, departments, and administrative units should have their strategies in parallel with the general strategy of the university. They should also have their own goals and plans for achieving these goals within the framework of this strategy. The steps to be taken to achieve the goal should be explained in detail to all individuals who will be involved in the implementation phase, and everyone should believe and participate in the process that will take place progressively. Including all of its employees in the formulation of the university's overall strategy is important. Employees will work with greater effort in the realization of the strategy the formation of which they have contributed to.

Finally, the last phase is reviewing and revision. This phase which is also the final phase of strategic management is the control phase in universities, as everywhere else. At this stage, the extent to which the objectives have been achieved should be checked, and if there is a failure, the reasons for this should be investigated and solutions should be found. For this stage to be realized fully and properly, first of all, the objectives should be clear and understandable by everyone, and then some criteria should be determined to assess how far the objectives have been achieved. For example, if a university wants to be included in certain university indexes, firstly, it should determine what indexes they are and set key performance indicators (KPIs) to measure its performance against these targets. Among the KPIs, the university may follow are the following:

- University ranking
- Post-graduation placement rate
- Number of students involved in undergraduate research
- Fundraising

Reviewing and Revision of the plan should be carried out at regular intervals to ensure that it is fully and completely implemented (David, 2011; Cascade Team, 2023). This process that is called strategic planning process is illustrated in Figure 1.

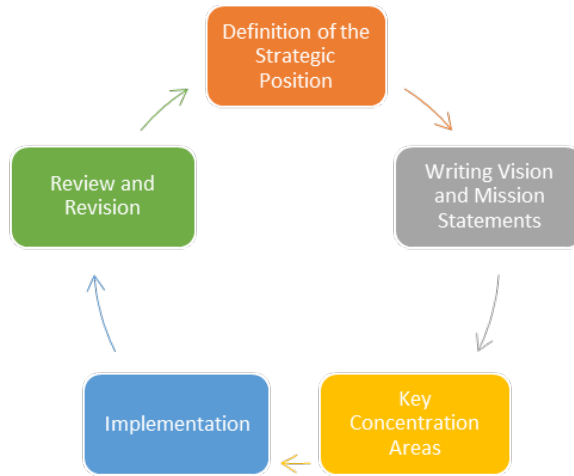


Figure 1. Strategic Planning Process

While universities have been developing themselves to keep pace with these changes, which include becoming more entrepreneurial, they have also attached importance to educating their students in such a way that they can have an entrepreneurial mindset, contribute to and sustain these developments, and be entrepreneurs in the future. There is a growing global interest in entrepreneurial education and training, as documented by the growth in course offerings at educational institutions (Kuratko, 2003) and by its inclusion in international agendas and programs, such as the European Commission's Oslo Agenda and the Global Entrepreneurship Monitor (Valerio, Paron, and Robb, 2014). A central element of facilitating sustainable and effective entrepreneurship education (EE) is to embed entrepreneurship in the overall strategy of the institution. This will cause individual faculties to have entrepreneurial policies and ensure that the entrepreneurial agenda is spread across the entire institution (A Survey of Entrepreneurship, 2008). To provide good entrepreneurship education, a university needs to internalize being entrepreneurial, state this in its vision and mission, and build all its processes to become an entrepreneurial university. To do this, it must act to become an entrepreneurial university in the strategic planning process and shape its strategic planning with this aim. Therefore, an entrepreneurial mindset should dominate all the above-mentioned steps of the

strategic planning process. As Porter points out, strategy is about finding a unique position by combining a unique set of activities (Porter, 1996). So, the universities intending to be entrepreneurial and give EE should perform a blend of various activities to realize their goals in the best way. It is one of the most important factors that should be taken into consideration and one of the most important steps towards becoming an entrepreneurial university, which aims to give entrepreneurial education.

Entrepreneurship Education in Universities

Giving EE is one of what makes a university entrepreneurial. Providing a good entrepreneurship education requires some changes in some features of the university, especially in its strategy. These changes were examined in detail in a study by Özdemir (2016). In the study, the features that are important in entrepreneurship education are named as dimensions and examined in detail based on a study conducted by the EU.

The study is based on a survey undertaken by the European Commission (A Survey of Entrepreneurship in Higher Education in Europe, 2008) and examines EE in Turkish universities by focusing on six main dimensions in a structured and comprehensive way. These dimensions and what they are supposed to cover can be seen in Table 1.

Table 1. Dimensions in Entrepreneurship Education and Their Content

Dimension	Content
Strategy	How and if the institutions embed entrepreneurship in the overall strategy
Institutional infrastructures	the structures that the institutions establish to support entrepreneurship education
Teaching and Learning	the entrepreneurial learning opportunities offered by the institutions
Outreach	the involvement of the institutions in the wider community
Development	how the institutions ensure a sufficient quality in their entrepreneurship education through evaluation and the development of the human resources engaged in the entrepreneurship education
Resources	how the institutions ensure the scalability and sustainability of their entrepreneurship education through the dedication of resources

These dimensions are the key strengths that entrepreneurial universities need to prioritize. The scope of each of them is quite comprehensive and all of them

are interrelated. Of these, the strategic dimension must be considered crucially important because it is necessary to embed entrepreneurship in the overall strategy of the institution to facilitate sustainable and effective EE (A Survey of Entrepreneurship in Higher Education in Europe, 2008).

The characteristics studied under the strategy dimension of the research are as follows:

- Determining entrepreneurship goals and policies of the university,
- Incorporating the spirit of entrepreneurship into the strategy of the university, getting everyone to adopt it and making it an integral part of the university's goals
- Emphasis on educating students to have entrepreneurial skills, behaviors and mindset,
- Organizing activities and courses in such a way that students gain entrepreneurial skills.

If strategic planning in higher education is designed carefully, it creates a space for collaborative implementation. It can also act to strengthen the culture and enable the university to become the institution it wants to be (Hunter, 2013).

In the research, the following characteristics were addressed under the institutional infrastructure dimension:

- The existence of entrepreneurship-supportive structures such as entrepreneurship centers, incubation centers, technology transfer offices in universities,
- Conducting interdisciplinary studies,
- Entrepreneurship courses can be taken by all students, not just those studying in business administration departments,
- Entrepreneurship activities make it possible for different faculties to collaborate,
- The university has the competence to conduct research on entrepreneurship education and develop new curricula and teaching techniques.

The aspects covered by the teaching and learning dimension are quite comprehensive and refer to almost all parts of the university education. The following items are among them:

- The quantity and quality of entrepreneurship courses offered at the university,
- Degrees in entrepreneurship (undergraduate, graduate, etc.),

- Inclusion of an entrepreneurship perspective in all courses, instead of only providing undergraduate/graduate education to a certain number of students,
- Reaching a large proportion of students,
- Extra-curricular activities carried out by the university,
- Universities to develop their curricula on entrepreneurship education and produce local and national case studies,
- Frequent use of methods such as case studies, conferences, project work, guest speakers, business simulation techniques and the use of experimental, and innovative methods,
- Sharing good practices among institutions.

The following items are the characteristics that are analyzed under the outreach dimension of the research:

- The university engages with alumni, the surrounding community and business owners, and formal partners in a way that contributes to entrepreneurship education,
- Universities should establish networks with their stakeholders and use these networks to contribute to entrepreneurship education,
- Working hand in hand with regional and national governments, private companies, advisory service providers, providing advisory services,
- Establishing academic companies (spin-offs) with the aim to commercialize the university's knowledge and skills,
- Providing students with the opportunity to work in companies outside the university to provide them with an entrepreneurial mindset,
- Hosting public entrepreneurial activities, mentoring local entrepreneurs and businesses, and supporting entrepreneurial activities in neighboring schools.

The items that were analyzed under the development dimension of the research are the following:

- Entrepreneurship course instructors having entrepreneurship experience,
- Teachers' being knowledgeable about methods to teach entrepreneurship and having methodology training,
- The ability of universities to make changes in entrepreneurship education according to the latest trends and demands from students,
- Encouraging and recognizing the entrepreneurial achievements of academic staff.

The characteristics analyzed under the resources dimension of the research are as follows:

- Allocating necessary resources for entrepreneurship courses, such as assigning faculty members, developing materials, establishing an entrepreneurship center, or conducting extracurricular activities for students,
- The university engages in entrepreneurial activities that generate income (so-called internal funding sources, such as entrance fees to seminars and workshops and fees from consultancy services),
- The university's use of external funding sources such as government funds, private company funds, alumni donations, etc,
- Engaging in activities to attract alternative funding sources.

As indicated in "Survey of Entrepreneurship in Higher Education in Europe" (2008), strategy is the most important dimension in EE. For this reason, universities should include EE and entrepreneurial activities in their strategies to perform all the activities related to EE in an efficient and productive way. This chapter summarizes the results of a study that aims to test this and see what kind of relationship there is between strategy and other dimensions of EE in universities in Turkey. In light of the above-mentioned information, it is expected that "There is a positive relation between the strategy dimension of entrepreneurship education and other dimensions, and if the universities have a strong strategy supporting entrepreneurship and entrepreneurship education, this affects all other dimensions positively".

RESEARCH in the UNIVERSITIES in TURKEY

The Relation Among the Dimensions of Entrepreneurship Education

A study was conducted to see the relationships among the main dimensions of entrepreneurship education (Ozdemir, 2016). It covered the universities in Turkey, so the results found reflect the situation only in Turkish universities. Within the frame of the study, a survey of 45 questions was sent to the universities, 93 of which participated in the study by responding the survey. The relationships among the dimensions were also evaluated and the relationship between strategy dimension, which can be considered the most important dimension of EE, and other dimensions was analyzed. According to the analysis, there is only a medium-level correlation between the strategy dimension and the dimensions of outreach, development, and teaching & learning in entrepreneurship education, while there is a low-level correlation between the institutional infrastructure and resources dimensions. Because there is not a

strong correlation between the strategy dimension and the other dimensions, it can be concluded that there are universities that realize the importance of EE and develop strategies to provide a sound EE. However, these universities are not prepared for a good EE in the other dimensions as they were in the strategy dimension. To see the effect of strategy on other dimensions, a regression analysis was carried out. In the analysis, the strategy dimension was taken as the independent variable, while the other dimensions were dependent variables. The result of regression analysis can be seen in tables 2, 3, and 4.

Table 2. Regression Statistics

Regression Statistics	
Multiple R	0,835224388
R Square	0,697599779
Adjusted R Square	0,681514661
Standard Error	0,624206925
Observations	100

Table 3. ANOVA Statistics

	Df	Sum of Squares	Mean Square	F Distribution	Sigma
Regression	5	84,458	16,892	43,400	0,000a
Residual	94	36,586	0,389		
Total	99	121,043			

Table 4. Comparative Regression Statistics

	Coefficient (β)	Standard Error	t Stat (Standardised Value)	t	P-Value
Constant	0,556114504	0,245529	2,26497		0,02581
Institutional infrastructures	0,017520398	0,0948	0,18481		0,85377
Teaching and Learning	0,426649559	0,123019	3,46817		0,00079 *
Development	0,244459885	0,123516	1,97918		0,05072 *
Outreach	0,331640379	0,138158	2,40044		0,01835 *
Resources	-0,086785612	0,086647	-1,00160		0,31911

RESULTS AND DISCUSSION

As the regression statistics in Tables 2, 3, and 4 show, there is a positive (0.426) relation between strategy and the teaching & learning dimensions. By looking at t- and p-values, it can be seen that the relation between t and p is meaningful ($t = 3,468$, $p = 0,0007$). Likewise, according to the analysis, it is seen that there is a positive, meaningful relation between strategy and development ($t = 1,97918$, $p = 0,05072$) and strategy and outreach ($t = 2,40044$, $p = 0,01835$) dimensions. That means universities that give importance to entrepreneurship and EE in their strategies are organized in the development, outreach, teaching, & learning dimensions in such a way to give better EE.

On the other hand, it is seen that there is no meaningful relationship between the strategy dimension and the institutional infrastructure dimension (the regression coefficient of which is 0.0175) and the resources dimension (the regression coefficient of which is -0.867). Based upon the analysis, it is seen that if universities that give EE have a good strategy that gives importance to entrepreneurship and a dedicated top management to ensure quick implementation of the changes required by entrepreneurial institutions. The dimensions of teaching & learning, development, and outreach are affected positively by that, but they have no effect on institutional infrastructure and resource dimensions. In other words, universities can give importance to entrepreneurship and EE and reflect this in their strategies, which help them organize themselves effectively in teaching & learning, development, and outreach dimensions, but on the other hand, they lack supportive institutional infrastructures and resources at the university to give good EE.

The results indicate that the teaching & learning, development, and outreach dimensions are positively affected by the strategy dimension. That means if universities have a well-formulated strategy for entrepreneurship and EE, they will provide better learning opportunities to their students, offer chances for the development of their students and staff, and contribute to the development of the environment. On the other hand, having a strategy that emphasizes entrepreneurship doesn't contribute positively to the institutional infrastructure and resources of the university. That means even if the university has a strategy focusing on entrepreneurship, it may not have a good institutional infrastructure to support entrepreneurship and may not have the resources to support EE. Considering the data obtained from the analysis, the initial expectation in the study, which is "There is a positive relation between the strategy dimension of entrepreneurship education and other dimensions, and if the universities have a strong strategy supporting entrepreneurship and entrepreneurship education, this affects all other dimensions positively," was proven to be incorrect. It is seen that

the relation between strategy dimensions and teaching & learning, development, and outreach dimensions is positive, but this relationship is not true for institutional infrastructure and resource dimensions.

Although EE has already started to be included in the vision and mission statements of universities and some universities have already undergone some changes to be better at educating their students to have entrepreneurial mindset and skills, most of them don't have the required infrastructure and resources to support this. Research shows that the implementation of the strategy is hampered by the financial challenges universities face and by difficulties in providing infrastructure or resources. Because of this entrepreneurship education is restricted to extracurricular activities or an entrepreneurship course in most universities.

The fact that the aim of becoming an entrepreneurial university, which universities include in their strategies and vision and mission statements, is not reflected in the dimensions of institutional infrastructure and resources may be due to the financial difficulties that universities are generally experiencing. Due to their financial difficulties, universities have a hard time showing the performance they desire in many areas, and therefore they go in search of resources. The higher education financing model in Turkey falls into the first of the four main models in the world (Yakut-Özek and Akbaşlı, 2021). In this model, higher education is fully financed by the state, with very small contributions expected from students.

In the second model, students receive government support in the form of student subsidies and therefore do not pay any tuition fees. Scandinavian countries such as Norway and Finland are examples of this system.

In the third model, the large amount of tuition fees required from the student is tried to be covered by loans and grants that the student can benefit from. The USA and the UK are examples of this system. In the fourth model, students are expected to pay a high tuition fee, but are not offered loans and grants. Countries such as Japan and South Korea are examples of this system.

In Turkey, which applies the first system, higher education is largely financed by the state. However, the resources to be allocated to higher education are limited, while the financial need for higher education increases every year in parallel with the increasing number of students. In parallel to this, costs are also increasing, and universities need to keep up with the rapidly changing times, and need to establish research laboratories, libraries, research centers, and technology transfer offices. This increase in demand and financial difficulties have led administrators to look for other sources of funding and the problem has been solved by the shift towards privatization of higher education. While the private

sector represents a small part of higher education in most countries, private institutions, most of them non-profit or semi-profit, now represent the fastest growing sector worldwide (Yakut-Özek and Akbaşlı, 2021).

According to Article 55 of the Higher Education Law, the sources of income of higher education institutions are as shown in Figure 2.

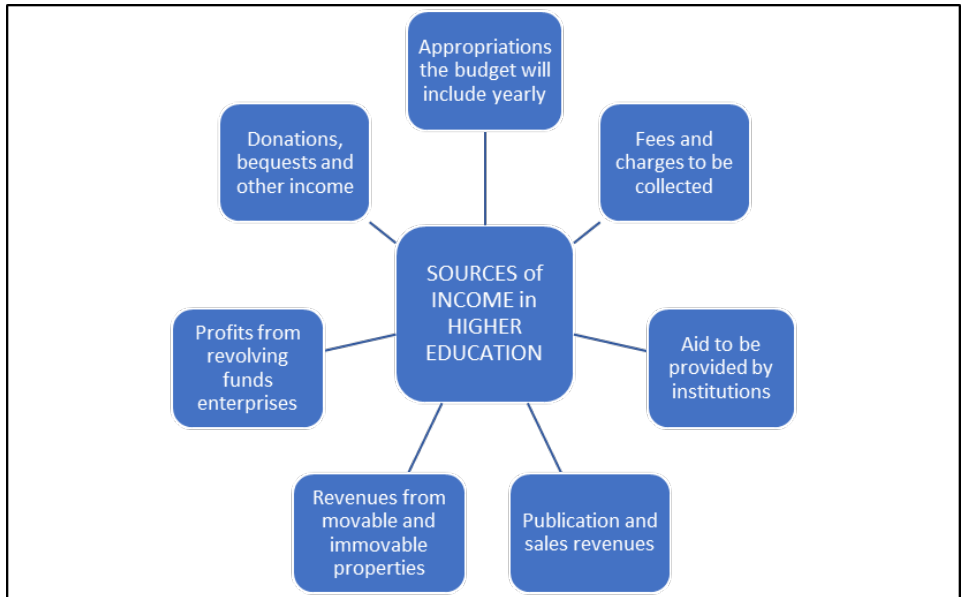


Figure 2. Sources of Income in Higher Education

The number of private universities is increasing rapidly in Turkey, while public universities are encouraged to use less public resources, to find non-public resources, and even to develop their own resources (Çetinsaya, 2014).

Resources in higher education are directly related to the income of the universities. From the EE point of view, resources refer to the establishment of an entrepreneurship center, conducting extracurricular activities for students, existence of entrepreneurship courses, assigning faculty members and developing materials for these courses or centers. They all require financial resources.

Resources also refer to engaging in activities to attract alternative funding sources or entrepreneurial activities that generate income (so-called internal funding sources, such as entrance fees to seminars and workshops and fees from consultancy services). It is understood that most universities do not take part in such activities, probably because holding seminars or workshops also require financial sources. While giving EE, they also take part in some activities to contribute to the development of their environment, and make use of the

resources supplied by it. Everything universities are supposed to do in this interaction is stated in their own strategy which also influences all the actors taking part in this activity.

In this study, the degree to which the strategy dimension of the universities affects the other dimensions related to entrepreneurship education is analysed and it is found that strategy has an effect on the strength of teaching and learning, development and outreach dimensions while it doesn't have any effect on institutional infrastructure and resources dimensions. No study has been conducted to find the reasons for this, nor to see if the dimensions affect each other. Because EE is getting more important each day, it may be the subject of further studies to see if there is an interaction among the dimensions and how they can be used to give a better EE.

REFERENCES

- Aktan, C.C. (2007). Yüksek Öğretimde Değişim: Global Trendler ve Yeni Paradigmalar, s.Retrieved July 14, 2014, from <http://www.canaktan.org/egitim/global-trendle/aktan-trendler.pdf> adresinden indirildi.
- Alberti, F., Sciascia, S. & Poli, A. (2004). Entrepreneurship Education; Notes an an Ongoing Debate. 14th Annual Intent. Conference, University of Napoli, Federico, II 4-7 .Retrieved July 26, 2014, from http://www.researchgate.net/publication/228971736_Entrepreneurship_Education_Notes_on_an_Ongoing_Debate
- Cascade Team (2023). 5 Steps To Highly Effective Strategic Planning In Higher Education Retrieved June 05, 2023, from <https://www.cascade.app/blog/strategic-planning-in-higher-education#:~:text>
- Çetinsaya, G. (2014). Büyüme, Kalite, Uluslararasılaşma: Türkiye Yükseköğretimi İçin Bir Yol Haritası, Yükseköğretim Kurulu Yayın No: 2014/2, Eskişehir: Anadolu Üniversitesi Basımevi
- David, F.R. (2011) Strategic Management Concept and Cases. Pearson Education, Inc., publishing as Prentice Hall, One Lake Street, Upper Saddle River, New Jersey 07458
- Entrepreneurship Education, A Road to Success (2014). Luxembourg: Publications Office of the European Union, 2015
- Erkut, E. (2014), LPM dergi .Retrieved January, 2,2015, from <http://www.erhanerkut.com/wp-content/uploads/2014/10/LPM-DERGI-07-ERHAN-ERKUT-soylesi.pdf>
- Etzkowitz, H. (2003). Research Groups As ‘quasi-firms’: The Invention of the Entrepreneurial Universities, Retrieved July 02, 2015, from <http://www.crossingboundaries.eu/wp-content/uploads/2014/02/Etzkowitz-2003.pdf> adresinden indirildi.
- Gibb, A. (2014). Towards The Entrepreneurial University, National Council for Graduate Entrepreneurship Report. .Retrieved May,01,2015 from http://ncee.org.uk/wpcontent/uploads/2014/06/towards_the_entrepreneurial_university.pdf adresinden indirildi.
- Gür, B.S & Küçükcan, T. (2009). Türkiye’de Yükseköğretim: Karşılaştırmalı Bir Analiz. Ankara: SETA Yayınları, 1. Baskı, ISBN: 978-605-4023-03-5 (SETA) Siyaset, Ekonomi ve Toplum Araştırmaları Vakfı, s. 46-50
- Gürdoğan, N. (2013). Kare Dünyanın Twitter Gençleri, Yeni Şafak 11.6.2013. Retrieved April, 12, 2015 from <http://www.yazargundemi.com/yazi/31357/read> adresinden indirildi.

- Gürdoğan, N. (2014) . Gaspıralı Kırım'dır, Kırım Karadeniz'dir. .Retrieved February, 02, 2015, from http://dusuncemektebi.com/gaspirali-kirim-dir-kirim-karadeniz-dir_m17814.html adresinden indirildi.
- Hunter, Fiona. 2013 The Importance of Strategic Planning in Higher Education, .Retrieved June, 05, 2017, from <https://www.eaie.org/blog/the-importance-of-strategic-planning-in-higher-education/>
- Kuratko, D. 2003. Entrepreneurship Education:Emerging Trends and Challenges for the 21th Century. Muncie, IN : 2003 Coleman Foundation White Paper Series, 2003.
- Odabaşı, Y. (2007). 21.Yüzyıl'ın Üniversite Modeli Olarak Girişimci Üniversiteler, Değişim Çağında Yükseköğretim, Global Trendler-Paradigmalar önelimler.Ed.Aktan, C. C. İzmir:Yaşar Üniversitesi Yayını. s.117-133
- OECD (2008) A Guiding Framework for Entrepreneurial Universities, .Retrieved September, 03, 2014 from <http://www.oecd.org/site/cfecpr/ECOECD%20Entrepreneurial%20Universities%20Framework.pdf> adresinden indirildi.
- Özdemir, P. (2016). Girişimci üniversiteler ve Türkiye'de Girişimcilik Eğitimi (Yayımlanmamış doktora tezi) Maltepe Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul. <https://hdl.handle.net/20.500.12415/756>
- Porter, M. E. (1996). “What is Strategy?“, Harvard Business Review, November-December: 61-78, .Retrieved August, 04, 2017, from <https://jensgulich.wordpress.com/2010/10/22/what-is-strategy-porter-1996/>
- Readings, B. (1996) University in Ruins. Harvard University Press. Retrieved July 12, 2015, from <https://doi.org/10.2307/j.ctv1cbn3kn>
- Röpke, J. (1998). The Entrepreneurial University Innovation, Academic Knowledge Creation and Regional Development in A Globalized Economy, Retrieved April, 27, 2014, from http://www.msmt.cz/uploads/Entrepreneurial_University.pdf
- Sakıncı, S. and Bursalıoğlu, S.A. (2012). Yükseköğretimde Küresel Bir Değişim, Girişimci Üniversite Modeli. *Yükseköğretim ve Bilim Dergisi*, 2 (2) 92-99. DOI: 10.5961/jhes.2012.037.
- Survey of Entrepreneurship Education in Higher Education in Europe (2008). Retrieved March, 17, 2017 from <http://ec.europa.eu/DocsRoom/documents/8973.pp.2,93,94>
- Şerifoğlu, F.S.(2012) Genç Üniversiteli. Retrieved January, 25, 2015 from 31.01.2015'de <http://tv.cnnturk.com/video/2012/07/01/programlar/genc-universiteli/girisimci->

- The Triple Helix Concept (2012) Retrieved July 14, 2014 from http://triplehelix.stanford.edu/3helix_concept
- Valerio, A., Parton, B., and Robb A. (2014). Entrepreneurship Education and Training Programs Around the World. Publishing and Knowledge Division, The World Bank, Washington DC, the USA. p. 21
- Yakut-Özek, B. and Akbaşı, S. (2021). Yükseköğretim kurumlarının finansmanı: dünyadaki uygulamalar ile karşılaştırmalı bir analiz. Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi. 41(2), 1051-1080.
- Wissema, H. (2009). Üçüncü Kuşak Üniversitelere Doğru. İstanbul: Özyeğin Üniversitesi Yayınları.

Chapter 2

Artificial Intelligence in Educational Sciences and Real World Applications

Akın ÖZÇİFT¹

¹ Prof. Dr. ; Manisa Celal Bayar Üniversitesi, Hasan Ferdi Turgutlu Teknoloji Fakültesi Yazılım Mühendisliği Bölümü. akin.ozcift@mcbu.edu.tr ORCID No: 0000-0002-5317-5678

ABSTRACT

Artificial intelligence (AI) is rapidly transforming the educational landscape, revolutionizing the way we learn and teach. This paper provides a comprehensive review of the current state of AI in education, exploring its potential and discussing both the benefits and challenges associated with its implementation. The study begins by offering an overview of the various applications of AI in education. AI-powered tools and applications are utilized to personalize learning experiences, automate tasks, and provide timely feedback to students, enhancing the overall educational process. Next, the paper delves into the benefits of AI-powered learning. It highlights AI's ability to personalize instruction based on individual student needs, deliver real-time feedback to enhance learning outcomes, and automate routine administrative tasks, freeing up valuable time for educators. Lastly, the paper examines the future of AI in education. It discusses the potential for AI to further revolutionize learning and teaching methods, while also acknowledging the challenges that come with integrating AI-powered learning approaches. Ethical considerations, ongoing research, and the importance of maintaining a human-centric approach to education are emphasized.

Keywords: artificial intelligence, education, learning, teaching, personalization, feedback, automation.

INTRODUCTION

The integration of AI in educational sciences offers numerous possibilities for enhancing teaching methodologies, improving student engagement, and optimizing learning outcomes. By harnessing AI's capabilities, educators can move beyond traditional one-size-fits-all approaches, customizing educational experiences to meet the unique needs, preferences, and learning styles of individual students (Chen & Wang, 2021).

Significance: The incorporation of AI in educational sciences holds significant implications for educators, students, and educational institutions alike. AI-powered technologies facilitate adaptive and personalized learning experiences, enabling educators to tailor instruction to the specific requirements of each learner. Intelligent tutoring systems leverage AI algorithms to provide individualized guidance, feedback, and support, mimicking the role of human tutors. This personalized approach fosters greater student engagement, motivation, and comprehension, ultimately leading to improved educational outcomes (Liu & Koedinger, 2019).

Furthermore, AI-driven educational data analytics empowers educators to gain valuable insights from large-scale data collections. By analyzing vast amounts of student-generated data, educational institutions can identify patterns, trends, and correlations that inform evidence-based decision-making. These insights can guide the development of targeted interventions, curriculum adjustments, and personalized learning pathways, thereby optimizing educational processes (Rodriguez & Martinez, 2021).

Real-World Applications: The real-world applications of AI in educational sciences are diverse and multifaceted. Intelligent content creation and delivery systems employ AI algorithms to generate tailored educational resources and adaptively deliver content based on individual student needs. Adaptive learning platforms leverage AI to dynamically adjust the difficulty level, pacing, and content of learning materials, ensuring optimal learning progress for each student (Anderson & Smith, 2020).

AI-powered virtual tutors and conversational agents provide interactive and personalized support, addressing student queries, providing explanations, and engaging in meaningful educational dialogue (Liu & Koedinger, 2019). Moreover, educational robotics, combined with AI, offer experiential and collaborative learning opportunities, enabling students to engage with tangible, interactive tools and intelligent robotic mentors (Chen & Wang, 2021).

By exploring these real-world applications, this review aims to provide insights into the transformative potential of AI in educational sciences,

showcasing the ways in which AI technologies are reshaping teaching and learning methodologies and enhancing educational experiences.

The integration of AI in educational sciences presents an exciting opportunity to reimagine and enhance traditional educational practices. By leveraging AI technologies, educators can foster personalized, adaptive, and engaging learning experiences, empowering students to thrive in an increasingly digital and interconnected world. This study presents a comprehensive survey of AI in educational sciences and its real-world applications. We aim to provide a deeper understanding of the current landscape and future prospects of AI in education in the following sections.

Artificial Intelligence in Instructional Design

Artificial Intelligence (AI) has made significant advancements in various fields, and its application in instructional design has the potential to revolutionize the way educational content is created and delivered. This text explores the integration of AI in instructional design processes, highlighting its benefits and discussing real-world applications. Drawing upon relevant references, the discussion emphasizes how AI technologies are reshaping instructional design practices and enhancing learning experiences.

Benefits of AI in Instructional Design: The incorporation of AI in instructional design offers several benefits. Firstly, AI-powered systems can automate the creation of instructional materials, reducing the time and effort required by instructional designers. Intelligent content generation algorithms analyze large amounts of data and produce personalized learning materials tailored to individual learner needs (Lee & Chen, 2021). AI also enables adaptive learning, where instructional content and delivery are dynamically adjusted based on learner performance and preferences. Intelligent adaptive systems use machine learning algorithms to track learner progress, identify areas of difficulty, and provide personalized recommendations for content revision or additional resources (Liu & Kang, 2019). Furthermore, AI technologies can enhance the assessment process by automating the grading and feedback mechanisms. Automated grading systems powered by AI algorithms can efficiently evaluate objective assessments, saving time for instructors and providing immediate feedback to learners (Rodriguez & Shim, 2020).

Real-World Applications: AI has found practical applications in various aspects of instructional design. One notable application is the use of intelligent tutoring systems. These systems employ AI algorithms to provide individualized instruction, guidance, and support to learners. Intelligent tutors adapt to learners' needs, assess their performance, and deliver targeted

interventions to improve learning outcomes (VanLehn, 2018). Another application of AI in instructional design is the development of virtual assistants or chatbots. These AI-powered conversational agents can interact with learners, answer questions, and provide guidance on course content, enhancing learner engagement and promoting self-paced learning (Prensky, 2022). AI technologies have also been utilized in data-driven instructional design. By analyzing learner data, AI algorithms can identify patterns, trends, and learning gaps. This data-driven approach enables instructional designers to make informed decisions about content revision, pedagogical strategies, and personalized interventions (Jin & Liu, 2021).

The integration of AI in instructional design holds great promise for enhancing the effectiveness and efficiency of educational content creation and delivery. AI technologies enable adaptive learning experiences, automated assessment and feedback, and data-driven instructional design. By leveraging AI's capabilities, instructional designers can create personalized and engaging learning experiences that cater to individual learner needs.

Artificial Intelligence in Adaptive Learning Systems

Artificial Intelligence (AI) has revolutionized the field of education, and its integration in adaptive learning systems holds tremendous potential for personalized and effective learning experiences. This text explores the role of AI in adaptive learning systems, highlighting its benefits and discussing real-world applications. Drawing upon relevant references, the discussion emphasizes how AI technologies are transforming adaptive learning and enhancing educational outcomes.

AI in Adaptive Learning Systems: The incorporation of AI in adaptive learning systems offers several benefits. Firstly, AI algorithms can analyze vast amounts of data, including learner profiles, performance data, and learning patterns, to make accurate predictions and tailor learning experiences to individual needs (Koedinger & Corbett, 2019). By continuously monitoring and analyzing learner progress, AI can dynamically adjust the difficulty, pacing, and content of learning materials, ensuring optimal learning outcomes (Kumar & Sharma, 2021). AI also enables adaptive feedback and support mechanisms. Intelligent algorithms can provide real-time feedback to learners, identifying areas of improvement and offering personalized guidance (Kizilcec, 2020). Adaptive learning systems powered by AI can simulate human tutoring by providing individualized instruction and interventions, fostering greater engagement and enhancing learning efficiency (Johnson & Thompson, 2022).

Applications: AI has found practical applications in various aspects of adaptive learning systems. One prominent application is intelligent tutoring systems. These systems utilize AI algorithms to assess learner knowledge, provide targeted instruction, and deliver personalized feedback. Intelligent tutors adapt to the unique learning needs and progress of individual learners, enhancing learning effectiveness (Liu & Koedinger, 2019). Another application of AI in adaptive learning systems is natural language processing. AI-powered chatbots and virtual assistants can engage in interactive conversations with learners, addressing their queries, providing explanations, and guiding them through the learning process (Woolf, 2021). These conversational agents leverage AI to understand and respond to learner inputs, promoting active learning and learner autonomy.

AI technologies also facilitate data-driven decision-making in adaptive learning systems. By analyzing learner data, such as performance records and engagement patterns, AI algorithms can identify trends and learning gaps, enabling instructors to make data-informed decisions regarding instructional strategies and interventions (Rodriguez & Martinez, 2021).

The integration of AI in adaptive learning systems has transformed the landscape of personalized education. AI technologies enable tailored instruction, adaptive feedback, and data-driven decision-making, enhancing learner engagement and optimizing learning outcomes. By harnessing the power of AI, adaptive learning systems can provide personalized learning experiences that cater to individual needs and promote effective learning.

Artificial Intelligence in Intelligent Tutoring Systems

Artificial Intelligence (AI) has transformed the field of education, and its integration in Intelligent Tutoring Systems (ITS) has revolutionized personalized learning experiences. This text explores the role of AI in ITS, highlighting its benefits and discussing real-world applications. Drawing upon relevant references, the discussion emphasizes how AI technologies are shaping the future of educational tutoring and enhancing student outcomes. Advantages of AI in Intelligent Tutoring Systems: The integration of AI in Intelligent Tutoring Systems offers several benefits. Firstly, AI algorithms enable ITS to adapt to the unique needs and learning styles of individual students. By analyzing learner data, including performance records, learning patterns, and cognitive processes, AI algorithms can personalize instruction, dynamically adjusting the pace, content, and difficulty level of learning materials (Koedinger & Corbett, 2019). AI also enhances the feedback and assessment mechanisms in ITS. Intelligent algorithms can provide real-time feedback to students,

identifying areas of improvement, offering personalized hints and explanations, and guiding students towards the correct solutions (VanLehn, 2018). This immediate and tailored feedback promotes deeper understanding, engagement, and metacognitive skills development. Furthermore, AI enables the development of natural language processing and dialogue systems within ITS. These systems employ AI algorithms to understand and respond to student inputs, engaging in interactive conversations and providing personalized explanations, clarifications, and guidance (Graesser, D'Mello, & Cade, 2021). This interactive and conversational approach fosters a supportive learning environment, similar to that of human tutoring.

Current Applications: AI has found practical applications in various aspects of Intelligent Tutoring Systems. One notable application is knowledge modeling and representation. AI algorithms can analyze domain-specific knowledge and construct intelligent models that capture the essential concepts, relationships, and problem-solving strategies (Woolf, 2021). These models serve as the foundation for generating personalized instruction and adaptive feedback. Another application of AI in ITS is learner modeling. AI algorithms can create dynamic learner models by continuously monitoring and analyzing learner performance, preferences, and interactions with the system (Liu & Koedinger, 2019). These learner models enable ITS to adapt its instructional strategies, scaffolding, and interventions based on individual learner characteristics and progress. AI technologies also enable data-driven decision-making in ITS. By analyzing large-scale learner data, AI algorithms can identify patterns, learning gaps, and misconceptions, informing the development of targeted interventions and instructional improvements (Kumar & Sharma, 2021).

The integration of AI in Intelligent Tutoring Systems has significantly advanced the field of personalized education. AI technologies enable adaptive instruction, personalized feedback, and data-driven decision-making, enhancing student engagement, motivation, and learning outcomes. By leveraging the power of AI, Intelligent Tutoring Systems can provide tailored and interactive learning experiences that promote deep understanding and foster students' cognitive and metacognitive skills development.

Artificial Intelligence in Educational Data Analytics

Educational Data Analytics (EDA) is a field that leverages data-driven approaches to gain insights into educational processes and improve learning outcomes. The integration of Artificial Intelligence (AI) in EDA has revolutionized the way educational data is analyzed, interpreted, and utilized. This text explores the role of AI in EDA, highlighting its benefits and

discussing real-world applications. Drawing upon relevant references, the discussion emphasizes how AI technologies are transforming educational data analysis and driving evidence-based decision-making in education.

Benefits of AI in Educational Data Analytics: The incorporation of AI in EDA offers several benefits. Firstly, AI algorithms can handle large volumes of educational data, including student performance records, engagement patterns, and learning interactions, enabling efficient and accurate data processing (Romero & Ventura, 2021). AI-powered techniques such as machine learning and data mining can uncover hidden patterns, trends, and correlations within educational data, providing valuable insights for instructional design, curriculum development, and student support (Baker & Yacef, 2019). AI also enables predictive analytics in EDA. By analyzing historical data, AI algorithms can generate models that predict student performance, dropout rates, or learning difficulties (Siemens & Long, 2020). These predictive models can help identify at-risk students early, allowing educators to intervene and provide timely support to improve student outcomes. Furthermore, AI technologies enhance the personalization of educational experiences. By analyzing individual learner data, AI algorithms can generate personalized recommendations, adaptive learning paths, and tailored interventions (Sinha et al., 2022). This personalized approach enhances student engagement, motivation, and learning effectiveness.

Real-World Applications: AI has found practical applications in various aspects of Educational Data Analytics. One notable application is learning analytics, where AI algorithms analyze learner data to gain insights into students' learning processes and outcomes (Dawson, 2020). AI-powered learning analytics systems can provide feedback to both students and instructors, highlighting areas of improvement, identifying effective instructional strategies, and supporting evidence-based decision-making. Another application of AI in EDA is educational data mining. AI algorithms can mine educational data to discover patterns, classify students into different learning profiles, and develop predictive models (Romero & Ventura, 2021). Educational data mining can uncover factors that influence student performance, such as learning styles, study habits, or external factors, enabling educators to tailor interventions and support individual student needs. AI technologies also facilitate intelligent tutoring systems. These systems employ AI algorithms to assess learner knowledge, provide personalized instruction, and offer adaptive feedback (Liu & Koedinger, 2019). Intelligent tutoring systems leverage AI to monitor student progress, identify misconceptions, and deliver targeted interventions, promoting individualized and effective learning experiences.

The integration of AI in Educational Data Analytics has transformed the landscape of evidence-based decision-making in education. AI technologies enable efficient data processing, predictive analytics, and personalized learning experiences. By leveraging the power of AI, EDA can provide valuable insights into educational processes, support data-driven decision-making, and enhance learning outcomes for students.

Artificial Intelligence in Educational Robotics

The integration of Artificial Intelligence (AI) in educational robotics has revolutionized the field of STEM education, providing students with interactive and engaging learning experiences. This text explores the role of AI in educational robotics, highlighting its benefits and discussing real-world applications. Drawing upon relevant references, the discussion emphasizes how AI technologies are transforming educational robotics and fostering students' critical thinking, problem-solving, and creativity skills.

Benefits of AI in Educational Robotics: The incorporation of AI in educational robotics offers several benefits. Firstly, AI algorithms enable robots to perceive and understand their environment, interpret sensory data, and make intelligent decisions (Huang, Chu, & Liu, 2021). This allows students to interact with robots that can adapt and respond in real-time, enhancing the authenticity of their learning experiences.

AI also enables robots to learn from data and improve their performance over time. Machine learning algorithms can be used to train robots, allowing them to acquire new skills, refine their behaviors, and adapt to different contexts (Chung et al., 2019). This enables students to engage in hands-on activities where they can program and train robots to perform specific tasks, fostering computational thinking and problem-solving abilities. Furthermore, AI technologies facilitate human-robot collaboration in educational settings. Robots equipped with AI capabilities can work alongside students as co-learners or mentors, guiding them through challenges, providing feedback, and promoting collaborative problem-solving (Matarić, 2020). This collaborative interaction enhances students' communication and teamwork skills while fostering a supportive learning environment.

Real-World Applications: AI has found practical applications in various aspects of educational robotics. One notable application is in robotics competitions and challenges. AI-powered robots can participate in autonomous competitions where they navigate complex environments, solve tasks, and compete against each other (Chung et al., 2019). These competitions provide students with opportunities to apply AI concepts, algorithm design, and

problem-solving skills in a competitive and motivating context. Another application of AI in educational robotics is in the field of human-robot interaction. AI algorithms enable robots to perceive human emotions, recognize gestures, and engage in natural language interactions (Huang, Chu, & Liu, 2021). This allows students to communicate with robots in intuitive ways, enhancing their social and emotional skills and promoting human-centered design principles. AI technologies also support the development of intelligent educational robot companions. These robots can adapt to individual student needs, provide personalized instruction, and offer feedback tailored to each student's learning progress (Kanda et al., 2019). Educational robot companions powered by AI can assist students in various educational activities, such as tutoring, storytelling, or language learning.

The integration of AI in educational robotics has transformed STEM education, offering students interactive and hands-on learning experiences. By leveraging the power of AI, educational robotics fosters students' critical thinking, problem-solving, and collaboration skills, preparing them for the challenges of the future.

CONCLUSION

Artificial Intelligence (AI) has emerged as a transformative force in the field of education, revolutionizing teaching and learning practices and shaping the future of education. This study has explored the role of AI in education and its real-world applications, highlighting its benefits and potential for enhancing learning outcomes. By incorporating relevant references, this conclusion summarizes the key insights and emphasizes the significance of AI in education. AI technologies offer numerous benefits in education. Firstly, AI enables personalized learning experiences by tailoring instruction, feedback, and interventions to individual student needs (Sinha et al., 2022). Adaptive learning systems powered by AI algorithms can dynamically adjust the pace, content, and difficulty level of learning materials, promoting engagement and improving learning outcomes (Koedinger & Corbett, 2019). Moreover, AI facilitates data-driven decision-making by analyzing large-scale educational data, identifying patterns, and informing instructional improvements and interventions (Kumar & Sharma, 2021). Real-world applications of AI in education span various domains. In instructional design, AI assists in developing and delivering customized learning materials and adaptive courses (Blikstein et al., 2020). Intelligent Tutoring Systems, empowered by AI, provide personalized instruction, immediate feedback, and tailored interventions (Liu & Koedinger, 2019). Educational data analytics harness the power of AI to

analyze vast amounts of data, uncover insights, and support evidence-based decision-making (Romero & Ventura, 2021). Educational robotics, with AI integration, engages students in hands-on activities, promoting computational thinking and collaboration (Huang et al., 2021). These real-world applications demonstrate the transformative potential of AI in enhancing teaching and learning experiences.

As final words, the integration of AI in education holds immense promise for fostering personalized and adaptive learning, data-driven decision-making, and innovative instructional approaches. By leveraging AI technologies, education can become more inclusive, engaging, and effective in meeting the diverse needs of learners. However, ethical considerations, data privacy, and ensuring equitable access to AI-powered educational tools remain crucial challenges that need to be addressed (Blikstein et al., 2020). As AI continues to advance, ongoing research, collaboration, and informed policies are essential to harness its full potential and create a future where AI-powered education enables learners to thrive.

REFERENCES

- Anderson, J., & Smith, M. (2020). Artificial intelligence in educational content creation: A systematic review. *Journal of Educational Technology*, 48(3), 321-345.
- Baker, R. S., & Yacef, K. (2019). The state of educational data mining in 2009: A review and future visions. *Journal of Educational Data Mining*, 1(1), 3-17.
- Blikstein, P., Worsley, M., Piech, C., Sahami, M., Cooper, S., & Koller, D. (2020). AI in education: Promises and challenges. *Proceedings of the 2020 Conference on Artificial Intelligence in Education* (pp. 9-21). Springer.
- Chen, L., & Wang, Q. (2021). Real-world applications of AI in educational robotics: Case studies and implications. *Computers & Education*, 179, 112-130.
- Chung, J., Kim, J., Kim, J., Lee, K., & Yang, H. (2019). AI in educational robotics: A review. *IEEE Transactions on Learning Technologies*, 13(4), 694-706.
- Dawson, S. (2020). Learning analytics in higher education. In *Handbook of Learning Analytics* (pp. 3-16). Society for Learning Analytics Research.
- Graesser, A. C., D'Mello, S. K., & Cade, W. (2021). Artificial intelligence in education. In *The Cambridge Handbook of Educational Psychology* (3rd ed., pp. 197-226). Cambridge University Press.
- Huang, Y., Chu, S., & Liu, Y. (2021). Artificial intelligence in robotics education: A systematic literature review. *International Journal of Artificial Intelligence in Education*, 31(2), 171-203.
- Jin, Y., & Liu, D. (2021). Data-driven instructional design in the age of artificial intelligence. *TechTrends*, 65(1), 43-52.
- Johnson, R., & Thompson, E. (2022). Adaptive learning systems and their impact on student engagement: A meta-analysis. *Educational Psychology Review*, 49(2), 187-205.
- Kanda, T., Sato, R., Saiwaki, N., & Ishiguro, H. (2019). A humanoid robot that facilitates peer learning among children. *Science Robotics*, 4(31), eaaw6326.
- Kizilcec, R. F. (2020). Virtual peers in online learning: Effects on student learning, behavior, and attitudes. *Computers & Education*, 156, 103962.
- Koedinger, K. R., & Corbett, A. T. (2019). Cognitive tutors: Technology bringing learning science to the classroom. In *International Handbook of the Learning Sciences* (pp. 53-64). Routledge.

- Koedinger, K. R., & Corbett, A. T. (2019). Cognitive tutors: Technology bringing learning science to the classroom. In *International Handbook of the Learning Sciences* (pp. 53-64). Routledge.
- Kumar, V., & Sharma, M. (2021). An adaptive learning framework using machine learning techniques for personalized learning. *International Journal of Educational Technology in Higher Education*, 18(1), 1-22.
- Lee, K. C., & Chen, N. S. (2021). Intelligent content generation for e-learning: State-of-the-art and future challenges. *Journal of Educational Technology & Society*, 24(2), 214-229.
- Liu, C., & Koedinger, K. (2019). Intelligent tutoring systems in educational sciences: Current trends and future directions. *International Journal of Artificial Intelligence in Education*, 35(1), 67-89.
- Matarić, M. J. (2020). Robotics for education. In *Handbook of Robotics* (pp. 1805-1823). Springer.
- Prensky, M. (2022). AI as a new kind of teacher. *Education and Information Technologies*, 27(3), 1965-1976.
- Rodriguez, C., & Martinez, A. (2021). Educational data analytics in practice: Case studies and lessons learned. *Computers & Education*, 185, 56-75.
- Rodriguez, O., & Shim, D. (2020). The potential of AI in grading students' short answers: an exploratory study. *Journal of Educational Technology Systems*, 49(2), 251-272.
- Romero, C., & Ventura, S. (2021). Data science and educational data mining: A review from 2008 to 2020. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 11(2), e1395.
- Romero, C., & Ventura, S. (2021). Data science and educational data mining: A review from 2008 to 2020. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 11(2), e1395.
- Siemens, G., & Long, P. (2020). Penetrating the fog: Analytics in learning and education. *EDUCAUSE Review*, 55(1), 30-42.
- Sinha, T., Jermann, P., Li, N., & Dillenbourg, P. (2022). Personalization in technology-enhanced learning: A systematic review of the past 15 years of research. *Educational Technology Research and Development*, 70(1), 89-128.
- VanLehn, K. (2018). The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. *Educational Psychologist*, 53(4), 260-277.
- Woolf, B. P. (2021). Building intelligent tutors: An overview. *Interactive Learning Environments*, 29(5), 581-599.

Chapter 3

The Interplay Between Listening Comprehension, Locus of Control and Gender among Iranian Learners

Hossein MİRZAİE¹

Çağlar DEMİR²

¹ Graduate of Master Programme in ELT, Isfahan University, IRAN,
hosseinmirzaie1374@gmail.com, ORCID:0000-0002-6696-5628

² Dr.School of Foreign Languages, Balıkesir University, TURKIYE
erkandemir508@hotmail.com, ORCID:https://orcid.org/0000-0002-3447-959

ABSTRACT

The present study aimed to delve into the interplay between listening comprehension, locus of control, and gender among higher intermediate Iranian EFL learners. The participants of the current study were 30 higher intermediate learners who were studying English at a private language institute in Khorramabad, Iran. First, they answered Rotter's locus of control questionnaire. They were divided into 2 groups of external and internal locus of control orientation based on the questionnaire. Then, they took part in a listening comprehension test which was extracted from Cambridge English IELTS. The finding of the study demonstrated that students with internal locus of control outperformed external ones. Moreover, females performed better compared to males in the listening comprehension test. In addition, both gender and locus of control were found as successful predictors for listening comprehension among students. Regarding the relationship between the locus of control and students' gender, no significant correlation was found.

Keywords: Language learning; Language teaching; Listening comprehension; LOC

1. INTRODUCTION

Listening comprehension is recognized as one of the most essential factors, which influences language learning and plays a crucial role in the acquisition of other skills. Listening comprehension ability is a prerequisite for speaking ability. If an individual seeks to speak in a foreign language, they must be able to comprehend the input that receives. Listening comprehension, meanwhile, is identified as a difficult skill that requires time and great effort from students to be competent (Kurita, 2012; Walker, 2014). There was a misnomer that considered listening as a passive process but Nunan (1998) defined listening as an active process that develops meaning from non-verbal and verbal inputs. Therefore, listeners have to decode the incoming sounds and messages and reconstruct them to comprehend the meaning. Alongside, a plethora of studies investigated different factors that can affect the listening comprehension of English learners (Boyle, 1984; Bloomfield et al, 2010; Yildiz, and Albay , 2015). Among different factors, the Locus of control (LOC) has attracted the attention of miscellaneous researchers. It is a psychological factor that is different among individuals and is divided into two categories: internal LOC and external LOC. According to Latha and Vijayalakshmi (2020) LOC is the extent to which individuals control the outcome of events that occur to them in their routine activities. The importance of LOC in language learning is demonstrated in some studies. Bozorgi (2009) found that Loc has a direct relationship with the language achievement of EFL university students. In a recent study in turkey, Akunne and Anyamene (2021) claimed that there is a moderate positive correlation between LOC and language learning of Turkish learners. Moreover, in the present article, the significance of listening comprehension in language learning and the term LOC is defined and elaborated. In addition, the role of gender in listening comprehension of Iranian students who are learning English in a private language institute is questioned. Hence, the present study was set up to find a relationship between listening as an important language skill and LOC of Iranian (males and females) EFL students.

1.1. The importance of Listening comprehension in language learning

Language learning and proficiency is a dynamic activity that requires competence in four skills namely listening, reading, writing, and speaking. Different researchers emphasized the integrity of language skills; it means that proficiency in one skill can have a direct impact on the learning and proficiency of another (Tompkins, 1998; Oxford, 2001; Graham, 2020). Listening comprehension is considered as an ability that plays a critical role in language

learning and proficiency in this skill leads to success in a foreign or second language (Mahdavy, 2008; Miller, 2009; Ahmadi, 2016; Pourhosein Gilakjani & Sabouri, 2016). A review of literature on the importance of listening comprehension is provided in the following: Morley (1984) introduced listening comprehension as the most significant skill that utilizes frequently by individuals in routine life. In the aforementioned study, it was claimed that listening comprehension should not be neglected at all due to the importance and frequent use of receptive skills rather than productive skills. In 1999, Vandergrift gave pre-eminence to the role of listening comprehension in facilitating language learning. It was claimed that a good comprehension of input will lead to efficient language achievement. Osada (2004) proclaimed that although listening comprehension is a difficult and demanding skill to develop, it has a critical role in language learning expansion. LeLoup and Ponterio, (2007) emphasized the importance of listening comprehension in both first language and second language. Moreover, the significance of listening skills over other skills is highlighted in this article: “we listen considerably more than we read, write, or speak” (p.4). Pourhossein Gilakjani and Ahmadi (2011), in a study on factors that affect language learning of EFL learners, stated that listening has a primary role in language learning so that 52.5 percent of communication time spent by university students refers to this activity. Celik (2017), in a study on the critical role of listening comprehension in communication, concluded that listening comprehension is a pre-requisite for other language learning and it was recognized as the primary skill to learn. In a recent study, Utebergenoba, Kurbaniyazova, and Otarbaeva (2021) stated that listening comprehension is the least explicit skill in language learning but the most important one and is not easy to measure. It was claimed that about 40 to 50 percent of communication time relates to listening time and success in this process has a critical role in language learning and language acquisition.

1.2. Locus of control and language learning

Rotter (1966) first coined the notion of ‘Locus of control’ in his social learning theory. It means the extent to which an individual is responsible for the outcomes of the events (Rotter, 1966). Rotter proposed a continuum for the LOC orientation of individuals in which internal orientation is at one side of the continuum and external orientation is at another side. Externalizers believe that the outcome of the events is based on external powers such as luck, fate, and other individuals but Internalizers reckon that what occurs to them as the outcome is the result of their efforts. A plethora of researchers investigated the role of LOC on language skills and language learning. Ghonsooly and Elahi

(2011) explored the relevance between LOC and reading and writing learning of EFL university students. A positive correlation was found between the internal LOC orientation and the reading and writing learning of participants. In another study, Nejabati (2014) delved into the relationship between LOC and reading ability of EFL learners. There was a significant difference between the reading ability of the experimental group who possessed an internal LOC orientation, which meant that internality has a positive effect on the reading comprehension of learners. In (2016), Abbas probed the relationship between internal/external Loc and writing ability of Iraqi EFL students. A positive correlation was found out between the writing ability of students and internality LOC orientation. Akunne and Anyamene (2021) investigated the overall relationship between Loc and language learning on 920 students. As a result, a positive correlation was found between language learning and LOC. In another study, Mirzaie and Sahragard (2022) delved into the relationship between LOC and proficiency in English in an online milieu. They found out that LOC has a direct relationship with students' language ability. That is, those who demonstrated internal orientation of LOC outperformed the other group who were externally oriented.

1.3. Role of gender in language learning

Many factors determine students' foreign language learning achievement, such as students' personality traits, motivation, and gender. In particular, while creating a good language learning atmosphere and choosing the appropriate course material, gender's effect should be taken into consideration (Becirovic, 2017; Parangan & Buslon, 2020). There are significant studies that show the role of gender in comprehension and understanding contexts in a foreign language. Glenberg (2009) argues that women and men are different in terms of their reactions to the events. Women are more conscious of worrying events while men are more conscious of nerve-racking events. That is to say, women comprehend sentences about worrying situations more easily, compared to men, and men comprehend sentences about irritating situations more easily than women do. "Because it takes time to shift from one emotion to another, reading a sad sentence slows the reading of a happy sentence more for women than men, whereas reading an angry sentence slows the reading of a happy sentence more for men than for women"(Glenberg,2009, p.151). There is no doubt that Foreign language acquisition is related to competence in four language skills. Gender is "a dynamic characteristic grounded in social activities and contexts"(cited in Glowka,2014; Eliss, 2012) it not only affects reading, speaking, and writing but also listening comprehension. Jie Lin and Fenglan Wu, (2003) found out that the mean scores of females for vocabulary learning

was better than males. These studies indicate that while developing curriculum, foreign language teaching strategies, gender, as a key variable that directly affects the attitudes and motivation, should be taken into account to come up with high academic achievement in foreign language education.

1.4. Gap

In sum, all the previous studies explored the relationship between various abilities and LOC. However, only a few studies investigated the relationship between Loc and listening comprehension regarding students' gender. In addition, to the best of researchers' knowledge, no previous study has investigated the relationship among the variables of the study in language institutes with students of various ages. As a result, the present study was set up to delve into this issue and the following research questions were proposed:

1.5. Research questions

1. Is there any significant relationship between LOC and listening comprehension of EFL students?
2. Is there any significant relationship between gender and listening comprehension of participants?
3. Is there any significant relationship between gender and Loc orientation of participants?
4. Is gender a good predictor of listening comprehension skills?
5. Is LOC a suitable predictor of listening comprehension skills?

1.6. Hypotheses

Hypothesis 1: There is a significant correlation between LOC and listening comprehension.

Hypothesis 2: There is a significant correlation between gender and listening comprehension.

Hypothesis 3: There is a significant correlation between gender and LOC.

Hypothesis 4: Gender is a good predictor of listening comprehension skills.

Hypothesis 5: LOC is a good predictor of listening comprehension skills.

2. METHOD

2.1. Participants

The current study was conducted in a private English institute in Khorramabad, Iran. 47 students were volunteered to take part in the study. After homogenization, 30 students were selected based on their GPA scores (15 males and 15 females). Hence, the subjects of the study were comprised of 30 higher intermediate EFL learners who were almost the same in terms of proficiency. The participants were non-English native speakers. The age range of participants was between 19 to 28.

2.2. Instruments

In the present study, Rotter's Locus of control questionnaire was used to determine the external or internal orientation of participants. It is a widely used questionnaire in the field of LOC, which was used by different researchers (Bozorgi, 2009; Sotoudehnama and Otaghsarayi, 2014). It is comprised of 29 items. There are two sentences for each item and students should select one sentence which is suitable for their opinions. Among the 29 items, 6 items are distracter items and play a role as lie detectors (1, 8, 12, 19, 23, and 28). Those students who achieve more than 9 consider as external orientation and those who achieve lower than 9 have an internal orientation LOC. The validity and reliability of this questionnaire are highlighted in previous studies (Bozorgi, 2009; Nodoushan, 2012). For the sake of clarity, a translated version of the LOC was provided for the participants. To examine the participants' listening comprehension, the listening part of the Cambridge English IELTS academic part was utilized. It consists of 40 questions which are comprised of different types of listening items. In this study, each question received one score.

2.3. Data analysis

Prior to the study, the GPA scores of the sample participants were homogenized. Before the distribution of the LOC questionnaire, students were informed about the purpose of the study concisely. They were supposed to answer the questionnaire in 20 minutes. Then, they participated in a listening comprehension test. The listening part was presented to participants only once. All participants were asked to mention their names on the Loc questionnaire and listening comprehension test for future recognition. SPSS (Statistical Package For Social Sciences) was used to analyze the data.

3. RESULTS AND DISCUSSION

In the analysis section, descriptive statistics are examined first, and then Spearman correlation and linear regression statistical tests are used to test the research hypotheses.

3.1. Gender distribution

Table 1: Frequency and frequency percentage of gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	15	50.0	50.0	50.0
	Females	15	50.0	50.0	100.0
	Total	30	100.0	100.0	

According to the findings of the table above, the study sample includes 30 participants, 15 participants (50%) are males and 15 participants (50%) are females. The diagram below shows the distribution of the sample by gender.

3.2. Locus of control distribution

Table 2: Frequency and frequency percentage of LOC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Internal	14	46.7	46.7	46.7
	External	16	53.3	53.3	100.0
	Total	30	100.0	100.0	

According to the findings of Table 2, 14 participants (46.7%) have an internal LOC and 16 participants (53.3%) have an external LOC. The following diagram shows the distribution of the participants according to their LOC orientation.

3.3. Gender distribution

Table 3: Frequency and frequency percentage of Locus of control based on gender

gender		Frequency	Percent	Valid Percent	Cumulative Percent
Male	Valid	internal	5	33.3	33.3
		external	10	66.7	100.0
		Total	15	100.0	100.0
Female	Valid	internal	9	60.0	60.0
		external	6	40.0	100.0
		Total	15	100.0	100.0

According to the findings of Table 3, in the sample of males including 15 individuals, 5 participants (33.3%) have an internal LOC and 10 participants (66.7%) have an external LOC. In addition, in the sample of females including 15 participants, 9 participants (60%) have an internal LOC and 6 participants(40%) have an external LOC. The following diagrams show the distribution of participants’ LOC according to their gender.

Table 4: Mean and standard deviation of listening comprehension scores

N	Valid	30
	Missing	0
Mean	28.0000	
Std. Deviation	6.26429	

According to the findings of Table 4, the mean score of listening comprehension of the sample was (M=28.00), which shows that the listening comprehension skill of the sample is higher intermediate. In addition, the standard deviation of listening comprehension scores was(SD= 6.26). The following diagram demonstrates the distribution of listening comprehension scores.

3.4. Descriptive statistics of participants scores according to gender

In Table 5, descriptive statistics of listening comprehension scores of participants according to their gender is provided.

Table 5: Mean and standard deviation of listening comprehension scores based on gender

Statistics			
Listening comprehension skill			
Males	N	Valid	15
		Missing	0
Mean		24.0667	
Std. Deviation		4.06143	
Females	N	Valid	15
		Missing	0
Mean		31.9333	
Std. Deviation		5.62478	

According to the findings of Table 5, for male participants, the mean score of listening comprehension skills was (M=24.06). In addition, the standard deviation of listening skills scores was (SD=4.06). In the sample of females including 15 individuals, the mean score of listening comprehension skills was(M= 31.93), which shows that the listening comprehension skills of women are higher. Furthermore, the standard deviation of listening comprehension scores was (SD=5.62). This finding is in contrast with that of Sotoudehnama and Otaghsarayi (2014) who found no relationship between listening comprehension and gender. The following diagrams show the distribution of listening comprehension scores based on gender.

3.5. Descriptive statistics of listening comprehension scores according to LOC

Table 6, displayed the listening comprehension scores of participants concerning their LOC orientation.

Table 6: Mean and standard deviation of listening comprehension scores based on LOC

Statistics				
Table6 internal/ external descriptions				
Internal	N	Valid	14	
		Missing	0	
	Mean		32.7143	
	Std. Deviation		5.18027	
External	N	Valid	16	
		Missing	0	
	Mean		23.8750	
	Std. Deviation		3.70360	

According to the findings of Table 6 , in the sample with an internal LOC including 14 participants, the mean score of listening comprehension was (M=32.71), which shows that the listening comprehension of the sample with an internal LOC is higher than the sample with an external LOC. In addition, the standard deviation of listening comprehension scores in this category was(SD= 5.18). In the sample with an external LOC consisting of 16 participants, the mean score of listening comprehension was(M= 23.87), which shows that the listening comprehension of the sample with an external LOC is lower than the internal group. In addition, the standard deviation of listening comprehension scores in this category is (SD=3.70). The following diagrams illustrate the distribution of listening comprehension scores based on LOC orientation.

3.6. Hypotheses

Hypothesis 1: There is a significant correlation between LOC and listening comprehension.

Table 7: Correlation matrix between LOC and listening comprehension

Correlations			Locus Of Control	Listening comprehension
Spearman's rho	Locus Of Control	Correlation Coefficient	1.000	-.730**
		Sig. (2-tailed)	.	.000
		N	30	30
	Listening comprehension	Correlation Coefficient	-.730**	1.000
		Sig. (2-tailed)	.000	.
		N	30	30
**. Correlation is significant at the 0.01 level (2-tailed).				

According to the findings of Table 7, there was a negative and significant correlation between LOC and listening comprehension at the level of 0.01 ($r = -0.730$, $sig = .000$, $p < .01$). this finding is in stark contrast with the finding of Sotoudehnama and Otaghsarayi (2014) who found no relationship between LOC and listening comprehension. This means that the more internal the LOC, the higher the listening comprehension scores, and the more external the LOC, the lower the listening comprehension scores, and vice versa.

Hypothesis 2: There is a significant correlation between gender and listening comprehension.

Table 8: correlation matrix between gender and listening comprehension.

Correlations			
		gender	Listening comprehension
Spearman's rho	gender	Correlation Coefficient	1.000
		Sig. (2-tailed)	.636**
		N	30
	Listening comprehension	Correlation Coefficient	.636**
		Sig. (2-tailed)	1.000
		N	.000

** . Correlation is significant at the 0.01 level (2-tailed).

As can be seen in Table 8, there was a positive and significant correlation between gender and listening comprehension at the level of 0.01 ($r= 0.636$, $sig=.000$, $p<.01$, $N=30$). This means that women had a better listening comprehension than men, and vice versa, men have less listening comprehension skills than women.

Hypothesis 3: There is a significant correlation between gender and LOC.

Table 9: correlation matrix between gender and LOC

Correlations			
		gender	Locus Of Control
Spearman's rho	gender	Correlation Coefficient	1.000
		Sig. (2-tailed)	-.267
		N	.153
	Locus Of Control	Correlation Coefficient	-.267
		Sig. (2-tailed)	1.000
		N	.153

As it is revealed in Table 9, there was no significant correlation between gender and the LOC at the level of 0.05($sig= .153$). Therefore, the interaction of these two variables cannot be explained.

Hypothesis 4: Gender is a good predictor of listening comprehension skills.

Considering the significance of the relationship between gender and listening comprehension, the regression model can be used to measure the predictive

power of the independent variable (gender) over the dependent variable (listening comprehension skill).

Table 10: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.639 ^a	.408	.387	4.90578
a. Predictors: (Constant), gender				

Table 10, shows that gender can explain 38.7 of the variance in listening comprehension skills.

Table 11: ANOVA test

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	464.133	1	464.133	19.285	.000 ^b
	Residual	673.867	28	24.067		
	Total	1138.000	29			
a. Dependent Variable: listening comprehension						
b. Predictors: (Constant), gender						

Considering the significance of the F value (19.28) at the significance level of 0.01, the findings indicate that gender can predict listening comprehension skills significantly.

Table 12: Coefficients

Coefficients						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	16.200	2.832		5.720	.000
	gender	7.867	1.791	.639	4.392	.000
a. Dependent Variable: listening comprehension						

Considering the significance of the t-test (4.39) at the significance level of 0.01, this means that for each unit of change in the gender variable, a positive change of 0.639 has occurred in the listening comprehension variable.

Hypothesis 5: LOC is a suitable predictor of listening comprehension skills.

Considering the significance of the relationship between LOC and listening comprehension, a regression model can be used to measure the predictive power of the independent variable (LOC) over the dependent variable (listening comprehension).

Table 13: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716 ^a	.513	.495	4.45055
a. Predictors: (Constant), Locus Of Control				

The table above shows that the LOC can explain 49.5 of the variance of listening comprehension.

Table 14: ANOVA test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	583.393	1	583.393	29.453	.000 ^b
	Residual	554.607	28	19.807		
	Total	1138.000	29			
a. Dependent Variable: listening comprehension						
b. Predictors: (Constant), Locus Of Control						

Considering the significance of F value (29.45) at the significance level of 0.01, the findings indicate that the LOC can predict listening comprehension skills significantly.

Table 15: Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardizd	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	41.554	2.626		15.822	.000
	Locus Of Control	-8.839	1.629	-.716	-5.427	.000
a. Dependent Variable: listening comprehension						

Considering the significance of the t-test (-5.427) at the significance level of 0.01, this means that for each unit of change in the LOC variable, a change of -0.716 is obtained in the listening comprehension variable.

4. CONCLUSIONS

Different studies have revealed that LOC has a great influence on the language learning of students (Heidari & Khorasaniha, 2013; Nasri & Ghabanchi, 2014; Peek, 2015). Hence, only a few studies have questioned the effect of LOC on listening comprehension. Moreover, the impact of gender on listening comprehension has not been investigated. The present study is different from previous studies in that it is investigated the interplay between LOC, listening comprehension, and gender. According to the results of the LOC questionnaire, students with an internal LOC orientation obtained a higher score in the listening comprehension test. In addition, a higher percentage of females had an internal LOC orientation than males. Thus, the mean score of the listening comprehension test for women was higher than the mean score for men. It shows that females who had participated in the study had better listening comprehension skills. Based on the aforementioned findings, the first and second research questions were answered. Based on the p. value (0.15), no significant correlation was found between LOC and gender. (The third hypothesis rejected). To evaluate the predictive power of independent variables (gender and LOC) over dependent variable (listening comprehension) regression model was conducted. The findings illustrated that both gender and LOC can predict the success in listening comprehension score (fourth and fifth hypothesis). Overall, students with an internal Loc orientation performed better on listening comprehension than those students with an external Loc. It means that those who believe that success or failure in a task depends on their inner criteria outperformed those who believe that outer factors are responsible for their success. Therefore, it is crucial for students and teachers to know their LOC orientation and try to improve their internal LOC orientations. Moreover, students should try harder to improve their abilities rather than relying on other elements such as faith, luck, or other individuals (teachers, peers, etc).

5. Limitations and suggestions for further studies

Although different research questions were answered in this study, it faced some limitations. First, the sample was limited to students in an institute. In comparison to university students, the participants may have a lower level of proficiency. Second, the participants were all higher intermediate students. this study should not be generalized for other levels of proficiency. Further studies could explore the proficiency of university students, teenagers or maybe younger students. Moreover, other language skills (speaking, reading, and writing) can be investigated regarding gender and LOC orientation.

REFERENCE

- Ahmadi, S. M. (2016). The importance of listening comprehension in language learning/ <http://www.sadil.ws/handle/123456789/159>
- Akunne, L. I., & Anyamene, A. N. (2021). Locus of Control and Self Esteem as Correlates of Secondary School Students Academic Achievement in English Language in Anambra State. *Asian Journal of Advanced Research and Reports*, 46-54, <http://doi.org: 10.9734/ajarr/2021/v15i230366>
- Becirovic, S. (2017). The Relationship between Gender, Motivation and Achievement in Learning English as a Foreign Language. *European Journal of Contemporary Education*, 6(2), 210-220
- Boyle, J. P. (1984). Factors affecting listening comprehension. *ELT Journal*, 38(1), 34-38. <https://doi.org: 10.13187/ejced.2017.2.210>
- Bozorgi, S. (2009). On the Relationship between Locus of Control and the Grade Point Average of the Iranian Azad University EFL Students. *Online Submission*. <https://eric.ed.gov/?id=ED505569>
- Celik, O. (2017). The importance of listening in communication. *Global Journal of Psychology Research: New Trends and Issues*, 7(1), 8-11. <https://doi.org/10.18844/gjpr.v7i1.2431>
- Ellis, R. (2012). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
- Ghonsooly, Behzad; Shirvan, Majid Elahi (2011). *On the Relation of Locus of Control and L2 Reading and Writing Achievement*. *English Language Teaching*, 4(4), -. <https://doi:10.5539/elt.v4n4p234>
- Gilakjani, A. P., & Ahmadi, M. R. (2011). A study of factors affecting EFL learners' English listening comprehension and the strategies for improvement. <http://sadil.ws/handle/123456789/41>
- Glenberg AM, Webster BJ, Mouilso E, Havas D, Lindeman LM. Gender, Emotion, and the Embodiment of Language Comprehension. *Emotion Review*. 2009;1(2):151-161. <https://doi:10.1177/1754073908100440>
- Główka, D. (2014). The impact of gender on attainment in learning English as a foreign language. *Studies in Second Language Learning and Teaching*, 4(4), 617-635. <https://files.eric.ed.gov/fulltext/EJ1135117.pdf>
- Graham, S. (2020). The sciences of reading and writing must become more fully integrated. *reading research quarterly*, 55(1), 1-10. <https://doi.org/10.1002/rrq.332>
- Heidari, F., & Khorasaniha, N. (2013). Delving into the relationship between LOC, MI, and reading proficiency. *Journal of language teaching and research*, 4(1), 89. <https://www.academypublication.com/issues/past/jltr/vol04/01/12.pdf>

- Kurita, T. (2012). Issues in Second Language Listening Comprehension and the Pedagogical Implications. *Accents Asia*, 5(1), 30-44. <http://www.issues.accentsasia.org/issues/5-1/kurita.pdf>
- Latha, G, & Vijayalakshmi, P. (2020). Locus of control and entrepreneurial role stress. *Our Heritage*, 68(61), 44-49. <https://doi.org/10.34050/elsjish.v4i2.13743>
- LeLoup, J. W., & Ponterio, R. (2007). Listening: You've got to be carefully taught. *Language Learning & Technology*, 11(1), 4-15. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44082/11_01_net.pdf
- Lin, J, & Wu, F. (2003). Differential Performance by Gender in Foreign Language Testing, the Centre for Research in Applied Measurement and Evaluation, The University of Alberta, Chicago. <https://files.eric.ed.gov/fulltext/ED478206.pdf>
- Mahdavy, B. (2008). The role of multiple intelligences (MI) in listening proficiency: A comparison of TOEFL and IELTS listening tests from an MI perspective. *Asian EFL Journal*, 10(3), 109-126. https://www.researchgate.net/profile/Dina-Al-Jamal-2/publication/266596583_The_Impact_of_Peer_Response_in_Enhancing_Ninth_Grader%27s_Writing_Skill/links/57b77f5108aec9984ff2ae01/The-Impact-of-Peer-Response-in-Enhancing-Ninth-Graders-Writing-Skill.pdf
- Miller, L. (2009). Engineering lectures in a second language: What factors facilitate students' listening comprehension. *Asian EFL Journal*, 11(2), 8-30. https://www.asian-e-fl-journal.com/June_2009_EBook.pdf
- Mirzaie, H., & Sahragard, R. (2022). The Interplay between Language Anxiety, Locus of Control and Language Proficiency in Online Classes: The Case of EFL Learners. *Journal of English Language Pedagogy and Practice*, 15(30), 1-21. https://jal.tabriz.iau.ir/article_692347.html
- Morley, J. (1984). *Listening and Language Learning in ESL: Developing Self-Study Activities for Listening Comprehension Practice. Language in Education: Theory and Practice*, No. 59. Harcourt Brace Jovanovich International, Orlando, FL 32887. <https://files.eric.ed.gov/fulltext/ED246697.pdf>
- Nasari, F., & Ghabanchi, Z. (2014). The relationship between self-efficacy beliefs, locus of control, and reading comprehension ability of Iranian EFL advance learners. *International Journal of Language Learning and Applied Linguistics World*, 5(1), 156-174. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.428.6486>

- Nejabati, N. (2014). The Effect of Locus of Control Training on EFL Students' Reading Comprehension. *International Journal of English language Education*, 2(1), 187-192. <https://doi.org/10.5296/ijele.v2i1.4992>
- Nodoushan, M. A. S. (2012). The Impact of Locus of Control on Language Achievement. *Online Submission*, 6(2), 123-136. <http://files.eric.ed.gov/fulltext/ED530462.pdf>
- Nunan, D. (1998). Approaches to Teaching Listening in the Language Classroom. Paper presented at the Korea TESOL Conference, Seoul. https://koreatesol.org/sites/default/files/pdf_publications/KOTESOL_Proceeds1997web.pdf
- Osada, N. (2004). Listening comprehension research: A brief review of the past thirty years. *Dialogue*, 3(1), 53-66. http://www.talk-waseda.net/dialogue/no03_2004/2004dialogue03_k4.pdf
- Oxford, R. (2001). Integrated Skills in the ESL/EFL Classroom. ERIC Digest. <http://files.eric.ed.gov/fulltext/ED456670.pdf>
- Parangan, B. P., & Buslon, J. (2020). The Construct of Gender and Ethnicity in Language Proficiency of Post-Colonial ESL Learners. *TESOL International Journal*, 15(1). <https://ssrn.com/abstract=3628273>
- Peek, R. (2016). Exploring learner autonomy: language learning locus of control in multilinguals. *International Journal of Multilingualism*, 13(2), 230-248. <https://doi.org/10.1080/14790718.2015.1090991>
- Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). Learners' Listening Comprehension Difficulties in English Language Learning: A Literature Review. *English Language Teaching*, 9(6), 123-133. <https://files.eric.ed.gov/fulltext/EJ1101226.pdf>
- Sotoudehnama, E., Hosini Otaghsarayi, S. (2014). The Relationship between Locus of Control, Test Anxiety, Sex, and Listening Comprehension Test Performance of Iranian Undergraduate EFL Students. *ZABANPAZHUHI (Journal of Language Research)*, 6(12), 57-74. <https://doi.org/10.22051/jlr.2014.1096>
- Tompkins, G. E. (1997). Literacy for the 21st century: A balanced approach. Upper Saddle River, NJ: Prentice-Hall. <https://eric.ed.gov/?id=ED409527>
- Utebergenoba, D., Kurbaniyazova, S., & Otarbaeva, R. (2021). THE ORIES ON LISTENING COMPREHENSION IN LANGUAGE LEARNING. *Science and Society*, 2020(3), 103-105. <https://uzjournals.edu.uz/ndpi/vol2020/iss3/4/>
- Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring successful strategies. <https://doi.org/10.1093/elt/53.3.168>
- Walker, N. (2014). Listening: The most difficult skill to teach. <https://ebuah.uah.es/xmlui/handle/10017/21619>

Chapter 4

An Innovative Teaching Method: Blended Mobile Language Learning (BMLL)

Mehmet ASLAN¹

¹ Öğr. Gör. Dr.; Van Yüzüncü Yıl Üniversitesi Yabancı Diller Yüksekokulu.
m.aslan@yyu.edu.tr ORCID No: 0000-0003-0190-4274

ABSTRACT

Thanks to developing technology, new teaching models and different language teaching techniques are emerging day by day. For example, virtual reality technology is being increasingly utilized in language learning, allowing students to immerse themselves in simulated real-life scenarios and practice their language skills in a safe and controlled environment. Additionally, gamification techniques are being incorporated into language learning apps and software, making the process more engaging and interactive for students. As of the century we live in, it is not the right method to be limited to a single language teaching model because a language learning method that comes out with the blending of effective techniques of different methods is more influential. The new generation can be addressed by including the tools and applications that have emerged thanks to the developing technology in education. This connection is essential for the educational use of laptops, tablets and phones. Blended Mobile Language Learning (BMLL) has appeared as a result of the use of mobile devices as tools to support language education in or out of the classroom. It is now possible to access thousands of language teaching applications and materials, especially through smartphones and tablets, and to learn a language without place and time restrictions and without being bound to any authority. This study provides information about the technological devices used historically in language teaching, the inclusion of technological tools in language education today, and Blended Mobile Language Learning.

Keywords: Technology, mobile devices, blended learning, BMLL

1. TECHNOLOGICAL DEVICES IN LANGUAGE LEARNING

Physical borders and limitations have become symbolic in developed nations due to globalisation. The concept of being a world person has replaced the common citizenship consciousness among people. The advancements in translation studies and language teaching have sped up intercultural communication. Of course, the comfort of being able to learn a foreign language quickly and comfortably forms the core and foundation of all these developments. Technology today makes it easier for us to complete our tasks in many aspects of our lives, including language learning, too. In many respects, using technology to teach languages makes life easier for both teachers and pupils.

Historical development of technological devices in language learning

One of the oldest forms of formal education is verbal communication. As time passed, technology began to be used to facilitate or back up verbal communication. In ancient times, stories, folklore, histories, and news were transmitted and preserved through oral communication, and thorough memorization and recall were critical skills. Later, technological devices began to take their place on the stage of history.

The use of technology in language education emerged with the invention of writing, naturally, the use of pen and paper can be said to be the first example of technology use in language learning. Although the use of pencil and paper is considered modern technology, sticks or nails as pencils and clay or stones as writing tablets dates back almost 6,000 years (Trubek, 2015). After that, the most widely used technological tool is the blackboard, which is an essential technological device for one-way communication. The blackboard, which can be used with chalk or ink and is still operational today, will probably exist in the education community forever and will always maintain its place as the most important technological device in the classroom.

At the end of the Second World War, the US Army started to use overhead projectors in training and this usage was frequently preferred in lectures. By the 1990s, overhead projectors were replaced by electronic projection devices and presentation software such as PowerPoint. In essence, the development of programmed learning aims to computerize teaching by structuring information, measuring the learner's knowledge, and providing instant feedback to learners, without any human intervention, except for the design of the hardware and software, and the uploading of content and assessment-evaluation questions to the system.

The 1990s saw the introduction of computer-assisted language learning in classrooms. Even though computers were used before these dates, it was scarce. The World Wide Web, simply an application that runs on the Internet that allows users to create and share documents, videos or other types of digital media by linking them, was officially launched in 1991. The speciality of the World Wide Web is to enable users to do these things without needing to translate everything into some kind of computer code. Mosaic, the first web browser, was launched in 1993. Before the Web, uploading text or finding material on the Internet was a long and time-consuming process. Numerous search engines have been developed since 1993 and founded in 1999, Google continues to be one of the leading search engines today.

In the early days of the Internet, with computer-assisted language learning, students were trying to improve their English in classrooms equipped with computers. Computer-assisted language learning is still utilised in classrooms, of course, but as technology and the internet advance, new tools, techniques, and applications are being employed to teach the target language, and this process is moving forward quickly.

With the internet age, technology has become much more integrated into foreign language classrooms and technology has become an important element of language teaching. Thanks to the development and rapid progress of information technology in recent years, the integration of technology into classrooms in foreign language teaching continues with constant change and leads researchers to find a new education-teaching model.

By 1995, the Web made possible the development of the first learning management systems (LMS), such as Web CT, which would later become Blackboard. LMSs are online teaching environments that provide a space where course content can be uploaded and edited, as well as activities such as learning objectives, student activities, assignments, quizzes, and discussion forums. Some of the first credit online courses that appeared in 1995 used LMS, while others simply uploaded text documents as PDFs or slides. LMSs were the main delivery method for online learning until course registration systems emerged in 2008.

It is repetitively demanded by authors, researchers, the government, school administrators, parents, and students that modern technology be used in language classrooms. Despite this cry, very few teachers successfully incorporate digital technology into their lesson plans. Instructors are undoubtedly expected to be open to this development and be proficient at using digital technological tools for educational purposes, in addition to the current teaching materials resulting from technological advancement. However, it's

debatable how far this demand has been accomplished. While some of our educators excel at using technology to aid students' learning, others continue using more conventional teaching techniques.

The development of social media, a sub-category of computer technology, deserves to have a place on its own in the history of educational technology. Social media includes the use of a wide range of different technologies: blogs, wikis, YouTube videos, Twitter, Skype, Instagram, and Facebook. Social media is defined as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content” (Kaplan and Haenlein, 2010:61). Social media is often associated with young people and millennials, that is, most of the students attending higher education. Today, social media has just begun to be integrated into formal education, and the educational value of social media has so far remained within the confines of classroom teaching, either through non-formal education or through activities such as tweeting or evaluating the instructor during class.

It can be concluded that the use of technological advancements such as the internet, computer-assisted equipment, videos, and podcasts in foreign language classes not only increases the motivation of the students but also makes learning a foreign language more meaningful and realistic. In addition, it can be said that technology should be included in language teaching with innovative approaches and methods in foreign language teaching, not as a single purpose, but to contribute to learning outcomes. So what needs to be done; by integrating technology into foreign language teaching, it is aimed to enable students to take a more active role in the classroom, to make foreign language lessons more enjoyable, and to make students active in all aspects from course materials to curriculum, from classroom activities to online education.

2. MOBILE LEARNING

Mobile Devices in Language Learning

Smartphones, tablet computers, pocket computers, digital voice recorders, and personal digital assistants are some of the most popular mobile language learning tools nowadays.



Figure 1. The most commonly used mobile devices

Mobile devices have become more advanced and useful daily by showing changes from the past to the present. Smartphones are the most widely used mobile devices since they are portable and practically every adult owns one. Smartphones were produced with only buttons at first and included very few functions such as calling and messaging, but this changed over time and more and more large-screen phones were developed. These devices, which were initially limited to use for educational purposes due to their small screens (Stockwell, 2010), have become especially central to language education due to the developing and growing screens over time.



Figure 2. The evolution of the mobile phone

Mobile devices can be used with operating systems like Android, IOS, Windows, Blackberry OS, Linux, and Symbian. The iPhone, iPad, and iPod Touch, which run the iOS operating system, as well as other smartphones and

tablet computers that run the Android and Windows operating systems, are currently the most popular mobile tools. Excluding the company Apple, those who create educational apps for mobile devices for individuals and organisations use specialised programming languages to create distinct applications that may function on both the IOS and Android operating systems.

Mobile learning settings may be in person, distant, or online, just like the other technology-supported language instruction environments, yet mostly mobile applications are at the centre of language education. Mobile applications can contribute to the development of all language skills. Although many applications enable vocabulary development intentionally, some applications support vocabulary teaching in context. Memrise, Wordwall, and Kahoot are some of the most popular vocabulary-teaching apps. Besides, many applications teach grammar and improve reading skills, but it would not be wrong to say that mobile devices contribute most to listening and speaking skills because it is not very difficult to improve grammar, reading, and vocabulary skills with traditional methods, yet improvement of listening and speaking skills is really hard with old-fashioned methods so technology is quite effective in those skills. Videos and podcasts which make a great contribution to the development of learners' listening and speaking skills, are the most popular language-learning tools. A podcast is a digital programme that enables users to stream radio programmes at any time by uploading them online to digital audio players. Podcasts offer real language and real material to language learners; therefore, students can use them as supplementary resources to their textbooks. It has been emphasised as a consequence of numerous research that using podcasts to learn a language has the possibility of enhancing language abilities (O'brien & Hegelheimer, 2007), hence, the use of podcasts in foreign language teaching is an inevitable reality.

Statistics about Language Learning Applications

One of the most rapidly expanding educational sectors in the world is the global language instruction business, with millions of people registering in offline and online programmes to master a foreign language. The advancement in technology and the growing acceptance of online learning platforms have made it feasible for language learners to access information more easily and conveniently (Abdalslam, 2023).

Some general statistics on learning a language (Abdalslam, 2023)

- More than 6,500 distinct languages are spoken around the world.
- After English, the most learned languages are French, German, Spanish, and Mandarin Chinese.

- According to reports, over a billion people are currently studying a foreign language.
- In 2021, language schools and institutes generated about \$40 billion.
- The market for language learning is projected to grow at a CAGR of 6.6% through 2023.
- Online language learning is the fastest-growing segment of the language learning industry, with a projected 12% annual growth rate through 2023.

Language Learning Demographic Statistics (Abdalslam, 2023)

- Three-quarters of language learners, or 37%, are between the ages of 18 and 35.
- 60% of language learning learners are female.
- An undergraduate degree or above is held by 25% of language learners.
- 40% of language learners make \$50,000 or more a year or more.

Statistics for Online Language Learning (Abdalslam, 2023)

- 79% of language learners choose online education over conventional classroom instruction.
- A smartphone is used by 66 per cent of online language learners to attend language courses.
- On average, 4 hours a week are spent studying a language online.
- Self-paced courses are preferred by 75% of language learners taking classes online.
- An online language lesson typically costs between \$50 and \$100.

Statistics for Language Learning Apps (Abdalslam, 2023)

- 75% of language learning applications may be downloaded for free.
- Language study apps have received a 4.2-star rating on average.
- Duolingo, an app for learning languages, has more than 300 million users worldwide.
- 60% of users of language learning apps are between the ages of 18 and 35.
- An average of 30 minutes each day is spent using language study applications.

By 2022, there were roughly 6.65 billion smartphone users globally which represents 86% of the world's people. Global smartphone usage has increased by 50% since 2016, from just 3.67 billion users (45% of the world's population at the time). By 2026, there are forecast to be 7.52 billion smartphone users, a

growth that is only anticipated to continue (Zippia, 2023). In the third quarter of 2022, Android users have 3.55 million apps to choose from, making Google Play the app store with the greatest variety. The Apple App Store, which had nearly 1.6 million iOS apps available, is the second-biggest app store. Due to the frequent removal of low-quality apps from their app stores, the exact number of apps available in Apple and Google Stores may change over time (Statista, 2023).

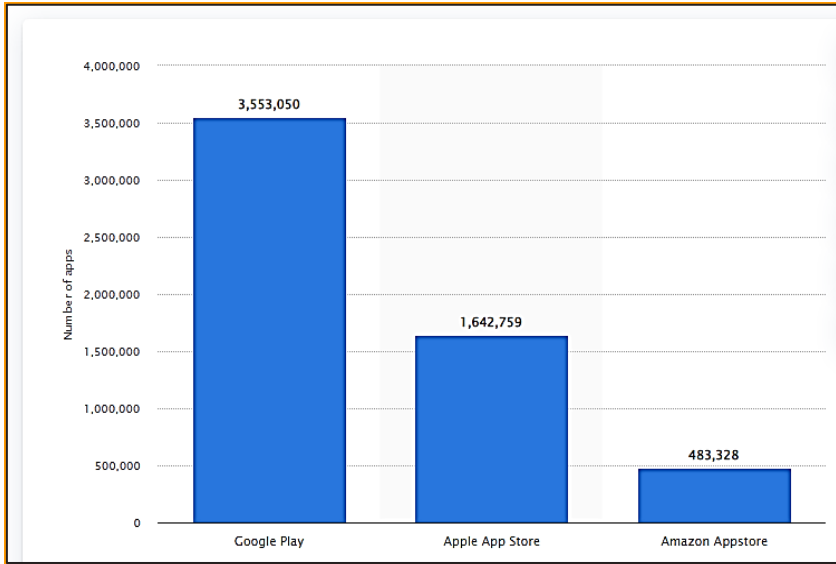


Figure 3. Number of apps available in leading app stores as of 3rd quarter 2022

It is impossible to describe the applications used in language teaching one by one, but the most popular language education applications are given in Figure 4. According to Rogers (2023), the top 10 language learning Apps and what they are best for are charted below:

	Language Learning Apps	Best For
1.	Memrise	Best for vocabulary practice
2.	Duolingo	Best for language proficiency
3.	Pimsleur	Best for speaking the language fluently
4.	Babbel	Best for Providing high-quality lessons
5.	Tandem	Offers more than 300 languages
6.	Busuu	Best for professional
7.	Mondly	Best for speech recognition features
8.	Rosetta Stone	Best for online tutoring
9.	Trip Lingo	Best for travel freaks
10.	LinguaLift	Best for learning with guidance

Figure 4. The Top 10 language learning apps

Language learning applications, which integrate gamification with language acquisition, are becoming a more and more common way for both adults and children to learn and use a foreign language. In 2021, Duolingo accounted for 63% of all installs across the top 10 most downloaded apps, making it the most popular language-learning platform. Based on monthly downloads, Duolingo was the most widely used language learning app in the world in February 2023, with about 13.4 million people downloading it to their mobile devices throughout the month. (Statista, 2023).

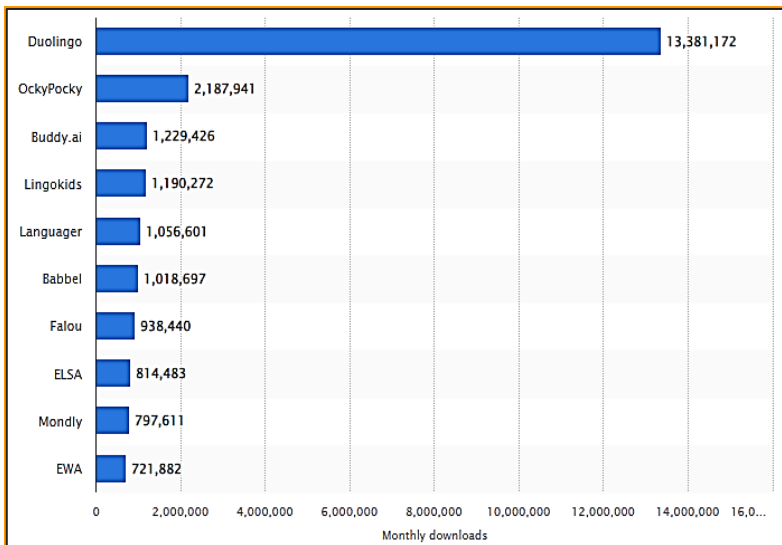


Figure 5. Leading language learning apps worldwide in February 2023, by downloads (Statista, 2023)

3. BLENDED MOBILE LANGUAGE LEARNING (BMLL)

Blended Learning?

Finding the best environment and the right method for students in learning a new language has always been a research topic. Since each method has different and effective techniques, it is not the choice of the current century to depend on only one method and be deprived of the advantages of the others. In this case, the best logic is to blend the right techniques. Marsh (2012) asserts that employing a diversity of strategies and procedures to promote skill development results in the most effective teaching and learning. An effective instructor continually employs a variety of teaching techniques, just as a proficient learner brings together many different learning techniques. Blending is one of the most widely used learner-centred educational strategies in the twenty-first century (Palalas, 2013), and blended learning will soon overtake traditional classroom settings (Watson, 2008).

"Blended learning is a 'buzz' word in language teaching. However, it has been in use for almost 20 years, and its meaning has been constantly changing during this period" (Sharpe, Benfield, Roberts, & Francis, 2006, cited in Sharma, 2010:456). Educators and trainers frequently use the term *blended learning*, but there is no standard definition for it and it commonly depends on the context. The definition of the term changes along with the ongoing advancement of technology and the introduction of new technological devices.

The usage and definition of blended learning are flexible and alter as technology advances, as any type of computer-assisted learning was referred to as blended learning in the 1990s (Palalas, 2013). Blended learning is described by Oliver and Trigwell (2005) as combining two or more different types of things. The definitions of blended learning by Garrison and Kanuka (2004) and Graham (2006) are the two that are most frequently cited in Google Scholar. Blended learning, according to Garrison and Kanuka (2004), is "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (p. 96). When "Systems combine face-to-face instruction with computer-mediated instruction," as defined by Graham (2006), learning is considered blended (p. 5). Instead of describing it as a ratio of delivery modalities, Dziuban, Hartman, and Moskal define it as "a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities" (2004:3).

Figure 6 illustrates that there are various types of blended learning, even though they all share some commonalities. A blended mobile language learning

(BMLL) approach is now emerging thanks to the use of mobile gadgets in formal education.

A. Higher Education Twigg (2003)	B. K-12 Education Staker & Horn (2012)	C. Corporate Training Rossett & Frazee (2006)
<p>A.1 Supplemental</p> <ul style="list-style-type: none"> • Supplemental online materials • Online quizzes • Additional online activities • Flexibility of online activities for computer lab or home <p>A.2 Replacement</p> <ul style="list-style-type: none"> • Reduction of in-class meeting time • Replacement of face-to-face class time with online activities • Flexibility of online activities for computer lab or home <p>A.3 Emporium</p> <ul style="list-style-type: none"> • Elimination of class meetings • Substitution of a learning resource center with online materials and on-demand personal assistance <p>A.4 Buffet</p> <ul style="list-style-type: none"> • Several learning options from which students choose 	<p>B.1 Rotation</p> <ul style="list-style-type: none"> • Rotation among learning modalities, at least one of which is online • Station Rotation—rotations within a classroom • Lab Rotation—rotations within locations on a school campus • Flipped Classroom—rotation within a given course or subject including online remote (at home) • Individual Rotation—individually tailored rotation schedule for a course or subject <p>B.2 Flex</p> <ul style="list-style-type: none"> • Instruction primarily online in a classroom with customized F2F support when needed <p>B.3 Self-Blend</p> <ul style="list-style-type: none"> • Option of an entirely online course to supplement traditional courses <p>B.4 Enriched Virtual</p> <ul style="list-style-type: none"> • School experience mostly online with some on-campus enrichment 	<p>C.1 Anchor Blend</p> <ul style="list-style-type: none"> • Introductory substantive face-to-face (F2F) classroom experience • Subsequent independent online experiences <p>C.2 Bookend Blend</p> <ul style="list-style-type: none"> • Introductory experience online or F2F • A substantive learning experience online or F2F • A conclusion that extends the learning into practice at work <p>C.3 Field Blend</p> <ul style="list-style-type: none"> • A range of instructional assets • Choice of when and where to use the assets as needed to meet work-related challenges • Availability of online instructional assets • A possible classroom experience as part of the mix

Source: Graham, C. R., Henrie, C. R., & Gibbons, A. S. (2014). Developing models and theory for blended learning research. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research perspectives, volume 2* (pp. 13-33). New York, NY: Routledge.

Figure 3. Categories of Blended Learning

Blended Mobile Language Learning

Mobile devices are currently the most crucial tools for online learning. Mobile learning, often known as M-learning, has recently emerged as a key working methodology as a result of the global adoption of digital mobile applications. University scholars have contrasted the benefits of mobile learning to more traditional learning methods, and several institutions are increasingly integrating mobile devices into their educational systems.

The concept of blended mobile learning (BML), where "mobile technology is used in conjunction with the traditional face-to-face classroom setting and other e-Learning tools" (Wong & Ng, 2018:797), has emerged as a result of the use of mobile devices to support face-to-face education. BML is "a special form of blended learning and a term used to describe the learning opportunities where mobile technology supports situational learning activities and combines the mobility of students into the conception of learning opportunities" (Suartama, 2019:6). BML is a general concept and covers all branches or areas where mobile devices are used, however, one of the most common uses of mobile devices is language education. Blended Mobile Language Learning (BMLL) has emerged as a result of the blending of mobile devices with formal education for language education.

Language learning is easier and more autonomous with the usage of mobile devices in formal education. There are millions of language teaching videos on YouTube, the most popular video platform, and thousands of language teaching apps are available in the App Store and Google Store. In addition, those who desire to learn a language can practice with people who speak the target language in different parts of the world thanks to the internet. For example, a student learning English can use his or her mobile device to access language learning apps like Duolingo or Babbel, which offer interactive lessons and exercises that adapt to his or her level. Language learners can also watch English-language videos on YouTube or participate in online language programs to practice speaking with native speakers. All of these resources allow learners to learn at their own pace and on their schedule, making language learning more accessible and convenient than ever before.

Even though the use of mobile devices in language instruction is now commonplace, some teachers are still hesitant due to concerns including losing classroom control and the likelihood of student distraction. However, the benefits of incorporating mobile devices into language teaching are undeniable. For one, mobile devices offer a wealth of resources and tools that can aid in language learning, such as online dictionaries, translation apps, and language learning apps. Additionally, mobile devices can provide students with more

opportunities for independent learning and practice outside of the classroom. This can be especially beneficial for students who may not have access to language resources outside of class. Moreover, using mobile devices in language teaching can help to increase student engagement and motivation by making the learning experience more interactive and personalized. By incorporating mobile devices into language teaching thoughtfully and intentionally, educators can help to enhance their students' language learning experiences while also preparing them for a world where technology is increasingly ubiquitous. Each student spends most of his time on the phone and does not know how to use this time in a quality way. It is an inevitable result to use these devices in education both to gain the habit of using the right phone and to take advantage of the great advantages of mobile devices.

CONCLUSION

The increase in the usability of the internet with smartphones and different types of computers all over the world has made it an information source, shopping place, and communication tool. The Internet and media organs have become the focal point of the act of acquiring information, and it has become inevitable that it can be used as an educational tool in this way. Social networks, which affect societies so much, cause certain behavioural and habitual changes in individuals. At this point, it is a very natural process for foreign language education to change. Not seeing computer and telephone technologies, which have entered our lives extensively, as an opportunity and not supporting foreign language education in these environments may harm foreign language education and teaching in the long run. Therefore, it is important to take the necessary steps to spread foreign language teaching in these settings. However, at this point, it is not right to give up the basic methods and principles of education while trying to catch up with the current. It will be beneficial for language learning to attempt to integrate new social media platforms and language-teaching software with schooling and to support education.

Today, technology is an essential medium that offers a limitless variety of resources for teaching and learning foreign languages. A more significant aspect of digital media is that it captures the curiosity and focus of young people, who make up the majority of language students. Every day, new resources and tools related to foreign languages that attract the attention of young people are developed and released to the market. For example, learning platforms, simultaneous communication channels, forums, blogs, mobile apps and games. Most of these tools can be used in foreign language teaching in an efficient and useful way. Instead of staying away from these irreversible inventions, which

are developing day by day, directing our lives more and more each day, we should follow the developments in the technical and digital fields and think about how we can include them in our education life in the best and most efficient way.

However, it should be kept in mind that in foreign language education, one should not go overboard with the selection of digital materials and that a balanced selection should always be made between traditional and innovative materials suitable for the educational goal. We are confident that the thoughtful and balanced use of digital media technologies in foreign language instruction will improve both teacher and student motivation as well as the quality of language education as a whole.

In brief, although there are countless advantages and disadvantages to technology, it is undeniable that it improves our quality of life. The adolescents of today are a full internet and technology-dependent generation, and it plays a significant role in communication, education, health, and transportation. At a very young age, youngsters are very skilled users of technology and the internet. The people that our educational system was intended to teach are no longer the students. They interpret and organise information differently than the previous generation as a result of their interaction with the new technology. We can assess these factors as educators and assist students in learning how to use technological advances to improve their proficiency in languages.

Additionally, mobile devices have become the most effective means of obtaining information in our age, thanks to the advances in digital technology. With advanced internet networks, information can be easily accessed from anywhere in the world and can be easily viewed from anywhere in the world. The education sector has also tried to benefit from these developments, and this technology has been beneficial for educational purposes. Technology is a beneficial tool and should be used in the right place at the right time in foreign language teaching. The four fundamental skills of learning a foreign language, creating something new, collaborating with others, exercising critical thought, and communicating are developed through the effective use of technology in the classroom. Enhanced chances, inspiration, cooperation, feedback, student autonomy, and professional development are all benefits that technology provides in language instruction.

REFERENCES

- Abdalslam, 2023. *Language learning statistics, trends and facts*. Retrieved April 16, 2023, <https://abdalslam.com/language-learning-statistics>)
- Curry, D. (20123) Language Learning App Revenue and Usage Statistics. Retrieved May 3, 2023. <https://www.businessofapps.com/data/language-learning-app-market/>)
- Dziuban, C. D., Hartman, J. L., and Moskal, P. D. (2004). Blended learning. Educause Center for Applied Research Bulletin, 2004(7), 1-20.
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education. *Internet and Higher Education*, 7, 95–105.
- Graham, C. R. (2006). Blended learning systems: definition, current trends and future directions. In Bonk C. J. & Graham C. R. (Eds.), *The Handbook of Blended Learning: Global Perspectives, Local Designs* (pp. 3–21). San Francisco: Pfeiffer.
- Kaplan, A. M., and Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68
- Marsh, D (2012). *Blended Learning, Creating Learning Opportunities for Language Learners*, New York, Cambridge University Press.
- O’Brien, A., and Hegelheimer, V. (2007). Integrating CALL into the classroom: The role of podcasting in an ESL listening strategies course. *ReCALL*, 19(2), 162-180.
- Oliver, M., & Trigwell, K. (2005). Can ‘blended learning’ be redeemed? *E-learning and Digital Media*, 2(1), 17–26.
- Palalas, A. (2013). Blended mobile learning: expanding learning spaces with mobile technologies. *Global Mobile Learning Implementations and Trends*, 86-104.
- Rogers, R. 2023. *10+ Best Language Learning Apps To Learn In 2023*, Retrieved January 21, 2023. <https://myclasstracks.com/author/richard-rogers/>
- Sharma, P. (2010). Key concepts in ELT – blended learning. *ELT Journal*, 64(4), 456- 458.
- Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform.
- Suartama, I. K. (2019). Development of an instructional design model for mobile blended learning in higher education. *International Journal of Emerging Technologies in Learning*, 14(16).

- Trubek, A. (2015). *What the heck is cuneiform, anyway?.* Smithsonian Magazine. Retrieved April, 24, .2023.
<https://www.smithsonianmag.com/history/what-heck-cuneiform-anyway-180956999/>
- Watson, J. (2008). Blended learning: the convergence of online and face-to-face education. North American Council for Online Learning Report.
- Wong, A. K., & Ng, A. (2018). Design of blended mobile learning in an urban environment. In I. Management Association (Ed.), *Online Course Management: Concepts, Methodologies, Tools, and Applications* (pp.796-817). IGI Global.
- Zippia. *40 fascinating mobile app industry statistics [2023]: the success of mobile apps in the u.s.* Retrieved Mar. 20, 2023.
<https://www.zippia.com/advice/mobile-app-industry-statistics/>

Chapter 5

Bullying & Peer Bullying

Meltem TÜRKER¹

Ferhat BAHÇECİ²

¹ Doktorant; Fırat Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Bölümü. pskdanmeltemturker@gmail.com
ORCID No: 0000-0002-2123-0695

² Doç. Dr.; Fırat Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Bölümü. ferhatbahceci@hotmail.com ORCID
No: 0000-0001-6363-4121.

ABSTRACT

Bullying is the power of alienation and exploitation that a group applies to the weak and vulnerable. This abuse can be psychological, emotional, social or physical. In order to use the term bullying, there must be an imbalance of power between two individuals or groups, and the person who is subjected to bullying must feel helpless in some way. It is suggested that aggressive behaviors are learned by modeling and reinforcing. One of the environments where children communicate with their peers and strengthen their communication is schools. Some of the behaviors performed during their time in school may include negativities. One of these negativities is bullying. Negative experiences are inevitable in students who perform bullying behaviors, are exposed or witness bullying events even though they have no connection. In this context, all individuals in the school atmosphere should be made aware of bullying. Reviewing and compiling the studies in the literature provides benefits in this regard. In this section, the literature on bullying and peer bullying was scanned and presented in a review study. It would be beneficial for students, parents and educators to consider these concepts together.

Keywords: peer, bullying, peer bullying, review study, literature.

What is bullying?

It is possible to come across different definitions of bullying in the literature. However, the definition made by Olweus has been used in many studies (Arslan, 2018; Haskaya, 2016; Satan, 2006). Olweus (1993: 9) stated that it is wrong to define bullying as two individuals fighting and hurting each other. According to him, bullying is the ‘disproportionate power‘ and negative behaviors an individual intentionally applies to another. These negative behaviors intend that an individual intentionally hits, tries to hit, hurts, or harasses someone.

In order to use the term bullying, there must be an imbalance of power between two individuals or groups, and the person who is subjected to bullying must feel helpless in some way (Olweus, 1996: 265). Besag (1989: 13) defined bullying as the physical, verbal, psychological, and social power of an individual with a strong against the other individual or group and a group with a strong against a weaker group or individual, while Rigby (2003) mentioned that bullying can be done in two ways. According to him, bullying is either done to hurt someone, where the intention is to cause pain to the other person, or it is exhibited as a behavior that aims only to attract attention without being aware of it.

According to Field (2007), bullying is the power of alienation and exploitation that a group applies to the weak and vulnerable. This abuse can be psychological, emotional, social, or physical. According to Greene (cited in 2000, Moser and Frantz, 2000), bullying is the aggressive behaviors that the individual perceives as strong repeated acts against the individual who cannot defend himself/herself by using verbal or physical aggression within familiar social groups to harm or intimidate the other person.

Characteristics of Bullying

The occurrence of bullying behavior varies according to gender, and it is known that children who are exposed to violence by their parents are more likely to be bullied or victims of bullying (Ministry of National Education, 2018). Not only are victims harmed by bullying, but bullies are harmed by their bullying behavior. These behaviors of individuals who make bullying behaviors routine are not limited to school age (Ayas & Pişkin, 2011). In the studies conducted in the literature, it has been determined that the self-esteem of individuals who are heavily exposed to bullying is significantly lower than those who are less exposed to bullying, and their anxiety and depression levels are significantly higher (Kapıcı, 2004).

Variables of Bullying

Bullying behavior is more common among boys than girls (Şahin and Sarı, 2010). In bullying behavior, the majority of victims and bullies are men. Victim men often face physical bullying (such as beating, kicking, pushing, tripping). Girls, on the other hand, are faced with verbal bullying (such as nicknaming, mocking, insulting, making rumors about) by both male and female students and are excluded (Gökler, 2007; Garip and Şavkın, 2008; Malkoç and Ceylan, 2010).

Components of Bullying

Bullying occurs in front of a certain community and continues with the involvement of other individuals (Yıldırım, 2012). The components of bullying are divided into three groups: the ring leader who plans and initiates the bullying behavior on his own or by including a group of bullies like himself; the audience/audiences who are involved in the event after the bullying behavior starts the reinforcer who is not actively involved in the bullying but reinforces the bullies by exhibiting behaviors such as watching the event and laughing (Gökler, 2009). The roles adopted by people in the bullying process are bully, bully assistant, bully supporter, victim, victim advocate, outsider, and those who do not have a role (Yıldırım, 2012).

1. Bully: The person (s) who created the bullying behavior. They deliberately assume this role.

2. Bully assistants: They are the person/ persons involved in the behavior process much more actively than the bully with the initiation of the behavior by the bully.

3. Bully supporter: Person or persons who passively support the bully. They reinforce the bully with behaviors such as watching, participating, or laughing.

4. Victim/Victim: The person or persons exposed to bullying behavior. They have no choice of roles.

5. Victim/Victim advocate: The person (s) who actually intervened to end the bullying behavior.

6. Outsiders: When bullying starts, they are the person (s) who are not involved in the behavior and are completely out of the incident.

7. Those who do not have a role: It is the person/ persons who state that they are not involved in any role. (Yıldırım, 2012).

Psychodynamics of Bullying

In related studies, it is stated that bullying consists of aggressive behaviors (Waddell, 2007). In power equality situations, aggressive behavior, violence where power is not in balance, situations, and experiences are expressed as

bullying (Ünalmiş & Şahin, 2012). Aggression is one of the innate instincts of living things. Aggression is related to the situation being carried out or the intention of the person who has carried out the aggression. In definitions related to the situation, aggression is defined as any behavior that harms other people; in definitions that center on intention, aggression is defined as any behavior that has the thought of harming the determined goal (Gökler, 2009).

According to Freud, aggression is directing one's destructive thoughts toward oneself to the outside world. From the psychoanalytic point of view, Freud generally states that two things make up our behavior. These are the effects of internal forces and internal forces operating at an unconscious level (Geçtan, 2003). Freud says that the real reasons for our actions are unconscious motives, not the logical explanations we offer for our actions. Because of their instincts, they have a pessimistic view of people living together in peace (Atkinson and Hilgard, 1995).

Winnicott, similar to Freud's thoughts, stated that aggression is one of the instincts and that aggression means the same as functionality by sharing the idea that it existed before the formation of personality, while Freud emphasized the social aspect of aggression more and pointed out that these tendencies transformed as the individual progressed into adulthood (Ünsal, 2011).

Klein (1927) states that from an instinctive point of view, the infant directs his aggression to his dependent object and then to his environment. Klein defines an angry emotion as the instinct to steal and destroy the object of envy from others who possess it. Klein, who associated the emergence of envy and the increase of destructive tendencies with situations where a sufficiently strong relationship was not established with the good object in infancy, stated that envy can be seen together with personality deterioration and psychopathological symptoms (As cited in Başeğmez and Özerk, 2021).

Another pioneer of psychoanalytic theory, Horney (2003), associated aggression with a person's basic anxiety about loneliness and helplessness in a threatening world. When the child feels a lack of trust and anxiety, he/she can develop various methods to cope with feelings of helplessness and loneliness and continue them in adulthood (Horney, 2003). In this case, the child may develop hostility towards his/her environment or exhibit overly compatible behaviors in order to regain the love and approval he/she thinks he/she has lost, or he/she may become aggressive towards others in order to receive love (Waddell, 2007).

Gruen (2015) states that in the relationship established by children who are not loved in their relationship with their parents, obedience to authority and power, inability to show autonomy, desire to take revenge, committing a crime, creating a continuous enemy figure, a tendency to violence and aggressive

behaviors can be observed. The child begins to exhibit aggressive and violent behaviors towards another person, where he/she sees the same self that he/she hates and becomes alienated because he/she cannot be held accountable for this by his/her parents who hurt him/her.

The Relationship of Bullying with Aggression and Violence

Today, it is possible to encounter different types of violence. "The degree of a movement, a force." Violent behaviors, which are defined as (TDK, 2023), may occur between friends or sometimes in children's relationships with their teachers or families (Bara, 2018).

Aggression is defined as "any behavior or action taken to hurt others" (Ayas, 2019). It is usually performed physically, verbally, and directly or indirectly. Şahin and Akbaba (2017) defined aggression as behaviors that aim to leave destructive effects on the person in front of them. There are many theories that theoretically try to explain aggression. Psychoanalytic theory argues that the impulse for aggression is innate. Just like hunger and thirst, aggression is a motive produced in the human body. Biological theory suggests that aggression is caused by human physiology. Social learning theory, on the other hand, explains aggression as a learned behavior afterward. In this context, he argues that such behaviors can be changed or prevented.

It is suggested that aggressive behaviors are learned by modeling and reinforcing (Ayas, 2019; Yaman, Eroğlu, & Peker, 2011). One of the environments where children communicate with their peers and strengthen their communication is schools. Some of the behaviors performed during their time in school may include negativities. One of these negativities is bullying. Negative experiences are inevitable in students who perform bullying behaviors, are exposed, or witness bullying events even though they have no connection. In this context, all individuals in the school atmosphere should be made aware of bullying (Ayas, 2019; Şahin and Akbaba, 2017). There are three different characteristics that distinguish bullying from violence or conflict:

1. Intentionally done,
2. Performing more than once,
3. There is an inequality of power between the parties (bully-victim).

Based on these characteristics, the bullying was carried out unilaterally. The person on the bully side uses his/her power badly against the victim (Shore, 2009). As a result, it can be stated that both the concepts of aggression and bullying harm the victims. Aggression is more general than the concept of

bullying. However, since both concepts contain behaviors that harm the other person, they are similar to each other (Şahin and Akbaba, 2017).

Theoretical Framework on Bullying

In order to fully comprehend, explain, make sense of, and interpret bullying, theories with content that can be associated with bullying need to be evaluated. Moral Development Theory (Kohlberg, 1984; Piaget, 1932), Social Learning Theory (Bandura, 1977), and Social Information Processing Theory (Crick and Dodge, 1994) stand out as essential theories that can be associated with bullying. The general characteristics of these theories are presented below by associating them with bullying.

Moral Development Theory

For bullying to be fully understood, the theory of moral development should also be evaluated (Seçer, 2014). This theory put forward by Arsenio and Lemerise is a theory that argues that moral development should also be examined in order to understand bullying. Peer bullying cannot be interpreted as a concept by ignoring behaviors such as benevolence, justice, honesty, and sacrifice (Arsenio and Lemerise, 2001). Moral Development Theory is based on Piaget and Kohlberg's Four-Component Model. This model evaluates the individual's reactions and behaviors in the face of an event. This evaluation consists of the steps of Moral Sensitivity, Moral Judgment, Moral Motivation, and Moral Personality (Sanders, 2004):

1. Moral Sensitivity: It is the stage of awareness of whether there is a moral problem in the event.
2. Moral Judgment: It is the stage of deciding the most morally correct response to the event.
3. Moral Motivation: It is the stage of determining the behavior the individual wants to exhibit in the face of the event.
4. Moral Personality: It is the stage where the individual exhibits his/her morally correct behaviors.

Individuals have the cognitive ability to evaluate the consequences of this behavior before the right behavior and make the right decision. In this context, the individual decides according to the criteria of moral behavior in the process of bullying (Eminoğlu, 2018). Deciding on the right behavior or otherwise is a person's individual choice. In this case, according to the theory, the individual has the ability to decide whether to behave aggressively in the face of any behavior or action (Totan, 2008; Yaman et al., 2011).

Social Learning Theory

According to the social learning theory, there is observation under the learning of behavior. The individual observes, learns, and applies behavior. According to Bandura (1977), children observe and imitate their peers; behaviors are learned by observation, not by birth. Aggression can also be said to be behavior learned after the social environment. Since aggression is a behavior acquired in the learning process, family problems such as a fragmented family, authoritarian structure in the family, and interest in children can be effective factors in the process of being prone to violence (Kızmaz, 2006). Teachers and peers are as important as the family regarding social learning. In the school environment, children observe, take role models or imitate. There will be behaviors reinforced or abandoned by social learning at school. Rewards and punishments are very important in these cases. Rewarded behaviors will be reinforced and repeated. If inappropriate behavior is rewarded in peer relationships, the behavior may become permanent by reinforcing. The more reinforced the aggression, the more likely it is to occur (Takiş, 2007). If aggressive behavior is observed and reinforced, the behavior becomes permanent, but if not reinforced, it fades and disappears (Gökler, 2007). Looking at studies on bullying behavior in children, it has been revealed that 70% of children who commit bullying and resort to violence were exposed to or witnessed violence in childhood or grew up in a violent home (Olweus, 1999; Strassberg et al., 1994). Another study examining the relationship between social learning theory and bullying behavior showed that children who made friends with bullying children were more likely to bully than those who did not (Mouttapa, 2004). In this case, peers can be taken as role models or imitated.

Social Information Processing Theory

Social Information Processing Theory was developed by Crick and Dodge. According to this theory, the individual reacts to social situations both with his/her hereditary characteristics and with his/her past experiences. Social Information Processing Theory is a concept that tries to determine the ability of individuals to retrieve, preserve and reuse information from their environment (Crick and Dodge, 1994). In summary, it includes processes such as coding, storage, and recall. The good realization of social information processing brings about social competence, and the difficulties encountered in the process bring aggression, violence, and exclusion (Camodeca and Goossens, 2005). 12 The theory developed by Crick and Dodge (1994) tries to explain more aggressive behaviors. Social information processing theory, which tries to explain bullying behaviors, expresses the occurrence of bullying behaviors in six steps:

Step 1: The individual shows interest in the behaviors he/she is interested in and codes these behaviors in the social environment he/she lives in.

Step 2: The individual processes this coded behavior with information.

Step 3: The individual creates and clarifies a purpose for this state and situation.

Step 4: When the individual encounters a situation similar to the event that interests him/her, he/she reviews his/her reactions.

Step 5: The individual chooses the most functional one by filtering all the reactions he/she shows in his/her mind.

Step 6: The individual reveals his/her attitudes and attitudes towards any behavior.

Ecological Systems Theory

According to this theory, while the child develops socially and physically, it develops by adapting to their social and physical environment. The theory also mentions five intertwined systems. These are:

Microsystem: Communities such as families and schools

Mesosystem: Interaction of microsystems

Exosystem: Cases that indirectly affect the person (perceptions of people in the microsystem, etc.)

Macro-system: Socio-cultural characteristics, beliefs, and norms of society

Chronosystem: Social and physical changes that develop over time in a person's life (death, change of place of residence, etc.) (Swearer and Doll, 2001; Espelage, 2014).

These systems and their contents, which affect each other and create complex relationships in the phenomenon of bullying, are shown in Figure 1.

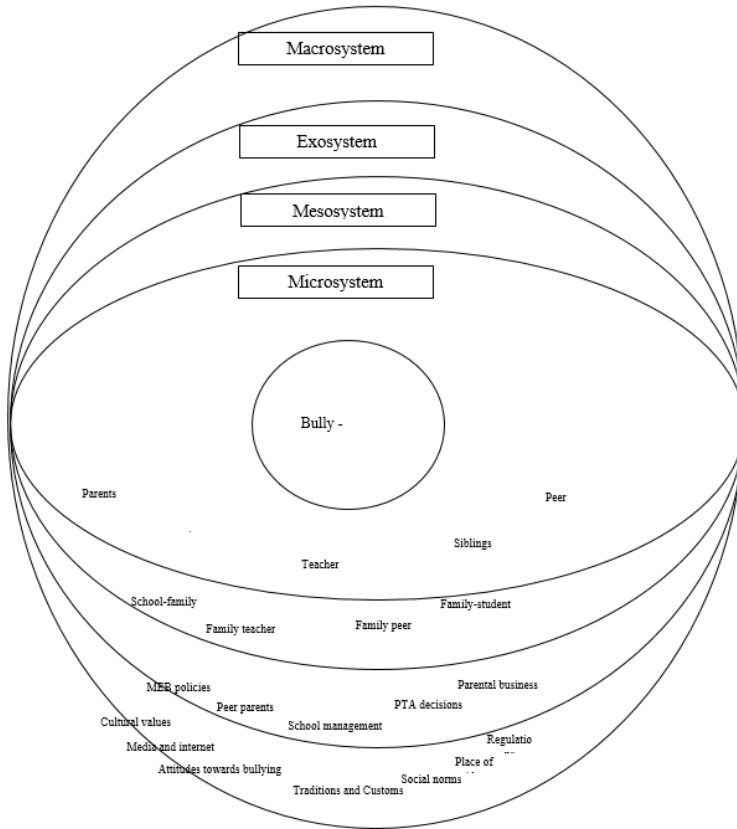


Figure 1: Peer bullying in terms of Ecological Systems Theory (Doğan, 2010).

Types of Bullying

Although different classifications have been made by the researchers for bullying types, in addition to the physical, verbal, relational, and sexual bullying classification made by Olweus, cyberbullying and peer bullying, which has been recently added to the literature, are also included in this section.

Physical Bullying

It is the type of bullying that involves action and is the easiest to observe. Physical bullying refers to the use of force by the bully (s) and includes such behaviors (Gladden et al., 2014). Attaching a trip, hitting, pushing, dropping, choking, pulling hair, punching, slapping, biting, kicking, pinching, spitting, scratching, bending the arms, and damaging the personal belongings of the student can be counted among the bullying behaviors (Açıköz, 2017). Physical bullying is more than punching and kicking and can take indirect forms, including taking what they have to weaken the victim and damaging belongings or

schoolwork (Lee, 2004). Physical bullying, also observed in early childhood, includes hitting, grabbing, pushing, compressing, breaking toys, or using waiting tactics to ruin another child's product and show dominance (Swit, 2018).

Verbal Bullying

Verbal bullying is another type of bullying that is most commonly encountered among other types of bullying. Although this type of bullying cannot be determined as quickly as physical bullying, it may be more damaging in some cases than physical bullying regarding destructiveness (Gökler, 2009; Beane, 2008). Unfortunately, some children learn verbal bullying more quickly by saying, "Sticks and stones can break my bones, but words can hurt me more and for longer" (Beane, 2008). Verbal bullying refers to condescending verbal or written communication to the victim and involves mocking, naming, and sending bad notes (Gladden, 2014). Although this type of bullying is one of the most common types of bullying, it may not be easily noticed because it can be perceived as a joke or a harmless tripping (mockery). In this respect, it is necessary to know what it looks like to stop verbal bullying (Uzbek and Taneri, 2022). Frequently observed verbal bullying behaviors have been explained as mocking, naming, saying derogatory words, slandering, saying accusatory words, insulting to race and ethnicity, as well as cruel criticism and gossiping (Açıkgöz, 2017). Verbal bullying, which is also observed in early childhood, includes naming, swearing, mocking, screaming and shouting, saying that others are naughty, calling a friend a baby, or saying that a boy is wearing girls' clothes (Swit, 2018).

Relational Bullying

Relational bullying is a different type of bullying than physical and verbal forms of bullying. In this type of bullying, actions are usually silent, hidden from others, and take place between friends (Uzbek & Taneri, 2022). Relational bullying and indirect bullying are terms used to refer to similar structures (Rosen et al., 2017). In this bullying, the aim is to exclude and hurt the victims by using non-physical behaviors (Rosen et al., 2017). Relational bullies try to persuade their peers to exclude or reject a particular person or people and to disconnect victims from their social connections. This type of bullying is linked to verbal bullying and usually occurs when children (primarily girls) spread bad rumors about others or exclude an old friend from the peer group. The most destructive effect of this type of bullying is that the peer group rejects children at a time when they most need their social connections (Beale, 2001). Research with teachers shows that relational bullying is perceived as less severe than other forms of

bullying (Hazler et al., 2001). This bullying is a form of social isolation that includes gossiping, deliberately excluding students from activities, spreading gossip, and other measures to change peer groups (Olweus, 1993). When most adults think about bullying, they think about physical and verbal abuse. They are not aware that bullying can be social and relational (Beane, 2008; Uzbek and Taneri, 2022).

Sexual Bullying

It is defined as engaging in behaviors that cause sexual discomfort to the other party. Talking about sexually explicit topics includes disturbing messages, disturbing touching, hugging, and kissing (Cooper and Snell, 2003; Rigby, 2002).

Cyber Bullying

The use of the Internet, which has been brought about by the technological age and used extensively, has entered students' lives. The use of social media, e-mail, and messaging channels has also increased. Accordingly, in the new period, "cyberbullying" emerged, in which students spread gossip and pictures for everyone to see. Cyberbullying can occur as a continuation of bullying in the school environment (Mason, 2008). This can be even more aggressive than face-to-face bullying because bullying students in the virtual environment may feel less responsible when they do not face the victim (Selekman & Praefer, 2006). Technology, directly and indirectly, can create a great opportunity for "cyberbullying" over the Internet and social network (Vanderbilt and Augustyn, 2010). In the studies conducted, cyberbullying mainly increases in the secondary school period and later age groups. At the primary school level, the use of the Internet and social networking is quite low. The most common behaviors encountered in cyberbullying are sending humiliating messages, threatening, blocking, introducing oneself as someone else, swearing, or making bad words using technology tools (Butler et al., 2009).

Bullied by Peers

The systematic investigation of the prevalence and nature of bullying began with Olweus' studies in the 1970s, and various explanations have been made about how bullying occurs since then (Balak, 2017). However, there is no universally accepted definition of bullying. Some authorities have viewed bullying as essentially the desire to hurt or oppress someone (Rigby et al., 2004). However, Olweus (1997) defined bullying as "When a student is repeatedly and over time exposed to the negative actions of one or more students, it means that they are being bullied or victimized."

PEER BULLYING

According to Tattum (1989), bullying is a deliberate and conscious desire to hurt and stress someone else. Occasionally, it can be short-lived or regular and long-lasting. According to Salmivalli (2010), bullying is a form of aggression in which an individual (or a group of individuals) systematically and over time hurts, annoys, humiliates, or excludes someone weaker or less powerful. Rigby (2002) finds it helpful to view bullying as a process that typically continues over time, depending on several identifiable factors. He notes that bullying begins with a scenario where someone is seen as a potential victim (weak and vulnerable) of aggressive behavior. Rigby (2002) explained that the bullying process is intentional; plans are made to oppress, often hurt, weaken, and humiliate the targeted person, different types of actions follow this, and the cycle begins, and sometimes other people participate in bullying to maintain bullying. Uzbek and Taneri (2022) also defined bullying as a malicious social interaction that may include aggression, harassment, and violence among peers.

Lee (2004) examined the key concepts discussed with different emphasis on the meaning of the term “bullying” and determined that these generally include the following concepts:

- Intention (intentional, intentional, deliberate, premeditated, predetermined);
- Injury (pain, stress, fear, sadness, loneliness);
- Repetition (more than once, repeatedly, persistent);
- Duration (for a certain period of time, long-term);
- Power (pressure, resistance);
- Provocation (being called, invited).

The term bullying covers the concepts of intention, hurt, repetition, duration, power and provocation. However, bullying can also be explained by expressing bullying behaviors. Donnellan (2006) reports that young people describe bullying with the following statements:

- Nicknames;
- Being teased;
- Being punched, pushed, or attacked;
- Being forced to deliver money, mobile phones, or other goods;
- Receiving abusive or threatening text messages or e-mails;
- Spreading rumors about them;
- Being ignored or excluded;
- Being attacked because of their religion, gender, sexuality, disability, appearance, ethnicity or race.

Every negative behavior that occurs between peers should not be considered as bullying. Researchers have stated that behavior should include various characteristics in order to be considered bullying. For example, according to Olweus (1997), a movement must have three basic characteristics to be defined as bullying. These are:

- (a) aggressive behavior or intentional harm,
- (b) repeatedly and over time; and
- (c) there is an imbalance of power in an interpersonal relationship.

However, according to Sullivan et al. (2003), the fact that the behaviors that occur among peers can be defined as bullying depends on meeting six basic conditions. These circumstances are:

1. The bully is stronger than the victim.
2. Bullying is usually organized, systematic, and secretive.
3. Bullying behavior is opportunistic; it is likely to continue when it begins.
4. It usually occurs over a period of time, but those who regularly bully can also do one-off events.
5. The victim of bullying may be physically, emotionally or psychologically harmed.
6. All acts of bullying have an emotional or psychological dimension.

It is seen that every negative behavior that meets these conditions is bullying behavior. These behaviors that harm the individual physically, emotionally, and psychologically will be explained in bullying types.

Causes of Peer Bullying

Peer bullying is a process that occurs over time and for certain reasons and continues unless the family, teacher, or school administration take the necessary precautions. They stated that they would not understand how much this situation affected the students unless the peer bullying experienced among the students in the schools was noticed by both the school administration and the teachers, and therefore they could not make any sanctions and fight against peer bullying (Kartal and Bilgin, 2009). For this reason, determining the demographic, psychological, and behavioral reasons underlying peer bullying will affect the decrease in the problem of peer bullying (Koç, 2006; Totan, 2007).

The causes of peer bullying are generally examined under two headings. The first of these is the psychological and physical reasons arising from the student, and the second is the reasons other than the student arising from the environment in which the student is located. In the resulting peer bullying, it is stated that the reasons arising from the social environment in which the person is located are more effective than personal reasons (Kartal and Bilgin, 2008; Koç, 2007).

The main causes of peer bullying will be examined under three headings: individual, familial, and environmental reasons.

Individual Causes

Individual causes can be examined under two headings as psychological and physical causes.

Psychological reasons: One of the widely accepted views is that the behavior of the individual is shaped by genetic influences. Some children tend to be aggressive, impulsive, or obedient because of their genetics. Of course, genetic factors alone do not cause an individual to become a bully or a victim. It is seen that the families of children with genetic tendencies such as being angry and aggressive are challenging or that the individual is bullied by the influence of non-social friend groups, and that the child is a victim when the family of a child who is weak and obedient by nature is overprotective (Berger, 2007).

According to a study, it was found that children who play the role of victims or bullies in peer bullying have a tendency to psychiatric disorders when compared to children who do not participate in peer bullying (Kumpulainen et al., 2001). Considering this research, it was concluded that being a bully or victim is not based only on psychological factors, but when combined with environmental and familial factors, it affects being a bully or a victim.

Physical reasons: When the reasons for bullying of children who have been bullied are examined in the study conducted by Kartal and Bilgin (2012), it is thought that they are bullied because they appear physically weak (48.6%), have high weight (42.6%), have poor financial status (41.5%) and are extremely short compared to their peers (40.1%).

Familial Causes

All positive and negative situations in the family affect children's behavior and shape school and friend relationships (Seyitoğlu and Gül, 2016). In this case, domestic factors have an important place in the emergence of bullying behavior or in the prevention of bullying behavior (Eşkisü, 2014).

One of the reasons for peer bullying is the behavioral disorders caused by the externalization of the situation experienced by children exposed to domestic violence. Children who encounter this situation in the family both exhibit bullying behaviors and are bullied in the family (Pellegrini and Long, 2002). Olweus examined the familial causes of peer bullying in four items.

- The negative behavior and attitude of the person who takes care of the child in the early stages of childhood may cause the child to become angry with the people around him/her in the future,

- Since the person who takes care of the child is too tolerant of the child and gives the child too much freedom if the aggressive behaviors of the child toward friends, siblings, or adults are not prevented, the child may cause an increase in bullying behaviors at an advanced age,

- When it is understood that violence breeds violence, parents may apply force-based disciplinary techniques or apply similar strict rules and punishments, which may cause bullying behaviors,

- The fact that the child's temperament is of quick-tempered nature indicates that the child may be more likely to be aggressive and bullied.

Incompatibilities between parents, who are tolerant of aggressive behaviors and have family inconsistencies, reinforce existing aggressive attitudes (Atalay, 2010). In addition, studies have stated that children form negative attitudes towards their environment by being affected by the negativities experienced in the family environment, and motives such as creating authority over other people may cause bullying behaviors (Dölek, 2002).

Causes of TV, Media and Games

Studies have concluded that TV, written or verbal media tools alone do not lead to bullying, but they internalize the bullying behavior of children or young people who spend time with long-term violent media tools and increase their tendency to engage in these behaviors (Eşkisu, 2014).

In a study conducted with high school students in our country, it was concluded that children who watch television frequently are more likely to show bullying behaviors such as rumoring, nicknames, verbal reactions, hitting, pushing. In this study conducted with high school students, when students were asked about the cause of the violence they experienced in schools, students reported that they were affected by television (Kırbaş et al., 2007).

Another factor that affects children's behavior is computer games. Computer games, which are very common to use, are an activity that is used for entertainment in daily life. When computer games are examined, games generally contain negative activities such as killing, hitting, destroying, defeating opponents, stealing, and attacking the enemy (Zorlu, 2016). Studies confirm that the effects of computer games on children and young people are negative. These games lead children and young people to violence and cause negative behaviors such as violence and bullying (Büker and Uludağ, 2010).

Causes Arising from Peer Relationships

Whether the individual is a bully or a victim is also affected by the communication between his/her friends (Yen et al., 2013). Peer groups constitute

the immediate environment of the child and have an important place in the formation and development of the child's personality (Tezcan, 1985). The peer group is an environment where the child will have the opportunity to get to know himself more easily and face the facts in terms of friendships. The influence of the peer group increases as the age of the child grows. Adolescence is the period when the effect of the peer group is seen the most (Akduman, 2010; Delikara, 2002).

The school period is the period when the child's peer relations gain importance. In this period, children are accepted thanks to their friends, and emotional development is supported (Alkaya Ayaz and Avşar, 2017). The acceptance of the child by his/her peers and friends affects his/her healthy psychological, social development, and personality in adulthood (Seyitoğlu and Gül, 2016).

Although the benefits of peer groups to individuals are many, they also have harms. If the child has a peer group that engages in anti-social behaviors, he/she can follow the behaviors of this group (Tezcan, 1985). In bullying children, it was determined that the children's group of friends also saw bullying as a solution and tended to bully (Cash and Fleming, 2002). According to the studies, it has been reported that if negative peer relationships experienced during adolescence are not prevented, adolescents can continue their bullying behaviors in the future (Uysal and Dinçer, 2012).

Causes Caused by School Environment

The attitudes of administrators and teachers who do not accept bullying situations in schools or do not care about children who behave as bullies cause an increase in peer bullying. In peer bullying, the teacher's behavior and attitudes towards bullies are effective in terms of reducing the strengthening of the bully's behavior, not victimizing the victims, and not taking the bullies of other students as a role model (Kartal and Bilgin, 2008; Ural and Özteke, 2010; Yoon and Kerber, 2003).

If school administrators and teachers do not take the necessary measures, bullying behaviors become successful, and the likelihood of bullying behaviors being repeated increases. Those who watch the bullying behavior think that they will be the next victim and start waiting for the day when they will be bullied. Students who cannot intervene in bullying for their bullied peers feel guilty. This situation makes students bullies or victims (Tezcan, 2015).

In some schools, bullying tendencies are higher than in other schools. In these schools, it has been reported that teachers generally do not provide sufficient supervision, bullying behaviors are frequently seen among students during recess,

school employees and teachers exhibit violent behaviors, and bullying behaviors are more common in schools where they accept this as normal (Cash and Fleming, 2002). According to a study conducted in Norway, it was concluded that peer bullying behaviors decreased in schools where classroom management was high and that insufficient intervention by teachers and administrators in schools against peer bullying increased peer bullying and violence (UNESCO, 2017).

Schools are the places where young people experience their most critical periods socially. The most important role models in schools are teachers and administrators. Even if administrators and teachers cannot control the familial and environmental causes of peer bullying, they can take the necessary measures within the school to reduce peer bullying. These measures may include never tolerating peer bullying, increasing in-school supervision, and providing psychological and social support to the bully and victim student. As a result of these measures, they can reduce the diversity and frequency of peer bullying in schools (Besag, 1989; Güvenir, 2005).

Roles in Peer Bullying

Those who play a role in bullying acts are considered bullies, victims, bully victims, and those who do not interfere. In the case of bullying, apart from bullies and victims, it is seen that there are supporters, supporters, passive supporters, spectators, possible protectors, and protectors of the victim (Olweus, 2003). In the studies conducted (Camodeca and Goossens, 2005: 186; Monks, Ruiz and Val, 2002; 458; Smith et al., 2003: 175; as cited in Gültekin Akduman, 2012), it is stated that there are children who provoke bullies, victims and bullies in the peer bullying process among preschool children, but there are also children who are spectators, defend the victim and are not interested in bullying. According to Olweus (2003), bullies and victims are inherently key in structuring bully/victim problems in a class. However, other students also play important roles and have different attitudes and reactions to bullying. The reaction patterns and attitudes of the students in the bullying situation may affect the bullying event. Figure 2 shows the Bullying Circle of Olweus (2003), which shows that most students in a class with bullying/victim problems are involved in or affected by them (Cited in Karataş, 2011).

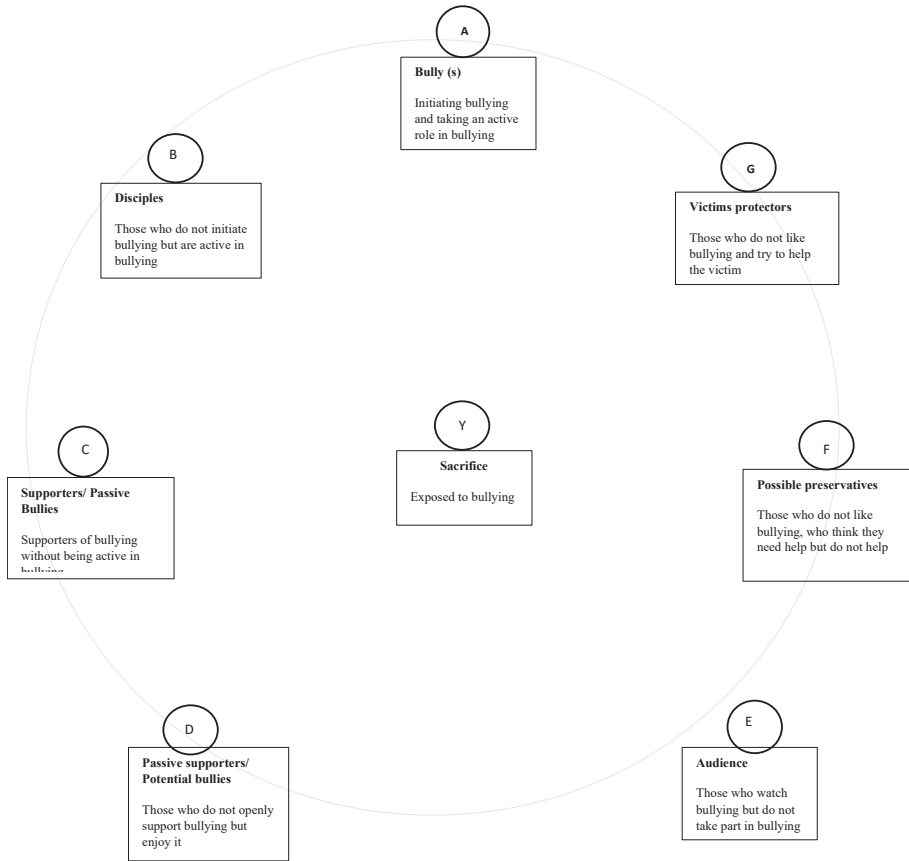


Figure 2: Bullying Circle

In the bullying circle of Olweus (2003), "A" refers to those who initiate bullying and students who take an active role in bullying, and "Y" refers to victim students who are exposed to bullying. In the bullying phenomenon that develops between "A" and "Y," the reactions and roles of other students to bullying vary. In the case of bullying, "B" refers to supporters of bullying (followers), that is, students who do not initiate bullying but take an active role in bullying, and "C" refers to students who support bullies without taking an active role in bullying. "D" defines students who do not explicitly support bullying but enjoy bullying, and "E" defines audience students who watch bullying but are not involved in bullying. The "F" in the bullying circle refers to students who do not like bullying, who think that they should be helped in the moment of bullying but do not help, and "G" refers to students who do not like bullying, help the victim or try to help.

In a bullying incident that takes place within the classroom, it can be thought that everyone takes on different roles, and bullying incidents increase and

decrease in line with these roles. Intervention programs aimed at preventing bullying should not include only improvements for bullying and victimized students. As seen in the bullying circle, bullying can affect all students in the classroom. It is thought that preparing the activities to be included in the intervention programs to include other roles will be effective in preventing bullying. Bully victims who are not in the bullying circle are individuals who both commit bullying behaviors and are victims of bullying. It is seen that bully victims who perform both roles generally use bullying as a coping and self-protection method in order to defend themselves (Türkkan, 2013). Although girls are exposed to verbal bullying more often than physical bullying, both genders use relational bullying to gain and maintain power over others (Heath et al., 2013). Knowing the characteristics of individuals taking on bullying roles can provide a better understanding of bullying. The characteristics of the bully, victim, and audience, are considered the main roles in the bullying incident, are explained.

Tyrants

Bully individuals are individuals who have feelings of hostility towards their environment, are aggressive, and attacking, and are generally seen as popular in their social circles (Kartal and Bilgin, 2007). Bullies enjoy inflicting pain and harm on victims and defend themselves by saying that they are provoked by the victims (Şahin et al., 2009). For any reason (e.g., physical appearance, social status, academic achievement, etc.), these people use force to frighten and/or harm individuals they consider weaker or weaker than themselves (Uzbek and Taneri, 2022). According to bullies, victims deserve bullying (Smith and Shu, 2000). In addition, many children who bully may not understand how wrong their actions are or how helpless they make their victims feel (Donnellan, 2006).

According to Olweus (1978), there are three different types of bullies: aggressive bully, passive bully, and bully-victim. Aggressive bullies tend to be physically strong, impulsive, angry, combative, fearless, coercive, self-confident and lack empathy. They are also shown as leaders (Cited in Bean, 2008). Cowie and Jennifer (2008) referred to aggressive bullies as aggressive bullies; they stated that they were most likely boss bullies, easily provocative, leading in initiating aggression, and they were usually looking for other bullies to form a group of followers who participated in and supported their aggressive behavior.

Passive bullying children are defined as children who support bullying but do not play an active role in bullying (Olweus, 2003). Cowie and Jennifer (2008) explained the reinforcers of the bully as part of the group of followers, like the bully's helpers. Passive bully children act as spectators in bullying but exhibit

behaviors that provoke the bully by laughing at the victim and saying words that support the bully (Olweus, 2003). In addition, passive bullies tend to be insecure and are much less popular than aggressive bullies.

Bullying victims, another type of bully, represent a small percentage of bullies. These are children who have been bullied at home or at school. They are often physically weaker than bullies in school but stronger than the people they bully (Olweus, 1987; Cited in Bean, 2008). However, bully victims do not appear to exhibit submissive behaviors (Perren & Alsaker, 2006). Bully victims feel most emotionally uncomfortable because they are aggressive toward their peers, but they are also targets of their peers' aggression (Cowie & Jennifer, 2008). Bullying traits are usually found in a child younger than kindergarten age.

Pure bullies tend to intimidate their peers and use this fear as a "status symbol" in their schools. Today, most bullies perform indirect aggression behaviors such as spreading rumors, exclusion, and subtle harassment methods that are less likely to be observed by adults than physical bullying to cause harm (Tarshis, 2010). Common characteristics of students who exhibit bullying behavior are as follows (Güvenir, 2005):

1. Their self-esteem is normal or above normal.
2. Aggression and conflict are intense in family settings.
3. Adulthood, more than half of these children are prone to crime.
4. They lack the ability to empathize.
5. They have emotional isolation.
6. Violence is common among adults, which can be seen as a model within the family.
7. Social skills are weak, and there are inadequacies in the way of establishing relationships.
8. He/she is aggressive, impulsive, and has physical superiority.

According to Harris and Petrie (2003), bullies are generally defined as more likely to be opposed to adults, anti-social, and violate school rules. Bullies usually show little anxiety and insecurity and do not suffer from poor self-esteem. Another characteristic of bullies is that they often have parents and guardians who use corporal punishment; parent/child relationships are often poor, which leads to hostility towards their environment (Harris & Petrie, 2003). In addition, it is stated that it is important to develop social skills such as cooperating with bullies, expressing their feelings, respecting differences, and empathizing (Özbek & Taneri, 2022).

Victims

Although all individuals are potential targets of bullying, some children are more likely to be targeted because they appear small, weak, insecure, sensitive, or “different” from their peers (Özbek & Taneri, 2022). Those who are exposed to bullying behaviors and those who are victimized in this process are called victims (Cenkseven Önder and Sarı, 2012).

According to Olweus (1994), the victim child is anxious and does not feel safe. They are usually cautious, sensitive, and quiet. They show crying and withdrawal reactions when exposed to bullying. In addition, victims have negative perspectives towards themselves (Balak, 2017). There are some factors that increase the likelihood that these students are a target for bullies. Teens who have few friends and tend to isolate themselves are often easy targets for bullies. At the same time, doing bad work in school, not taking care of personal health and care, and having poor self-confidence also cause victimization (Tarshis, 2010).

Typically, victims fall into two categories: passive and provocative. However, most victims of bullying are passive. These children are anxious, insecure, quiet, afraid to face, cry or feel sad easily, and have few friends. They are affected by low self-esteem and rarely report bullying events because they fear retaliation (Harris & Petrie, 2003). Such a victim feels threatened and is afraid of the bully.

Knowing the factors in the relationship between bully and passive victim in case of bullying can be effective in stopping bullying. Figure 3 shows the factors that play a role in the relationship between bully and passive victim and the cycle of the functioning process (Rigby, 2002).

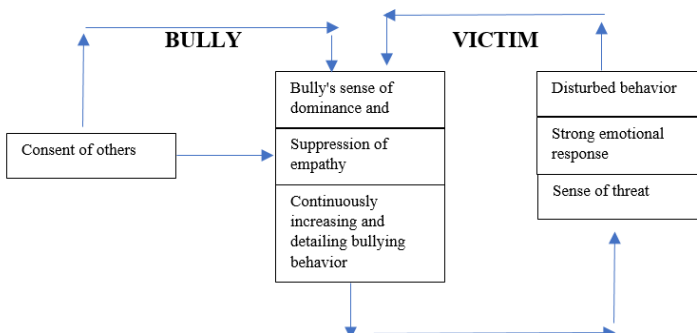


Figure 3. Bullying and passive victim process

According to Rigby (2002), if the victim shows signs of being disturbed or upset, this is evidence that bullying is successful. The bully can then enjoy a pleasurable sense of dominance. If there is approval from others (friends) and the audience, the anxiety or empathy the bully may feel for the victim's bad condition quickly disappears (see Figure 2; Rigby, 2002). In contrast, sometimes, the victim may resist or take action to stop the bullying.

The victim may seek (and sometimes find) ways to escape or avoid bullies. He/she may also resist them, be assertive or indifferent. But if the imbalance of power is too great and bullying is persistent, which it usually is, such “resistance” is likely to fail. Figure 4; Rigby, 2002).

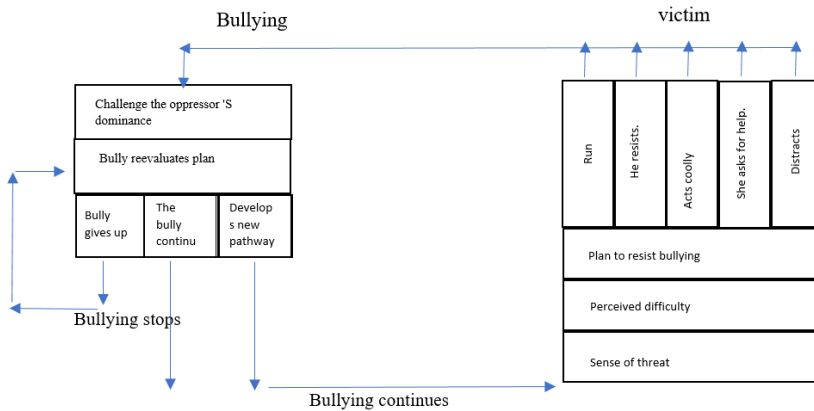


Fig. 4. Bully and Resilient Victim Process

Common characteristics of students exposed to bullying are as follows (Güvenir, 2005):

1. He/she has an insecure, self-defenseless, passive, usually submissive, shy, and introverted nature.
2. He usually has no close friends.
3. He is usually the child of overprotective families.
4. They can be members of different races, religions, and ethnic groups.
5. May have different developmental characteristics than their peers.
6. There may be a special learning needs or disability.
7. He/she may have more expensive items than his/her peers have.

The individuals most affected by the bullying incident are the victims, but there is another group that is negatively affected by this process with them, which are witnesses/spectators or spectators.

Witnesses/ Audience/ Audience

Bullying is a negative situation that causes the audience, which is a broader social group in bullying, to experience feelings of fear, shame, and inadequacy. The fact that the audience does not respond to the bullying situation or responds in an ineffective way causes a loss of self-esteem in them (Hazler, 1996). Audiences or witnesses are the person or persons who watch the acts of bullying (Drew, 2010). They do not react when they see or witness bullying behaviors because they fear that their anger will be reflected in them (Tarshih, 2010). Individuals in this group have an important role in the continuation or stopping of the bullying action. Because bullying harms not only the person who is bullied but also those who watch it happen (audience) and even those who commit bullying (Drew, 2010). They may oppose the bully when intervening in bullying or support the bully to help him/her continue bullying (Hanish and Guerra, 2000). Followers are those who participate in bullying or laugh at or encourage bullying in other ways. Followers are not friends of bullies, but they may be following the bully to avoid being targeted themselves. Spectators are also children who ignore maltreatment or stand and watch from a distance (Beane, 2008). Those who watch bullying events can contribute to the problem by providing attention and help to those who commit bullying. (Hawkins, Pepler, & Craig, 2001).

Relationship of peer bullying with various variables

Gender

There is much research showing that bullying has become alarmingly prevalent in recent years. Bullying can be carried out by a single individual or by a group. Studies show that male students are more prone to verbal or physical bullying, while female students are more prone to indirect bullying, such as spreading gossip and exclusion (Ayas, 2019; Güvenir, 2010; Shore, 2009; Ural and Özteke, 2010; Vyas, 2014; Yaman, Eroğlu and Peker, 2011).

Ural and Özteke (2010) stated that bullying students behave more aggressively than their peers and tend to tolerate violent behaviors. They stated that the bullies applied the superiority of power to the victims. They also stated that male students' bullying behaviors were higher than girls in terms of gender. The results of the research show that male students have more victim status than female students, and physical bullying as a type of bullying is common. In female students, the type of bullying faced by students with victim status is more in the form of indirect bullying, such as spreading rumors, spreading gossip, exclusion, and slandering (Yaman, Eroğlu, and Parker, 2011). Studies conducted in Turkey show that male students exhibit more bullying behaviors and are exposed to bullying behaviors than female students (Pişkin and Ayas, 2005).

Age

While exposure to bullying behaviors increases with age, it has been revealed by studies that exposure to bullying decreases as age increases (Ayas, 2019; Rigby, 2007; Yaman, Eroglu, & Peker, 2011). This shows that children can resist peer bullying with advancing age. In addition, it can be said that as a result of physical development with the increase in age, the rate of encountering physically stronger people decreases (Ayas, 2019).

Şahin and Akbaba (2017) stated that bullying behaviors started at the kindergarten level and continued until the secondary education level, and they stated that bullying behaviors decreased with the increase in age. Güvenir (2010) stated that peer bullying has progressed in the direction of decrease due to the development of new strategies in the fight against bullying with the age of children and the decrease of those older than them as a result of physical growth. As children grow up, there are also differences in bullying types. While physical bullying is common in young age groups, verbal and indirect bullying becomes common as age increases. Bullying also increases in the transition from primary school to secondary school (Bernard and Milne, 2008; Yaman, Eroğlu and Peker, 2011).

It has revealed in studies that bullying is more common in small classrooms than in large classes, and children studying in the small class are generally victims because students in the upper class choose students in the lower class as victims (Ayas, 2019). Yaman, Eroglu, and Peker (2011) stated that students have a high tendency to bully the students they spend more time with, that is, their classmates. Although teachers think otherwise, research shows that students are mostly bullied by their friends.

Socio-economic Level

There are many studies in the literature examining the relationship between the socio-economic status of families and bullying behaviors. In general, the results and rates related to the socio-economic level discussed in three different categories (low, medium, and high) differ. While some research results do not show significant differences between bullying or bullying situations and socio-economic levels, some studies show significant differences. Gökler (2007) stated that family communications, parents' communication and attitude with children, and the cultural and economic level in which families are involved have an effect on the appearance of bullying behaviors in children. Şahan (2020) stated that bullying is more common in societies that are disadvantaged in terms of socio-economic level.

Güvenir (2010) does not find it correct to associate students' being bullied or victimized status with the socio-economic levels of families and states that the children of families from all levels may be bullied or victimized. On the other hand, there are also studies in which there are significant differences between the status of the bully or victim and the socio-economic variable. Olweus stated that it is meaningless to associate the socio-economic level of the family with bullying behaviors involving aggression and that it is not right to associate having a low level of socio-economic status with being a bully or a victim. He also stated that families with different socio-economic levels can be good parents (Olweus 1993; as cited in Gökler, 2007).

Educational Status of Parents

Research reveals that families have a significant effect on children's behavior development (Şahan, 2020). Violence, aggression, and bullying are the types of behaviors learned. At this point, families should not forget that they are role models for the children they raise (Ayas, 2019). They use the way that families solve problems in the home environment to solve their own problems in children. For this reason, factors such as the attitude of families (being overly strict or overly tolerant), the communication of family members with each other, the emotional approach of the individuals who raise the child, and the supervision of the child's behavior in the home environment will affect the child's personality development (Güvenir, 2010). Families who raise their children with authoritarian behaviors reduce the communication and bond between them and their children. Thus, they increase the likelihood of victimization by causing children to be insecure in their future lives, or vice versa; they may try to gain power superiority over their friends (Çevik, 2021). It has been stated that the most basic feature of children with bully status in their family structures is the methods they use while providing discipline. Considering the situation of the families of children who have not encountered bullying, victimization, and bullying in any way, it has been stated that family disputes are common in the families of children with bullying status. The most prominent feature in the family structures of children with victim status is that they have an overprotective attitude (Yaman, Eroglu and Peker, 2011).

Prevalence and Symptoms of Peer Bullying

When the studies conducted at home and abroad are examined, it is seen that bullying is a common problem, although the rates or numbers in each country vary. According to some research results, peer bullying, which is seen to be very common, is also an important problem in Turkey and causes serious harm to

students (Ayas, 2019). In this context, considering why children are exposed to bullying behaviors, Bernard and Milne (2008) stated this situation under 5 different subheadings:

- 1) First of all, efforts to avenge the hostile activities perceived by the target,
- 2) Demonstrating their own strength and maintaining their leadership status among their peers,
- 3) The purpose of being included in the target peer group,
- 4) The purpose of getting what they want,
- 5) The desire to further exalt the power and self-identity that he/she has with his/her own thoughts.

When the results of studies conducted abroad are examined, it is revealed that bullying is a common type of aggression. In 1983, a study of 130,000 students in Norway found that 9% of the students were bullied, and 7% were 20 bullies. The results of the study conducted in the USA generally found that the rate of victims varied between 6% and 78%. Studies conducted in Canada have concluded that the rate of bullying varies between 6% and 15%, and the rate of victimization varies between 8% and 10%. In the UK, the rate of victims is between 4% and 75%, and the rate of bullies is between 10% and 17%. While this situation is between 26% and 31% for primary schools in Ireland, it has been revealed that the rate of victimization is around 30% (Yaman, Eroğlu, and Parker, 2011).

In one of the studies conducted in Turkey, Gökler (2007), as a result of examining peer bullying in primary school students in terms of various variables, found that the rate of students with victim status was 27%, the rate of students with bully status was 10%, the rate of students with bully-victim status was 21%, and the rate of students with non-participant status was 41.70%. In their study in which they tried to determine the prevalence of peer bullying among students, Atik and Kemer (2008) concluded that 18.8% of the participants were victims, 7.2% were bullies, 5.6% were bully victims, and 68.3% were non-participants. In their study, Burnukara and Uçanok (2012) stated that the status distribution of bullying incidents in students attending secondary school with primary education was 5.1% for bullies, 17.2% for victims, 9.6% for bullies-victims, and 68.1% for non-participants. As a result of the research, Doğan Çevirgen (2018) concluded that 7.7% of the participants were in the status of victims of traditional peer bullying, 4.3% were in the status of bullies, 7% were in the status of bullies/victims, and 81% were in the unmixed status. Tekce (2019) found that 11 (1.9%) of the participants were bullies, 164 (27.8%) were victims, 271 (45.9%) were bullies-victims, and 144 (24.4%) were non-participants. Kurt (2019) stated that 44.5% of the participants in his study were bullied, and 16.5% were bullies. In summary, although the findings of the research conducted in Turkey on the

prevalence of bullying show different results, it is understood from the research results that bullying is severe and at high rates.

Consequences of Peer Bullying

The effects of peer bullying last a lifetime and are a condition that affects individuals physically, psychologically, and emotionally. Peer bullying affects not only children but also the whole family and the mental health of society (Ünalnıř & řahin, 2012). Peer bullying negatively affects not only children who are victims but also children who are bullies.

Consequences of Being a Victim

For victims who experience peer bullying, the places where bullying occurs are the places where the victim is concerned and afraid (Satan, 2011). Victims perceive the school as an unsafe place and begin to fear the school where they are most exposed to bullying and do not want to go to school (Furniss, 2000). According to a study, 7% of classroom students stated that they did not want to go to school once a month due to bullying in schools (Furniss, 2000). When the cause of students' long-term absences was investigated, it was determined that the reason for these absences was the concern of being exposed to peer bullying or peer bullying.

It has been determined that children who are exposed to peer bullying have increased absenteeism because they are afraid to go to school, and therefore they have to repeat classes or leave their schools completely by staying in the classroom (Batsche and Knoff, 1994; Güvenir, 2005). Being bullied by peers also negatively affects the psychological and physical health of the person. People who are bullied by peers have problems such as sleep problems, anxiety, tension, difficulty in focusing, shyness, and introversion after bullying. Being bullied for a long time causes an increase in the level of anxiety in the person (Akduman, 2010; Delikara, 2002). According to a study, it was concluded that children who were physically, verbally, or sexually bullied had higher depression levels than other students (Kařçı, 2004). Victims who are bullied tend to commit suicide, refusing to go to school, and chronic diseases occur (Pearce, 2002). It is observed that children who are bullied in childhood have low self-confidence and are more likely to become depressed when they are young adults compared to their peers. This study conducted by Olweus (1995) reminds us that victimization may create some permanent negative effects that continue in adulthood.

Consequences of Being a Bully

Behavioral disorders and criminal behaviors of bullying students in adolescence may lead to anti-social and criminal behaviors in adulthood (Muscari, 2002). According to a study conducted by Olweus (1993), 60% of children between the ages of 6-9 who behave in bullying are involved in a criminal offense at least once until they reach the age of 24. In addition, the researcher states that children who exhibit bullying behavior are more prone to violence and substance use than other children. These children remain bullies for most of their lives. They often leave school, have difficulties in their working life, and have difficulty establishing close relationships (Garrity and Barris, 1996). Depression and suicidal thoughts are quite common in children who bully and are exposed to bullying (Gürsoy, 2010). The common expression that can be said in terms of bullies and victims who practice bullying behaviors can be expressed as the bullies cause various problems both in themselves and in the victims; their mental health and happy lives deteriorate; however, many psychological problems develop, and the existing problems became stronger (Gökler, 2007). As a result, it can be said that bullying behaviors are an important problem that may affect the physical and psychosomatic health of children in their advanced ages and may bring about some behavioral disorders that may occur in the future (Atalay, 2010).

Methods Used to Deal with Peer Bullying

Peer bullying is a problem that negatively affects the school ecosystem, reduces the quality of life of individuals in the school, and can cause violations of children's rights (Kyriakides et al. 2013). Various coping methods are being developed to avoid negative situations such as bullying in schools (who, 2016). Preventing bullying in schools generally aims to combat bullying, develop various activities on bullying behaviors, and provide support to children who are affected by bullying in some way as bullies, spectators, and victims. In this respect, preventive intervention programs and focus group programs are developed for all students in the school. (Nickerson, 2019).

Anti-bullying studies are carried out in different schools all over the world. The World Health Organization's report on the prevention of bullying in schools identifies three goals for preventing bullying. These are:

- To increase the life skills of children,
- Training in safe behavior in schools and
- To fight to change socio-cultural norms and to ensure equality (who, 2019).

One of the approaches frequently used to prevent bullying in schools is to develop classroom-based positive behavior and social-emotional skills throughout the school. These programs also have content only for bullying (Nickerson, 2019). Classroom guidance programs prepared by the Ministry of National Education according to different education levels can be shown as examples of such general prevention studies.

There are also forms of intervention programs aimed at preventing peer bullying and reducing its harmful effects, including teachers, students, parents, and employees, which are the stakeholders of the school. These programs, especially activities that improve psycho-social skills and awareness studies for disadvantaged individuals, draw attention. The purpose of intervention programs is to carry out supportive studies to reduce bullying behaviors in the school environment instead of imposing certain punishments on students (Caldarella, 2011). Thanks to social-emotional support programs developed to prevent peer bullying, students can demonstrate competence in interpersonal relationships and skills for emotions, which are an important component of peer bullying (Durlak et al., 2011). In the studies conducted by Espelage et al. (2015), it is underlined that the implementation of prevention programs that support the field of social-emotional development in schools is effective in reducing peer bullying. Social skills, which are defined as recognizing and managing emotions, adapting to the environment, using healthy communication ways, and developing solutions to various social problems (Matson, Matson, & Rivet, 2007), can be thought to have an inclusive relationship with emotion regulation skills. The fact that Berking and Whitley (2020) addressed factors such as emotional awareness, recognizing emotions, naming emotions, understanding emotions, changing and transforming emotions, and accepting and tolerating emotions within the scope of emotion regulation skills points to this relationship. Therefore, peer bullying intervention programs targeting the above-mentioned social-emotional development area can be accepted as evidence that it would be beneficial to look at the concept of peer bullying from the emotion regulation framework.

Another effective and well-known prevention program is Olweus' Anti-Bullying Program. This program, which is widely carried out in Scandinavian countries, aims to develop preventive interventions against bullying, reduce bullying, and positively support relationships between peers (Wojcik and Helka, 2019).

The KiVa program, which is applied to students from the 1st grade to the 9th grade in Finnish schools, is also one of the effective methods used to cope with peer bullying (Williford et al., 2012; Garandea, Poskiparta and Salmivalli, 2014; Haataja et al., 2014). Astor et al. (2005) emphasized that intervention programs

to prevent peer bullying in schools should be inclusive of the whole school, contain clear and simple rules, and be easily applicable according to the type of problem (violence, bullying, fighting), increasing the awareness levels of students, teachers, and parents.

Healy and Sanders (2014) developed an intervention program that combines facilitative parenting and social-emotional skills training for peer-bullied children. According to the skills training in the form of this intervention program, it was found that there was a significant relationship between children's peer relations and emotion regulation skills. According to the research of Baldry and Farrington (2005), there are studies showing that problem-solving skills positively support peer-to-peer relationships and reduce the likelihood of children being exposed to bullying behaviors and exhibiting bullying behaviors. These studies address the methods used to cope with peer bullying in the context of social skills. According to Olweus (1993), although various countries have conducted studies and developed educational policies to cope with peer bullying, it cannot be said that the programs implemented are 100% effective. In this context, the individual aspect of the studies against bullying comes to the fore. Knowing the methods that individuals can use to cope with bullying is very important for social change (Ramirez, 2005). While the issue of violence in school can be easily addressed, it is a significant issue to carry out various skills development training on the subject, studies to establish family-school cooperation, teacher and staff training on violence and bullying, and most importantly, anti-bullying programs for children who are prone to problem behaviors (Grinberg et al., 2005).

Prevention of Peer Bullying and the Role of Teachers

Shore (2009) grouped the most effective ways of coping with bullying into 9 categories. The first of these ways is expressed as creating environments based on cooperation and compassion in the classroom environment. In addition, he emphasized that actions that convey the values of tolerance, respect, and responsibility should also be modeled by teachers.

Ayas (2019) stated that not only administrators and teachers should fight against bullying in schools, but all people working in the school should fight together, and thus, progress can be made in the fight against bullying. As teachers and institutions, schools are responsible for creating a positive atmosphere where students feel valued and safe (Campbell, 2011). Tsang, Hui, and Law (2011) stated that it is crucial to provide a harmonious school culture in the fight against school bullying and that there are some advantages of including teachers in the process of placing this culture. It has been emphasized that teachers can integrate

anti-bullying themes into school developmental guidance programs and values education programs so that nonviolence and tolerance can be brought to all students and emphasized as the values of the school. In addition, teachers who are role models can develop attitudes such as acceptance, respect, tolerance, and forgiveness and associate their importance with interpersonal relationships and social harmony.

Le Menestrel (2020) emphasizes that combating bullying is important, considering the time children spend in school. In this struggle, it was stated that all personnel working in the school should play a role in encouraging healthy friendship relations and that bullying situations should not be underestimated and should be intervened by ignoring them. At this point, it is also emphasized that teachers, administrators, and other personnel should be aware of how to intervene against bullying. However, it has been stated that consistent and fair application of the rules in the school will contribute to the fight against bullying and support the reduction of bullying behaviors. It is very important for all teachers and other staff at the school to clearly state and remind the student code of conduct that every student has the right to feel safe at school, that bullying behavior will not be tolerated/accepted because it violates the school rule. In addition, some studies have shown that students who are accepted and appreciated by an adult in schools avoid behaviors that will disrupt the positive atmosphere of the school and concluded that desired behaviors increase (Bernard and Milne, 2008).

REFERENCES

- Açıkgöz, T. (2017). *Attitude towards school with peer bullying in secondary school students* [Unpublished master's thesis]. Sakarya University.
- Akduman, G. G. (2010). Peer abuse in children aged 7-14 and their own solutions. *Theoretical Education Science*, 3 (2), 13-26.
- Arsenio, W. & Lemerise, E. A. (2001). Varieties of childhood bullying: values, emotion processes, and social competence. *Social Development*, 10, 59-73. <https://www.researchgate.net/publication/232465956>
- Arslan, S. (2018). Examination of adolescents' levels of cyberbullying and self-opening in terms of some variables. (Master's Thesis). Istanbul Sabahattin Zaim University, Institute of Social Sciences, Istanbul.
- Atalay, A. (2010). *The relationship between showing peer bullying and being exposed to peer bullying with gender, age, socioeconomic level, parental attitudes, friendships and self-esteem* (Master's Thesis). Diyarbakır: Dicle University, Institute of Social Sciences.
- Atkinson, R. T., Atkinson, R. C., and Hilgard, E. R. (1995). *Introduction to Psychology - I* (Trans. Atakay, M. Atakay and A. Yavuz). Istanbul: Sosyal Yayınları.
- Ayas, T. & Pişkin, M. (2011). Investigation of bullying among high school students with regard to sex, grade level and school type, *Elementary Education Online*, 10(2), 550- 568.
- Ayas, T. (2019). *Preventing bullying in schools* (4. Edition). Ankara: Vizetek Publishing.
- Ayaz Alkaya S. & Avşar, F. (2017). Examination of School-Age Children's Peer Bullying Status and Assertiveness Levels and Related Factors. *Journal of Education and Research in Nursing*, 14(3).
- Balak, D. (2017). *Examination of the relationship between emotional intelligence levels of primary school students and peer bullying and feelings of belonging to the school* [Unpublished master's thesis]. Marmara University
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Bara, M. A. (2018). Research of the phenomenon of violence and bullying in school. *Pangeea*, 18(18), 117-122.
- Başığmez, A. C. & Özerk, H. (2021). Evaluation of the ways in which human aggressive and violent behaviors are handled by psychotherapy theories. *OPUS International Journal of Society Researches*, 18 (44), 8475-8499. Doi: 10.26466/opus.942149.
- Batsche, G. M., & Knoff, H. M. (1994). Bullies and Their Victims: Understanding a Pervasive Problem in the Schools. *School Psychology Review*, 23(2), 165-174.

- Beale, A. V. (2001). " Bullybusters": Using drama to empower students to take a stand against bullying behavior. *Professional School Counseling*, 4(4), 300.
- Beane, A. L. (2008). *Protect your child from bullying: Expert advice to help you recognize, prevent, and stop bullying before your child gets hurt*. John Wiley & Sons.
- Berger, K. S. (2007). Update on bullying at school: Science forgotten?. *Developmental review*, 27(1), 90-126.
- Bernard, M., & Milne, M. (2008). School procedures and practices for responding to students who bully. *A Report for Victorian Department of Education and Early Childhood Development*, 81-91.
- Besag, V. E. (1989). *Bullies And Victims In School. A Guide to Understanding and Management*. Philadelphia: Open Universtiy Press.
- Butler, D., Kift, S., Campbell, M. (2009). Cyber bullying in schools and the law: is there an effective means of addressing the power imbalance? *Murdoch University Electronic Journal of Law*, 16(1), 1-31.
- Büker, H., & Uludağ, Ş. (2010). Effects of violent video games on children and young people: an assessment of aggression, violence and crime. *Journal of Forensic Sciences*, 9(4), 54-75.
- Caldarella, P., Shatzer, R. H., Gray, K. M., Young, K. R. and Young, E. L. (2011). The effects of school-wide positive behavior support on middle school climate and student outcomes. *RMLE Online*, 35(4), 1-14.
- Camodeca, M., & Goossens, F. A. (2005). Aggression, social cognitions, anger and sadness in bullies and victims. *Journal of Child Psychology and Psychiatry*, 46(2), 186-197. <https://www.researchgate.net/publication/8051657>.
- Campbell, A. (2011). *A creative arts-based approach to using children's rights as a vehicle for tolerance education at the senior elementary school level* (Unpublished Doctoral Dissertation). Lakehead University.
- Cash, T. F., & Fleming, E. C. (2002). The impact of body image experiences: development of the body image quality of life inventory. *International Journal of eating disorders*, 31(4), 455-460.
- Cowie, H., & Jennifer, D. (2008). *New perspectives on bullying*. McGraw-Hill Education (UK).
- Crick, N. R. & Dodge, K. A. (1994). A review and reformulation of social information processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115(1), 74-101. <https://doi.org/10.1037/0033-2909.115.1.74>

- Çevik, B. (2018). *Peer bullying with real witnesses* (1. Edition). Istanbul: Sola Unitas.
- Delikara, İ. (2002). Investigation of the relationship between adolescent peer relationships and criminalized behaviors. *I. In Proceedings of the National Symposium on Children and Crime: Causes and Prevention Studies* (pp. 147-160). Ankara: Turkey Foundation for Freedom for Children Again.
- Doğan, A. (2010). Examination of Peer Bullying within the Framework of Ecological Systems Theory, *Journal of Child and Youth Mental Health*, 17(3), 149-162.
- Donnellan, C. (2006). *Bullying issues*. Independence Educational Publishers.
- Dölek, N. (2002). *Investigation of bullying behaviors in students and a preventive program model* (Doctoral dissertation, Marmara University (Turkey)).
- Drew, N. (2010). *No Kidding About Bullying: 126 Ready-to-Use Activities to Help Kids Manage Anger, Resolve Conflicts, Build Empathy, and Get Along*. Free Spirit Publishing.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D. and Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405-432.
- Eminoğlu, M. (2018). *The mediating role of psychological resilience between social and emotional loneliness and peer bullying in adolescents* (Master's thesis) Bayburt University Institute of Social Sciences, Bayburt.
- Espelage, D. L. (2014). Ecological Theory: Preventing Youth Bullying, Aggression, and Victimization. *Theory Pract*, 53(4): 257-264.
- Espelage, D. L., Rose, C. A. and Polanin, J. R. (2015). Social-emotional learning program to reduce bullying, fighting, and victimization among middle school students with disabilities. *Remedial and Special Education*, 36(5), 299-311.
- Eşkisü, M. (2014). The relationship between bullying, family functions, perceived social support among high school students. *Procedia-Social And Behavioral Sciences*, 159, 492-496
- Field, E. M. (2007). *Bully Blocking: Six Secrets to Help Children Deal with Teasing and Bullying*. London and Philadelphia: Jessica Kingsley Publishers.
- Furniss, C. (2000). Bullying in schools: It's not a crime -is it? *Education and the Law*, 12(1), 9-29.
- Garandau, C. F., Poskiparta, E., & Salmivalli, C. (2014). Tackling acute cases of school bullying in the KiVa anti-bullying program: A comparison of two approaches. *Journal of Abnormal Child Psychology*, 42(6), 981-991.

- Garip, G. & Şavkın, B. (2008). Peer bullying, *Eastern Mediterranean College-Psychological Counseling and Guidance Center Bulletin*, 1-5.
- Garrity, C., & Baris, M. A. (1996). Bullies and victims: a guide for pediatricians. *Contemporary Pediatrics-Montvale-*, 13, 90-92.
- Geçtan, E.(2003). *Psychodynamic Psychiatry and Unnormal Behaviors*, Istanbul: Metis Publishing.
- Gladden, R. M., Vivolo-Kantor, A. M., Hamburger, M. E., & Lumpkin, C. D. (2014). *Bullying surveillance among youths: Uniform definitions for public health and recommended data elements, version 1.0*. Atlanta, GA; National Center for Injury Prevention and Control, Centers for Disease Control and Prevention and U.S. Department of Education.
- Greene, R. I. & Clark, J. R. (1970). Adler's Theory of Birth Order. *Psychological Reports*, 26(2): 387-390.
- Gruen, A. (2015). *The madness of normality* (Trans. İ. İgan). Istanbul: Çitlembik Publications.
- Gökler, R. (2007). *Examination of peer bullying in primary school students in terms of some variables* (PhD thesis) Ankara University Institute of Educational Sciences, Ankara.
- Gökler, R. (2009). Peer bullying in schools, *International Journal of Human Sciences*, 6 (2), 511-537.
- Gültekin Akduman, G. (2012). Investigation of peer bullying in preschool period. *Society and Social Work*, 23(1), 121-137.
- Gürsoy, E. C. (2010). *Examination of exposure to sociodemographic characteristics and perceived social support and peer bullying in adolescents* (Master's thesis, Maltepe University, Institute of Social Sciences).
- Güvenir, T. (2005). *Peer abuse at school*. Root publications.
- Haataja, A., Voeten, M., Boulton, A. J., Ahtola, A., Poskiparta, E., & Salmivalli, C. (2014). The KiVa antibullying curriculum and outcome: Does fidelity matter?. *Journal of School Psychology*, 52(5), 479-493
- Hanish, L.D., and Guerra, N. G. (2000). Children who get victimized at school: What is known? What can be done? *Professional School Counseling*, 4(2), 113.
- Harris, S., & Petrie, G. F. (2003). *Bullying: The bullies, the victims, the bystanders*. Scarecrow Press.
- Haskaya, S. (2016). *Investigation of the relationship between peer bullying and school alienation in secondary school students*. (Master's Thesis). Çağ University, Institute of Social Sciences, Mersin.

- Hawkins, D. L., Pepler, D. J., & Craig, W. M. (2001). Naturalistic observations of peer interventions in bullying. *Social Development, 10* (4), 512-527. <https://doi.org/10.1111/1467-9507.00178>
- Hazler, R. J. (1996). Bystanders: An overlooked factor in peer on peer abuse. *Journal for the Professional Counselor, 11*(2), 11-21.
- Hazler, R. J., Miller, D. L., Carney, J. V., & Green, S. (2001). Adult recognition of school bullying situations. *Educational Research, 43*(2), 133-146.
- Healy, K. L. and Sanders, M. R. (2014). Randomized controlled trial of a family intervention for children bullied by peers. *Behavior Therapy, 45*(6), 760-777.
- Heath, M. A., Dyches, T. T., & Prater, M. A. (2013). *Classroom Bullying Prevention, Pre-K-4th Grade: Children's Books, Lesson Plans, and Activities*. ABC-CLIO.
- Horney, K. (2003). *The Neurotic Personality of Our Time*. B. Kırır). Ankara: Ege Matbaacılık (Original work published in 1937).
- Karataş, H. (2011). *Examination of the impact of the program developed for bullying in primary schools* [Unpublished Master Thesis]. Dokuz Eylül University
- Kartal, H. and Bilgin, A. (2007). Implementation of an anti-bullying program for primary school students: School bullying free program. *Theory and Practice in Education, 3*(2), 207-227.
- Kartal, H., & Bilgin, A. (2008). Bullying in primary schools through the eyes of students, parents and teachers. *Elementary Online, 7*(2), 485-495.
- Kartal, H., & Bilgin, A. (2009). Bullying and school climate from the aspects of the students and teachers. |||UNTRANSLATED_CONTENT_START|||*Eurasian Journal Of Educational Research (EJER)*, (36).|||UNTRANSLATED_CONTENT_END|||
- Kartal, H., & Bilgin, A. (2012). Perceptions of primary school students about the causes of bullying. *Gaziantep University Journal of Social Sciences, 11*(1).
- Kırbaç, Ş., Taşmektepligil, Y., & Üstün, A. (2007). Examination of the reasons that lead young people to violence in secondary education and the role of sports activities in preventing violence: The Case of Amasya Province.
- Kızmaz, Z. (2006). A theoretical approach to the sources of violent behavior in schools. *Cumhuriyet University Journal of Social Sciences. 30*(1), 47-70.
- Koç, Z. (2006). *Predicting bullying levels of high school students* (Unpublished PhD Thesis). Gazi University, Gazi Institute of Educational Sciences, Ankara.

- Koç, Z. (2007). Social causes of school bullying in children and adolescents. *Journal of Primary Education Educators*, 12, 32-37.
- Kumpulainen, K., Räsänen, E., & Puura, K. (2001). Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggressive Behavior: Official Journal Of The International Society For Research On Aggression*, 27(2), 102-110.
- Kyriakides, L., Creemers, B. P. M., Papastylianou, D., & Papadatou-Pastou, M. (2013). Improving the school learning environment to reduce bullying: An experimental study. *Scandinavian Journal of Educational Research*, 58(4), 453-478. doi:10.1080/00313831.2013.773556
- Lee, C. (2004). *Preventing bullying in schools: A guide for teachers and other professionals*. Sage.
- Le Menestrel, S. (2020). Preventing bullying: Consequences, prevention, and intervention. *Journal of Youth Development*, 15(3), 8-26.
- Malkoç, T. & Ceylan, F. (2010). The importance of music education in the relationship between bullying tendencies and bullying coping levels of 9th and 10th grade secondary school students, International Conference On New Trends In Education And Their Implications, 11-13 November, 2010 Antalya-Turkey, In Proceedings (p.640-653). ISBN 978-605-364-104-9.
- Mason KL. (2008). Cyberbullying: a preliminary assessment for school staff, *Psychology in the Schools*, 45(4), 323-348.
- Matson, J. L., Matson, M. L. and Rivet, T. T. (2007). Social-skills treatments for children with autism spectrum disorders: An overview. *Behavior Modification*, 31(5), 682-707.
- Milli Eğitim Bakanlığı. Special Education Services Regulation, Ankara: Official Gazette. (Number: 30471).
- Monks, C. P., Smith, P. K., & Swettenham, J. (2005). Psychological correlates of peer victimisation in preschool: Social cognitive skills, executive function and attachment profiles. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, 31(6), 571-588.
- Mouttapa, M., Valente, T., Gallaher, P., Rohrbach, L., Unger, J. (2004). Social network predictors of bullying and victimization. *Adolescence*, 39(154), 315-335.
- Moser, R. S. and Frantz, C. E. (2000). *Shocking Violence Youth Perpetrators and Victims: A Multidisciplinary Perspective*. USA: Charles C Thomas Publisher.
- Muscari, M. E. (2002). Sticks And Stones: The NP's Role With Bullies And Victims. *Journal Of Pediatric Health Care*, 16(1), 22-28.

- Nickerson, A. B. (2019). Preventing and intervening with bullying in schools: A framework for evidence-based practice. *School Mental Health, 11*(1), 15-28.
- Olweus, D. (1993). *Bullying At School*. Boston: Blackwell Publishing.
- Olweus, D. (1995). Bullying or Peer Abuse at School: Facts and Intervention. *Current Directions in Psychological Science, 4*(6), 196-200.
- Olweus, D. (1996). Bullying at School: Knowledge Base and an Affective Intervention Program. *Annals of the New York Academy of Sciences, 794*(1), 265-276.
- Olweus, D. (1997). Bully/victim problems in school: Facts and intervention. *European journal of psychology of education, 12*(4), 495-510. <https://doi.org/10.1007/BF03172807>
- Olweus, D. (1999). Bullying in Norway. In P.K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, & P. Slee (Eds), *The nature of school bullying: A crossnational perspective*. Routledge.
- Olweus, D. (2003). A profile of bullying at school. *Educational Leaderships, 60*, 12-17.
- Özbek, Ö. Y. and Taneri, P. O. (2022). *Types of peer bullying and bullying*. Ö. Y. Özbek and P. O. Taneri (Ed.) *Combating peer bullying using bibliotherapy: Within an inclusive education strategy* (pp. 1-32). Anı publishing
- Pearce, J. (2002). What can be done about the bully. *Bullying a practical guide to coping for schools, 74-*
- Perren, S., & Alsaker, F. D. (2006). Social behavior and peer relationships of victims, bully victims, and bullies in kindergarten. *Journal of child psychology and psychiatry, 47*(1), 45-57. doi:10.1111/j.1469-7610.2005.01445.
- Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary school through secondary school. *British Journal Of Developmental Psychology, 20*(2), 259-280.
- Pişkin, M. and Ayas, T. (2005). Comparison of the phenomenon of peer bullying among high school students in terms of school type. *VIII. National Psychological Counseling and Guidance Congress, 21-23*.
- Rigby, K. (2002). New perspectives on bullying, London: Jessica Kingsley. *The Journal of Educational Enquiry*
- Rigby, K. (2003). Consequences Of Bullying In School. *The Canadian Journal of Psychiatry, 48*(9): 583-590.

- Rigby, K., Smith, P. K., & Pepler, D. (2004). Working to prevent school bullying: key issues. P. K. Smith, D. Pepler and K. Rigby (Eds.), *Bullying in schools: how successful can interventions be?* (pp. 1-12. Cambridge University Press.
- Rigby, K. (2007). *Bullying in schools: And what to do about it*. Aust Council for Ed Research.
- Rosen, L. H., Scott, S. R., & DeOrnellas, K. (2017). An overview of school bullying. R. H. Rosen, K. DeOrnellas, S. R. Scott (Eds.) *In Bullying in School*, (pp. 1-22 Palgrave Macmillan.
- Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behavior*, 15(2), 112-120.
<https://doi.org/10.1016/j.avb.2009.08.007>
- Sanders, C. E. (2004). *What is bullying?* C. E. Sanders and G. D. Phye (Ed.), *Bullying: Implications for the classroom*. Elsevier Science & Technology.
- Satan, A. (2006). *The relationship of bullying behavior tendencies of primary school second grade students with school type and some socio-demographic variables*. (Published Doctoral Thesis). Marmara Üniversitesi, İstanbul.
- Satan, A. (2011). *Actors of Bullying at School*. *Turan-Sam*, 3(10), 55-66.
- Selekman, J. & Praeger S. (2006). Violence in schools. In: Selekman, J., editor. *School nursing: A comprehensive text*. F.A. Davis Company, 919-942.
- Seçer, İ. (2014). *The effect of psychological counseling with the group on the victimization perceptions of adolescents who are bullied by peers and the coping strategies they use* (PhD thesis). Institute of Educational Sciences Atatürk University, Erzurum.
- Seyitoğlu, M. and Gül, Ş. (2016). *Let's get along like peers*. *Marmara Region Information Note*: İstanbul.
[Http://www.childrenlucuclu.Net/Publications/Marmara-Bolgesibilgi-NotePublished-Come-Consider-Concerned](http://www.childrenlucuclu.Net/Publications/Marmara-Bolgesibilgi-NotePublished-Come-Consider-Concerned) Date on May 6, 2023.
- Shore, K. (2009). Preventing bullying. *Education Digest*, 75(4), 39-44.
- Smith, P. K., & Shu, S. (2000). What good schools can do about bullying: Findings from a survey in English schools after a decade of research and action. *Childhood*, 7(2), 193-212.
- Strassberg, Z., Dodge, K. A., Pettit, G. S., Bates, J. E. (1994). Spanking in the home and children's subsequent aggression towards kindergarten peers. *Development and Psychopathology*, 6, 445-461.
- Sullivan, K., Cleary, M., & Sullivan, G. (2003). *Bullying in secondary schools: What it looks like and how to manage it*. SAGE Publications Ltd

- Swearer, S., & Doll, B. (2001). Bullying in Schools: An Ecological Framework. *Journal of Emotional Abuse*, 2(3), 7-23.
- Swit, C. S. (2018). Early childhood educators' and parents' perceptions of bullying in preschool. *New Zealand Journal of Psychology*, 47(3), 19-27.
- Şahan, Ö. (2020). *Peer bullying* (1st Edition). Istanbul: Pozitif Publishing House.
- Şahin, M. and Akbaba, S. (2017). *Bullying and empathy in school and virtual environment* (1st Edition). Ankara: Nobel Academic Publishing.
- Şahin, M., Demirağ, S. and Aykaç, F. (2009). Perceptions of kindergarten teachers about peer bullying. *Sakarya University Journal of Education Faculty*, 17, 1-16.
- Şahin, M. & Sarı, V., (2010). The relationship of bullying tendency in adolescents with cognitive distortions and dysfunctional attitudes. *Journal of Academic Perspective*, 20, 15.
- Takış, Ö. (2007). *Examination of the effect of the program developed for secondary education institutions to cope with bullying behaviors* (Master's thesis). Institute of Educational Sciences Ankara University, Ankara.
- Tarshis, T. P. (2010). *Living with peer pressure and bullying*. Infobase Publishing.
- Tattum, D. (1989) 'Bullying – a problem crying out for attention' *Pastoral Care in Education*, 7(2), 21-5. <http://dx.doi.org/10.1080/02643948909470661>.
- Tezcan, M. (1985). *Sociology of Education*, Ankara University Faculty of Educational Sciences Publications, Ankara, 4.
- Tezcan, T. (2015). *High school youth and peer bullying: The Case of Istanbul*. Istanbul: Genç Hayat Yayınları <http://Genchayat.Org/Wp-Content/Uploads/2015/11/Akranzorbaligirapor>. Access Date: 07.05.2023.
- Totan, T. (2007). Recommendations to educators and parents in preventing bullying at school. *Abant İzzet Baysal University Journal of Education Faculty*, 7(2), 191-200.
- Totan, T. (2008). *Examination of bullying in adolescents in terms of mother, father and peer relations*. (Master's Thesis). Institute of Social Sciences Abant İzzet Baysal University, Bolu.
- Tsang, S. K. M., Hui, E. K. P. and Law, B. C. M. (2011). Bystander position taking in school bullying: the role of positive identity, self-efficacy, and self-determination. *The Scientific World Journal*, (11). <https://doi.org/10.1100/2011/531474>
- Türk Dil Kurumu Sözlükleri. Available at: <https://sozluk.gov.tr/>
- Türkkan, Ş. (2013). *The effect of the peer support program for coping with bullying on the bullying coping skills of 6th and 7th grade secondary school students* [Unpublished doctoral dissertation]. Anadolu University

- Unesco (2023). Available at: <https://unesco.gov.tr/>
- Ural, B., & Özteke, N. (2010). |||UNTRANSLATED_CONTENT_START|||Okulda zorbalık. |||UNTRANSLATED_CONTENT_END|||(2nd woman bangs 2nd man) Edition). Ankara: Kök Yayıncılık.
- Uysal, H., & Dinçer, C. (2012). Peer bullying in preschool. *Journal Of Theoretical Educational Science*, 5(4), 468-483.
- Ünalmiş, M., & Şahin, R. (2012). Attitude towards violence and school bullying. *Cumhuriyet Journal of International Education*, 1(1), 63-71.
- Ünsal, Z. K. (2011). Violence and guilt in Winnicott's theory. *Psychoanalytic Writings*, 23, 71-78.
- Vanderbilt D. & Augustyn M. (2010). *The effects of bullying, pediatric and child health*, Symposium Special Needs, Elsevier Ltd., 20(7).
- Waddell, M. (2007). Grouping or ganging: the psychodynamics of bullying. *British Journal of Psychotherapy*, 23(2), 189-204.
- Who (2019). School-based violence prevention: a practical handbook. World Health Organization. Retrieved from <https://apps.who.int/iris/handle/10665/324930>.
- Williford, A., Boulton, A., Noland, B., Little, T. D., Kärnä, A., & Salmivalli, C. (2012). Effects of the KiVa anti-bullying program on adolescents' depression, anxiety, and perception of peers. *Journal of Abnormal Child Psychology*, 40(2), 289-300.
- Wójcik, M. and Helka, A. M. (2019). Meeting the needs of young adolescents: ABBL antibullying program during middle school transition. *Psychological Reports*, 122(3), 1043-1067.
- Yaman, E., Eroğlu, Y. and Peker, A. (2011). *School bullying and cyberbullying* (1st Edition). İstanbul: Kaknüs Yayınları
- Yen, C. F., Huang, M. F., Kim, Y. S., Wang, P. W., Tang, T. C., Yeh, Y.C., ... & Yang, P. (2013). Association between types of involvement in school bullying and different dimensions of anxiety symptoms and the moderating effects of age and gender in taiwanese adolescents. *Child Abuse & Neglect*, 37(4), 263-272.
- Yıldırım, R. (2012). Peer bullying, *Celal Bayar University Journal of Social Sciences*, 10(2), 39-51.
- Yoon, J. S., & Kerber, K. (2003). Bullying: elementary teachers' attitudes and intervention strategies. *Research In Education*, 69(1), 27-35.
- Zorlu, Y. (2016). Violence and its effects in the media. *Humanities Sciences*, 11(1), 13-32.

Chapter 6

Design and Management Processes of Online Education: Insights from Expert Interviews

Murat CULDUZ¹

¹ Associate Prof., Murat CULDUZ; Medipol University School of Foreign Languages
mculduz@medipol.edu.tr ORCID No: 0000-0002-9298-4339

ABSTRACT

Distance education design and management is an education model that realizes education processes through online platforms and other technological tools. This model eliminates the geographical distance between the student and the educator, allowing educational services to be accessible from any location. This research is prepared for an academic article based on interviews with experts to explore the processes of distance education design and management. A qualitative approach was adopted in the study, and semi-structured interviews were conducted with five experts specializing in distance education. Interviews reveal important issues and strategies to consider in the design and management of distance education programs. The findings emphasize that effective instructional design, learner participation, technological infrastructure, teacher training and assessment methods are important in ensuring the success of distance education initiatives. In addition, the study sheds light on the challenges faced by institutions and educators in implementing and managing distance education, maintaining student motivation, encouraging interaction and collaboration, and ensuring quality. The research contributes to the existing literature by providing practical information and recommendations for educational institutions and policy makers offering distance education. The findings highlight the importance of a holistic and well-planned approach in distance education design and management that takes into account the unique characteristics and needs of learners in the digital learning environment. Further research can be structured based on these findings to explore further perspectives and experiences in the field of distance education.

Keywords – Distance Education, Learning Methods,, learning Activities, Teaching Methods

INTRODUCTION

Distance education has undergone a significant transformation in the field of education with technological developments and has become an increasingly used learning method. Especially in recent years, global epidemics and other extraordinary situations have made distance education even more important and have led educational institutions to adopt this method. Distance education offers students the advantages of overcoming geographical limitations, providing flexibility, and adapting to different learning needs (Dogan, Goru Dogan & Bozkurt,2023).

The design and management of distance education processes is critical to ensure a successful distance education experience. These processes include a series of steps such as preparation of teaching materials, planning of learning activities, student interaction and determination of assessment methods. These require the creation of a framework that enables students to learn effectively (Abdunabiyevna & Mansur, 2022).

This study was conducted to explore the processes of distance education design and management and to provide valuable information based on the experience of experts in this field. Using a qualitative research method, semi-structured interviews were conducted with five experts specializing in distance education. These interviews reveal important issues and strategies to consider in the design and management of distance education processes.

The importance of this study is that it offers a new perspective and contribution to the literature studies in the field of distance education. It contributes to the existing knowledge in this field by providing practical information and suggestions for educational institutions, teachers and policy makers who design and manage distance education processes. In addition, the study deepens the understanding of the difficulties encountered in the distance education process and how these difficulties can be overcome and offers important clues in providing quality assurance.

In the next part of the study, subtopics such as preparation of instructional materials, difficulties in preparing teaching materials in distance education, importance of planning learning activities in distance education, determination of student interaction and evaluation methods in distance education have been analyzed. In the methodology part, information about the interviews have been given. Findings of the study have been presented under a different heading. Last but not the least, conclusion part summarizes all the points discussed in the study.

CONCEPTUAL FRAMEWORK

Preparation of Instructional Materials

Instructional materials play an important role in the educational process and can affect students' learning experience. Therefore, effective preparation and use of teaching materials is an important factor in increasing students' understanding, academic success, and motivation. Instructional materials should be designed to support learning objectives. In the process of preparing the materials, they should be designed in accordance with the objectives of a particular course or subject and the needs of the students. Materials should help students achieve goals such as understanding knowledge, applying skills, or exploring concepts (Musaxonovna, 2022).

Furthermore, teaching materials should provide variety and interaction. Students have different learning styles and needs. Therefore, materials should be presented in a variety of media and formats, such as texts, images, videos, sound recordings, interactive elements. In addition, opportunities should be provided for students to interact with materials, answer questions or participate in discussions (Xue & Xu, 2022).

Instructional materials should also focus on concrete and meaningful contexts. Students should be supported by concrete examples and real-world applications in the process of understanding abstract or non-abstract concepts. The materials should help students make connections to their daily life experiences and see that the knowledge learned is meaningful (Musaxonovna, 2022). In addition, teaching materials should be student-centered. In the preparation of materials, it is important to encourage students' active participation, learning experience and self-management skills. Materials should focus on activities and tasks that will develop students' ability to explore, question, solve problems, and think critically (Shrestha et al., 2022).

Last but not the least, teaching materials should be constantly evaluated and updated. As the educational process and student needs change, it is important to evaluate the effectiveness and relevance of teaching materials. Materials should be continually reviewed and updated using feedback and evaluation data. In this way, it can be ensured that the materials are best adapted to the student learning process and are continuously improved. Effective preparation of instructional materials has the potential to increase student learning and support the educational process. Therefore, the design and use of teaching materials is an important research and study topic in the field of education (Abduraxmanova, 2022).

Difficulties in Preparing Teaching Materials in Distance Education

Preparation of teaching materials in distance education may bring some difficulties. These challenges and key points are discussed below;

Since teaching materials in distance education are offered on online platforms, an appropriate technological infrastructure is needed for their effective preparation. Educators must have the appropriate hardware, internet connection and compatible software. In addition, it is important that the platforms on which the materials will be used are user-friendly and facilitate students' access (Meirovitz, Russak & Zur, 2022).

In distance education, teaching materials should be interactive and encourage active participation of students. Elements such as learning activities, interactive visuals, audio and video resources, live lessons, where students can interact with the materials should be taken into account. In this way, students' motivation and participation can be increased (Yeung & Yau, 2022).

Furthermore, the content of teaching materials should be carefully prepared. Content that is accurate, up-to-date, and presented in a language that students can understand should be preferred. It is important that the materials support the learning objectives, explain the concepts, and support them with examples. In addition, teaching materials need to be suitable for various learning styles and student needs. Besides, feedback mechanisms are important to evaluate and improve the impact of teaching materials in distance education. A communication channel should be provided where students can share their thoughts on materials, ask questions or provide feedback. This feedback can be an important source of information for updating and improving materials (Abduraxmanova, 2022).

It is also of great importance that teaching materials are student-oriented in distance education. Materials should take into account students' interests and needs. Options suitable for different learning styles should be offered and students should be allowed to progress at different levels. It is also important that the materials are accessible and make it easy for students to use (Musaxonovna, 2022).

These challenges and important points reflect the basic elements that should be considered in the process of preparing teaching materials in distance education. In order to overcome these challenges, it is important for educators to develop their technological skills, pay attention to content quality and adopt a student-centered approach.

Importance of Planning Learning Activities in Distance Education

Planning learning activities in distance education is of great importance. A well-planned learning activity encourages students' active participation, supports learning objectives and effectively guides the learning process. Below are five paragraphs on the importance of planning learning activities in distance education (Bergdahl & Nouri, 2021).

Planning learning activities in distance education should take into account the needs and learning styles of students. Since every student has a different learning style, it is important to target different skills and interests of students with a variety of activities. Learning activities should be supported with a variety of visual, audio or written content to increase students' motivation and encourage them to participate more actively (Oliveira et al., 2021).

Learning activities should be planned in accordance with the determined learning goals. Each activity should help students meet goals related to a particular subject or skill. Instructors should consider these goals when choosing activities and set appropriate criteria for assessing students' progress. Furthermore, it is important that learning activities are interactive in distance education. Online platforms should be used where students can interact with each other and with teachers. Interactive learning methods such as discussion forums, group projects or live lectures allow students to communicate and exchange ideas with each other (Castro & Tumibay, 2021).

Planning learning activities should include a process of providing feedback to students and evaluating their learning progress. Instructors should use a variety of feedback methods to evaluate students' performance after completing the activities. This feedback will help students identify their shortcomings and support their progress. In addition, learning activities in distance education should show diversity and flexibility. Instructors should offer a variety of activities to suit students with different learning styles and needs. In addition, flexibility of activities should be provided so that students can adapt to time management. The effectiveness of learning activities can be increased by giving students the opportunity to work and learn at their own pace (Dhawan, 2020).

Planning of learning activities in distance education is important to encourage active participation of students, to support learning goals and to offer an effective learning process. Well-planned activities allow students to deepen their learning and develop in line with their interests. Instructors must carefully plan and implement learning activities to meet these challenges and provide effective distance learning experiences.

Determination of student interaction and evaluation methods in Distance Education

Student interaction and assessment methods in distance education are of great importance in enriching the learning process and tracking students' progress. Firstly, student interaction in distance education can be achieved through online platforms and tools. Interactive learning environments such as discussion forums, virtual classroom environments, group projects or live lectures allow students to interact with each other and with instructors. These interactions encourage students to exchange ideas, ask questions, and work together (Dewan, Murshed & Lin, 2019).

Student interaction in distance education should include feedback and evaluation processes. Students should be provided with regular feedback and their learning progress evaluated. Instructors should evaluate students' knowledge and skills using a variety of assessment methods and guide them to progress with feedback (El Firdoussi et al., 2020). Student interaction in distance education can be achieved through collaboration and group work. Students can create projects, solve problems, and share information by working together online. Group work allows students to experience collaboration and team spirit while improving their communication skills (Chiu, 2022).

In addition, student interaction in distance education should encourage individual and authentic expression. Students should be provided with opportunities to express their opinions, ask questions and share their thoughts. Instructors should use a variety of methods to develop students' individual expressive abilities and to provide a safe environment for self-expression. Besides, interactive tools and technologies used for student interaction in distance education are important. Technological tools such as online discussion panels, polls, polls or live chats encourage students to interact and actively participate. These tools enable students to express themselves, interact with learning materials, and enrich their learning experience (Allam et al., 2020).

As a result, determining student interaction and assessment methods in distance education is important to encourage active participation of students, follow their learning progress and enrich their learning experiences. These methods encourage students to interact with each other, improve by receiving feedback, collaborate and express themselves. Student interaction in distance education is an important factor in creating an effective learning environment and enabling students to learn successfully.

METHODOLOGY

In this study, a qualitative research method was used to determine the strategies that can be developed for effective distance learning process management. In the research, individual interviews were conducted with 5 participants who are experienced and experts in distance learning. Participants were selected from experts working in the field of distance learning at different universities in Turkey.

The interviews were conducted using a guide that included questions about the strategies they suggested to the participants for effective distance learning process management and how these strategies could be applied. The interviews were conducted individually, and the answers of the participants were recorded.

The data obtained after the interviews were analyzed using the qualitative analysis method. The data were categorized by content analysis in terms of similar themes and suggested strategies. A list of suggested strategies for effective distance learning process management was created by bringing together the opinions and suggestions of the participants.

This research method was used to systematically evaluate expert opinions and to obtain ideas from various perspectives. The findings contribute to the development and implementation of strategies for the effective management of distance learning processes.

FINDINGS AND SUGGESTIONS

Interview technique was used in the research and interviews were conducted with 5 educators working as Distance Education Specialists at different universities in Turkey. The questions asked during the interview and summary answers are given below.

1. Why is student interaction important in distance education and how do you encourage this interaction?

Student interaction is critical to the success of distance education. Interaction enables students to actively communicate with each other and with their teachers and enriches their learning experience. I use a variety of methods to encourage interaction. For example, I bring students together and engage in discussions through online discussion forums or live video conferences. I also try to increase interaction by encouraging students to do group projects or collaborative work.

2. What do you think about assessment methods in distance education and which methods do you prefer?

Assessment is an important tool for assessing students' progress and achievements. In distance education, it is important to use various assessment

methods. Assessment and assessment tools can be used to assess students' understanding and skills. For example, different assessment methods can be used, such as online exams, projects, presentations or portfolios. I prefer a variety of assessment methods where students can reflect different learning styles and skills.

3. What do you think about the future trends in distance education?

In the future, I expect further expansion and development of distance education. Advances in technology have the potential to make distance learning more interactive and personalized. I think that student-centered approaches and adaptive learning technologies will come to the fore even more. I also foresee that new technologies such as mobile learning, virtual reality and augmented reality will be used more widely in distance education. To keep up with these trends and further develop distance learning, it is important to continue to research and innovate continuously.

4. What types of distance learning activities do you use to ensure effective participation of students in the distance learning process? Do you observe what effect these activities have on increasing student motivation?

We use various distance learning activities to ensure effective participation of students in the distance learning process. These include interactive activities such as online discussions, interactive quizzes, virtual group work, and project-based assignments.

We observe that these activities play a very important role in increasing student motivation. These activities, in which students actively participate and interact, make the learning experience more enriching. Students are more motivated when they have the opportunity to exchange ideas and work towards a common goal with other students.

In addition, these distance learning activities provide the opportunity to develop cooperation and team spirit among students. By working together, students develop their skills to solve problems and have the opportunity to support each other. This helps students feel more connected and participate more actively in the lesson. These activities increase students' motivation, making the learning experience more effective and enjoyable. It also creates a more active learning environment by developing students' cooperation and teamwork skills.

5. What are the strategies that can be developed for effective distance learning process management?

We can use the following strategies for an effective distance learning process management:

Strengthening Communication: It is important to establish regular and effective communication with students, understand their needs and quickly find solutions to their problems. Identifying communication channels, providing regular updates, and presenting clear and understandable information to students are essential for effective process management.

Providing Flexibility: Students' individual needs and times may be different during the distance learning process. Therefore, it is important to provide flexibility and provide opportunities for students to progress at their own pace. Strategies such as different learning materials, various assessment methods and recording and making available lecture hours can be used.

Encouraging Collaboration and Interaction: It is important for students to interact and collaborate with each other in the distance learning process. We can encourage students to communicate with each other by organizing interactive activities such as group projects, online discussion forums, live lectures and online workshops. In this way, students' ability to work together develops and their social ties are strengthened.

Providing Technological Support: The use of technology is vital in the distance learning process. It is important to provide technical support where students can access and use technology and receive support when they have problems. Technological resources such as technology-based learning platforms, live lesson tools and supplementary materials support students' learning effectively.

Continuous Evaluation and Feedback: Tracking students' progress and providing them with feedback is important for the effective management of the learning process. Determining assessment tools and criteria, monitoring students' performance and taking corrective measures when necessary helps in process management. It is also important to give students regular feedback and increase their motivation.

These strategies constitute the basic steps for an effective distance learning process management. A more effective and student-centered learning experience can be achieved by adapting these strategies according to each student group and institutional needs.

CONCLUSION

This study aims to examine the strategies that can be developed for the effective implementation of distance learning process management. The findings obtained as a result of the interviews with the participants provide an important insight on the management of distance learning processes. Here are the results of the study:

First, creating an effective communication strategy has emerged as a fundamental element in the effective management of distance learning processes. Establishing an active communication network between instructors and students by using regular communication channels contributes to improving the learning experience.

Second, encouraging student interaction is a critical factor in increasing the effectiveness of distance learning processes. Participants suggested the use of interaction-oriented activities such as group work, discussion activities, and joint projects. Such interactions can make learning more effective by encouraging collaboration and knowledge sharing among students.

Finally, investing in technology and providing flexibility have emerged as important strategies in the management of distance learning processes. The use of up-to-date technological tools, flexible learning options suitable for students' needs, and continuous evaluation and improvement support the effective management of distance learning processes.

In terms of its contributions to the literature, this study systematically examines the strategies that can be developed for the effective implementation of distance learning process management. The findings can guide the determination of strategies that will help manage distance learning processes effectively. This is important to fill gaps in the literature, update existing knowledge, and lay the groundwork for future research. In terms of their contribution to education, this study identifies and proposes strategies that will help educators and administrators in the distance learning process effectively manage the processes. These strategies focus on areas such as effective communication, student interaction, investment in technology and providing flexibility. By using these strategies, educators can make the distance learning experience more effective, interactive and efficient. This can increase student motivation and success.

The contribution of this study to the literature and education is that it provides guidance on the effective management of distance learning processes and provides a framework for determining strategies. The results of this study can help educators and administrators manage their distance learning processes more effectively and can form the basis for future studies.

REFERENCES

- Abdunabiyevna, K. D., & Mansur, B. (2022). E-LEARNING RESOURCES IN DISTANCE EDUCATION. *INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT, ENGINEERING AND SOCIAL SCIENCES ISSN: 2349-7793 Impact Factor: 6.876*, 16(10), 68-79.
- Abduraxmanova, S. A. (2022). Individualization of professional education process on the basis of digital technologies. *World Bulletin of Social Sciences*, 8, 65-67.
- Allam, S. N. S., Hassan, M. S., Mohideen, R. S., Ramlan, A. F., & Kamal, R. M. (2020). Online distance learning readiness during Covid-19 outbreak among undergraduate students. *International Journal of Academic Research in Business and Social Sciences*, 10(5), 642-657.
- Bergdahl, N., & Nouri, J. (2021). Covid-19 and crisis-prompted distance education in Sweden. *Technology, Knowledge and Learning*, 26(3), 443-459.
- Castro, M. D. B., & Tumibay, G. M. (2021). A literature review: efficacy of online learning courses for higher education institution using meta-analysis. *Education and Information Technologies*, 26, 1367-1385.
- Chiu, T. K. (2022). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. *Journal of Research on Technology in Education*, 54(sup1), S14-S30.
- Dewan, M., Murshed, M., & Lin, F. (2019). Engagement detection in online learning: a review. *Smart Learning Environments*, 6(1), 1-20.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems*, 49(1), 5-22.
- Dogan, M. E., Goru Dogan, T., & Bozkurt, A. (2023). The use of artificial intelligence (AI) in online learning and distance education processes: A systematic review of empirical studies. *Applied Sciences*, 13(5), 3056.
- El Firdoussi, S., Lachgar, M., Kabaili, H., Rochdi, A., Goujdami, D., & El Firdoussi, L. (2020). Assessing distance learning in higher education during the COVID-19 pandemic. *Education Research International*, 2020, 1-13.
- Meirovitz, T., Russak, S., & Zur, A. (2022). English as a foreign language teachers' perceptions regarding their pedagogical-technological knowledge and its implementation in distance learning during COVID-19. *Heliyon*, 8(4), e09175.
- Musaxonovna, K. L. (2022). General secondary schools requirements for the introduction of informed educational resources for the development of

natural sciences. *ACADEMICIA: An International Multidisciplinary Research Journal*, 12(5), 855-860.

- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, 52(4), 1357-1376.
- Shrestha, S., Haque, S., Dawadi, S., & Giri, R. A. (2022). Preparations for and practices of online education during the Covid-19 pandemic: A study of Bangladesh and Nepal. *Education and information technologies*, 1-23.
- Xue, E., Li, J., & Xu, L. (2022). Online education action for defeating COVID-19 in China: An analysis of the system, mechanism and mode. *Educational Philosophy and Theory*, 54(6), 799-811.
- Yeung, M. W., & Yau, A. H. (2022). A thematic analysis of higher education students' perceptions of online learning in Hong Kong under COVID-19: Challenges, strategies and support. *Education and Information Technologies*, 1-28.

Chapter 7

Multimodal Analysis of Gender Identity in ELT Textbooks

Serda GÜZEL¹

¹ Dr.Öğretim Üyesi, Arel Üniversitesi, Fen Edebiyat Fakültesi, Mütercim ve Tercümanlık Bölümü, İstanbul, Türkiye
serdaguzel@arel.edu.tr, ORCID:0000-0001-5212-9891

ÖZET

INTRODUCTION

Education is an important social process in the improvement of modern societies. Modern societies give importance gender equality in education process because it constructs a balance learning and teaching process. In this sense, textbooks play significant role for structuring and restructuring learners' gender beliefs and values. In this sense, ELT Textbooks are the most important features during the language learning in the EFL context after the teachers (Farooq,1999). Learners' beliefs, values are shaped by textbooks (Chen,2010). It can be noted here, textbooks are powerful instruments for gender socialization in education process. To put it simply, the concepts "sex" and "gender" are accepted as synonyms but these two concepts are different. The term "sex" reflects biological differences but the term "gender" indicates cultural and social construction (Giaschi,2000). Gender studies is an interdisciplinary research and it includes sociolinguistics, psychology and linguistics (Farooq,1999). As it is mentioned before, EFL textbooks play an important role in foreign context because they shape and regulate the learners' mental framework and they maintain lexico grammatical content and models and they reflect the sociopolitical, sociocultural background of the target language (Giaschi,2000). The aim of this study is to explore gender representation in selected ELT Textbook. The findings from the qualitative analysis try to indicate that there are inequalities and gender discrimination in selected ELT textbook. This content analysis study tries to analyze gender identity and gender representation in selected dialogue in ELT Textbook by employing multimodel perspective. By means of technology, images are created and implemented in other words multimodel texts appear in mass media and textbooks (Dominguez, 2003).Semiotic grammar, visual and verbal discourse and their dialect relationship between the text and target readership play significant role in multimodel analysis (Chen,2010). In this sense, Kress and van Leeuwen (2006) develop social semiotics in reading images and it is based on systemic functional linguistics. They state that there is a strong relationship between reading images and linguistic texts and they share similar features because they represent social realities, relations and identities (Kress & Van Leeuwen,2006). Visual and verbal signs convey writers' in other words sign makers' ideology and hidden messages. Dominant powers manipulate and regulate ideologies and hidden agendas. In this respect, texts are never neutral and visual and verbal signs are two different medium of semiotics and they convey ideologies and hidden agendas of authors and writers (Unsworth & Wheeler, 2002). In addition, gender discourse and studies play an important role in social sciences. Thus, this study tries to analyze how visual and verbal signs represent gender identity in selected ELT textbook dialogue.

Textbooks are integral parts of teaching and they are produced and used for different projects in different countries each year. Textbooks have established framework in this way students study and learn language in a systematic way. ELT textbooks are the center of ELT programme and they introduce many advantages when they are used in the EFL context (Giaschi,2000). Textbooks conveys manipulative agenda for power relations in order to establish and regulate students' opinions and point of views. Gender is seen as significant sociocultural and sociopolitical issue and it is constructed by visual and verbal discourse, textbooks in broader sense and ELT documents in particular (Farooq,1999).As it is implied before, ELT materials are used in large scales and they are used by subjects from different background information, various cultural and political background and they convey explicit and implicit ideology. Therefore, critical image analysis of these documents are important in order to explore hidden ideological discursive feaures of these materials (Chen,2010). Images reflect a type of representation of reality in other words it reflects outside world. By means of images, authentic situations are created. In addition, EFL students' perspectives, their culture, life style and society and their mental and physical features are shaped by the images in EFL Textbooks.

Images expose students to particular ideology. In fact, ideologies are not only conveyed by verbal discourse or verbal channel, they are also conveyed by non verbal para linguistic semiotic channel (Canagarajah,1999). Pictures and movies are one of the semiotic modes and to some extent they convey particular ideology because no text is neutral (Fairclough,1989). Based on this, verbal and non verbal modes are not innocent and they are not neutral they present sociocultural and sociopolitical issues in a biased perspective or way. Verbal and non verbal mode convey interests of the social and political institutions (Godeo,2009).From this perspective, today's world is highly visualized and multimodel analysis of ELT materials and documents cannot be ignored. Therefore, this study tries to discover how verbal and non verbal mode in English Language Teaching Material in EFL/ESL contexts produce and construct ideology in terms of gender identity and gender representation (MartínezLirola,2010). Ideologies are seen as belief systems and they are socially shared by social actors (van dijk,2006:112). These belief systems represent activities, values, interests, identity and aims of members of a social group (van dijk,2006:117). Besides, ideology is the concept and it reflects a specific view of the world and it is shaped in the interests of unequal power relationships (Pennycook,1989:589). In this light, language is ideological (Fairclough,1989). It can be noted here educational materials in particular ELT materials ideogical and political oriented products. Their visual and verbal discourse reflect implicit and expilicite meaning and they can manipulate meaning.

Based on this, they shape learners' identities. It can be noted here, ELT materials visual and verbal discourse can be considered as a kind of cultural and political imperialism (Sheldon,1988).

As mentioned before, verbal and visual mode play significant role for meaning making process. Verbal and visual component of the texts convey implicit and explicit ideologies. Gendered messages and discourses are conveyed by means of verbal and visual component in the text. (Ricento,2000). Based on this Multimodal CDA is used in this study in order to explore problematic gendered discourses in verbal and visual component in the selected conversation.

STATEMENT OF PROBLEM

Since the emergence of Communicative Language Teaching (CLT) policy makers, EFL/ESL textbook publishers and teachers focus on the language production rather than lexico grammatical patterns of the language (Kumaravadivelu,2006). Role play, group work, opinion sharing and information gap are important activities in order to establish language interaction in EFL /ESL context. (Richards,2006). In this sense, these communicative based language oriented activities play central role in EFL and ESL textbooks (Kumaravadivelu,2003). Dialogues play important role in CLT and multimodality. Because they construct communication in terms of social realities, relations and identities (Richards,2006). As it is stated before, no sign or text is neutral, signs and texts convey writers' or signmakers' socio political and cultural interests and ideologies (Kordjazi,2012).

In this sense, it is significant to make ESL /EFL learners and teachers aware of textbook contents and implicit and explicit meaning and hidden agendas (Giaschi,2000).

From this perspective, this qualitative study tries to examine gender discourse / identity that characters take place in a dialogue in interaction with each other and increase and improve learners and teachers' notification of identity issues in learning and teaching language process.

RESEARCH QUESTIONS

1. What are the gender representations found in visual and verbal discourse of a dialogue in selected ELT Textbook?
2. How verbal and visual discourse interact to reflect gender representations in the selected dialogue?

DATA ANALYSIS

This paper uses qualitative research methodology and it is based on content analysis. This study uses social semiotic perspective in order to investigate visual and verbal discourses of the dialogue in selected ELT textbook. Based on this, one dialogue from selected ELT Textbook is chosen and it reflects a clear concept. As mentioned before, Halliday's framework (1994) and Kress and Van Leeuwen's (2006) reading images framework are used in order to explore verbal and visual discourse related gender identity in selected dialogue.

Based on this, this study focuses on contact, social distance, attitude and narrative representation in order to analyze the representation of gender identity in selected dialogue from ELT textbook. The theory of visual grammar is based on visual social semiotic system and it explores images and visual grammar is based on Halliday's (1994) systematic functional linguistics (SFL) model. Ideological oriented implications, values, explicit and implicit messages are reproduced by means of modality. Multimodality reflects social context and sociopolitical and cultural features of the texts.

Language and pictures in other words verbal and non verbal discourse are different semiotic channels, but they are combined by means of in a given instance of discourse or kind of discourse (Van Leeuwen,2005:). Multimodal critical discourse analysis tries to discover how different semiotic modes (language and pictures) work together in order to construct and shape implicit and explicit meaning in the text. Verbal and non verbal language play significant role for meaning making process (Van Leeuwen,2008). Multimodality is used for different text types and genres such as movies, magazine covers, websites, advertisements and different kinds of books (Van Leeuwen, Jewitt, 2001). As mentioned before visual structures such as gesture, gaze, posture, color composition and linguistic structures work together in the text in order to construct implicit and explicit meaning and ideologies in order words hidden purposes (Van Leeuwen,2005).

From this perspective, advertising discourse is considered as one of the important discourses that multimodal analysis of gender representation is frequently analyzed (Manolache,2010). This study focuses on ELT materials discourse related to gender identity. This paper tries to reveal gender identity in verbal and visual component in selected conversation in selected ELT Textbook. Images play crucial role in learning and teaching process, in this sense images in the elt materials cannot be considered as decorative features (Ricento,2000). The selected images are chosen from conversation part. The researcher uses conversation models because they reflect authentic situations and they represent social context. Images can convey positive and negative ideologies

(Ricento,2000). Based on this, images are associated to gender identity and gender stereotyping in the present study.

MULTIMODEL ANALYSIS OF DIALOGUE IMAGE

The visual image includes a couple who are at home and they are at travel agency. They are planning for a trip. There are three stages in order to describe or narrate the short story. All these stages are analyzed based on the contact, social distance, attitude and narrative representation.

Contact

Contact reflects the kinds of relation. This relation is between the viewer and the participants (Van Leeuwen,2008). According to Kress and Van Leeuwen Model (2006) There are two types of contact. Participants or parties demand attention from the viewer or they offer information to the viewer. If the party looks at the viewer directly in an image, s/he/ it is demanding or s/he/ it wants reaction or attention from the viewer. On the contrary, the party looks away from the viewer in the offer image. In this case, the party/ the participant is offered as an object for the viewer's through investigation (Van Leeuwen,2005).

Based on the kind of gaze in visual discourse, there is not any direct gaze or look towards the viewer. the parties (woman and man) are away from the viewer. It can be noted here, participants do not demand any attention from the viewer. In the image there is no close in other words intimate personal and emotive relations. This kind of contact can be seen as logical because ELT Textbooks are published for educational and pedagogical aims. Gaze is analyzed in verbal discourse by means of the speech acts. According to Halliday (1994), there are four speech acts. These are questions, statements, commands and offers. Regarding the speech acts in verbal discourse, there are six statements and one question. This suggests that the parties give or offer information and they do not demand attention from the viewer. The construction of speech act in the dialogue is line with the nature of the image.

Social Distance

Places, people and things are illustrated and constructed by means of a visual correlate of physical closeness in daily life interaction (Van Leeuwen,2005).By means of the size of frame social distance is perceived in images. Only head and face are able seen in very close shot. Heads and shoulders are seen in at close shot. Participants are depicted from waist up at a medium close. The participants are seen from knee up at medium shot. At medium long, we can see the whole

parties in the image and at long shot the whole party and setting/ background can be seen (Macken-Horarik,2003).

Regarding social distance first image is medium close, the second and third image are long shot. The first image is medium shot because the image (man and woman seem to be a couple) and they have close personal distance according to the couple relations. The third image is long shot and it is also justifiable because there is not any close or intimate personal relationship between the travel agents and clients. Business life is depicted via long shot in the image. Despite of the fact that the first couple image is illustrated medium shot because of their social relations (intimate relationship/ couple) the second couple image is depicted long shot. They do not see each other they do not take of each other. Because they are doing some business. Thus, far personal and social distance is acceptable in this scene. In addition, social distance can be analyzed by means of language. There three basic formality of style (Kress, & van Leeuwen,2006).These are personal style, social style and public style. If the language is implicit and context oriented, this style is called personal style. In personal style, parties use language in informal way and daily expressions are used in personal style.

Regarding social style, standard language is performed in terms of syntax and lexis (Kress, & van Leeuwen,2006). Social style is more explicit than personal style. The usage of the slangs and informal speech in social style are fewer than personal style. Regarding public style, formal language is articulated by the parties. Public style is more explicit than social style in terms of lexico grammatical patterns in spoken and written discourse. According to this framework, personal and social style and public style can be seen in the verbal discourse of selected dialogue (Kress, & van Leeuwen,2006).

The usage of “how about” linguistic pattern for asking or offering something in informal and colloquial expressions. This usage can be regarded as personal style. The usage of “be going to” is seen in order to express decided or planned action in the near future. This usage can be considered as public, personal and social style. The usage “be going to” constructs neutrality in the dialogue in terms of style. The usage of “sorry” is used in personal and social style and and it is used in informal situations in this selected dialogue.

“Sorry I can’t talk now” is a colloquial expression of saying sorry in casual situations with friends.

Based on this, colloquial expressions (personal and social style) are seen in the verbal discourse rather than public style.

Attitude

Apart from size and distance, participants or parties are also illustrated from two different dimensions. They are called vertical and horizontal dimensions. According to Kress and Van Leeuwen framework (2006) vertical dimension points out “power relation” and there are 3 types of vertical dimensions. They are low angle, high angle and eye level dimensions. Based on low angle shot, If the participant is illustrated from below, this means that the power of participant over the viewer. In the high angle shot the party is illustrated is depicted from above and this points out the power of viewer over the participant. In the eye level angle shot the participant and the viewer are illustrated in the same level and it contrasts equality in terms of power relations. The level of involvement is explained by horizontal dimension and it covers frontal and oblique dimension. If image is depicted as frontally, viewers construct involvement with the participants (Kress, & van Leeuwen, 2006).

Regarding vertical angle, in the first, second and third image the eye level angle is used. The participants and viewer are illustrated in the same level and it regulates equality and neutrality in terms of perspective.

Participants are not depicted as superior or inferior. Eye level angle shows participants facial expressions and mimics and eye level angle construct real life setting in terms of facial expressions, mimics and setting.

Participants and viewers’ eye lines connect each other and it breaks boundaries in terms of power and power relations. The main leading participants are male and woman in the first two photos. In the third photo woman and man (couple) are illustrated but female sales representative is deleted from the third image also the male character’s verbal discourse (blue one) is foregrounded in the image.

The female sales representative image is omitted from the third image and woman’s verbal discourse is omitted in the third image. The male’s image and verbal discourse are foregrounded in the image. It can be stated that male visual figure is depicted as powerful participant in terms of verbal and non verbal discourse. This creates inequality in terms of gender.

Discursive Analysis Of Attitude

Discursive analysis of attitude is examined by means of appraisal system. Appraisal model examines how the author’s / speaker’s attitude is expressed and how it is conveyed or employed to the reader/ receiver into a group of shared values and ideas and beliefs. (Macken-Horarik, 2004). For instance the author or speaker sometimes does not want to mention his or her position by means of appraisal system we can analyze and explore writer’s or speaker’s stance in terms

of use of language of evaluation. Feelings, emotional responses, judgements of behaviour and evaluation of things are related to attitude within appraisal system. Horizontal attitude is analyzed by means of resources. There are three Resources. They are affect, judgement and appreciation (Macken-Horarik,2003).

Affect focuses on emotional responses, desires and states, judgement focuses on ethical standards and expressing norms and appreciation focuses on expressing tastes and aesthetic likes and dislikes In the verbal discourse appreciation and affection are seen in the selected dialogue (Macken-Horarik,2003). In the selected dialogue appraisal model is formulated.

Europe sounds good. (Appreciation)

We are so excited. (Affection)

We need a holiday. (Affection)

We are going to visit Europe this summer. (Affection)

We are flying to London for in four hours. (Affection)

Regarding discursive analysis of attitude in terms of appraisal system male character dominates the dialogue and interaction. Female character's utterances and verbal discourse are not seen as male character. For instance saying sorry is produced by the female character. This usage of language establishes submissive role in terms of woman character. Generally subject pronoun "we" is used in the verbal discourse but when expressing sorry pattern female character uses subject pronoun "I". The usage of subject pronoun "I" reflects female identity. This linguistic pattern indicates that women, female characters must use / should use submissive language rather than men. Emotional responses and desires construct intimacy between the reader and participants, judgement or appreciation establish hierarchies in terms of power relations. Regarding gender identities, in verbal discourse emotional responses and appreciation are produced by the male character. Based on this, male character connects interaction with the target reader. This creates gender bias and gender inequality in terms of appraisal system.

The theme and focus are analyzed in order to explore verbal discourse vertically in the selected dialogue. In this sense, message is given by means of a clause. Clause reflects the essence of message and it points out communicative event (Halliday,1994). The communicative character derives from one part of the clause and it is known as theme. Theme and rheme are two essential patterns of the sentences and by means of theme and rheme we understand as readers how information is conveyed in clauses (Halliday,1994).

For example, if we analyze theme and rheme in this sentence "My brother watches TV every day." "My brother" is a theme of the clause, "watches TV

everyday” rheme of the clause. In the example, the author or speaker wants to depict us my brother as something he talked about. Meanwhile, the rest of the sentence talks about theme, it gives more knowledge about the theme. This part is named as rheme. To summarize, theme is the beginning of the sentence. Rheme is the rest of the clause. It includes new information (Halliday,1994). Same power exchanges are seen through the dialogue, power exchanges between the man and woman such as;

We need a holiday- Man

We are so excited- Man

We are going to visit Europe this summer- Man

Sorry, I cannot talk now- Woman

We are flying to London in four hours- Woman

Woman and male frequently use subject pronoun “we” in their clauses as a theme. This linguistic pattern can construct togetherness and equality in terms of gender representation. Woman uses subject pronoun “I” as a theme of the clause. In this sentence woman tries to foreground her identity and her personal and private feelings and emotions.

Narrative Representation

Actions are significant features in visual discourse and they are represented by means of vectors among element or represented participants. Based on the number, types of participants and vectors there are different narrative process.

The action process (the one through which the subjects or parties come about the vector), reactional process (the one recognized by the vector of a gaze and glance direction of the reactor) mental process (the one illustrated by the thought or shown by dialogue balloons arise from the subject) (Knox,2007).

In this part, narrative representation visual discourse will be analyzed in order to explore gender representation in selected dialogue. Vectors are between male and woman. It can be noted here, bilateral vectors can be seen between female and male parties. Narrative representation visual discourse at home context (domestic setting) constructs gender equality by means of bilateral vectors. On the other hand, no bilateral vector is seen between female participants and male participant in travel agency. Female subject is looking directly at the female travel agent while male client is looking at the female travel agent and he is talking to the female travel agent. The vectors are between female travel agent and male client. But female travel agent is silent and her physical appearance is not

completely seen in the vector. In addition female participant remains silent. Male client is speaking and two female figures are listening to the male client. In this context female parties are in passive positions. Female sales representative and male client are interacting simultaneously. In this sense, female travel agent is a passive listener and she is in a passive position and male client produces language and he is in a dominant position in terms of power exchanges related to gender representation. In addition, female participants are reactors, female participant looks at the female travel agent and female sales representative looks at the male client. However, male client is considered as an interactor.

As it is noted here, he produces verbal language. This creates gender bias and gender inequality. In addition, female sales representative is not the actor or doer of any action for example she does not give any forms to the clients or she does not explain anything. In this context male client is not the beneficiary or goal, he does not receive any form or documents about the holiday. Based on this, there is no mutual interaction among the parties but male client is still an interactor. Based on reactors and interactors, female and male participant are seen as reactors and interactors. In public place, only male participant is seen as an interactor role. Female participants are in reactor roles. This implies that male dominant linguistic behaviour is seen in public places. This creates gender bias and gender inequality are constructed by means of reactors and interactors.

According to Halliday's Transitivity system (1994) there are three types of process. These are called material, mental and relational. The narrative representation in verbal discourse is analyzed by means of Halliday's transitivity model (Halliday, 1994). In domestic setting (home) and public place setting (travel agency) male participant uses the plural subject "we". The usage of "we" creates togetherness and equality in domestic setting because two parties are reactors and interactors. They are interacting simultaneously. This linguistic behaviour constructs equality in terms of gender representation. In public place, in travel agency male participant neglects his girlfriend or wife even though he uses plural subject pronoun "we". Because in travel agency female subject remains silent. In travel agent male client produces these linguistic patterns.

"We (actor) are going to visit Europe this summer. (Material process)

We (sensor) are so excited. (Mental process)

In this respect, the male participant actor and sensor in public places. Female participants are in passive roles, they do not produce verbal language. In this case, male dominant power is constructed by means of transitivity system.

Female participant can be seen as an actor in domestic setting. (Home)

WE (actor) are flying to London in four hours. (Material Process)

This linguistic construction implies that females are seen as actors in domestic places but in public places they are not seen as actors. This linguistic pattern in terms of narrative representation creates gender inequality in selected dialogue.

CONCLUSION

Signs reflect ideological and specific meanings and power relations in the text (Barthes,1977). Power relations can be seen in media texts and media discourse. Power relations and ideological oriented linguistic patterns are seen In operative texts, such as advertisement and newspaper (Fairclough,1989).

ELT Textbooks are considered as powerful and ideological means of media discourse because they are used by learners in many regions and countries such as in outer and expanding circle countries (Richards,2006).

Therefore, this study tries to explore how gender identity is constructed in ELT text textbooks as multimodal media. It is significant to realize and explore gender identity and gender representation in ELT textbooks because gender identity reflects socio political and ideological features of the text.

If the one sex is depicted inferior to the other one in text, it can be noted they are seen as in the same or similar way in real life. Hence, gender representation in text is worth being analyzed to explore the hidden meanings and agendas of the texts.

This study suggests that in public places male subject is more visible than women and male figure is depicted as new information and he is represented as an active agent. In public places females are invisible and under represented. In public places male subject is depicted as powerful, actor and socially important and he is illustrated as talkative, and the male subject represents male dominant authority and control but female subjects are depicted as passive. It can be noted here, the findings cannot be generalized, because in this study one dialogue is analyzed in terms of gender representation and gender identity.

In addition, multimodal text play significant role in our daily life in this sense the multimodality is an integral part of the ELT curriculum, students and teachers face multimodal text in other words visual and textual discourse during the learning and teaching process. This study gives some useful guidelines for ELT Teachers and learners to perceive how to explore the hidden meaning in the multimodal text.

As mentioned before, this study tries to explore gender identity and gender representation in multimodal text in order to raise students and teachers awareness in terms of gender in ELT education. EL textbooks play a significant role in language learning and teaching process, because of this reason, this study is hoped to guide the EFL material and bopok developers, syllabus designers, and

the writers of the textbooks. These important educational figures can give special attention to gender representation and they can be careful about and they can be aware of equality of gender representation. In this sense, they try to omit gender discrimination in textbooks in any forms of images and lexico grammatical patterns. Gender balanced representation can cause some positive outcomes in terms of learners' learning process, because it maintains equal opportunities for male and female students to develop their skills in learning a language.

To conclude, this study suggests that teachers and students should read between lines in order to construct equal perception gender identity in EFL textbooks.

REFERENCES

- Barthes, R. (1977) *Image-Music-Text*. London: Fontana.
- Canagarajah, A. S. (1999). *Resisting linguistic imperialism in English teaching*. Oxford: Oxford University Press.
- Chen, Y. (2010). Exploring dialogic engagement with readers in multimodal EFL textbooks in China. *Visual Communication*, 9 (4), 485-506
- Dominguez, L. M. (2003). Gender textbook evaluation. *TESOL Quarterly*, 12, 289- 318.
- Fairclough, N. (1989). *Language and power*. London: Longman.
- Farooq, M. H. (1999). Examining sexism in an EFL textbook. Retrieved from <http://www.cels.bham.ac.uk/resources/essays/farooq6.pdf>
- Giaschi, P. (2000). Gender Positioning in Education: A Critical Image Analysis of ESL Texts. *Journal of TESL CANADA*, 18(1), 32-46.
- Giaschi, P. (2000). Gender Positioning in Education: A Critical Image Analysis of ESL Texts. *Journal of TESL CANADA*, 18(1), 32-46.
- Godeo, E. G. (2009). British men's magazines' scent advertising and the multimodal discursive construction of masculinity: A preliminary study. *Estudios Ingleses de la Universidad Complutense*, 17, 9-36.
- Halliday, M.A. K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold
- Knox, J. (2007). Visual-verbal communication on online newspaper home pages. *Journal of Visual Communication*, 6 (1), 19-53.
- Kordjazi, Z. (2012). Images matter: A semiological content analysis of gender positioning in contemporary English-learning software applications. *Novitas Royal (Research on Youth and Language)*, 6(1), 59-80
- Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). London: Routledge
- Kumaravadivelu, B. (2003). *Beyond methods: macrostrategies for language teaching*. New Haven, CT: Yale University Press.
- Kumaravadivelu, B. (2006). *Understanding language teaching: from method to postmethod*. Mahwah, NJ: Erlbaum.
- Macken-Horarik, M. (2003). Appraisal and the Special Instructiveness of Narrative. *Journal of TEXT*, 23(2), 285-312.
- Macken-Horarik, M. (2004). Interacting with the Multimodal Text: Reflections on Image and Verbiage in Art Express. *Journal of Visual Communication*, 3(1), 5-26.
- Manolache, M. (2010). A semiotic analysis of the gender equality paradigm. Case study: The gender pay gap campaign. *Styles of Communication*, 2, 75-88

- MartínezLirola, M. (2010). Positive aspect of women of different cultures: An analysis of two multimodal covers. *The Poster*, 1(1), 77-93.
- McKinlay,S&Hastings,B. (2007) *Success: Pre-intermediate Students' Book*: Pearson Longman
- Pennycook, A. (1989). The concept of method, interested knowledge, and the politics of language teaching. *TESOL Quarterly*, 23, 589–618.
- Ricento, T. (2000). Ideology, politics and language policies: Introduction. In T. Ricento (Ed.), *Ideology, politics and language policies: Focus on English* (pp. 1-8). Amsterdam: John Benjamins.
- Ricento, T. (2000). Ideology, politics and language policies: Introduction. In T. Ricento (Ed.), *Ideology, politics and language policies: Focus on English* (pp. 1-8). Amsterdam: John Benjamins.
- Richards, J.C. (2006). *Communicative language teaching today*. Cambridge: CUP
- Sheldon, L. E. (1988). Evaluating ELT textbooks and materials. *ELT Journal*, 42 (4), 237-246.
- Unsworth, L. & Wheeler, J. (2002). Re-valuing the role of images in reviewing picture books. *Language and Literacy* 36 (2), 68-74.
- Van Dijk, T. A. (2006). Ideology and discourse. *Journal of Political Ideologies*, 11(2), 115-140
- Van Leeuwen, T. & Jewitt, C. (2001). *Handbook of visual analysis*. London: Sage.
- Van Leeuwen, T. (2005). *Introducing social semiotics*. London: Routledge.
- Van Leeuwen, T. (2008). *Discourse and practice: new tools for critical discourse analysis*. New York: Oxford.

APPENDIX

02

Globetrotter!

Read, listen and talk about future plans and travel.
Practise the Present Continuous and going to for future plans and intentions; travel vocab.
Focus on asking for information.
Write formal and informal emails.

GRAMMAR AND SPEAKING

1 Read and answer the questions.


- Do you enjoy travelling?
- Which countries interest you most? Why?

Tell the class.

2 Look at the pictures and read the postcard below. Which countries do the couple finally decide to visit?


3 Listen to the conversation. Is the holiday a success? Why?/Why not?

'We need a holiday!'




'How about somewhere different - Hawaii or Europe?'
'Europe sounds good!'

'We're so excited! We're going to visit Europe this summer.'



'Sorry, I can't talk now. We're flying to London in four hours.'



14

A: What time are you leaving?
B: We're leaving at 10.00 on Friday.
A: How long will you be away?
B: We'll be away for two weeks.

25th August

Hi George,


Well, here we are in London. We're visiting Buckingham Palace and Big Ben this afternoon.

Then after lunch we're taking a coach to Windsor Castle. Tomorrow morning we're flying to Paris and then on Thursday we're staying the night in Amsterdam.

We're planning to be in Italy on Saturday morning.

Then we're

George Lovell
2709 Elk Way
Toronto
Ontario
Canada



Chapter 8

An Implementation for the Use of Mathematical Games in the Development of Secondary School Students' Spatial Abilities

Yağmur Dilan DEMİR ¹

Şevval GÖKCEN ²

Hasan ÜNAL ³

¹ Teacher, Gör.; Milli Eğitim Bakanlığı dilan_demir@outlook.com.tr ORCID No: 0000-0002-2185-6727

² Res. Asst.. Gör.; Yıldız Teknik Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü. sgokcen@yildiz.edu.tr ORCID No: 0000-0002-3552-0298

³ Prof. Dr.; Yıldız Teknik Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü. haunal@yildiz.edu.tr ORCID No: 0000-0002-4661-111X

ABSTRACT

An education in which students are not active may result in individuals who lack creativity and cannot overcome their own problems. Mathematics teaching can be productive in environments based on group work, without memorisation and where students can be active. Our age needs individuals who have 21st century abilities and this need will increase. For this reason, it has become important to develop some abilities such as research, questioning, reasoning, critical thinking, generating alternative solutions to problems and spatial thinking in curricula. Mathematics practices are of great importance in the attainment of these abilities. Understanding geometric shapes and their properties plays an important role in the development of spatial thinking in students. The purpose of this research is to improve the spatial abilities of secondary school students through mathematical games. The research includes the implementation processes of the "I Live 3D with Games" project accepted within the scope of TUBITAK 2209/A University Students Domestic Research Projects Support Programme. Sixth grade students who are registered in an public secondary school in the province of Istanbul participated in the study. A quasi-experimental design was adopted with a total of 80 students in the control (n=40) and experimental groups (n=40). The use of mathematical games was conducted only with the experimental group. The results showed that there was a significant difference in the spatial abilities of both control and experimental group students. However, the increase in the post-test scores of the experimental group was more effective compared to the control group.

Keywords: spatial ability, mathematical games, geometric objects, reasoning, problem solving

INTRODUCTION

In the traditional understanding of mathematics education, mathematical knowledge is presented to students by the teacher in the form of small pieces; then students are asked to repeat the information presented. During the courses, the teacher is active and the students are passive. Students are expected to memorise this information even if they do not understand it, to repeat and reinforce what is known with the given exercises, and to give the same answers to similar questions. Each question has only one correct answer; the goal is to find the answer. This approach is passed down from generation to generation, and how the student thinks while solving problems remains in the background. However, the information societies of the 21st century need individuals to acquire "new competences" beyond basic abilities (Korkmaz, Gür and Ersoy, 2002). These competencies are necessary for problem-centred teaching approaches that accept that knowledge is not transferred and aim to support students in constructing mathematics (Gravemeijer et al., 2017). One of these new competences, and perhaps the most important one, is spatial abilities.

Spatial ability relates to all kinds of things that we can see or imagine, such as shapes, patterns, designs, concrete or abstract images. These are not only things that we physically observe in our real, concrete external world, but also things that we can see with our mind's eye. In other words, it includes situations such as visualising and imagining, travelling to places in our imagination, and creating and inventing various designs. Spatial intelligence is concerned with the placement of objects and the relationship between them, in other words, we can describe it as the ability to be sensitive to colours and images and to think in three and higher dimensions. Thus, the relationship of one object to another is the core of the spatial aspect of learning. This also includes the sense of direction. The sense of direction also shows where we are in relation to a place or how to follow a path.

In daily life, people need a lot of abilities to fulfil even the most basic needs, and most of these abilities are directly or indirectly related to spatial processes. Smith (1998) emphasises the importance of spatial ability: "It can be difficult to exist in the world without spatial ability. In the absence of this, we may have difficulty in predicting the changes of shapes by considering changes in their size and position, or in expressing the relationships and position between objects in given directions." Examples related to spatial ability can be given such as parking a car, arranging plates in the dishwasher, organising the items in the room, playing bowling, and finding directions using a map (Yurt and Sünbül, 2011). Therefore, it can be said that spatial abilities are used in all parts of life.

In the context of maths lessons, tools that measure in relation to numbers are used from the earliest stages of education. Examples include the abacus, the number line, the clock and the ruler. Flipping through any mathematics textbook further reveals the close relationship between numbers and space, and diagrams, graphs and various other visual-spatial illustrations fill the pages and serve to communicate and develop mathematical understanding (Hawes and Ansari, 2020). Individuals who have acquired these abilities can better understand the objects around them, can be successful in communicating, and can make classifications among the events around them (Temur, 2007). At the same time, research also show the relationship between mathematics achievement and spatial abilities (Yolcu and Kurtuluş, 2010). While spatial abilities are related to many mathematics subjects, they are especially important in geometry teaching. In the mathematics curriculum updated in 2018 in Turkey, the importance of spatial abilities was recognised and the acquisitions related to the development of these abilities of students were placed among the 6th, 7th and 8th grade acquisitions (Turkish Ministry of National Education, 2018). The new curriculum emphasises the importance of the use of materials in mathematics teaching since it is important to be able to visualise 3-dimensional objects in the mind.

If we talk about development, mental development in children occurs from concrete to abstract. In this context, children learn what they see concretely at a higher rate than abstract concepts. In addition, children's playing with different types of objects is also very important for the development of their spatial abilities. Because geometry is considered to be difficult due to students' weak spatial abilities. For this reason, this study emphasises the offering of mathematical games to the development of students' spatial abilities. Thus, it is also contributed to change the negative thoughts about geometry and mathematics. In line with these aims, this study aims to examine the effect of games on the development of 6th grade students' spatial abilities. Considering that games are used not only for entertainment but also for effective learning, it has become a method that should be used to develop spatial abilities. With the games we will use in our research, it is intended that students will be able to solve more rational problems by developing their spatial abilities and gain new skills required by the age other than basic skills.

For this purpose, the following research question was sought in this study:

1. Does the use of mathematical games have a significant effect on the development of 6th grade secondary school students' spatial abilities?

Turkiye and Mathematics Subject

Social, cultural, technological and economic changes in recent years have created reforms in the field of education as in every field. This change has affected educational institutions and the old curriculum did not respond to the needs. The changes made in mathematics education have a series of arguments, good reasons and solid bases (Ersoy, 2001). International examinations are very important in evaluating the quality of education in a country. Programme for International Student Assessment (PISA) exams conducted by the Organisation for Economic Co-operation and Development (OECD) are very important in order to understand the current situation of the country, as well as to make comparisons between countries and develop policies for the future (Aydın et al., 2012). Another exam that serves this purpose is the Trends in International Mathematics and Science Study (TIMSS). TIMSS was prepared to measure the achievement of primary school students in mathematics and science at the international level and to evaluate the achievement of students on the cornerstone of programme, teaching methods and school as well as countries (Olkun and Aydođdu, 2003). When the results of the 2015 TIMSS assessment are analysed, it is observed that Turkey failed the most in the field of geometry. In this study, the average mathematics achievement of the other countries participating in the evaluation was 500 points, while Turkey's overall average was 432 points (Bütüner and Güler, 2017). Looking at the results of PISA 2009, while other countries had an average of 496 points, Turkey's average was 445 points, which is below the world average. According to the PISA exam, Turkey's average mathematical literacy is at level 2 and below. According to the PISA assessment, students who have reached level 2 can obtain as much information as they need from a single source and use only one form of representation. At the same time, these students can use formulas, conventional ways of processing and can make interpretations on the results that do not go beyond what is seen (Kılıç, 2015).

Since participating in the PISA examinations, Turkey has renewed its mathematics curricula and new arrangements have been made to meet the changing needs of society and the individual. The purpose of the renewed programmes is to raise mathematically literate individuals (Turkish Ministry of National Education, 2018). Although Turkey's average score in mathematics in the PISA exam has increased, various practices should be carried out to increase our international visibility in mathematics. When the average scores of all countries participating in PISA 2018 are analysed, we can observe that the average score of the mathematics subject is not good enough.

In 2018, the changes made in the curricula mentioned core values, competencies and abilities specific to the field of mathematics (Karakoç, 2019). In 2010, when the evaluation results of the Level Determination Examination, in which Turkey as a whole participated, were examined, it was revealed that 8th grade students answered one fourth of the twenty questions in mathematics and geometry, i.e., five questions correctly (Turkish Ministry of National Education, 2010). However, the curriculum is based on the idea that every student can learn mathematics. However, these results may indicate that the purposes of the programme, such as developing spatial and geometric thinking abilities and raising individuals with positive attitudes towards mathematics, have not been achieved. In this context, it is an important research matter to try to determine to what extent the abilities mentioned in line with these purposes are related to each other and to academic achievement.

Spatial Ability: Early Definitions

The concept of spatial ability briefly includes skills related to the use of space and geometric form (Olkun and Altun, 2003). In general, it is claimed that spatial thinking has a strong and positive relationship with mathematical thinking (Battista, 1990; Battista, 2007). Thus, intuitively, it can be assumed that an improvement in spatial thinking will create a suitable foundation for the development of mathematical thinking. When we look at the history of the concept of spatial ability, although there are conflicting findings in the literature, some studies (Ben-Chaim, Lappan and Houang, 1988; Lord, 1985; Burnett and Lane, 1980) show that spatial thinking can be developed with appropriate tools and activities. These tools and activities generally include playing with two- and three-dimensional objects and their pictures, measuring, solving some problems, creating various structures and drawing pictures of them. Lohman (1993) defined spatial ability as the ability to visualise, reorganise and transform a shape into another shape. Lord (1985) concluded that students' spatial relations and spatial visualisation abilities can be developed with activities consisting of two-dimensional shapes and stated that activities planned to contribute to these abilities should be included in the curriculum. Similarly, Bishop (1980) argued that spatial ability is a teachable skill.

We see spatial ability as the most important and fundamental of human abilities. One of the most effective ways to develop spatial abilities is games. Sorby (1999) argues that it is very important to play with Legos, design activities, play 3D computer games and have well-developed mathematical skills at an early age in order to develop spatial thinking skills.

Mathematical Games and Spatial Ability

Games, which can be considered as a natural need of everyone, young and old, have a special importance especially in the growth process of children. This activity, which the child enjoys and is happy, also contributes to the creation of a fun learning environment. Thanks to the games, children experience and develop themselves without being afraid of innovations; they learn by concretising complex situations. Through games, children develop concepts, social awareness and social behaviours by using many of their senses and mental abilities. While playing games, children develop and use many mental abilities without realising it. According to Piaget, games should be evaluated in the context of cognitive processes and cognitive development. Vygotsky also characterises games as the source of development. Games are an activity that covers all developmental processes. Children try to move from their own level of development to the next level through games. In this context, games expand the world of children (Nicolopoulou, 2004). Games have a significant role in the development of abstract thinking abilities in children's later ages. Through games, children learn many cognitive processes such as sorting, matching, classifying, analysing, synthesising and problem-solving concepts such as size, shape, colour, volume, weight, counting, measuring, time, location, proximity-distance, space, etc. Through games, children have the opportunity to develop important mental abilities such as memory, observation, strategy, numerical reasoning, problem solving, decision making and creative thinking.

Mathematicians have always been interested in games since the beginning of cultures. The reason for this may be curiosity about the unknown, the urge to find something first, or perhaps the happiness of solving problems. Perhaps the real reason is that for mathematicians, mathematics and games have some similar aspects. They identify mathematics and games, and even see mathematics as a game. Games are largely mathematics and mathematics is entirely a game (Umay, 2002). Whether mathematics is used for counting and measuring in daily life, for solving problems and riddles, or for the scientific study of missiles, floating objects, levers, scales or magnetic lines of force, it eventually breaks away from its roots and begins to live its own life. In doing so, it becomes more powerful, because it can no longer be used only in certain situations, but in all similar situations. Thus, it becomes more abstract and game-like. As experience increases, the game is also played better (Wells, 1997). From past to present, many games created by mathematicians have been the centre of attention of people and have guided the studies in the field of mathematics. Recorde and Cardan's ring game, Lucas's Towers of Hanoi, Fibonacci's problems, Taylor's horses' round problem, Königsberg's seven

bridges problem, Euler's thirty-six workers problem, logician Raymond Smullyan's chess problems, Hungarian Ernő Rubik's cube and the magic squares game are the most famous ones. Mathematicians have not only contributed to the development of mathematics by being interested in games, but have also been the means for non-mathematicians to get closer and sympathise with mathematics. At the same time, the most important feature of games is that they develop spatial abilities while making sense of mathematics concretely.

Related Literature

In the literature, studies conducted with different age groups and examining spatial ability were examined. In this section, these studies are briefly mentioned.

In the research conducted by Obay and Çelik (2021), they aim to explore the views of primary school mathematics teachers on mathematical games. In the study, it was concluded that if the mathematical games to be used in education have certain criteria, it will be more possible to achieve the determined goals of education. It was reported that one of the most important of these criteria is that mathematical games should respond to the evaluation criteria determined for teaching. Similar to this study, Çoban and Erdoğan (2022) investigated the effect of game-based problem-solving activities on mathematics attitude and worked with 24 students for 12 weeks, 2 hours a week. As a result of the study, it is shown that game-based problem-solving activities positively improved mathematics attitude. Unlike this study, Engin, Dündar and Engin (2023) examined the change in 5th grade students' attitudes towards geometry subjects as a result of teaching with origami games and concluded that no significant difference was detected in students' attitudes towards geometry subjects in the results of teaching with origami games and teaching using traditional methods.

There are studies that aims to explore relationship between mathematics and spatial ability. In a cross-sectional study of 854 students in kindergarten, third, and sixth grades, Mic et al. (2016) evaluated the correlation between spatial and mathematical skills. Both age groups showed consistent, unified architecture, and there were strong relationships between the two areas. Mental rotation was the most important factor in predicting math success in kindergarten, while visual-spatial working memory was the most important factor in predicting math success in sixth grade. Variation in spatial ability could be predicted with high accuracy using the most significant mathematical activities such as place value, word problems, computation, fraction concepts, and algebra. Children between the ages of 5 and 7 were the focus of another study that looked at the

correlation between maths and spatial intelligence. Above and beyond gender, socioeconomic position, ethnicity, and language ability, spatial abilities at ages 5 and 7 explained 8.8% of the difference in mathematical proficiency at age 7. This finding highlights the potential of spatial abilities as a novel target in designing mathematics interventions for children in this age range. Hawes et al. (2016) investigated the formability of children's spatial thinking and the extent to which educational attainments in spatial thinking can be generalised to mathematics performance.

Novak and Tassell (2015) worked with an older age group, that is, higher education students. They examined the relationship between improved attention abilities and maths performance. Action video games were used to improve attention and working memory abilities. Playing video games improved mental rotation, working memory and geometry performance. Expert action video gamers had higher working memory, spatial and geometry abilities than non-gamers. Although this study was conducted with an older age level, it seems that most of the studies in the literature have been conducted with earlier age groups.

Although there is convincing evidence that spatial abilities are a reliable predictor of mathematical achievement in preschool children and in university students, there is a lack of research exploring associations between spatial and mathematics achievement during the primary school years (Gilligan et al., 2017). The purpose of this research is to contribute to the studies conducted with secondary school students in the development of spatial ability.

METHOD

In Research Design

In this study, a quasi-experimental design, one of the quantitative research methods, was used. In quasi-experimental designs, the researcher uses control and experimental groups (Creswell, 2017). Here, pre-test and post-test were applied to the experimental and control groups before and after the experiment.

Sample

The sample of the study consists of 6th grade students studying in a public secondary school in Istanbul. The number of control group students (n=40) and experimental group students (n=40), with a total of 80 students in 2 different classes. Quasi-experimental studies do not require a real control group but may include a comparison group (Rogers and Revesz, (2020). The control group used here includes comparisons with the experimental group. The selection of these two groups of students was based on their grade point averages in the

school they are studying at. It was aimed to select two groups whose achievement levels were close to each other.

Data Collection Instruments

The data collection instrument used as pre-test and post-test was the Wheatley Spatial Ability Test developed by Grayson H. Wheatley in 1996. This test measures students' ability to rotate given geometric shapes. In this test consisting of 100 questions, students should examine each given geometric shape and find its rotated form. An example of this test is given below.

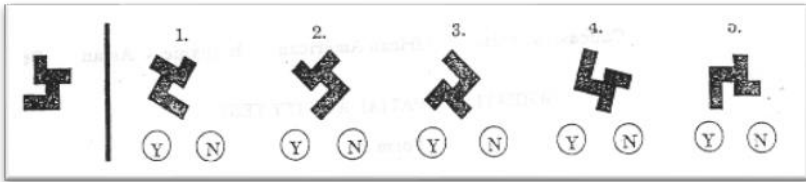


Figure 1. An Example of Questions (Wheatley, 1996).

Research Process

The experimental and control group students were first applied the Wheatley Spatial Ability Test (1996) mentioned above as a pre-test. The control group students were not given mathematical games during the application process. The control group students were selected for comparison without the application. The experimental group played 3 different mathematical games in maths lessons for 3 weeks, 2 lesson hours per week. It was tried to ensure that the students spent detailed time on these games. The researchers were together with the students in the classroom, introduced the rules of these mathematical games and answered the questions of the students. The games used during the implementation process are given below.



Figure 2. Coloured Soma Cube

Students try to form a 3x3 cube using the pieces of different colours given to them. They are expected to form the cube in several different ways by rotating the shapes in different directions.

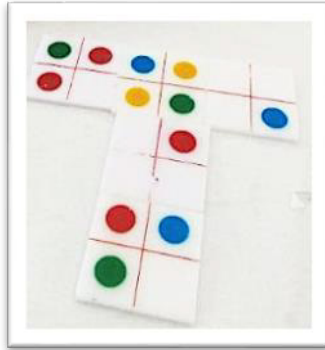


Figure 3. Four Colour Squares Game

Students will be given 9 different squares with coloured dots. In this activity, students try to form different letters of the alphabet. While forming the letters, it is aimed to have one of each colour in a row or column (see Figure 3). While forming these letters, students should rotate the shapes to reach the required target.



Figure 4. Four Colour Cubes Game

In this game, 4 cubes containing coloured spots will be given to the students. The aim of this game is to see different colours in the row or column when the students place the cubes side by side or on top of each other. These cubes should be arranged in such a way that no two cubes of the same colour can be seen side by side no matter from which direction they are viewed. The aim here is for the students to perform the required tasks by rotating the cubes.

Analysing the Data

IBM Statistical Package for the Social Science (SPSS) Version 22 was used to analyse the data. Using this statistical programme, a dependent samples t-test

was performed to determine whether there was a significant difference between the control and experimental group data.

RESULTS AND DISCUSSION

Firstly, the results of the applications will be presented. Then, discussions and conclusions will be mentioned.

Comparison of Experimental and Control Group Pre-Test Scores

The pre-test scores of the experimental and control group students were compared by independent t-test and the data obtained are presented in Table 1.

Table 1: Comparison of Experimental and Control Group Pre-test Scores

Groups	N	\bar{x}	ss	sd	t
Control Group	40	58,275	23,259		
Experimental Group	40	63,575	19,151	39	0.523

As seen in Table 1, the arithmetic mean of the pre-test and post-test data of the experimental group was 63,57 and the standard deviation was 19,151, while the arithmetic mean of the control group was 58,27 and the standard deviation was 23,259. There is a small difference of 5,3 points between the arithmetic averages of the test scores. Independent samples t test was applied to see whether the difference between these numerical data was significant or not. The null hypothesis is "There is no significant difference between the pre-test scores of the experimental and control groups". As a result of the t test, $t=0.523$ [$t(39) = 0.523$]. Since this value is greater than $p>0.5$, the null hypothesis is accepted. In other words, there is no statistically significant difference between the groups as a result of the independent t-test for the pre-test scores of the experimental and control groups. According to this result, it can be said that the achievement levels of the students in the experimental and control groups were close to each other before the application. In the case where the data are close to each other at the beginning, it allows to make good evaluations between the application results.

Comparison of Experimental Group Pre-Test and Post-Test Scores

Table 2: Comparison of Experimental Group Pre-test and Post-test Achievement Scores

Experimental Group	N	\bar{x}	ss	sd	t
Pre-Test	40	63,575	19,151	39	0.022
Post-Test	40	71,95	17,541		

Table 2 displays the results of a t-test for dependent samples used to compare the pre- and post-test scores of students in the experimental group. The data obtained from the pre-test and post-test were analysed by t-test for dependent samples. As a result of the analysis, the pre-test arithmetic mean of the experimental group was 63.57 with a standard deviation of 19.151; the post-test arithmetic mean was 71.95 with a standard deviation of 17.541.

According to null hypothesis, "There is no significant difference between the pre-test and post-test scores of the experimental group". This hypothesis was rejected as a result of the t-test for dependent samples conducted for the pre-test and post-test achievement scores of the experimental group; a statistically significant difference was found between the pre-test and post-test in favour of the post-test [t=0.022, p<0.5]. According to this result, the activities prepared by using mathematical games increased the achievement of the students in the experimental group.

Comparison of Control Group Pre-Test and Post-Test Scores

Table 3: Comparison of Control Group Pre-test and Post-test Scores

Control Group	N	\bar{x}	S	SD	t
Pre-Test	40	58,275	23,259	39	0.087
Post-Test	40	65,15	21,567		

The data of the control group students obtained from the pre-test and post-test are presented in Table 3. When we look at the results of the analysis using t-test for dependent samples, the pre-test arithmetic mean of the control group was found to be 58,27, standard deviation 23,259; post-test arithmetic means 65,15, standard deviation 21,567.

According to null hypothesis, "the control group's pre- and post-test scores did not differ statistically". As seen in Table 3, this hypothesis was accepted as a result of the dependent samples t-test for the pre-test and post-test scores of

the control group. Since the t value is greater than 0.05, it is said that there is no statistically significant difference between the test scores of the control group.

Comparison of Experimental and Control Group Post-Test Scores

Table 4: Comparison of Experimental and Control Group Post-test Achievement Scores

Groups	N	\bar{x}	S	SD	t
Control Group	40	65,15	21,567		
Experimental Group	40	71,95	17,541	39	0.063

When examined in Table 4, it was determined that the post-test arithmetic mean of the experimental group was 71,95 and the standard deviation was 17,541; the arithmetic mean of the control group was 65,15 and the standard deviation was 21,567.

According to null hypothesis, "There is no significant difference between the post-test scores of the control and experimental groups". As a result of the t-test applied in this context, $t = 0,063$ value, $p > 0,5$, it is said that there is no significant difference between the post-test achievement scores of the experimental and control group students. This conclusion suggests that the usage of mathematical games has little impact on students' performance on tests of spatial ability. However, there was a noticeable gap between the test scores of the control and experimental groups. Since the difference between the tests of the control group students followed near values, there was no statistically significant difference in the outcome, but this does suggest that mathematical games have an effect on the development of spatial ability.

To summarise, the purpose of this study is to improve the spatial abilities of 6th grade secondary school students through mathematical games. For this purpose, a 3-week process in which mathematical games were used with the experimental group was followed. In the control group, only pre-test and post-test were applied without the games. When the test results were compared, a significant difference was found in favour of the post-test in both groups, which had scores close to each other at the beginning. This result can be said as an expected result for the experimental group. In this context, the games used in the experimental group increased the ability test scores of the students. When the post-test results applied to the experimental and control groups were analysed, it can be said that the teaching method applied to the experimental

group was more effective than the teaching method applied to the control group, although there was no significant difference between the two groups.

The mathematical games used increase imagination, reasoning and problem-solving abilities of students. Increasing these abilities in mathematics enables students to develop at the level of synthesis. It also encourages exploration and curiosity. In other words, with mathematical games in this study, students intervened in the shapes they saw, changed them and found the opportunity to test them. In this way, they realised meaningful learning. In this study, the positive aspects of physical games were mentioned. Cheng and Mix, in their 2014 study, tested spatial situations in two different groups similar to this study. The children in the spatial training group showed considerable growth in their ability to solve mathematical problems, as evidenced by their post-test results. The children in the control group, on the other hand, did not improve at all in any mathematical domain. There are additional research in the literature that demonstrate how digital games might enhance spatial ability (Novak and Tassell, 2015; Lin and Chen, 2016; Freina et al., 2017). In our age, the development of technology is continuous and these developments radically affect education systems. For this reason, studies on digital and educational games should also be carried out.

In these contexts, we can make some suggestions to develop the abilities mentioned above in students. Firstly, this study is limited to 6th grade students. Similar experimental studies can be conducted for different grade levels and their effects on students can be analysed. Considering the developmental levels of students, we can support teaching at each grade level with mathematical games. Thus, activities can be increased in order to improve spatial ability and contribute to the field. In addition, in-depth analyses can be carried out with case studies in order to examine the progress of students individually or in groups.

In order to develop spatial ability, firstly, mathematics teachers should raise their awareness and skills on this subject. Teachers should be supported in planning activities and games suitable for this purpose through in-service trainings.

REFERENCES

- Aydin, A., Sarier, Y., and Uysal, S. (2012). The comparative assessment of the results of PISA mathematical literacy between 2003-2006. *Eğitim ve Bilim*, 37(164), 20.
- Battista, M. T. (1990). Spatial visualization and gender differences in high school geometry. *Journal for research in mathematics education*, 21(1), 47-60.
- Battista, M. T. (2007). The development of geometric and spatial thinking. *Second handbook of research on mathematics teaching and learning*, 2, 843-908.
- Ben-Chaim, D., Lappan, G., and Houang, R. T. (1988). The effect of instruction on spatial visualization skills of middle school boys and girls. *American Educational Research Journal*, 25(1), 51-71.
- Bishop, A. J. (1980). Spatial Abilities and Mathematics Education. *Educational Studies in Mathematics*, 11, 257-269.
- Bütüner, S. Ö., and Güler, M. (2017). Gerçeklerle yüzleşme: Türkiye'nin TIMSS matematik başarısı üzerine bir çalışma. *Bayburt Eğitim Fakültesi Dergisi*, 12(23), 161-184.
- Cheng, Y. L., and Mix, K. S. (2014). Spatial training improves children's mathematics ability. *Journal of cognition and development*, 15(1), 2-11.
- Creswell, J. W., and Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Çoban, F. N., and Erdoğan, A. Oyun Tabanlı Problem Çözme Etkinlikleri ile Ortaokul Öğrencilerinin Matematik Tutumlarının Desteklenmesi. *Gaziantep Üniversitesi Eğitim Bilimleri Dergisi*, 6(2), 22-53.
- Engin, A. O., DüNDAR, B., and Engin, M. Ç. (2023). Origami Oyunlarıyla Yapılan Öğretimin 5. Sınıf Öğrencilerinin Geometriye Yönelik Tutumlarına Etkisi. *MANAS Sosyal Araştırmalar Dergisi*, 12(2), 436-444.
- Ersoy, Y. (2001). Matematik Öğretimi Programında Değişiklikler. *Çağdaş Eğitim*. Sayı 282. [6-13]
- Freina, L., Bottino, R., Ferlino, L., and Tavella, M. (2017). Training of spatial abilities with digital games: impact on mathematics performance of primary school students. In *Games and Learning Alliance: 6th International Conference, GALA 2017, Lisbon, Portugal, December 5-7, 2017, Proceedings 6* (pp. 25-40). Springer International Publishing.
- Gilligan, K. A., Flouri, E., and Farran, E. K. (2017). The contribution of spatial ability to mathematics achievement in middle childhood. *Journal of experimental child psychology*, 163, 107-125.

- Gravemeijer, K., Stephan, M., Julie, C., Lin, F. L., and Ohtani, M. (2017). What mathematics education may prepare students for the society of the future?. *International Journal of Science and Mathematics Education*, 15, 105-123.
- Hawes, Z., and Ansari, D. (2020). What explains the relationship between spatial and mathematical skills? A review of evidence from brain and behavior. *Psychonomic bulletin & review*, 27, 465-482.
- Hawes, Z., Moss, J., Caswell, B., Seo, J., & Ansari, D. (2019). Relations between numerical, spatial, and executive function skills and mathematics achievement: A latent-variable approach. *Cognitive Psychology*, 109, 68-90.
- Karakoç, G. (2019). *2018 yılında yenilenen ortaokul matematik dersi öğretim programına yönelik öğretmen görüşleri: Sakarya İli örneği* (Doctoral dissertation, Sakarya Üniversitesi (Turkey)).
- Kılıç, Ç. (2015). *İlköğretim 5. sınıf matematik dersinde Van Hiele düzeylerine göre yapılan geometri öğretiminin öğrencilerin akademik başarıları, tutumları ve hatırd tutma düzeyleri üzerindeki etkisi* (Doctoral dissertation, Anadolu University (Turkey)).
- Korkmaz, E., Gür, H. and Ersoy, Y. (2002). Problem Kurma ve Çözme Yaklaşımli Matematik Öğretimi-II: Öğretmen Adaylarının Alışkanlıkları ve Görüşleri.
- Lin, C. H., and Chen, C. M. (2016). Developing spatial visualization and mental rotation with a digital puzzle game at primary school level. *Computers in Human Behavior*, 57, 23-30.
- Lohman, David F. (1993); "Spatial Ability and G," Paper presented at the First Spearman Seminar, 21 July 1993, University of Plymouth, Plymouth, United Kingdom.
- MEB, (2010). Ortaöğretim Geometri Dersi 9-10. Sınıflar Öğretim Programı, Ankara: Milli Eğitim Basımevi.
- Milli Eğitim Bakanlığı (MEB) (2018). Matematik dersi öğretim programı (ilkokul ve ortaokul 1, 2, 3, 4, 5, 6, 7 ve 8. sınıflar). *Ankara: MEB Yayınları*.
- Mix, K. S., Levine, S. C., Cheng, Y. L., Young, C., Hambrick, D. Z., Ping, R., and Konstantopoulos, S. (2016). Separate but correlated: The latent structure of space and mathematics across development. *Journal of Experimental Psychology: General*, 145(9), 1206.
- Nicolopoulou, A. (2004). Oyun, bilişsel gelişim ve toplumsal dünya: Piaget, Vygotsky ve sonrası. *Ankara University Journal of Faculty of Educational Sciences (JFES)*, 37(2), 137-169.

- Novak, E., and Tassell, J. (2015). Using video game play to improve education-majors' mathematical performance: An experimental study. *Computers in Human Behavior*, 53, 124-130
- Obay, M., and Çelik, H. C. (2021). Examining Middle School Mathematics Teachers' Views On Games Used In Education In Terms Of Culture, Education And Association .*Electronic Journal of Social Sciences*, 20(80).
- Olkun, S. and Aydođdu, T. (2003). Üçüncü uluslararası matematik ve fen araştırması (TIMSS) nedir? neyi sorgular? Örnek geometri soruları ve etkinlikler, *İlköğretim Online*, 2(1), 28–35.
- Olkun, S., and Altun, A. (2003). İlköğretim öğrencilerinin bilgisayar deneyimleri ile uzamsal düşünme ve geometri başarıları arasındaki ilişki. *The Turkish Online Journal of Educational Technology*, 2(4), 86-91.
- Rogers, J., and Revesz, A. (2020). Experimental and quasi-experimental designs. Routledge.
- Smith, G. G. (1998). *Computers, computer games, active control and spatial visualization strategy*. Arizona State University.
- Sorby, S. A. (1999). Developing 3-D Spatial Visualization Skills. *Engineering Design Graphics Journal*, 63(2), 21-32.
- Temur, O. D. (2007). The Effects of Teaching Activities Prepared According to the Multiple Intelligence Theory on Mathematics Achievements and Permanence of Information Learned by 4th Grade Students. *International Journal of Environmental and Science Education*, 2(4), 86-91.
- Umay, A. (2002). Öteki Matematik. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 23, 275-281.
- Wells, D. (1997). *Matematiğin gizli dünyası*. Doruk Yayımcılık.
- Wheatley, G. H. (1996). *Wheatley spatial ability test*, Tallahassee, FL: Mathematics Learning.
- Yolcu, B., and Kurtuluş, A. (2010). 6. sınıf öğrencilerinin uzamsal görselleştirme yeteneklerini geliştirme üzerine bir çalışma. *İlköğretim Online*, 9(1), 256-274.
- Yurt, E., and Sünbül, A. M. (2011, April). Eğitim fakültesi öğrencilerinin uzamsal yeteneklerinin incelenmesi (Selçuk Üniversitesi AK Eğitim Fakültesi örneđi). In *International Conference on New Trends in Education and Their Implications* (pp. 927-934).

Chapter 9

Evaluation of English Syllabus from Different Aspects Used at State Elementary Schools in Turkey

Necmettin KÜRTÜL¹

¹ Öğr. Gör. Dr., Niğde Ömer Halisdemir Üniversitesi Yabancı Diller Yüksekokulu
kulturnecmettin@gmail.com, ORCID: 0000-0002-0355-4071

ABSTRACT

English as a foreign language has become a compulsory subject and taught starting with 1st grade up to 4th grade at the state elementary schools in Turkey. The curriculum and syllabi have newly been designed, which leads to a great number of teachers need to be trained in EFL to be able to adapt new courses into their practices based on the new syllabus. Regarding the syllabus applications of English as a second or foreign language for early age students, foreign language education systems in Turkey have been restructured or new education reforms have been implemented. In this direction it was aimed to find the English teachers' views on the newly designed syllabus as well as the challenges they encountered during its practice at elementary schools in Turkey. Qualitative research is used to find answers to questions such as why, how and to what extent. 104 English teachers who followed the standard curriculum and syllabus designed by the Board of Education and Discipline, which is a board functioning as a sub-branch of the Turkish Ministry of Education, participated in the study. As a conclusion, the syllabus cannot meet both the learners and the teachers' needs within the Turkish educational system whether it still emphasizes the communicative role of the language or not.

Key words: English as a foreign language, English syllabus, new educational system.

Introduction

Regarding the syllabus applications of English as a second or foreign language for early age students, foreign language education systems of several countries have been restructured or new education reforms have been implemented since the early 2000's (Garton, Copland & Burns, 2011; Kırkgöz, 2007, p. 2008; Lopriore, 2002; Nikolov & Curtain, 2000). According to the report by Edelenbos, Johnstone & Kubanek (2006), language education at an early age is an issue that needs to be handled very carefully, and that the early age of the students is not enough for language learning, but it is a good teaching, active learning environment and emphasizes that it should be supported with continuity in education.

All in all, Edelenbos, Johnston, and Kubanek (2006) emphasize that "... transition to effective foreign language education at an early age in all member countries, starting from kindergarten and primary school" stated in the action plan published by the European Union in 2004, can only be realized with well-equipped foreign language teachers and effective learning environment and methods. The preparation of the content of a curriculum to be prepared for children at an early age is an issue that requires great attention. In other words, in any foreign/second language curriculum to be prepared for early children, it is necessary to consider the cognitive and conceptual abilities of children according to their age groups.

As stated in the 2004 action plan of the European Union, foreign language education in member countries starts from the first grade of elementary school or kindergarten. With the 4+4+4 education reform that started to be implemented in the 2012-2013 academic year, the age of starting school decreased to 5 (primary school 1st grade) and the age to start learning a foreign language to 6 (elementary school 2nd grade). Unlike the previous education reform, this means that students start learning a foreign language from the second grade. The foreign language education system implemented in line with the new education reform was gradually introduced. As mentioned above, the 4+4+4 education reform, which was implemented for the first time in 2012, affects the 1st grade students who started primary school that year, in short, these students started their second grade for the first time in the 2013-2014 academic year (Ministry of National Education, 2012). Since age groups are of great importance in curriculum development, this article focuses only on this age group. This study aims to evaluate the opinions of English teachers about the curriculum prepared only for students aged 6-8 in the 2nd, 3rd and 4th grades of primary school.

In this direction, in the study it was aimed to find answers to the following questions:

1. What are the teachers' views on the newly designed syllabus used at elementary schools in Turkey?
2. What are the challenges English teachers encountered during the application of the newly designed syllabus?

2. Literary Review

There are several definitions of syllabus suggested in the literature. According to the Longman Dictionary of Language Teaching and Applied Linguistics, a syllabus can be defined as a description of the contents of a course of instruction and the order in which they are to be taught (Richards et al., 2002). This definition is in line with the one given by several other scholars; and some scholars even suggest defining objectives, determining content, and indicating some sort of sequence or progression to be the essential minimum of what is meant by curriculum (Thornbury, 1999; Brown 1994; Stern 1992). Moreover, Stern (1992) regards the language syllabus only as one of four syllabi which together constitute a general language education syllabus. White (1988) subsumes such syllabuses based on objectives to be achieved and content to be learned under what he calls type A syllabi, may they be structural, functional or skills based. He contrasts this type of syllabus with a different group labeled type B which emphasizes methods ('how?') rather than objectives ('what?'). This second type is then subdivided into 'process' and 'procedural' syllabuses. According to White (1988), an important feature of process syllabuses is that they are organized around learners' learning preferences. This is complemented by Richards and Rogers (1986) suggestion that 'considerations of language content are often secondary in process-based methods'. Procedural syllabuses are linked to task-based approaches to language learning where a 'linguistically graded syllabus is rejected in favor of a task-based one, in which the tasks are selected and graded in terms of cognitive complexity' (White 1988, 104). Willis (1990) proposes a 'lexical syllabus' as a starting point for task-based teaching, on which basis he develops the concept of a syllabus as a 'pedagogic corpus' which might be seen as a possible solution to the problem of integrating linguistic syllabus content into a task-based approach to foreign language teaching.

Method

In current study, conducted regarding descriptive qualitative research design, it was aimed to evaluate the syllabus used at the state elementary schools in Turkey. The main feature of the descriptive qualitative research design is that it focuses on the situation which exists within its own conditions. In a descriptive research design, collected data are utilized so that the assumptions about the current state of the subject studied can be validated (Dörnyei, 2007). Qualitative research is used to find answers to questions such as why, how and to what extent. It is a type of research created with data collection methods such as observation and document analysis. It represents the process for a holistic examination of events and findings in a realistic setting (Neergaard, Olesen, Andersen, & Sondergaard, 2009; Sandelowski, 2000).

Within the scope of the study, initially, an interview form utilized, in which it is stated that the data for the participants will be confidential. Moreover, the use of the collected data and the results will be shared with the participants whenever they wish. Participants' personal information was not revealed data collection processes. All the participants were addressed as given numbers by the researcher.

Data Collection Procedure

The data for this study were collected from 104 English teachers working at different Elementary State Schools around Turkey through semi-structures survey, which was created by the researcher based on the criteria available in the current literature. The data were collected via e-mails through the teachers occupying in different regions of Turkey. The researcher gave the participants a brief explanation about the purpose of the study.

For data collection, a semi-structured survey was prepared and presented to English teachers at state schools at different times within two weeks. The sheets were either handed out by the researchers or sent via emails. Following the completion of the task, all the teachers were thanked and the data gathered were fed into MaxQda qualitative analysis programme for the analysis.

Participants

The participants in this research consisted of 104 English teachers who follow the standard curriculum and syllabus designed by the Board of Education and Discipline, which is a board functioning as a sub-branch of the Turkish Ministry of Education. All the participants voluntarily agreed to participate in the study and signed a consent letter.

Reliability and validity of the data analysis

In the current study, the reliability of the coding process conducted by two different coders, one of whom is the researcher, was calculated with the Miles-Huberman coder reliability percentage. This formula is $(\text{Percent Agreement} = \text{Agreement} / (\text{Total Agreement} + \text{Discord}))$ and it is expected that there is to be at least 80% agreement among the coders (Miles & Huberman, 2016). As a result of two coders' analysis, the total agreement obtained in the study was obtained as 83.5%.

As for the validity of the analysis, several studies to ensure the validity and reliability of the qualitative dimension of the research were conducted during the research. For example, according to Hammarberg, Kirkman & Lacey (2016), peer review in qualitative research represents one of the core elements of science, and external evaluators can help create practices that support more valid conclusions. In qualitative research, participant control can be viewed as the crucial criterion in ensuring reliability (Faris, 2017; Fusch, Fusch & Ness, 2017; Fusch & Ness, 2015). Another way to ensure reliability and validity is to utilize software programmes for the analysis. The use of computer programs such as NVivo and MAXQDA, which emerged with the developing technology, in qualitative analysis is one of the most effective techniques in ensuring the validity of the data analysis (Hammarberg, K., Kirkman, M., & Lacey, S. de. (2016).

Findings

Within the scope of the research, the main purpose of the syllabus was asked to the participants. The participants' coding of the views on this matter is given in Figure 1.

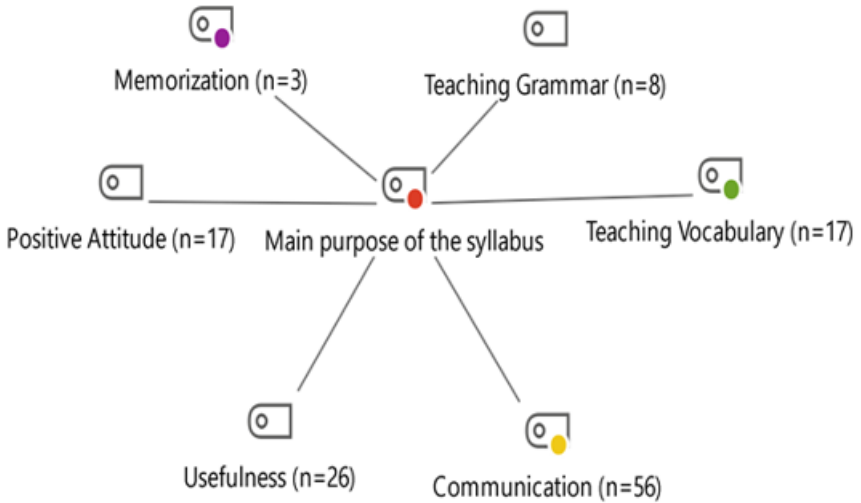


Figure 1. The main purpose of the syllabus

As a result of the qualitative analysis related to the main purpose of the syllabus, three (n=3) participants support the idea that the main purpose of the syllabus is to memorize the content of the course given within the scope of the lesson. To illustrate, T22 say that “*Its purpose is memorization of the structure and patterns in English.*” Eight (n=8) of the participants have the view that the main purpose of the syllabus is to teach grammar. For example, T50 claim that “*Learning grammar points and the structure are the main purpose of the syllabus.*” 17 participants (n=17) believe that its purpose is to develop positive attitudes. To support this view T82 say that “*To teach English in an effective way, it is sufficient for learners to learn English efficiently.*” And the same number of participants supports the idea that its main purpose is to teach vocabulary. For instance T101 say that “*In order to learn vocabulary and understand the words, it mostly focuses on vocabulary.*” 26 participants (n=26) emphasized its usefulness, while 56 participants (n=56) have the idea that its main purpose is to develop communication. For example, T77 say that “*Right and regular way of language learning and teaching better are the purposes of the syllabus.*” Moreover, T9 says that “*I think that the syllabus is about making students communicate.*”

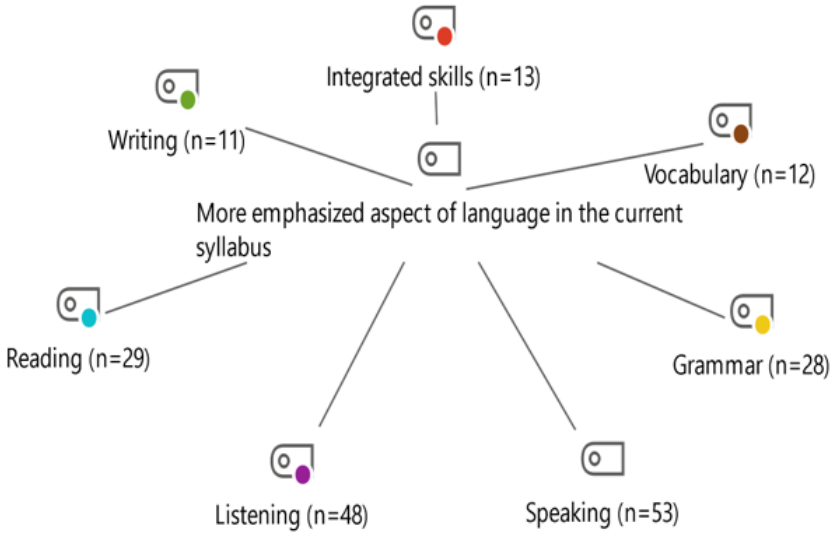


Figure2 . More emphasized aspect of language in the current syllabus

As a result of the qualitative analysis regarding more emphasized aspect of language in the current syllabus, 11 participants (n=11) have the idea that the syllabus emphasized writing mostly. For example, T102 claims that “*In the syllabus Writing is more emphasized.*” 12 participants (n=12) support the idea that it mostly emphasizes vocabulary items. T77 says that “*Throughout the lesson I need to revise vocabulary items repeatedly*”. 13 participants give opinions about the fact that it underlines integrated skills. In this regard, T13 says that “*The skills (reading, writing, speaking and listening) are mainly emphasized.*” In addition, 28 participants (n=28) believe that it emphasizes grammatical features. Regarding this, T9 says that “*Grammatical structures are emphasized more as well as structures and functions.*” 29 participants (n=29) it mostly highlights reading. In this context T 53 says that “*It is a reading based course and reading is more emphasized.*” 48 participants (n=48) believe that it underlines listening skill regarding this T45 says that “*Listening activities have been more than the others.*” and finally 53 participants (n=53) support the idea that the syllabus mostly emphasizes speaking skill. For example T78 says that “*Communication-centered activities such as dialogues are mostly given and it focuses on speaking and pronunciation.*”

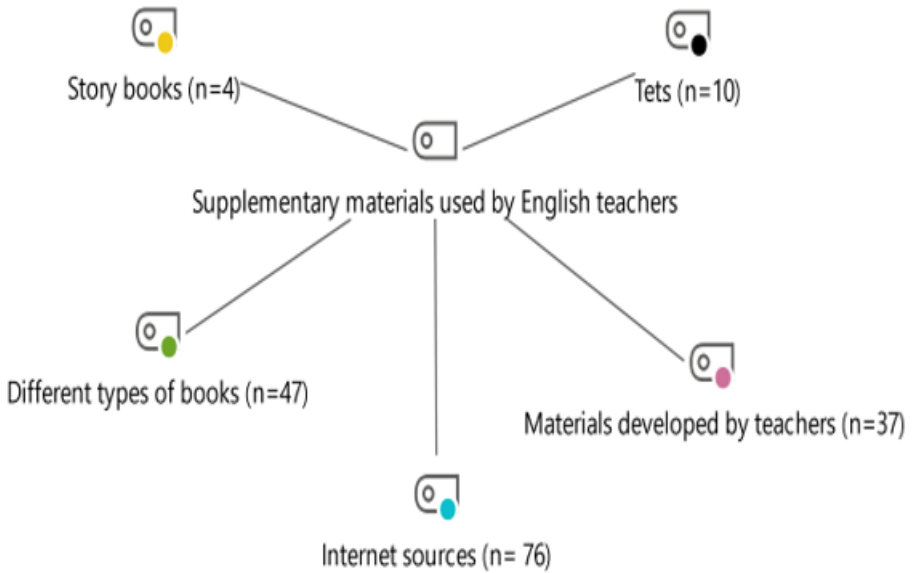


Figure3. Supplementary materials used by English teachers

According to the result of the analysis related to supplementary materials used by English teachers, 4 of the participants (n=4) use story books. For instance T3 says that “To supplement the main course and other activities, we use workbooks and story books as well as activity books.” Moreover, 10 participants (n=10) prefer using tests. In this regard, T89 says that “*I use tests at the end of each unit for students to improve.*” 37 participants (n=37) say that they produce their own materials. Regarding this, “*Most of the time, I need to produce my own material making use of other sources to support the lesson.*” 47 participants (n=47) use different types of books. “*There are various sources especially books I have used before to produce supplementary materials.*” And lastly, 76 participants make use of internet sources as supplementary materials. To illustrate, T90 says that “*I always use internet sources since they are always easy to reach to support the lesson.*”

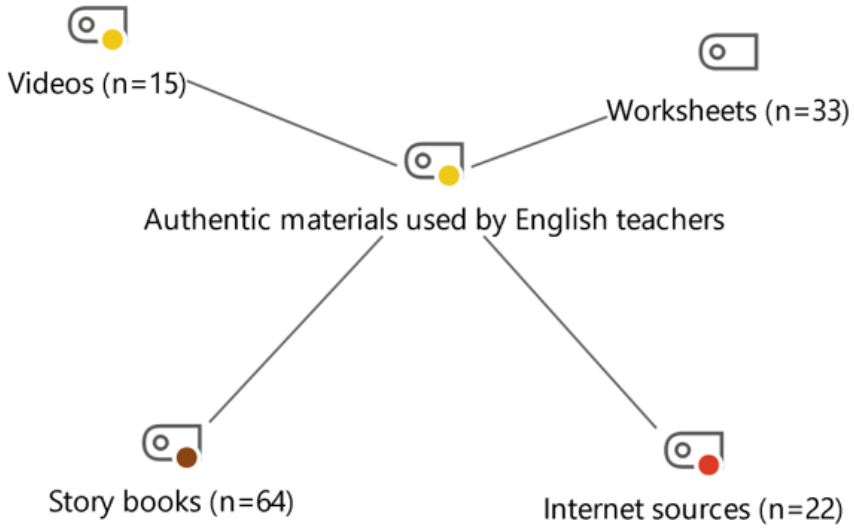


Figure 4. Authentic materials used by English teachers

According to the result of the analysis related to authentic materials used by English teachers, 15 participants (n=15) use videos. Regarding this, T104 says that “There are various kinds of videos on the internet to show the students as authentic materials.” 33 participants (n=33) make use of worksheets. For example, “I make use of work sheets for each unit ... I apply the students some of them at the end of each lesson.” 22 participants (n=22) use internet sources. To illustrate, T45 says that “Internet is a very useful source maker for me to make use of to use as authentic material.” And finally 64 participants (n=64) utilize story books as authentic materials. Regarding this, T 52 says that “there are various story books in the library and I mostly use them as authentic materials.”

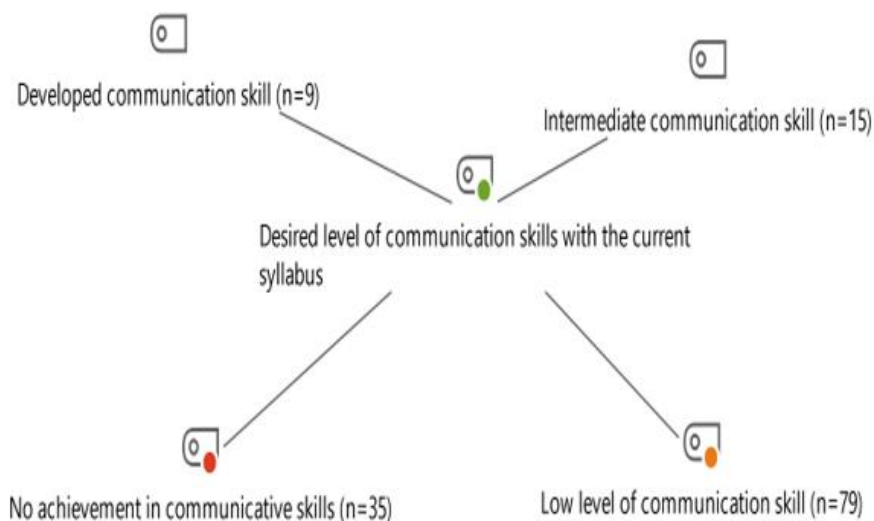


Figure 5. Desired level of communication skills with the current syllabus

As for the results of the analysis regarding desired level of communication skills with the current syllabus, only nine of the participants (n=9) claim that they developed communication skills. To support this opinion T8 says that *“Students can do most of the stuff without my help.”* 15 participants (n=15) put forward the idea that they can achieve the communication skill at the intermediate level. Regarding this T49 says that *“They can perform some of communicative tasks at the intermediate level.”* 35 participants (n=35) have the opinion that students have achieved no communicative skills. To support this opinion, T88 says that *“They are not supposed to speak English because there is no speaking part”*. 79 participants (n=79) say that they achieve low level of communicative skill. To illustrate, T21 says that *“I think they don’t develop communicative skills with this syllabus.”*

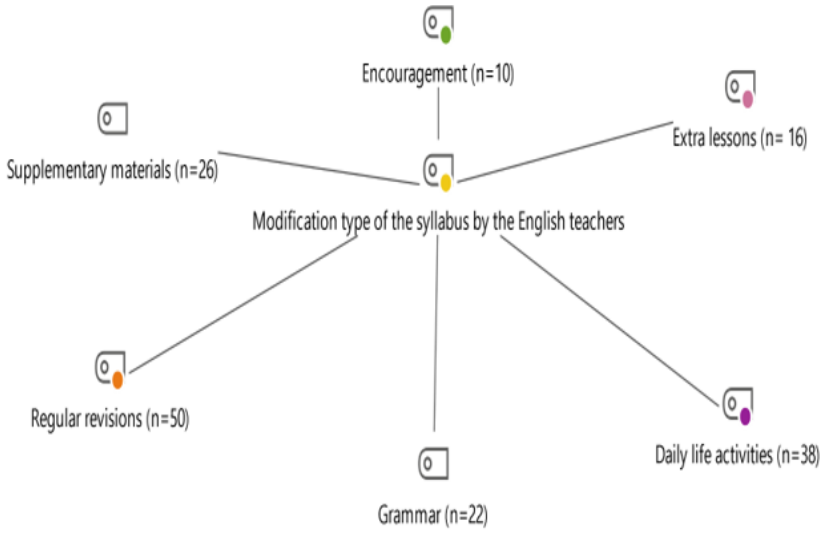


Figure 6. Modification type of the syllabus by the English teachers

The result of the analysis related to modification type of the syllabus by the English teachers reveal that 10 participants (n=10) believe that it requires encouragement. In this regard, T51 says that “*Students need encouragement and motivation.*” 16 participants (n=16) are supposed to do extra lessons. In this regard, T11 says that “*The lesson hour is not enough so there must be extra lessons.*” 26 participants (n=26) believe that they should make use of supplementary materials. To illustrate, T 55 says that “*Computer labs, videos, visual materials should be used more.*” 22 participants (n=22) apply grammar activities. “*I would add more colorful pages and revision parts before learn new grammar as subjects.*” 28 participants (n=28) provide daily life activities. To support this opinion T95 says that “*Daily life context and activities should be used more, so I would add activities related to daily life.*” And finally, 50 participants (n=50) do regular revisions to modify the syllabus. For example, T 13 says that “*Depending on the level of the students, the syllabus should be evaluated again and again.*”

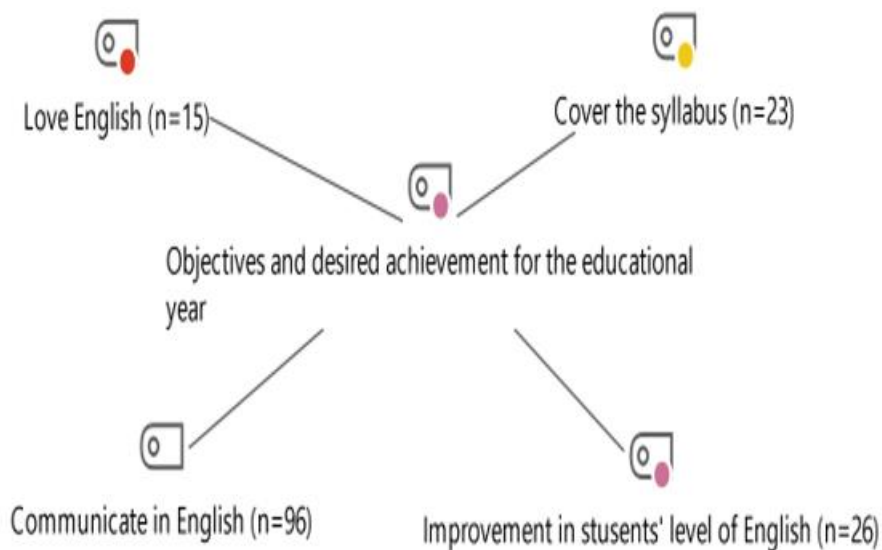


Figure 7. Objectives and desired achievements for the educational year

The result of the analysis regarding objectives and desired achievements for the educational year, 15 participants' (n=15) main objectives are to make their students love English. For example, T15 says that *"My main goal is to make my students love English and be aware of that they need it."* 23 participants (n=23) try to cover the syllabus only. To support this opinion, T11 says that *"My ultimate goal is to cover all topics in the syllabus on time."* 26 participants (n=26) aim to improve students' level of English skills. For example, T65 says that *"Enable the learners to get the correct grammar, pronunciation, speaking other skills required."* 96 participants (n=96) aim to make their students to communicate in English. Regarding this, T71 says that *"Performing and responding to basic language functions, such as information exchange and requests."*

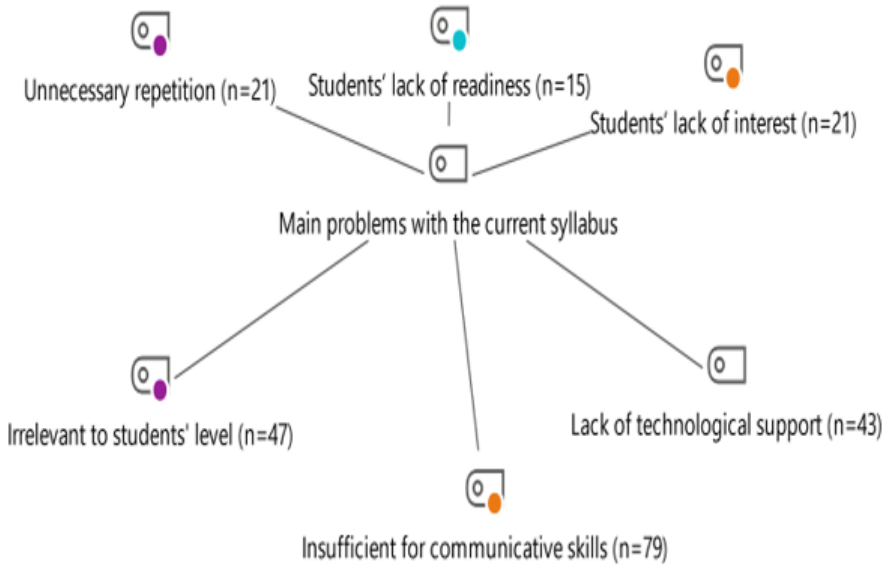


Figure 8. Main problems with the current syllabus

As for the results of the analysis related to main problems with the current syllabus, 15 participants (n=15) complain about their students' lack of readiness. In this regard, T56 says that *“Most students are not ready to begin the level of English introduces through he syllabus.”* 21 participants (n=21) finds that there are unnecessary repetitions in the syllabus. In this regard, T49 says that *“the subjects in the units are scattered randomly and there are too many exercises in a unit overloaded with similar activities.”* Again the same number of the participants (n=21) complain about their students' lack of interest in English. 43 participants (n=43) support the idea that the lack of technological support make it more difficult to perform lessons. *“There are no CDs available and most of them have poor quality of the records... there are hardly any videos as well as no internet access in the classrooms.”* 47 participants (n=47) find the syllabus irrelevant to their students. *“It is too overloaded with grammar for pupils, it not interesting and fun too... there is a complexity of grammar order in the books.”* And finally 79 participants (n=79) find the syllabus insufficient to develop students' communicative skills. To support this, T2 says that *“There should be more emphasis on listening and speaking skills, it should be more practical and it should be more elaborated.”*

Discussion and Conclusion

During the data analysis procedure, various issues are focused as they emerged in the participants' response. Themes which attracted support of one or more than one per cent of teachers were taken into account by the researchers. The themes which emerged in the teachers responses were classified into eight major groups:

- main purpose of the syllabus,
- more emphasized aspect of language in the current syllabus,
- supplementary materials used by English teachers,
- authentic materials used by English teachers,
- expected level of communication skills with the current syllabus,
- modification of the syllabus by the English teachers,
- objectives and desired achievement for the educational year,
- and main problems with the current syllabus.

When it comes to the '*main purpose of the syllabus*', it can be seen that *communication, usefulness, teaching vocabulary, positive attitude, teaching grammar and memorization* are the main convergence-type themes to emerge in the participants' response sheets.

As for the other theme, it can be observed that themes in the '*more emphasized aspect of language in the current syllabus*' category, it can be seen that reading, writing, listening, speaking, vocabulary, integrated skills and grammar are the main convergence-type themes to emerge in the participants' response sheets.

It can be observed that the '*supplementary materials used by English teachers*' category, *CDs, books, others, tests* are the main convergence-type themes to emerge in the participants' response sheets. Moreover, it can also be observed that the number of themes seen in the responses of teachers is quite high, which shows that the various authentic materials are used by the teachers. For example, the most preferred one is choosing *story books*. In this context, Bada (2001) emphasizes the use of authentic materials as supplementary materials to support the educational tools used during the process of teaching and learning.

As for the expectancy of communication skill with the current syllabus does not seem satisfactory since teachers' expectation is rather low when it comes to communication. The rest of the are *developed communication skills, intermediate communication skills, low level of communication, no achievement in communication and tt's/ ss' ambition*. The second highest frequency belongs to *no achievement in communication*, which clearly reveals the fact that the

syllabus has insufficient aspects to cover one of the main objectives of language learning. According to Garton, et al., (2011), the main aspect of the syllabus utilized for the young learners should focus on the communicative skills.

When evaluating some of the convergence themes, such as *regular revisions* and *daily life activities* are more common in the answers of the participants. The convergence themes mentioned by the participants are categorized as *games, encouragement, regular revisions, supplementary materials, daily life activities, more lessons, decreasing the activities in each unit, authentic materials and communicative activities*. In order to compensate with the lack of some significant unavailable in the syllabus, it is evident that teachers are obliged to prepare some certain materials and activities as it clearly be seen in the abovementioned statements.

The next subject handled by the participants is related to the objectives and aims of the teachers for the educational year. Teachers are asked to explain specifically what aims and objectives to be achieved by the end of educational year. It can be understood that the most common answer given by the teachers when asked what their aims are is to communicate in English, which leads us to see that teachers' have communicative aims in language teaching. Although teachers view language as a communicative tool they have some certain difficulties in achieving their aims. On the other hand, the next most common answer is to cover the syllabus, which suggests that as their first and most important duty to cover all the units in the syllabus regardless of the other aspects of language learning and teaching in terms of objectives and desired level. As for the following theme is to make students love English language and improve general language competence are the least preferred ones.

As for the final theme, one can easily notice that insufficient for communicative skills sticks out, irrelevant to students' level, unnecessary repetition and students' lack of interest are the noticeable matters that should be taken into consideration. Moreover, lack of technological support share the same significance amongst the challenges teachers encounter during the educational processes. On the other hand, apparently, the culture and pronunciation parts in the textbooks are sufficient enough for the teachers, as they are not stated as 'big' problems of textbooks.

In this study, the nature of a syllabus was defined to suggest subsequently that in the EFL syllabus used at Turkish elementary level state schools. It continued arguing that the major influence on what is happening in classrooms is not the syllabus but the limited time and workload during the course of the lesson. The current approach to challenge this problem is to cover items prescribed by the syllabus with a range of complementary materials, including

texts produced for communicative purposes as early as possible, and to delay the focus on form compared to syllabus progression to give learners the possibility to analyze linguistic features when they have met them several times in different contexts instead of highlighting and practicing structural issues the first time they occur. After that, I try to investigate English teachers' attitudes towards the current syllabus in order to find out what their attitudes were. Most of teachers who participated in the survey identified the issues below as their main concerns during teaching; at the end of the year, majority of students achieve low level of communication skills; moreover, majority of the teachers are not content with the current syllabus

Concerning the supplementary materials, most of the teachers claimed that these materials are not available to them. Even the rest of the teachers who claimed that such materials are available were not happy with the content of supplementary materials and described them as 'poor quality'. Furthermore with respect to authentic materials, most of the teachers claimed that they use story books as authentic materials and the rest of them argued that because of time limit they were not using such materials in order to cover the syllabus on time. Although they claim that students will be able achieve low level of communicative skills at the end of the year, the majority of the teachers find the content of the syllabus as communicative. In response to a question about the main purpose of the syllabus and what aspect(s) of language has/have been most emphasized, the teachers identified issues below as the main goals:

- a) The main objective is to communicate.
- b) The objective of the syllabus is to raise positive attitude.
- c) To teach students how to apply words in sentences correctly.
- d) To teach students how to learn vocabulary.
- e) To teach students how to learn better.

As a conclusion, the syllabus cannot meet both the learners and the teachers' needs within the Turkish educational system whether it still emphasize the communicative role of the language or not. With this study, the aim was to present some possible strategies, based on the literature that was being reviewed and what the teacher participants expected, which hopefully can make a great change to the application and the function of the syllabus in order to make it more applicable. English language teaching will definitely generate more and more arguments in Turkey and the issue of syllabus in particular. In terms of making the syllabus more effective, this study is just a trial. Future research in this area may place the emphasis on how these findings could affect the real classroom situation or how to design an effective syllabus for teaching English within the Elementary Educational System in Turkey.

References

- Bada, E. (2001). Students Develop Teachers. Teachers Develop Teachers Research (TDTR) 5th International Conference, Ankara.
- Brown, H. D. (1994) Teaching by Principles. Upper Saddle River: Prentice Hall Regents.
- Littlejohn, A. and Hicks, D. (1996) Cambridge English for Schools. Teacher's Book One. Cambridge: Cambridge University Press.
- Edelenbos, P., Johnstone, R. ve Kubanek, A. (2006). The main pedagogical principles underlying the teaching of young learners. [EAC 89/04]. Key study for the European Commission., Brussels.
- Faris, N. (2017). Leadership in an Australian context: Highlighting a qualitative investigation with construct validity support. *The Qualitative Report*, 22(5), 1420-1438. <http://nsuworks.nova.edu/tqr/vol22/iss5/17> (Erişim Tarihi 14.10.2022)
- Fusch, P. I., Fusch, G. E., & Ness, L. R. (2017). How to conduct a mini-ethnographic case study: A guide for novice researchers. *The Qualitative Report*, 22(3), 923-941. <http://nsuworks.nova.edu/tqr/vol22/iss3/16>
- Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9), 1408-1416. <http://nsuworks.nova.edu/tqr/vol20/iss9/3>
- Garton, S., Copland, F. and Burns, A. (2011). *Investigating Global Practices in Teaching English to Young Learners*. London: British Council.
- Hammarberg, K., Kirkman, M., & Lacey, S. de. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction*, 31(3), 498-501.
- Kırkgöz, Y. (2008). Curriculum Innovation in Turkish Primary Education. *AsiaPasific Journal of Teacher Education*, 36(4), 309-322.
- Kırkgöz, Y. (2007). Language planning and implementation in Turkish primary schools. *Current Issues in Language Planning*, 8(2), 174-191.
- Lopriore, L. (2002). The teaching of EFL in the Italian context: Issues and implications. *CAUCE, Revista de Filología y su Didáctica*, 25(1), 203-223.
- McDonough, J. and Shaw, C. (1993). *Materials and Methods in ELT*. Oxford: Blackwell.
- Miles, M. B., & Huberman, A. M. (2016). *Qualitative data analysis: An expanded Sourcebook* (3rd ed). Thousand Oaks, CA: Sage.
- Millî Eğitim Bakanlığı Resmi Gazete (2012). *Millî Eğitim Bakanlığı İlköğretim Kurumları Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik* (sayı: 28360), 21 Temmuz.

- Nikolov, M. & H. Curtain (Eds), 2000. *An Early Start: Young Learners and Modern Languages in Europe and Beyond*. Council of Europe: European Centre for Modern Languages.
- Nunan D. (1988). *Syllabus Design*, Oxford: Oxford University Press
- Richards, J. C., Platt, J. and Platt, H. (2002). *Longman Dictionary of Language Teaching and Applied Linguistics*. Harlow: Pearson Education Limited (Third Edition)
- Richards, J. C. and Rodgers, T. S. (1986). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- Rooney, K. (2000). Redesigning Non-Task-Based Materials to Fit a Task-Based Framework. In: *The Internet TESL Journal*, 6(12) 78-89. In electronic format at <http://www.aitech.ac.jp/~iteslj/Techniques/Rooney-Task-Based.html>
- Rutherford W. E. (1987) *Second Language Grammar: Teaching and Learning*. Harlow: Pearson Education.
- Sinclair, J. and Renouf, A. (1988). 'A lexical syllabus for language learning'. In: Carter, R. and McCarthy, M. (eds.) *Vocabulary and Language Teaching*. Edinburgh: Pearson Education.
- Shortall, T. (1996). 'What learners know and what they need to learn'. In Willis, D. and Willis, J.(eds.) *Challenge and Change in Language Teaching*. Oxford: Macmillan Heinemann.
- Skehan, Peter (1996). 'Second language acquisition research and task-based instruction'. In Willis, D. and Willis, J. (eds.) *Challenge and Change in Language Teaching*. Oxford: Macmillan Heinemann.
- Stern, H.H. (1992). *Issues and Options in Language Teaching*. Oxford: Oxford University Press.
- Thornbury, S. (1999). *How to Teach Grammar*. Harlow: Pearson Education.
- White, R.V. (1988). *The ELT Curriculum*. Oxford: Blackwell.
- Willis, J.D. (1990). *The Lexical Syllabus*. London and Glasgow: Collins COBUILD.
- Willis, J. (1996). *A Framework for Task-Based Learning*. Harlow: Pearson Education.