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PREFACE

Today's people continue to experience faster and more complex lives than ever before. With technology making our lives easier in almost every field, countless opportunities have begun to emerge to access information and thus improve our existing knowledge base. However, it should not be overlooked that the uncontrolled explosion of information poses a danger to today's intellectuals in many ways. This situation increases the importance of accessing scientific knowledge that is reliable at the highest level, as well as the effective use of means of accessing information. Considering that educational sciences aim for long-term learning outcomes, it can be argued that it is critical for this field for scientific research to provide meticulously obtained and concrete evidence. Based on this argument, it is thought that the need to address new research from a holistic perspective in order to adapt to the existing knowledge and depth in educational sciences has become one of the primary needs of today's responsible global citizens. In line with this need, we have taken the first steps of a new book series with the book "Research in Educational Sciences-I". You can access theoretical and practical research related to the field of education in the book. The aim of the book is to introduce the research covered in a broad scope to potential readers and to lead to the emergence of new research ideas. As the editor, I would like to thank all the researchers, the publishing house and the staff who contributed to the preparation and publication process of the book.

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CHAPTER 1

THE IMPORTANCE OF LITERATURE AS AN EDUCATIONAL TOOL FOR THE INDIVIDUAL AND THE SOCIETY

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INTRODUCTION

The term “literature”, which comes from the Arabic word “edeb”, initially had various meanings, but over time it became a general term for all kinds of studies related to speech and expression. Today, this term is used as a general term for fine arts activities and studies done with language (Aktaş, 2009: 187). It is seen that the period when the word “literature” first appeared in Turkish was the Tanzimat Period. Before this period, terms such as “poetry and construction” and “ilm-i edep” were used. The Turkish equivalent of the French word “littérature” was accepted and the name “literature” was adopted accordingly. In both French and American cultures, the term “literature” refers to any subject that can be the subject of literary works. In Persian and Arab cultures, it was met with the concept of “morality” or “edep” (Turan, 2017: 92). Literature is a form of language use that aims to provide aesthetic and artistic satisfaction and to express thoughts and feelings beautifully and effectively. This style of expression uses language not only as a tool but also as a goal. It is distinguished from spoken and prose language and is mostly expressed in fictional works (Batum Menteşe, 2008: 50).

Literature is a creative art form in which language is the tool and experience and imagination are the source. In other words, it is an art field in which words are used to convey emotions, ideas, dreams, events, and objects, both concrete and abstract qualities. In addition, literature is also the expression of a field of study focused on literary works (Macit and Soldan, 2008: 8). Literature includes all written and oral works that use language to convey emotions, ideas and dreams (Cemiloğlu, 2003). Since literature is a branch of art in which language is used as a tool (Kefeli, 2006: 331), it is an art field that uses words to reflect the world, life, and emotions (Paliçko, 2020). In addition, literature is the art of using words to convey thoughts and emotions in a beautiful and aesthetically pleasing way. When combined with language and human experience, it is seen that it represents one of the most beautiful arts of the world, civilizations and individuals (Baytekin, 2006: 6). However, literature is a type of fine art in which the writer uses words artistically to convey emotions, ideas and dreams in a way that will attract the attention of the reader and inspire their appreciation (Kılıç, 2022). While art expresses abstract concepts by communicating with society through language, literature is one of the most effective ways of expressing cultural heritage (Eroğlu, 2012).

According to Aktaş (1984), literature is a work of art that is created with a language different from everyday and scientific language, is creative, original, individual, and unique, has beauty as its primary goal; appeals to emotions rather than reason, has integrity, emerges from the synthesis of language, content and structural elements; deals with people aesthetically reflects reality, is respectable, is recreated with each reading and has many important features.

Literature, which is also one of the sub-branches of fine arts, includes all forms of writing, both written works with broad artistic goals and written works with narrow artistic goals. Poetry, novels, stories, drama, speech, and other literary works in both poetry and prose, which have the power to arouse emotions, are important components of literature. In addition, literature is the name of the science that studies these artistic creations. Books about these artistic creations and the science that investigates them are considered "literature" (Karaalioğlu, 1980: 9). In its most concise form, literature is the best way to use oral or written language to convey emotions, ideas, and imagination. The creative and artistic use of language to reveal the reader's strong emotions, ideas, and dreams is essential for literature (Pilav & Uslu Üstten, 2013). Literature includes all literary products created using language as well as the elements of oral and written expression and the authors who create these products (Adıgüzel, 2017: 88).

As can be understood from the above explanations, the Arabic word "edeb" is considered the root of "literature". This word initially meant "invitation", but later it came to mean "the best morality, the ability to protect people from evil and guide them to goodness, and having perfect character" seen in individuals. Later, it became an "umbrella term" covering a wide range of research related to speech and expression. This word was also used to indicate the "set of principles" that people learned and applied to avoid making mistakes in their written and oral expressions. Even in the 19th century, literature was seen as a discipline that instilled morality and etiquette. Today, it is also stated that literature is primarily a fine art. In addition, fine art efforts that focus on historical, social, and cultural elements and language-based studies are collectively called "literature". Literature is the general term used today to describe fine art efforts and works created with language (Aktaş, 2009).

Individual Functions of Literature

Architecture, sculpture, painting, music, and literature are the five basic disciplines of the fine arts. There are clear distinctions between literature and other art forms in terms of form, originality, essence, and perceptual focus. Moreover, literature is distinguished by its basic content. Literary works must always include people or human events, whereas plastic and phonetic arts can create works without people. As a result, literature is the only art form that requires the inclusion of human subjects in its work. Unlike other major art forms, literature has a structure developed by human components. The dependence of literature on humans is shown by the fact that its works are human-centered; this need arises when works are mentally based, dynamic, expressive, and produced through language. Unlike other major art forms, literature has a structure developed by human components. The dependence of literature on humans is shown by the fact that its works are human-centered; this need arises when works are mentally based, dynamic, expressive, and produced through language (Sazyek, 2013).

Our perception of fine arts and our aesthetic understanding are greatly influenced by the literature and composition courses we take in secondary school. The ability of a person to use the language correctly and effectively both in writing and speaking and the pleasure and appreciation of reading are the goals of literature and composition education in these years (Gökalp-Alpaslan, 2000). Completing Turkish (mother tongue) education and establishing the connection between language and literature are prerequisites for a solid literature education. The intellectual component of the language, its acquisition of an aesthetic quality, and the expansion of communication to a new area are at stake in this interaction. This is the most difficult stage of literature education. From this point on, it should be very important to understand the existence of a new language dimension in literature education and to explain it to others; language should be processed with its most attractive and artistic features (Ayyıldız & Bozkurt, 2006).

According to contemporary educational approaches, literature education has important functions such as the development of individuals' learning skills, their mastery of national and universal values, the development of their language skills and their ability to think critically, and encouraging them to adopt scientific, critical and creative ways of thinking. It also plays an important role in raising individuals as people with citizenship

awareness, respectful of national and universal values, developing communication skills, and in transferring the cultural heritage of Turkish literature to new generations. The Turkish National Education Fundamental Law is a document that demonstrates that literature education plays an important role in achieving the Turkish National Education Goals (Güzel, 2006). Literature is a fine art that aims to express thoughts, feelings, and images through language, words, and writing in a way that will arouse aesthetic feelings in people. Like every fine art, literature also has a useful place in shaping people (Püsküllüoğlu, 2006).

Literature is useful in many ways. It attracts attention with its qualities such as creating attraction, arousing interest, encouraging, and providing motivation. It also has an exciting effect because it gives people pleasure and makes them happy with its artistic aspect. The enthusiasm and excitement of literature excites people in the face of beauty and takes them into a world of imagination. In addition, it is very important for literature to affect individuals emotionally and empathize with them. Literature increases the passion for reading, adds color to learning, and strengthens friendship (Çelik, 2013: 220-221). Raising individuals who have a reading culture, who are thinking, productive, critical and sensitive are among the aims of literature education (Ayyıldız et al., 2006: 1). Literature courses not only help students learn languages, but also help them develop their culture and knowledge (Eski, 2023). As a result, literature is a powerful educational tool that helps people and societies develop their aesthetic, cultural and intellectual abilities by encouraging creative thinking, communication skills, social values and heritage.

Social Functions of Literature

It is almost impossible to think of literature outside the social order. It must be accepted that the social spirit is the source of inspiration for all literary works. Literary works can also be used to observe the traces, changes, causes, and consequences of the historical life of society (Guluzade, 2024). Although literature is an individual act of creation, it is a social phenomenon. Literature has always been a part of life and is closely related to the geography, religion, politics, patriotism and aesthetics of a society. Literature is a source that supports people's creativity and life, a means of transferring cultural values to future generations. Like other human behaviors in social life, it emerges as a type of cognition and emotion. Literature plays an

important role in maintaining social consciousness and preserving cultural integrity (Kılıç, 2022). In addition to being an artistic tool, literature is also a discipline that focuses on social events. At the same time, it serves as a link between the past and the future by transferring the wisdom and experience that cultures have accumulated over time to future generations. Literature develops people's intellectual lives and thus helps build a better future (Güneş, 2007).

The functional power of written communication is the key to social renewal; art and writing are powerful tools to overcome problems and enrich individuals (Bülbül et al., 2015). Literary communication is vital for social change and renewal. It is possible to develop one's own identity and talents in the rich world of writing. The powerful fictional reality of writing provides liberation from routine thoughts and lifestyles (Aşkaroğlu, 2020: 216). Literary works that allow a city or country to become a cultural tourism center contribute to the development of cultural tourism. Literary works that allow a city or country to become a cultural tourism center contribute to the development of cultural tourism (Özdemir, 2009). The perspectives and values of writers and characters on life reflect the social structure and beliefs in literary works and carry traces of individual and social value sets. Literary works resulting from the artist's aesthetic fracture regarding social events offer a social reflection with their language, subject, characters, and setting. Both literature and sociology try to solve the secrets of the world by using social and societal norms. In this sense, literature and sociology interact (Çelik, 2013a). Literature not only reflects society, but also leads to social changes. Literary fractures interact with social fractures in a mutual and multidimensional way (Şen Altın, 2017). The interdisciplinary study of literature using historical, political, economic, psychological and sociological facts is known as literary sociology. It examines the relationships between historical reality and fiction in literary works and the effects of society on people (Can & Özbay, 2014:71). Sociology of literature has emerged as a field that sees literature as an expression of society and investigates its impact on social events (Alver, 2006: 105). Sociology of literature investigates how the fields of literature and sociology are related to each other and connects literary history to social conditions. The main purpose of this discipline is to solve the mystery of society and its environment. While sociology is a branch of science, literature is a subjective branch of art based on fiction. Researchers have focused on the social effects of literature from the past to the present.

The ability of art to reflect reality has emerged with the role of literature in historical development. The human being is the focal point of the sociology of literature, and this field examines the way artistic fiction expresses reality (Cuma, 2009).Therefore, literature is the best way to introduce the culture of a community that speaks a language. Literature can be better understood if we start from the idea that learning a language as a tool cannot be achieved without first learning the culture (Bulut, 2017). With its social functions, we can say that literature not only reflects society but also introduces cultural heritage, directs social change, and participates in social events artistically.

The Relationship Between Literature and Education

"Education" is undoubtedly one of the most important issues in social life. In this regard, states create and implement the most appropriate educational policies for themselves. This is a requirement of the desire to reach a better, more developed society. Literature is defined as the art of using language effectively and beautifully. Since communication is an inevitable necessity in the educational process, there is a close relationship between education and language. The need for effective and beautiful use of language can be met through literature in educational activities (Çelik, 2013b). Therefore, it is an undeniable fact that literature has a function with the universal values specific to humans and the characteristics that make humans human and that it should play an important role in education. Therefore, it should not be forgotten that literary works contain a certain view, stance, philosophy, and moral understanding, and that these works cannot be considered separately from humanist values (Eagleton, 2003).

In Turkey, Turkish and literature education is provided to primary and secondary school students in accordance with the Constitution of the Republic of Turkey and the Basic Law of National Education. This education includes spiritual, intellectual, behavioral, and aesthetic education while preparing students for life. Teaching Turkish and Turkish language literature primarily aims to help students gain reading habits, expand their emotional and mental horizons, become more culturally conscious, and develop as individuals (Bulut, 2012: 22).

The aim of education is to ensure that people develop behaviors appropriate for social life and time and to influence and train them for this purpose. Education is to discover what is good and useful by using people's thinking, interpreting, and producing abilities. Literature originally comes

from the word “edeb”, meaning “education and training”. Therefore, there is a close relationship between literature and education. In this respect, it is known that educators attach importance to the guided aspect of literature in education by presenting what is right, beautiful and useful (Karakaya, 1998: 79). The oppressive, imposing and restrictive characteristics of the educational environment prevent students from progressing towards autonomy. When language and literature education is organized in a modern way, it can significantly help students develop their independent sense of self (Aslan, 2016).

The ability of literature to influence and shape human personality through its role in education is one of its main purposes. Developing emotions, being more sensitive, and establishing a good balance between thought and emotion are some of these. Literature plays an important role in teaching people the excitement, compassion, and mercy felt in the face of beauty (Kavcar, 1994: 5). Raising autonomous individuals is important because it affects the living standards of society. People who do not have a sense of autonomy can be prejudiced, can be manipulated, and can make wrong decisions. Language and literature education plays an important role in raising autonomous individuals. This education enables individuals to gain autonomy by developing skills such as reading, understanding, communication, thinking, and creativity (Aslan, 2016: 724).

Nations want to transfer the experiences, knowledge, and cultures they have accumulated over centuries to future generations. Literature, an important tool for this transfer, is used to educate and inform people through competent works (Kalfa, 2013). The main purpose of literature courses is to improve student's language skills, enrich their vocabulary, provide a critical perspective on literary texts, create cultural awareness by providing interaction with different cultures, enable individuals to become conscious of their own experiences, encourage creative and scientific thinking, provide judgment and criticism skills, raise individuals who develop a tolerant and universal perspective, and enable them to acquire the qualifications to become scientists when necessary (Salihoğlu, 1994).

Literature courses aim to provide students with both basic literary knowledge and the introduction of original texts, thus ensuring that they develop an interest in literature. This procedure encourages them to make connections with both modern and classical literature. Literature lessons

develop students' love of reading texts and their ability to express their feelings and thoughts. Over time, students may have the ability to write texts. Literature and art education should not only develop students' feelings, but also their desire to create their own works of art. Students' creative education and their ability to make comparisons with classical works within their own culture are very important for creating great works of art. This method strengthens students' awareness of thinking about their cultural and literary identities while developing their potential (Taşdelen, 2006). In this context, the aim of literature education is to transfer knowledge, as well as to develop students in speaking, writing, listening and reading. This is a technique for developing an appreciation of art and beauty in people. It is very important that the practices applied in the lesson create a permanent and good effect on students' future lives. In the aim of integrating literature education into daily life, the main aim is not to produce writers but to create resilient young people who can think, communicate and create (Gökalp-Alpaslan, 2000). In addition, the goal of literature education is to develop the sense of beauty by helping students understand and appreciate texts that have aesthetic value. It is not simply a language, history, sociology, or moral education; instead, it is an art education. The goals of this education include introducing national culture and language in an aesthetically pleasing way and helping young people experience the sensitivity of the global human spirit (Çetişli, 2006).

CONCLUSION

Literature is a versatile art form that strengthens the bonds between people and society while preserving cultural values and social memory. In addition to learning about their inner selves, people can gain new perspectives by understanding social, cultural and historical contexts through literature. Literature not only helps people express themselves more effectively, but also fosters qualities such as creativity, empathy and critical thinking. Literary works are crucial for passing on social events, cultural values and remnants of the past to future generations from a society's perspective. Through literature, a society's social consciousness is strengthened and historical events and social values are kept alive. People can gain a critical perspective on society, gain a deep understanding of their own culture and history, and thus access new ideas.

Education in literature extends these adaptive benefits even further. In addition to developing people's linguistic and aesthetic sensibilities, this educational approach also helps them become more analytical, creative and capable of appreciating aesthetics. Literary education enables people to express their intellectual and emotional selves, as well as to understand and criticize cultural norms and social structures.

Modern educational approaches emphasize these individual and social purposes of literature in an effort to develop people who are open to critical thinking, socially responsible, and culturally aware. Literature education encompasses more than just textual studies; it also includes broad perspectives such as interpersonal interactions, social structure, and the preservation of cultural heritage. The ability to evaluate social events and move towards a deeper understanding of cultural heritage becomes possible through this education.

This close connection between literature and education is a determining factor in the intellectual, artistic, and cultural development of people and society. When language is considered as a means of social awareness and education rather than a means of communication, it is clear that literature should play a central role in educational processes.

For contemporary societies, literature and education are fundamental components that promote social growth and develop people's cultural and intellectual capacities. Literature has a deep aesthetic, intellectual, and cultural depth and is a vital tool for both individuals and society. This research has comprehensively examined the individual and social roles of literature and emphasized its importance in the development of individuals and society. In addition to the emotional and mental development of an individual, literature supports the development of critical thinking, creativity, and communication skills. In this context, the successful use of literature in education will not only help people to have literary taste, but will also enable them to engage in more active social interactions. People can better understand social standards, cultural heritage and values thanks to the social functions of literature.

The task of preserving the cultural integrity and historical consciousness of civilizations is undertaken by literary works that depict social events. Therefore, literature, which transmits the knowledge of the past to the next generation, is the pioneer of social change in this context. Literature and sociology are another field where this relationship is evident;

literature not only reflects social processes, but also actively contributes to their production.

As a result, literature has deep meanings and effects as a social phenomenon as well as being an individual work. When literature is included in educational environments, individuals' personal development and social consciousness are strengthened. Thanks to its capacity to convey human experiences, feelings, and thoughts, literature enriches both individuals and societies. Therefore, it can be said that investing in literature education is of vital importance to raise future generations who are more thoughtful, sensitive, naive, aesthetic, have literary taste, and have high imagination.

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CHAPTER 2

EVALUATION OF THE THINKING EDUCATION COURSE CURRICULUM IN THE SCOPE OF 21st CENTURY SKILLS

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1.INTRODUCTION

Examining existing programs before starting curriculum development studies makes a great contribution to "curriculum development processes". In this way, "inadequacies of the curriculum" can be identified and "a more qualified curriculum" can be developed (Sönmez & Alacapınar, 2015; Ültanır, 2016). Curriculum development in education: It is defined as "the development of the designed curriculum by means of research throughout its practice" (İmrol et al., 2021). Based on the fact that curriculum development is a never-ending process, the designed curriculum needs to be "continuously monitored and evaluated" after its implementation (İmrol et al., 2021). In other words, curriculum development and evaluation processes in education are interlinked (Varış, 1978; Berkant, 2020). The aim of program development can be defined as: "to oversee the functioning of the program elements and to make the necessary changes in the program by monitoring this situation" (Tutkun, 2012; Gültekin, 2017). For this reason, the "ultimate goal of education", which is "the main reason why the teacher enters the classroom", can be achieved. The ultimate goal of education is to help individuals adapt to daily life and develop thinking skills that they can use continuously. Individuals can only reach the correct conclusion by questioning and thinking instead of accepting the encountered situations as they are. An individual's thinking skills are the most important part of social life. Education achieves successful outcomes by providing students with the skills they will need in the modern world (Tokmak, Şeker & Yılmaz, 2020).

From a broader perspective, the skills that the modern world needs are called "21st Century skills" (Demir & Özyurt, 2021). Many organizations (Organisation for Economic Cooperation and Development (OECD), Partnership for 21st Century Skills (P21)) have conducted research on what 21st century skills and their definition are (Koltuk & Kocakaya, 2015). There are many statements in literature about what 21st century skills are. OECD (2005) defines 21st century skills as communication with groups, interactive use of tools and independent behavior. The most accepted definition in literature is done by P21. According to P21, 21st century skills are defined as "information, media and technology skills, learning and innovation skills, and life and professional skills" (Demir & Özyurt, 2021). However, when the curriculum development studies are examined in detail, it is seen that skills such as "higher order thinking skills" and "reading the digital world" are

included in many classifications (Anagün, Atalay, Kılıç, & Yaşar, 2016; Koltuk & Kocakaya, 2015). In this framework, it can be said that the institutions and organizations that have worked on this issue have come to a common denominator on the skills recommended to be included in education programs (Dede, 2010) and that the importance of high-level thinking skills education has increased significantly with 21st century skills. When we look at the education programs that emerged in Turkey in this respect, one of the most striking programs is the "Thinking Education Course" curriculum. Thinking education course does not aim to teach a specific field of knowledge. In other words, it is not a philosophy, logic or history of thought course in which ideas, concepts and theories will be taught; it is a course that aims to train the ability to think by utilizing the knowledge and experience of many fields, and to provide the individual with critical, creative, analytical and reflective thinking skills and attitudes. It has an interdisciplinary characteristic based on this feature.

The Thinking Education Course Curriculum is a program prepared in accordance with the "General Objectives of Turkish National Education" stated in Article 2 of the National Education Basic Law No. 1739. Thinking education course aims to teach a specific field or subject knowledge. In other words, it is not a course in which "philosophy, logic or history of thought" is taught. The main aim of the thinking education course is to teach thinking skills by utilizing knowledge and experiences. Based on this foundation, critical thinking skills, analytical thinking skills, reflective thinking skills and attitudes are tried to be gained. In terms of these features, the Thinking Education Course is an interdisciplinary course. Sometimes an individual takes into account their intuitions, feelings and beliefs when making a decision or analyzing a situation. For this reason, people may make mistakes in the act of thinking from time to time. Difficulties may arise and there may be a gray area between right and wrong. Most importantly, the act of thinking itself can sabotage its own function for various reasons. The Thinking Education course aims to overcome these problems and assess situations in a healthy way. The scope of this course is; "to gain the skills of critical thinking, analyzing, making the right decision and interpreting the available data in the most efficient way" (DEDÖP, 2016). In addition to all these, this course aims to "provide the individual with the ability to think flexibly and alternatively, to arouse the desire to know and learn, to develop problem-solving skills, to gain the ability to present their views clearly and effectively,

to observe local/cultural and universal values in the act of thinking, to teach how to respect for differences in thought, to contribute to language development, to support the personality development process" (DEDÖP, 2016). At the same time, the Thinking Education Course Curriculum was prepared with an integrative approach within the framework of themes, achievements, values and concepts. In the creation of the themes, a logical flow was observed by taking into account the place of thinking activity in human life, its nature, function, steps, dimensions, gains and its role in building the future.

The Thinking Education Course Curriculum has been prepared in a way that will contribute to "raising individuals who can evaluate different perspectives, are open to different views, develop a unique understanding of themselves, respect the history and knowledge of humanity, have the ability to understand and interpret developments, empathize, have a sensitive approach, have awareness of the culture and value environment in which they live in, and think critically / creatively / analytically / reflectively". While preparing the Thinking Education Course Curriculum, it was aimed to provide students with thinking skills. While determining these skills, "the basic principles of the course, the suitability for the developmental level of the students and the benefits it will provide for other courses" were taken into consideration. The interdisciplinary feature of the program was also taken into consideration in determining the skills. The skills to be gained with this program can be summarized as follows: "The ability to question, the ability to consider existence in unity and integrity, research skills, editing/planning skills, the ability to understand and interpret data, the ability to use language effectively, the ability to establish relationships between data, the ability to use evidence, the ability to integrate existing data in a meaningful way, the ability to make comparisons, problem solving skills, the ability to think methodically and systematically, the ability to criticize, the ability to present alternatives, the ability to come up with original ideas and products." With all these skills, it is aimed to maximize the potential of the individual and use it in the most appropriate way. For this reason, educational environments where thinking education is carried out should be a process that supports creativity and enables the potential to materialize (DEDÖP, 2016).

While preparing the Thinking Education Course Curriculum, it was stated that "thinking is a human-specific activity, the necessity of sustainable and developable thinking, thinking skills can be developed, thinking styles can be differentiated, thinking is a continuous process, there are subjective and objective dimensions in thinking, that there is a relationship between thinking and actions, that thinking takes place in social and cultural environments, that thinking skills support other learning, that thinking is an interdisciplinary activity, and that thinking bears the characteristics of the environment in which it takes place" (DEDÖP, 2016).

When the pattern of the Thinking Education Curriculum is examined, it is seen that the curriculum was prepared "with an integrative approach within the framework of themes, achievements, values and concepts". In the creation of the themes, a logical flow was observed "by taking into account the position of thinking activity in human nature, the functions of thinking, the steps of thinking, the dimensions of thinking, what thinking brings to the individual and the role of the individual in building his/her own future". According to this flow, the themes determined for Grades 7 and 8 are namely; "Universe of Thinking, Call to Thinking, Thinking: The Construction of Life, Dimensions of Thinking, Colors of Thinking, Dynamism of Thinking and Thinking". In line with these themes, for the 7th graders, "Human and Thinking, I'm Starting to Think, I Love Thinking, The Power of Thinking, The Power of Thinking: Criticism and Creativity, Steps of Thinking, My Thought/My Way, Coexistence: Harmony of Colors and Building the Future" units are included to the program. For Grade 8, the units are "Life and Thinking, The Key to Development: Thinking, Building the Self, Critical Thinking, Creative Thinking, The Journey of Thinking, My Thought, My Expression, Coexistence: Realize Your Limits! From Thought to Tradition / From Tradition to Thought, Human Mirror from Thought to Tradition" units are included in the program. In line with all this information, the Thinking Education Course Curriculum consists of 7 different units and 39 different objectives in 7th grade. In 8th grade, it consists of 7 different units and 40 objectives. At the end of the units, students gain not only objectives but also some values. These values for 7th grade are "Giving meaning and value to life, sensitivity to thinking, sensitivity to physical, cultural and social environment, awareness of responsibility, being inquisitive, love of thinking, caring for relationships, optimism, openness to development, productivity, love of knowing, being patient, being original, self-respect, respecting

different opinions, being tolerant, being open to development, being tolerant, respect for culture, respect for faith, commitment to life". Grade 8: "Positive outlook on life, being virtuous, being determined, believing in the continuity of development, self-confidence, being free, responsibility, fairness, being critical, pursuing the truth, being original, being creative, being flexible, being planned, being consistent, being logical, being kind, questioning oneself, being measured, being hopeful, respect for history, sensitivity to cultural values". As a result, the Thinking Education Course was prepared by the "Republic of Turkey Ministry of National Education, Board of Education" for 72 hours in the 7th grade and 72 hours in the 8th grade.

The Thinking Education Curriculum has been in effect since 2016. Although there have been a few studies on the Thinking Education Curriculum in Turkey since then (Sönmez, 2016; Uluçınar, 2017; Tokmak, Yılmaz & Şeker 2019; Tokmak, Şeker & Yılmaz, 2020), there is a "limited number of academic research" in this field. With the program development approach that has come to the foreground in the new century, it is clear that "innovations and evaluations (Dolapçıoğlu & Doğanay, 2021) related to thinking skills" should be "rapidly introduced" to Turkish literature. For all these reasons, the aim of this research is: "To examine the Thinking Education Course Curriculum published by the Republic of Turkey Ministry of National Education, Board of Education within the scope of 21st century skills". In order to achieve this aim, the answer to the question "How is the distribution of the Thinking Education Course Curriculum published by the Republic of Turkey Ministry of National Education, Board of Education within the scope of 21st century skills?" was sought.

2.METHOD

Document analysis method was used in the study. Document review; It is a data collection methodology in which various documents, especially printed and electronic materials, are systematically reviewed and evaluated (Bowen, 2009). In this study, Thinking Education Course Curriculum, "a document prepared by the Ministry of National Education Board of Education and Discipline, a public institution" was systematically analyzed and the results regarding its content were presented. Descriptive analysis method was used in the analysis of the data in the study. The data were analyzed with a deductive approach.

Written materials were used as data set in the study. The main written material used is the “Thinking Education Course Curriculum”. Within the scope of this study, the Thinking Education Course Curriculum, which had a "printed and electronic version and was accessible to the public online" was accessed online on the website of the "Ministry of National Education Board of Education and Discipline " in September 2022. The education program includes "the general objectives, vision, basic structure, elements, skills gained, learning-teaching process, active learning methods, activity examples, units and objectives of the program". There are 7 themes in total (Universe of Thinking, The Call to Think, Thinking: The Construction of Life, Dimensions of Thinking, The Colors of Thinking, Dynamism of Thinking/Construction of the Future, Thinking) in the curriculum and there are 79 objectives. These 79 objectives were evaluated in the Context of 21st Century Skills (Learning and innovation skills, Information, media, and technology skills, Life and career skills) through the "Objective Evaluation Form" created by the researcher. While preparing the "Objective Evaluation Form", firstly the literature was scanned and the opinions of the experts were taken into consideration. The form was coded separately by two different educational science experts in order to ensure reliability. Miles & Huberman's (1994) formula (reliability=number of agreement/ (number of agreement+number of disagreement)) was used to determine reliability in terms of consistency between these two encodings. It is expected that the consensus among coders will be at least 80% (Miles & Huberman, 1994; Patton, 2002). The formula result was 0,94 in this study. This result shows that the consistency is quite high (Miles & Huberman, 1994) in this research.

In the study, it was treated objectively in presenting the findings in terms of validity and reliability. In order to ensure reliability in the analysis results, the results were presented to the opinions of the relevant experts. These results were compared among themselves and necessary corrections were made. Thus, the researcher constantly questioned himself and the process critically, trying to make sure that the analysis and interpretations reflect the truth. In addition, “research results and evidence for the conclusions made” are given in detail under the “Findings” title in a clear and detailed manner. This entire data collection and analysis process took approximately 4 weeks. The data were analyzed by descriptive analysis technique. The data were analyzed with a deductive approach in the Context of 21st Century Skills. There are the following skills included in the 21st

Century skills (1) learning and innovation skills, (2) knowledge, media, and technology skills, (3) life and career skills (Uysal & Özkan Elgün 2020). Examples of objectives and themes are presented in Table 1.

Table 1: Examples Of Objectives For Thinking Education Course Curriculum

Grade	Theme	Examples of objectives
Seventh Grade	Universe of Thinking	Students understand that thinking improves the quality of being human.
	The Call to Think	Students act inquisitively in understanding the situations they encounter.
	Thinking: The Construction of Life	Students understand the importance of thinking in producing knowledge.
	Dimensions of Thinking	Students use tools suitable for their purpose in solving problems.
Eighth Grade	The Colors of Thinking	Students are moderate in their criticism.
	Dynamism of Thinking, Construction of the Future	Students understand the role of imagination in building the future.
	Thinking	Students realize that there are different cultures and traditions.

Looking at Table 1, there are seven different themes in total in the seventh and eighth grades. There are 79 objectives in total within these themes, and all of these objectives are for 21st century skills.

3.RESULTS AND DISCUSSION

In this study, Thinking Education Course Curriculum, "a document prepared by the Ministry of National Education Board of Education and Discipline, a public institution" was systematically analyzed and the results regarding its content were presented. The distribution of seventh grade objectives and themes in the context of 21st century skills are given in table 2.

Table 2: Distribution Of Seventh Grade Objectives And Themes In The Context Of 21st Century Skills

Theme	Objectives	Learning and innovation skills			Information, media, and technology skills			Life and career skills				
		Creativity and innovation	Critical thinking and problem solving	Communication and collaboration	Information literacy	Media literacy	Information and communication technology literacy	Flexibility and adaptability	Initiative and self-direction	Social and cross-cultural interaction	Productivity and accountability	Leadership and responsibility
Universe of Thinking	2								2			
The Call to Think	3		2						1			
Thinking: The Construction of Life	9	2	3	1						1	2	
Dimensions of Thinking	8		3		4						1	
The Colors of Thinking	10		1		3			5				1
Dynamism of Thinking, Construction of the Future	7		1		1					5		
Total	39	2	10	1	8			5	3	6	3	1
		13			8			18				

According to Table 2, there are 2 objectives in the theme of "universe of thinking". Both of these objectives are in the field of "Life and career skills". There are 3 objectives in the "The Call to Think" theme. Two of them are in the field of "Learning and innovation skills" and one is in the field of "Life and career skills". There are 9 objectives in the theme "Thinking: The Construction of Life". Six of them are in the field of "Learning and innovation skills", and three of them are in the field of "Life and career skills". There are eight objectives in the "Dimensions of Thinking" theme. Three of them are in the "Learning and innovation skills" area, four in the "Information, media, and technology skills" area, and one in the "Life and career skills" area. There are 10 objectives in the theme "The Colors of Thinking". One of them is in the field of "Learning and innovation skills", three in the field of "Information, media, and technology skills", and six in the field of "Life and career skills". Finally, there are 7 objectives in the theme of "Dynamism of Thinking, Construction of the Future". One of them is in the field of "Learning and

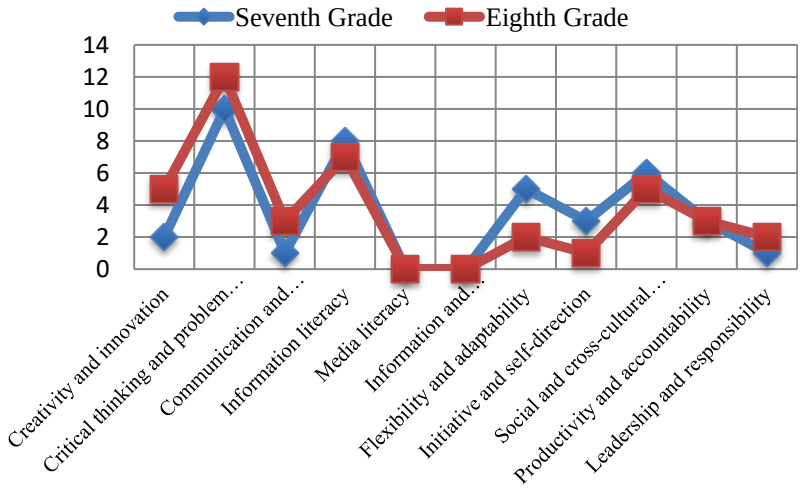
innovation skills", one in the field of "Information, media, and technology skills", and five of them are in the field of "Life and career skills". Looking at the total number, there are 13 objectives in the "Learning and innovation skills" theme, 8 objectives in the "Information, media, and technology skills" theme, and 18 objectives in the "Life and career skills" theme. The distribution of eighth grade objectives and themes in the context of 21st century skills is given in table 3.

Table 3: Distribution Of Eighth Grade Objectives And Themes In The Context Of 21st Century Skills

Theme	Objectives	Learning and innovation skills			Information, media, and technology skills			Life and career skills				
		Creativity and innovation	Critical thinking and problem solving	Communication and collaboration	Information literacy	Media literacy	Information and communication technology literacy	Flexibility and adaptability	Initiative and self-direction	Social and cross-cultural interaction	Productivity and accountability	Leadership and responsibility
Universe of Thinking	3				2							1
The Call to Think	3		1		1				1			
Thinking: The Construction of Life	13	2	5		1			1			3	1
Dimensions of Thinking	7	1	3		3							
The Colors of Thinking	7		3	3				1				
Dynamism of Thinking, Construction of the Future	2	2										
Thinking	5									5		
Total	40	5	12	3	7			2	1	5	3	2
		20			7			13				

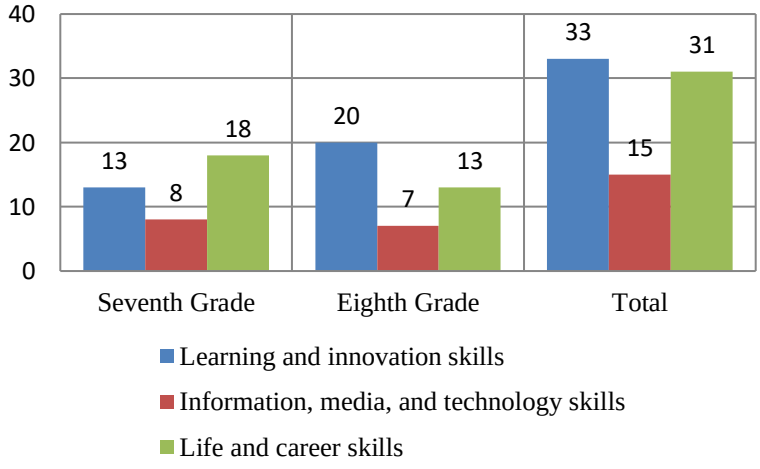
According to Table 3, there are 3 objectives in the "Universe of Thinking" theme. Two of them are in the "Information, media, and technology skills" area, and one is in the "Life and career skills" area. There are 3 objectives in the "The Call to Think" theme. One of them is in the field of "Learning and innovation skills", one in the field of "Information, media, and

technology skills", and one in the field of "Life and career skills". The theme "Thinking: The Construction of Life" has 13 objectives. Seven of them are in the field of "Learning and innovation skills", one in the field of "Information, media, and technology skills", and five in the field of "Life and career skills". There are seven objectives in the "Dimensions of Thinking" theme. Four of them are in the "Learning and innovation skills" area, and three are in the "Information, media, and technology skills" area. There are seven objectives in the theme "The Colors of Thinking". Six of them are in the field of "Learning and innovation skills", and one is in the field of "Life and career skills". There are two objectives in the theme of "Dynamism of Thinking, Construction of the Future". Two of them are in the field of "Learning and innovation skills". There are five objectives in the "Thinking" theme. Five of them are in the field of "Life and career skills". Looking at the total number, there are 20 objectives in the "Learning and innovation skills" theme, 7 objectives in the "Information, media, and technology skills" theme, and 13 objectives in the "Life and career skills" theme. The distribution of Thinking Education Course Curriculum objectives and themes in the context of 21st century skills (Seventh Grade / Eight Grade) is given in graph 1.



Graph 1: Distribution of thinking education course curriculum objectives in the context of 21st century skills one by one (seventh grades / eight grades)

According to the graphic above, a detailed comparison was made between the seventh and eighth graders within the scope of 21st century skills. First of all, the eighth grade has the advantage in terms of the number of objectives in the entire field of "Learning and innovation skills" (Creativity and innovation, Critical thinking and problem solving, Communication and collaboration). There is almost equality in the “Information, media, and technology skills” section (Information literacy, Media literacy, Information and communication technology literacy). However, in the "Life and career skills" section, the seventh grade clearly has superiority (Flexibility and adaptability, Initiative and self-direction, Social and cross-cultural interaction, Productivity and accountability).



Graph 2: Distribution Of Thinking Education Course Curriculum Objectives In The Context Of 21st Century Skills

According to the table above, when we look at the grade basis, it is seen that the seventh grades have the most objectives in the "Life and career skills" section, followed by the "Learning and innovation skills" section. Looking at the eighth graders, it is seen that this time the "Learning and innovation skills" section is the leader, followed by the "Life and career skills" section. When the overall situation is examined, it is seen that there is almost an equality between the "Learning and innovation skills" and "Life and career skills" sections, while the "Information, media, and technology skills" section is seriously behind.

4.CONCLUSION

The purpose of this study is to examine the Thinking Education Course Curriculum published by the Republic of Turkey Ministry of National Education and Board of Education within the scope of 21st century skills. For this purpose, a total of 79 learning objectives in the Thinking Education Curriculum for the 7th and 8th grades were examined. When we look at the result of the evaluations with respect to 7th grade, it is seen that almost half of the objectives address the "Life and Career Skills" skill, followed by "Learning and innovation skills" with a rate of one-fourth, and by "Information, media, and technology skills" skills as the least. When we look at the result of the evaluations with respect to 8th grade, it is seen that half of the objectives are in the "Learning and innovation skills" section, followed by "Life and Career Skills" skills with a ratio of one fourth, and finally "Information, media, and technology" skills. Considering the total situation of the 7th and 8th grades, it is seen that there is almost an equality between the "Learning and innovation skills" and "Life and career skills" sections, while the "Information, media, and technology skills" section is seriously behind.

When we look at the objectives aimed to be gained by students with the Thinking Education course curriculum within the scope of 21st century skills, we see that "Life and Career Skills" and "Learning and innovation skills" skills stand out. It was expected to see that an education program designed and started to be taught especially in recent years would be equipped with 21st century skills. However, as a result of the evaluation, it is seen that "Information, media, and technology skills", one of the most important skills of the 21st century, is far behind in the curriculum. It is a serious problem for an education program that "aims to develop thinking skills" that a newly designed program almost never takes into account technological skills, which are the basic building blocks of the 21st century. This is because the curriculum acts in line with the goals determined by the "Ministry of National Education" and "State policies" in accordance with the requirements of the age and all activities are organized in this direction. When we look at the objectives aimed to be gained by the thinking education curriculum, it is a great contradiction that a few of the objectives address the "Information, media, and technology skills" but have a very low number and proportion. For this reason, it is necessary to pay attention to the fact that individuals who are

educated in line with the requirements of the new century we live in should be well trained in terms of "Information, media, and technology skills" skills.

In today's education systems, modern countries aim to raise individuals who think (Lipman, 2003), research, produce and know how to access information (Güneş, 2014). As well known, when we say access to information today, media and information technologies are the first ones that come to mind. In this direction (Bettez, 2011), especially individuals who are exposed to new information all day long through social media tools and communication channels should think and question the events and contents correctly. In other words, establishing a society consisting of thinking and questioning individuals is a serious need in our age. As expected, this need is met in educational environments "through properly designed educational programs". Because education carried out by the state aims to raise effective citizens who will ensure the continuation of the state (Erden, 1999). Effective citizens mean individuals who have the right skills and act effectively in line with the expectations of the 21st century. With the right education, a person can learn 21st century skills correctly along with thinking skills.

The objectives prepared with education programs do not only make students academically more successful. Simultaneously, while teaching "thinking skills" (Weinstein & Mayer, 1986), individuals digest the information they encounter with various media tools more accurately. Since "information, media, and technology skills" were not given enough importance in the curriculum of the thinking course, it became difficult for students to learn all these skills. With this curriculum, students are "more exposed to various dangers with the new and manipulable information they have acquired". In a curriculum that aims to teach thinking skills in line with the requirements of the 21st century, that is, the new age, it is a great deficiency that "Information, media, and technology skills" skills are not given sufficient importance.

The main purpose of the Thinking Education curriculum in terms of vision is to raise individuals who can experiment with different perspectives, who are open to other views, who can create a unique perspective; who are interested in the artistic, philosophical and scientific accumulation of humanity; who have the ability to understand and interpret developments; who have the power of empathy and sensitivity; who can produce alternative

solutions to the problems they face; who are aware of the culture and value environment in which they live. In this way, an understanding/orientation that will contribute to the training of individuals who can think critically, creatively, analytically and reflectively in a way to show all these competencies has been created by the curriculum. Thus, as important as some skills are for the 21st century, the same skills are just as important for the Thinking Education curriculum. For example, it is seen that creative thinking and critical thinking skills are comprehensively included in the "learning and innovation skills" section. As a result of the examinations, the fact that there are many learning objectives in the "Learning and innovation skills" section shows that the curriculum covers 21st century skills in a certain way.

When we look at the analysis made with the Thinking Education Course (7th and 8th Grades) Curriculum, it is seen that one of the important objectives it will provide to the individual is creative thinking skills. Creative thinking essentially refers to the potential of the individual to think flexibly and to come up with new ideas and products. In other words, creativity includes "innovation" and "entrepreneurship", which are the most fundamental skills of the 21st century (Torrance, 1968; Starkey, 2004). Therefore, the individual is not satisfied with the existing. Hence, the ability to question and criticize comes into picture (Locke, 2003). Originality, on the other hand, involves perceiving new relationships, perspectives and ways of description. Creativity is not only a mental process but also requires action. Since there are work-oriented objectives in the examined curriculum, it would not be wrong to say that the curriculum covers 21st century skills in terms of "innovation, entrepreneurship, critical thinking and creative thinking".

As is known, it is important for human beings to be able to use their ability to think efficiently. This is because being productive and creative, solving problems, creating products of culture and civilization, giving meaning to life, and even surviving all depend on it. As a result of the evaluations, the curriculum of the Thinking Education course prioritizes the development of thinking skills and points out that the fundamental goal of education is to develop analytical, creative, critical and reflective thinking skills in students. This understanding, which aligns with 21st century skills, makes the student active and responsible in the learning process. In this framework, teachers are expected to give students the opportunity to express their thoughts, enrich the lesson with their evaluations and comments, and use

21st century skills. These skills aim to maximize the potential of students and to provide them with the ability to use it in the best and most appropriate way. For this reason, educational environments where thinking education is carried out should be a process that supports creativity and enables the potential to emerge.

As a result, the curriculum of the thinking education course was evaluated within the scope of 21st century skills, and there are sufficient objectives in terms of 21st century skills in the "Learning and innovation skills" and "Life and Career Skills" sections. However, it is seen that "Information, media, and technology skills" are far behind in the curriculum. In fact, the Thinking Education curriculum should be considered as an opportunity to teach students many 21st century skills. With the correct arrangement of the objectives of this curriculum (Gürkan & Dolapçıoğlu, 2020), students can acquire 21st century skills very easily. It can be possible to raise the person as an exemplary individual and to raise students who are suitable for the new century. At the same time, positive attitudes can be developed within the scope of 21st century skills. The individual can reach a "metacognitive" structure that can question and motivate themselves in every field by realizing their abilities and interests in line with the requirements of the new century.

As a result of the research findings, it can be suggested that the education program prepared to develop thinking skills of individuals should include more 21st century skills in the field of "Information, media, and technology skills". In addition, other instructional tools (course contents, activities in textbooks) that are related to the curriculum should include more situations that develop 21st century skills.

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CHAPTER 3

EVALUATION OF ENVIRONMENTAL EDUCATION AND CLIMATE CHANGE CURRICULUM (METFESSEL–MICHAEL MODEL)

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INTRODUCTION

Education programs are the determinants of human characteristics that will ensure the realization of the goals set for the development of the country in the national and international context. The capability of the programs to train the human power with the predicted qualifications can be ensured by taking technological, scientific and social changes into consideration and reflecting them to the programs (Kürüm Yapıcıoğlu et al., 2016). Evaluation of educational programs after the curriculum development studies helps to determine whether the program has achieved its goals. By measuring the effectiveness of the program, one can evaluate how well students develop their skills and knowledge and whether the targeted learning objectives are achieved (Gözütok, 2006; Sağlam & Yüksel, 2007). This way, while determining the areas where the program is successful, areas that require improvement can also be identified. Furthermore, the evaluation of educational programs allows us to see whether educational resources are used effectively. The evaluation process includes the cost-effectiveness of the program and the optimal use of resources. Hence, unnecessary expenditures are avoided, waste is prevented and resources are directed to areas where they are needed.

Evaluation of educational programs is used to assess the effectiveness of teaching methods. Different teaching strategies, materials or technologies can be used to improve student learning experiences (Chen et al., 2009). Based on the evaluation results, teaching methods and materials can be updated or improved. The program evaluation process also encourages continuous improvement. Based on the evaluation results, weaknesses of the program can be identified and improvement strategies can be developed. This process ensures that the educational program is continuously updated and improved (Brandon, 1998). Program evaluation results form the basis for educational policies, management decisions and resource allocation. Evaluation results also help administrators and decision makers to make conscious decisions about educational programs (Gökmenoğlu, 2014). For all these reasons, evaluation of educational programs is an important process for measuring the effectiveness of programs, making improvements and increasing the quality of education.

One of the issues that should be emphasized in program evaluation studies is program evaluation models (Jhonson et al., 2013). There are many

program evaluation models that are frequently used today. Many of these models are preferred to meet different needs (Uşun, 2012; Yüksel & Sağlam, 2014). Despite this diversity in the literature, it can be said that very few program evaluation studies, especially in Turkey, are structured on the basis of an evaluation model (Kurt & Erdoğan, 2015; Aslan & Sağlam, 2015). One of the most preferred curriculum evaluation models (Gündoğdu et al., 2017) is the Metfessel-Michael curriculum evaluation model. This model emerged in the 1960s and utilized Tyler's goal-based evaluation model (Sönmez & Alacapınar, 2015). In this model, data are collected in various ways (observation, interview, etc.) and then analyzed. This way, education programs are evaluated according to the relevant standards and suggestions can be developed in terms of future applicability (Gündoğdu et al., 2017) (Demirel, 2007; Özdemir, 2009; Fırat, 2010; Kocabatmaz, 2011). In the Metfessel and Michael evaluation model (Michael & Metfessel, 1967), all partakers (administrators, teachers, students, parents) are directly or indirectly involved in the evaluation process (Bryson, Patton, & Bowman, 2010) (Fitzpatrick, Sanders, & Worthen, 2004). Goals are assessed and measurement tools are developed to assess these goals (Ornstein & Hunkins, 1988). Regular observations are made and the data collected are analyzed as a whole (Uşun, 2012). Thus, a general evaluation of the program is made (Yüksel & Sağlam, 2012; Gündoğdu et al., 2017). This evaluation guides experts in the evaluation of school programs (Uşun, 2012; Yakar & Saracaloğlu, 2016). The main focus of this study is to evaluate the Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum that emerged in 2022 within the framework of Metfessel and Michael evaluation model.

Environmental education in Turkey is included as a part of education program by the Ministry of National Education in order to raise students' awareness on environmental issues. In primary and secondary schools, issues such as environmental awareness, sustainability, climate change and protection of natural resources are covered in many areas with an interdisciplinary approach. For example, courses such as science, biology, geography and environmental science include content related to environmental education. In these courses, students learn about the functioning of nature, ecosystems, waste management, energy resources, climate change and environmental policies. Furthermore, some schools organize activities such as environmental clubs or environmental projects.

These activities encourage students to experience nature, research environmental issues and develop solutions. In addition, the Environmental Education and Climate Change course was updated and introduced as a separate course in schools as of 2022.

The Environmental Education and Climate Change (Grades 6, 7 or 8) Curriculum is a very new curriculum designed to be implemented as of 2022-2023 academic year. It replaces Secondary School Environmental Education Curriculum which was implemented in 2015 and ended in 2022. The Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum is based on the "General Objectives of Turkish National Education" and "Basic Principles of Turkish National Education" as stated in Article 2 of the Basic Law on National Education No. 1739. In the process of renewing the environmental education and climate change curriculum, academic studies conducted in Turkey and abroad were reviewed by the experts at the Board of Education and Discipline. Afterwards, documents such as the Constitution of the Republic of Turkey, relevant legislation, development plans, government programs, council decisions, programs of political parties, reports prepared by non-governmental organizations and civil research institutions were analyzed. Partakers' opinions were then collected through questionnaires developed by the Ministry of National Education's Departments of Programs and Instructional Materials. Finally, the opinions of the Ministry of Agriculture and Forestry, the Ministry of Energy and Natural Resources and the Ministry of Environment, Urbanization and Climate Change on the scope of this course were collected. All opinions, suggestions, criticisms and expectations were evaluated by working groups consisting of expert staff, teachers and academics from the relevant departments. In line with the findings, the Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum was finalized.

The Environmental Education and Climate Change Curriculum aims to develop students' interest and curiosity about the events occurring in nature and the immediate environment. At the same time, students are expected to develop positive attitudes towards environmental issues and to establish a relationship between the use of natural resources and production/consumption activities. Students are expected to use scientific process skills and life skills in the process of exploring nature and understanding the relationship between humans and environment. Furthermore, students are expected to gain an awareness of sustainable development and believe in the necessity of leaving

a livable environment for future generations. They should understand the importance of efficient use of resources and sustainability in solving environmental problems and climate change from a local, national and global perspective. While trying to provide all these, they are expected to have knowledge about the effects of environmental problems and global climate change on the environment, society and economy. In addition, it is aimed to develop scientific reasoning and decision-making skills by using dilemmas in environmental issues, and to adopt national, cultural, universal moral values and principles of environmental ethics.

In the Environmental Education and Climate Change Curriculum, it is aimed to develop scientific process skills and life skills by taking into account the 8 key competencies in the "Turkish Qualifications Framework" as well as the knowledge, skills and attitude dimensions related to these competencies. Scientific Process Skills include the skills that scientists use during their studies such as; "observing, measuring, classifying, recording data, hypothesizing, using data and creating models, changing and controlling variables, and conducting experiments". Life skills include basic skills such as; "access to scientific knowledge, analytical thinking, problem solving, decision making, creative thinking, communication, teamwork, social awareness, environmental awareness, global awareness, healthy living, planning and organization, active participation, extroversion, open-mindedness, empathy". Environmental Education and Climate Change Curriculum consists of 6 different units (Human and Nature, Cyclic Nature, Environmental Problems, Global Climate Change, Climate Change and Turkey, Sustainable Development and Environmentally Friendly Technologies) and a total of 34 learning objectives/72 course hours.

Climate change education programs are extremely important and necessary in today's world. Climate change is a global issue with environmental, social and economic impacts. Therefore, it is important for society to be informed, raise awareness and take action on climate change. Climate change education programs are designed to inform people about climate change, explain its impacts and provide solutions. These programs contribute to raising awareness about climate change among students, teachers, community leaders and even the general public. In addition to providing basic information on climate change, these education programs cover topics such as how the climate is changing, its impacts, greenhouse gases and sustainability. Furthermore, they teach what we can do individually

and collectively to fight climate change and promote sustainability and environmentally friendly behavior of society.

Climate change education programs give students, youth and future generations a sense of awareness and responsibility for climate change. These programs increase environmental sensitivity, encourage sustainable lifestyles and raise awareness of environmental protection. They also encourage well-informed decision-making by equipping them with scientific research and data on climate change. As a result, climate change education programs provide information and awareness on climate change to large segments of society. These programs encourage society to take an active role in combating climate change, adopt sustainability principles and find solutions to environmental problems. Hence, climate change education contributes to creating a more sustainable world for future generations. Therefore, "Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum published by the Turkish Ministry of National Education, Board of Education and Discipline" was chosen as the basic curriculum for this study. In this context, the question "What kind of an outcome emerges when the Environmental Education and Climate Change Curriculum is evaluated thoroughly?" gains importance. For this reason, this research is of great importance in terms of evaluating the Environmental Education and Climate Change Curriculum. Therefore, it can be said that the aim of this study is to examine the Environmental Education and Climate Change Curriculum according to the Metfessel-Michael evaluation model.

METHOD

2.1. Research Model

The phenomenological research method from the qualitative research approach was preferred as the research method. This design focuses on what the participants' experiences are, how they define them and how this experience affects them (Patton, 1990; Karasar, 2000). Van Manen (2007) defined phenomenological study as understanding of people's experiences. Phenomenology is a qualitative research design in which individuals reflect on how they perceive the phenomenon, concept or situation as a result of their experiences and their feelings and perspectives about them (Rose et al., 1995).

2.2. Sample/Research Group

A total of 28 randomly selected students (6th, 7th, 8th grades) from secondary schools affiliated to the Ministry of National Education, 10 parents, 4 administrators (2 principals, 2 vice principals), 3 different teachers and 4 faculty members who teach the Environmental Education and Climate Change course participated in the study. The study was based entirely on voluntary participation after obtaining legal permissions.

2.3. Data Collection Tools

A semi-structured interview form consisting of open-ended questions was used as a data collection tool. Interview is a mutual and interactive communication process based on asking and answering questions for a predetermined, serious purpose (Ekiz, 2003; Yıldırım & Şimşek, 2006; Yıldırım & Şimşek, 2013). In addition to being a very effective and frequently preferred data collection tool used to obtain information about individuals' experiences, complaints, opinions and attitudes, the semi-structured nature of the questions allows the interviewer to feel free and comfortable to go beyond the subject. While preparing semi-structured questions in the field of "Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum", firstly the literature was reviewed and interview questions were formed by consulting the opinions of experts. A pilot study was conducted to understand the language validity and purpose-oriented suitability of the questions in the interview form and the interview form was finalized with the feedback obtained from the pilot study. In its final form, the participants were interviewed in a suitable environment and time, being asked to answer the questions in detail.

Direct observations were used as another data collection tool in the study. Observation technique is a method used in scientific research or data collection processes. This method involves the direct observation and recording of an event or phenomenon by an observer. The observer focuses on a specific topic, then records and analyzes the data. Through observation, the researcher provides a detailed description of the observed event or phenomenon (Ritchie & Lewis, 2003). The purpose of observation is to help the researcher make sense of events, test hypotheses or collect data. However, the observation method can be subjective and based on the observer's biases or interpretations (Frankel & Wallen, 2000). Therefore, observation results should be supported by other methods for objective

evaluation and verification (Cohen, Manion, & Morrison, 2007). Consequently, if a researcher wants to obtain a detailed, comprehensive and time-spanning picture of a behavior occurring in any setting, he/she can use the observation method (Bailey, 1982). An expert lecturer entered the relevant course for 4 weeks and 16 class hours, observed the teaching-learning process, students' participation in the course and the way the course was taught, and filled out the observation form.

Direct documents were utilized as another data collection tool in the study. The Environmental Education and Climate Change Course (Grades 6, 7 or 8) Curriculum published by the Turkish Ministry of National Education, Board of Education and Discipline, the course information form and all written materials used by teachers in the course were examined in detail.

2.4. Data Analysis

Descriptive analysis technique was used to analyze qualitative data. Since the data obtained in descriptive analysis are tried to be effectively transferred to the other party, direct quotations are often included. The aim of this analysis method is to present the obtained data to readers in an organized and interpreted manner (Yıldırım & Şimşek, 2016). The qualitative data obtained in the study were used to evaluate the Labor Relations course curriculum according to the Metfessel-Michael curriculum evaluation model (Gündoğdu et al., 2017). In semi-structured interviews, the data were transferred to the computer as text after the interviews were conducted. Then, the entire content was examined in detail, irrelevant answers and missing data were removed from the analysis, and the relevant sections and direct quotations were provided in a net format in the findings section.

2.5. Validity and Reliability

Lincoln and Guba (1985) explained the strategies used to ensure validity and reliability with the concepts of "credibility, transferability, consistency and confirmability". In this study, the strategies of credibility (detailed description) (Merriam, 2013), transferability (direct quotation and clear presentation), consistency (presentation of findings free from interpretation and generalizations) and confirmability (retention of the data obtained) were used for the data collected, analyzed and interpreted with the above-mentioned measurement tools (Yıldırım and Şimşek, 2013; 2016). Furthermore, in order to ensure validity and reliability, the researcher took

written notes during the interview process to prevent data loss during the research. The answers to the interview questions were written on a semi-structured form (Codes such as, P: Parent, S: Student, A: Academic, Ad: Administrator, T: Teacher were used). The records, data analysis and interpretations of all practices were presented to the field experts during and after the implementation. Thus, it was ensured that the researcher continuously questioned herself and the process critically and confirmed whether the analyses and interpretations reflected the truth or not. In addition, the researcher evaluated his role in the research process and the objectivity of his behaviors by questioning himself throughout all the applications. Special care was given to be objective in the description and interpretation of the data, and different experts were consulted at all stages of the research. In order to ensure transferability in the research, the study group and the environment in which the study was conducted were described in as much detail as possible and at a level that could be compared with different study groups. Finally, how the research results were reached and the evidence for the inferences made were presented in a clear and detailed manner so that others could understand the process.

RESULTS

3.1. Environmental education and awareness on climate change

Environmental education and climate change awareness is a process that aims to raise people's awareness about environmental issues and to enable them to take measures to address them. The impact of human activities on nature and the threats posed by climate change emphasizes the importance of these issues. When we look at the comments of the participants, we understand from the following sentences that individuals are aware of environmental education and climate change and that the program increases awareness:

S4: "I believe that every individual has a responsibility towards environmental issues. We should take steps to reduce our own carbon footprint. For example, we can reduce our energy consumption, recycle and switch to renewable energy sources. The course raises our awareness on this issue."

S11: "I believe that environmental education and awareness should start from a young age. Teaching more environmental issues through such

courses in schools helps to develop environmental awareness by increasing our interaction with nature."

P2: "We should support our children to receive environmental education and develop environmental awareness. It is very valuable for schools to include environmental issues in their education programs and provide students with environmental experiences."

P21: "We must tackle climate change to protect the quality of life of future generations. Increasing impacts on the balance of nature threaten the future of our children and grandchildren. Therefore, I believe that environmental lessons should be supported and sustainable solutions should be implemented."

T1: "I believe that environmental issues should be part of the curriculum in schools. Teaching students about climate change, waste management, energy efficiency, etc. helps them understand the origins and solutions of environmental problems. Undoubtedly, the contribution of curricula in this regard is very high."

Ad1: "As an administrator, it is important to establish in students a sense of global responsibility inside and outside the school and to show that a sustainable future is possible. I help students develop a global perspective by addressing issues such as fighting with climate change and recycling. We hang informative posters in the school. We also use different waste bins so that waste can be recycled. In addition, we store disposed batteries in separate places. We also organize nature trips and outdoor activities."

3.2. Current status of the training program

The administrators and academics participating to the study stated that the environmental education curriculum has been in existence for years, but it has been expanded and the Environmental Education and Climate Change Curriculum has just been created (2022). At the same time, academics stated that the environment and climate change curriculum was prepared based on scientific foundations and that they support this process with the following statements:

A1: "As an academic, I believe that the environment and climate change curriculum, even though it was updated late, was designed to raise awareness among students. This curriculum provides students with

information about environmental problems and climate change and creates a basis for them to make environmentally friendly decisions."

A2: "The curriculum is based on scientific foundations. Topics such as climate change, ecosystems, and the protection of natural resources are conveyed to students through the support of scientific data. In this way, students gain the skills to analyze environmental problems and produce solutions by using scientific research methods."

Looking at the comments of the participants about the environment and climate change curriculum, it is seen that the curriculum is designed with a holistic approach and has an interdisciplinary structure. At the same time, the importance of updating the curriculum is mentioned in the following statements:

A3: "This program deals with environmental problems not only with its scientific dimension but also with its social, economic, political and cultural dimensions. It encourages students to understand the complexity of environmental problems and to adopt a multidisciplinary approach in solution processes."

T2: "Practical experiences and applications are an integral part of the environment and climate change curriculum. It provides students with practical experiences such as nature trips, local environmental projects and active work to solve real world problems. This way, students can create real impact by transforming theoretical knowledge into practice."

T3: "It is important to keep the program up-to-date to adapt to rapidly changing environmental and climatic conditions. I think the update in 2022 was useful."

Ad2: "I see that the program has been renewed taking into account new scientific findings, technological developments and policy changes. This way, students can be provided with up-to-date and realistic information and develop their skills to cope with future environmental challenges."

When the course information form was examined, the relationship between the learning objectives of the course and the learning objectives of the curriculum was evaluated and it was understood from the following statements that the effect of the course learning outcomes on the general learning objectives of the curriculum was high:

A2: "The environment and climate change curriculum include raising awareness of students, transfer of knowledge based on scientific foundations, holistic approach, and practical experiences. A program designed in this way can increase students' awareness of environmental problems and turn them into individuals who can cope with future environmental challenges. I believe this contributes to the future of Turkey and the world."

T1: "The curriculum encourages students to actively participate in environmental projects. It supports students to generate solutions for their own environmental problems and to realize these projects. In this way, students develop their skills in finding concrete solutions to problems and creating social impact."

3.3. Contribution of the education program to raising qualified citizens

The environment and climate change curriculum contributes to raising qualified citizens. It is possible for students to become conscious and responsible citizens in environmental issues over time. It also contributes to environmental issues at global and local level. We also understand from the following statements that this education program can develop higher order thinking skills:

A1: "The environment and climate change curriculum develop students' critical thinking skills and encourages them to approach environmental problems in a solution-oriented manner. It provides students with skills such as analyzing environmental problems, collecting and evaluating data, identifying problems, and proposing solutions."

T2: "Thanks to this program, students can actively take action against social and environmental problems and produce creative solutions."

Ad1: "The environment and climate change curriculum can contribute to raising students as conscious and responsible citizens. Thanks to this program, the effects of environmental problems and climate change on the society and the world are explained to students and thus, they gain sensitivity to environmental issues."

3.4. Course content, learning-teaching situations and measurement/evaluation activities

The environment and climate change course at secondary school level aims to provide students with basic knowledge about environmental awareness and climate change. These basics include knowledge of concepts, knowledge of principles, knowledge of facts and knowledge of processes. We understand from the following statements that topics such as sustainable use of natural resources, environmental pollution and recycling are emphasized:

S15: "The environment and climate course are a really important course. Its content teaches how nature and the environment should be protected. This course makes us aware of issues such as environmental pollution, waste management, energy saving and climate change."

T2: "In our lessons, we learn what environmental pollution is and how we can prevent it. For example, we study topics such as reducing the use of plastic, recycling and protecting natural resources. We also learn about waste management."

A3: "The curriculum tries to provide what can be done to fight with climate change and how it can make a difference on a global scale with its achievements."

P7: "With this course, our children gain environmental awareness and make a real difference by changing their own behavior."

Environment and climate change lessons are usually taught in an interactive and participatory way. Students are encouraged to be active. Different methods and techniques are often used. Lessons are supported by various multimedia tools. Projects that require students to work in cooperation with each other are implemented. Real life problems are given to students and they are asked to actively use their higher order thinking skills in problem solving. At the same time, out-of-class activities are included as much as possible. We understand from the following statements that teachers use various teaching methods to inform the class and raise awareness:

S7: "The environment and climate change lesson are usually taught in an interactive and participatory way. Our teacher uses various teaching methods to inform the class and raise awareness. For example, we were asked to do a project."

T2: "Lessons are usually supported by presentations, visuals, videos and real-life examples. Important concepts and topics are explained,

information is presented in an understandable way and active participation of the class is encouraged."

A2: "As an example of an activity in the curriculum, when addressing the topic of climate change, basic issues are addressed, different methods and techniques are used, and students' higher order thinking skills are tried to be developed."

P4: "Children have interactive discussions with us when they come home. They share their ideas, listen to our ideas and we talk about how we can contribute to the situations in our home/environment."

Ad2: "We try to invite field trips or guest speakers to our school as much as possible during the lessons. This way, students witness real environmental problems and try to find solutions."

The assessment and evaluation activities of the environment and climate change course are generally designed to assess the level of knowledge, comprehension and application. Exams aim to measure students' understanding of the course content and their knowledge and skills related to environmental issues. Projects and real-life problems are designed and given to students to solve in order to gain higher level outcomes (analysis, synthesis, evaluation). At the end of this process, the student proposes a solution or develops a product. Exams at the secondary school level usually include the following elements:

A1: "The curriculum includes conceptual questions/issues. For example, students' understanding of basic concepts about the environment and climate change is measured. In addition, alternative assessment tools that use higher order thinking skills such as creativity and critical thinking are also included in the curriculum."

S11: "In the exams, we are asked to define a specific environmental problem and explain the causes and consequences related to it. We are also expected to have group discussions and develop projects."

T3: "We try to measure students' ability to apply the knowledge they have learned to real-life situations. For example, a scenario about saving energy is given and the student is asked to apply and analyze it. Students may also be asked to develop a project and apply environmental protection methods."

DISCUSSION AND CONCLUSIONS

The aim of this study is to examine the Environmental Education and Climate Change Curriculum according to the Metfessel-Michael evaluation model. For this purpose, the opinions of many partakers (students, teachers, administrators, academicians, parents) were collected and a general evaluation of the curriculum was made. To begin with, when we look at the comments of the students, it is revealed that the participants see climate change as a real and important threat. Thanks to the Environmental Education and Climate Change Curriculum, partakers (Students, Parents) state that effects such as temperature increase/melting of glaciers and rising sea levels negatively affect both natural life and personal lives. Participants believe that each individual has a responsibility for environmental problems. Individuals also state that environmental education and awareness should start from a young age and that the Environmental Education and Climate Change Curriculum should be given more importance. This situation shows that environmental awareness is established in individuals through education programs. Secondly, the parents of the participating students expressed positive views on environmental education and climate change. In particular, parents suggest that their children should receive environmental education and be aware of environmental issues. In addition, they consider it necessary for schools to include environmental issues in their education programs and to teach them through a separate curriculum (Tindal & Marston, 1990).

According to the results of the study, parents want students to be provided with opportunities to develop environmental awareness. They also consider it very importance to help students acquire environmentally friendly habits, especially at home. Parents are aware that fighting climate change affects the quality of life of future generations. Therefore, they support the implementation of environmentally friendly policies and sustainable solutions and teaching these issues through educational programs. Parents who are aware of environmental education and climate change prioritize environmentally friendly practices in their lifestyle and at home. For example, they use energy-saving appliances, recycle and try to reduce the use of plastics. They also help their children learn and practice these values and contribute directly or indirectly to curricula on environmental education and climate change.

The environment and climate change curriculum contributes to the upbringing of qualified citizens, raising individuals who are environmentally sensitive, responsible, sensitive to global and local problems, and capable of solution-oriented thinking. These individuals can generate positive changes for a sustainable future by interacting on environmental issues in society. Furthermore, the environment and climate change curriculum infuse environmental and sustainability consciousness to students (Olivia, 2005). Students learn that natural resources are limited, living in harmony with nature is important and the principle of sustainability for future generations is a must. Students gain knowledge about environmental issues and can make responsible decisions by considering environmental impacts. Meanwhile, they can critically evaluate the processes and come up with innovative and creative ideas. Thus, the environment and climate change curriculum contribute to the cognitive and affective development of students by supporting higher order thinking skills. As is known, higher order thinking skills do not develop naturally; they are acquired and developed through the learning process. The environment and climate change curriculum is a very effective tool for students to gain these skills.

In the environment and climate change curriculum, teachers provide different learning opportunities for students to develop their critical thinking and analytical skills. Through such opportunities, students get the chance to practice higher order thinking skills. This way, the environment and climate change curriculum can encourage and teach students to use various mental processes. That is, this curriculum helps students develop higher order thinking skills such as understanding information, making connections and drawing conclusions. In all these respects, it can be said that the environment and climate change curriculum is an effective tool for students to acquire higher order thinking skills.

The environment and climate change curriculum contributes to the development of qualified citizens. Qualified citizens have knowledge about environmental issues and develop awareness within their environment. This knowledge covers the origins, impacts and solutions of environmental problems. Knowledge of issues such as climate change, sustainability and natural resource management is one of the key characteristics of skilled citizens. Qualified citizens also have the ability to critically assess knowledge (Stake, 1973). When analyzing environmental issues, they rely on scientific and objective data, consider various perspectives and make information-based

decisions. Critical thinking skills enable qualified citizens to generate effective solutions to environmental problems and use higher order thinking skills (Cronbach, 1980; Mostropieri & Scruggs, 2000). The environment and climate change curriculum evidently contributes to raising qualified citizens through its activities and educational status. Qualified citizens feel responsible for environmental problems and exhibit environment friendly behaviors at personal and social levels. They pay attention to use natural resources in a sustainable way and actively participate in efforts to protect the environment. These individuals are involved in political processes, support civil society organizations and contribute to environment friendly projects. Inspired by the understanding of active citizenship, they act with the aim of producing common solutions to environmental issues by considering the interests of the society. Thanks to the environment and climate change curriculum, these characteristics enable qualified citizens to add value to society as individuals who are sensitive, responsible, conscious and actively involved in environmental issues. Furthermore, empathy and cooperation are key characteristics of qualified citizens. Through the environment and climate change curriculum, students show empathy for future generations and cooperate to solve environmental problems (Posner, 2004). These individuals have the ability to produce common solutions to environmental problems by taking an active role in international platforms.

When we look at the environment and climate change course curriculum in terms of course content, learning-teaching status and assessment/evaluation activities, we see that the course aims to develop students' environmental awareness and raise awareness about climate change. This course focuses on key issues such as sustainable use of natural resources, environmental pollution and recycling. Students learn how to conserve natural resources, the various effects of environmental pollution and waste management. They are also introduced to the basic information related to understanding the causes and effects of climate change. Through the learning objectives at all levels of the curriculum, students develop sensitivity to environmental and climate issues and become aware of sustainable solutions. When we look at the teaching method of the course, it is possible to say that the course is taught in a way that encourages obtaining knowledge, creates awareness and ensures the active participation of students. In the process of transferring knowledge, as many methods and techniques as possible are utilized. Within a pragmatist mindset, students are allowed to construct

knowledge in their own minds. When it comes to measurement and evaluation, measurement tools that combine various elements and cover different thinking skills are used to evaluate the knowledge and skills acquired by students during the course period. In response, exams are usually done in written format for grading purposes, but sometimes other assessment methods such as presentations, projects or group work are also preferred in the program.

While educational programs generally address a certain content, they serve as a basic tool for students to understand different problems and to gain knowledge about the root causes and effects of that problem. When designing this basic tool, it would be correct to adopt an approach that brings together scientists, researchers and experts from different disciplines (MacDonald, 1976). An education program that approaches the situation from diverse perspectives will lead to a better development of individuals. For example, it is possible to ensure that students not only learn about the environment and climate change theoretically, but also have practical experiences with comprehensive education programs. Through these programs, students can actively learn and interact with the environment. Furthermore, activities to improve communication skills and awareness can also be included as part of the education program (Marsh & Willis, 2007). Especially sustainable school practices should be encouraged. This way, students can make moves to put their theoretical knowledge into practice at school and gain affective domain gains more easily. In addition, students should be encouraged to conduct scientific research and develop innovative solutions to environmental and climate change issues. Creating an environment that allows students to produce original projects and present innovative solutions to environmental problems will help future generations not only to develop solution-oriented approaches to problems but also be creative. These changes aim to transform environmental and climate change curricula into a more comprehensive, multidisciplinary and future-oriented structure. The education system as a whole need to place more emphasis on such program evaluation studies in order to ensure that students take a more conscious and active role in environmental awareness and sustainability issues.

It is possible to say that there is still much work to be done on environmental education in Turkey. Some criticisms are that environmental education programs "should be handled in a wider range, implemented more effectively and teachers should be better equipped in this regard". It is also

important that environmental issues are supported by out-of-school activities. The Ministry of National Education tends to give more importance to environmental education and climate change issues and is working in this field. Various projects should be developed to ensure that students have more knowledge about environmental awareness and sustainability. Although environmental education and climate change education program is taught as a separate course in Turkey, more resources and education programs should be developed to increase the effectiveness of environmental education.

Declaration of Conflicting Interests and Ethics

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CHAPTER 4

MEDIA LITERACY SKILLS IN THE RELIGIOUS CULTURE AND MORALS CURRICULA

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INTRODUCTION

The ubiquitous impacts of the media on children and teens are a major source of concern in communities in this age of modern technology. Children and teens who are regularly exposed to media messages might be subtly yet profoundly shaped by their underlying values, which might cover depictions of anti-religious and immoral behaviour in the media. Early in adolescence, as the person starts the process of forming his or her own unique values, childhood knowledge, beliefs, attitudes, and values are revaluated. Adolescent turmoil places a great deal of strain on the formation of religion and morals throughout this time. Religion and morality, which the young person accepts as authoritarian societal phenomena, are critically questioned in light of the individual's hatred of authority. The young person strives to evaluate previously learned religious and moral norms while simultaneously seeking to develop a fresh and individualized value map of his or her own (Nazıroğlu, 2015).

Schools are increasingly dealing with students who have been influenced by visual images and media immediacy. The media has emerged as an especially powerful influencer of our students' worldviews and morals. Everyone finds themselves caught in an interpretational realm that the media has constructed amidst reality. Students are immersed by the media environment before, during, and after school. the essential importance of media education for all pupils should be grasped if we are to provide youngsters with fundamental abilities for dealing with the world both inside the classroom after their school days. If societies want future generations to develop morally, and they must be fully aware of the potentially detrimental impact that media may have on youngsters, and plan strategies to decrease the damaging effects of media messages because it is difficult or even impossible to shield children from them. It seems reasonable to provide students with the knowledge and skills they need to make more informed decisions about what is and is not useful. Media education looks to be a viable technique for accomplishing this (Chaffee, 2000).

Developing 21st century skills is as important in religious education as in other disciplines and media literacy is instantly considered as one of such skills (Cheung, 2006).Because the formation of modern culture is strongly based on the impact of the media, simply propagating religious messages and providing religious education is insufficient; it is also necessary

to incorporate media education into "religious education" as a cross-curricular topic and rather than simply teaching religion as facts and statements and lecturing students about right and wrong, education should give students the chance to freely discuss and study right and wrong, good and evil (Cox, 1983). This societal responsibility also entails teaching students how to distinguish between the real and the fake in popular media, and the critical-thinking abilities required for this are optimally provided by media literacy embedded curricula. To that end, educating people about media literacy is one way that religion can benefit society (Thoman, 1977).

1. MEDIA AND MEDIA LITERACY

The term "media" is employed across many different contexts. It has previously been used to refer to a variety of traditional media, such as print publications, popular music recordings, radio, television, and film. However, it can now also be used to describe a wide range of more contemporary, interactive, and interconnected forms of communication, the majority of which use the web and associated technologies to interact **(**Iaquinto & Keeler, 2012).

The media is a potent weapon that can impact an individual's development, contribute to personality development, influence value orientation, spread culture, and foster socialization. The positive traits stated counterbalance the unfavourable ones, which are typically emphasized more strongly in relation to media (Vrabec et al.,2013). The media is a sizable, lucrative, and employment-supporting sector that provides us with information, ideas, visuals, and assertions that inexorably shape our perception of reality (Buckingham, 2013). The media is now more powerful thanks to the changes in the media sector and the quick proliferation of communication technology. The media has started to influence people's lives through altering their way of life, perceptions of entertainment, and cultural norms. In times of political or social transition, the media, which serves as an informational, guiding, and educational tool, is crucial. The lack of experience required to process, filter, and evaluate information makes youth, in particular, more passive towards the media. In the field of religious information, the fact that there is a serious lack of knowledge about the "religion," particularly among individuals who are not fed by institutions such as Qur'an courses, pushes them to believe or accept/reject everything said in the name of religion in the media more easily and to define their religious

identity with what they learn in the media (Nazıroğlu, 2015). Without a doubt, the media is more than just a conduit for information, entertainment, and socialization. Aside from his numerous activities, he has a significant impact on social change. Especially today, this institution has dangerously become an invisible but highly effective primary power over the structural functioning of the state and society which attempts to shape and direct society in the desired direction (Güneş, 2018).

The phrase "media literacy" refers to initiatives to critically study media culture in the fields of education and communication. Media literacy is the capacity to access, analyse, evaluate, and generate messages in a range of situations (Livingstone,2004). The goal of media literacy is to provide people with the abilities necessary to become elite individuals rather than elite consumers (Lewis & Jhally, 1998). In the face of the media's powerful and overwhelming effect, individuals as media consumers must be aware of "media literacy" and take a more active role in the face of media outputs so that they are not passively exposed to written, visual, or auditory media goods. Media literacy encompasses a skill-based cultural process which begins with access, understanding, analysis, assessment, and production. Understanding the content of media messages (graphics, images, sound, video, written text, etc.) that an individual experience, as well as being able to assess and evaluate the information, is a lifelong cultural process. In addition to these skills, the capacity to produce (content) has the greatest potential in the new media environment due to the opportunities afforded by information and communication technology to active, participatory, and productive identity of new media users (Karaduman, 2019).

Access, evaluation, and creation are the three components that make up media literacy according to the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The first and most important component is thought to be the capability to access, retrieve, and save media and information while utilizing the appropriate technology. In order to meet this need, it requires the ability to recognize pertinent data and media content across all formats and mediums, including printed, aural, visual, and digital. It also entails the ability to identify the need for knowledge, media, and information. The second element is defined as the ability to understand, critically evaluate, and analyse information, media content, and the operations and activities of media and information organizations in the framework of basic rights for humans and fundamental liberties. Comparing facts,

differentiating facts from opinions, becoming conscious of chronology (new/news/obsolete), identifying underlying concepts and ideals as well as investigating how economic, political, social, professional, and technological variables create media and information content are all part of this component. It also entails assessing the information's quality (accuracy, relevance, currency, dependability, and completeness). People who are knowledgeable about media are aware of the economic, social, and political influence that public institutions, as well as media providers, have. The third component is the capacity to grasp how to create experience of information, media content, and novel information, as well as successfully interact with others. Additionally, it covers the ethical and efficient use of data, media material, and generally speaking, things like intellectual property. This component also implies having knowledge about the media as well as the attitudes and values necessary to use the media in an ethical way (UNESCO, 2013).

Authorities all over the world are advocating over greater backing for media literacy to be a means of helping tackle urgent consumer worries about a variety of problems including promoting equitable society, boosting civic engagement, building creative skills, preventing deception, and confronting extremism and propagation of hatred (Carlsson,2019). As modern media teaches the young what they want, to avoid above mentioned problems the components of media literacy should be included into curricular activities while educating our children with ethical behaviours and teaching them values. Children who are constantly exposed to screens must learn to distinguish between what is right and wrong. This is best accomplished through religious teaching, which aims to teach the young what is ethical in terms of religion, society, and the individual.

1.1. Media Literacy Education in Turkey

Media literacy education is provided as an elective in the 7th and 8th grades in Turkey. Students in the media literacy course are expected to access and grasp messages from different digital media, such as social networks, new media, and video games, in addition to written, visual, and audio media, in order to analyse, evaluate, and develop their own messages from a critical standpoint. According to Ministry of National Education (MoNE) the objectives of the curriculum in this area are comprehending the phenomenon of media, its evolution and modification across time, and its implications for individual and social life; recognizing the significance of media literacy;

recognizing that media messages can be considered; obtaining the proper and valid information they require through the appropriate use of various media platforms; examining media communications in terms of formal and content characteristics; assessing media statements in their social, cultural, economic, and political contexts; developing effective and unique messages while keeping human rights, responsibilities, ethics, privacy, and personal security in mind; consuming culturally relevant content, acknowledging the media as a significant cultural industry, and prioritizing development. Students that participate in media classes are expected to be able to understand the nature of media in informative and critical ways, have a deeper understanding of how media construct reality in their assertions, or maximize the beneficial effects of media statements (MoNE,2018a). The media literacy course curriculum covered the access, analysis, production, and evaluation sub-dimensions of media literacy. The four skill dimensions listed below:

• Access: The ability of students to access media tools and their contents.

• Analysis: This is the individual's ability to question and criticize the source, content, and purpose of the media message in order to form an opinion about the media content he encounters.

• Evaluation: This is the ability of an individual to make a decision by analysing the media message he encounters and evaluating the results he obtains using criteria such as "human rights, children's rights, ethics, responsibility, privacy, journalistic principles, broadcasting principles."

• Production: Individuals' ability to create their own written, audio, visual, and multimedia messages (MoNE, 2013).

Given that the media cannot be objective, the media literacy course seeks to ensure that children correctly understand media messages, use media appropriately, and maintain a critical approach while not remaining passive in the perception process. However, teaching all of these abilities in a 2-hour weekly session and as an elective appears to be extremely challenging. Taking this course at the end of secondary school may produce a delay for pupils who are exposed to media influences already during primary school. To avoid media-based incorrect learning, religious education, which tries to teach religion and morality accurately, should assist media education.

1.1.1. Media Literacy and Religious Education

The media can allow people with no information or incorrect information who want to exploit people's beliefs for personal gain to be positioned as an information authority to provide religious information and even gain the trust of the masses. Although traditional media tools can be audited, controls in new media are limited and insufficient. Uploaded content is of all types and is available to a wide audience, the accuracy of which, however, cannot be verified. Individuals seeking only information may be put at risk. As a result, the individual must be capable of analysing media messages and purposes. People or institutions that provide incorrect information, harbour prejudices, and abuse social values, moral principles, and beliefs can be prevented to some extent by providing religious education in a healthy and correct manner. Media literacy education should be provided as a cross curricular topic in religious education so that individuals can choose the right sources for information, question the information by passing it through the filter of logic and morality, and not remain passive in the face of media messages since religious fact, which adapts to evolving technology and new communication channels, is now frequently featured in the media. Individuals seek answers to their religious beliefs questions on media platforms, primarily because it is more convenient. Some individuals and institutions take advantage of people's need to believe and religious sensitivities. The crowds that are looking for supporters for their own objectives may distribute incorrect information about religious and philosophical concepts and mistreat people depending on their sensitivity to these issues (Onay & Kıylıoğlu, 2022).

In Turkey, religious and moral education is directed by the state and both primary and secondary schools are obligated to offer religious culture and morals course since 1982 (Official Gazette,1982). Religious culture and morals curriculum emphasizes the value of creating environments where fundamental skills are prioritized, allowing for active student participation in the learning process and teacher guidance, and allowing students to research, explore, solve problems, share, and discuss solutions and approaches. The curriculum aims to educate fundamental ideas about religion and morality, lay the conceptual groundwork for understanding about these topics, and draw links between ideas. Thus, the goal is for students to interpret moral and religious ideas and acquire some fundamental abilities (such as research, questioning, problem-solving, communication, etc.). The vision of the

curricula for Religious Culture and Morals (Grades 4–12) is to raise individuals who have learned to live together with diversity by recognizing the importance of religion in making sense of life and adopting national, spiritual, and moral values (MoNE, 2018b; MoNE,2018c; Official Gazette,1982). The essay focuses on how Turkish schools' religious curriculum address the social need to teach students about media. It gives close attention to how media literacy skills have been included into the religious education curriculum, including its objectives and guiding principles.

2. THE RELIGIOUS CULTURE AND MORALS CURRICULA

2.1. The Guiding Principles of the Curricula Grades 4th-12th

The Religious Culture and Morals curricula for both primary and secondary education highlights the importance of creating environments in which fundamental skills are prioritized, allowing for active student participation in the learning process and teacher guidance, and in which students can research, explore, solve problems, share, and discuss their approaches. These skills emphasized in the curriculum can be integrated with Analysis dimension of media literacy skills that stresses to analyse false and destructive values that contradict religion as promoted by the media. Critical thinking skills can be promoted to distinguish between truth and falsehood in media representations of reality. By incorporating media education, teachers can empower students to make wise media choices and critically evaluate everything they hear and see through media. The effects, influence, and longevity of mindfulness are significantly greater. By exposing students to the truth, creating and maintaining community, and supporting equity, religious education can assist students develop their media literacy abilities while also preparing them for service in the community (Hailer & Pacatte,2007).

As stated by MoNE (2018b;2018c), key competences are covered in the religious culture and morals curriculum, just like in all other Turkish educational initiatives. It is anticipated that the learning and teaching processes will incorporate one of these competences, digital competence. Fundamental abilities like using computers to access and evaluate information, producing, storing, and exchanging information, participating in

networks, and communicating online all support this competence. Instead of writing down recommendations for the teachers, this could be supported by specific objectives since digital competence is closely related to the prevention of harmful effects of media. The curriculum also suggests using some media during the teaching process. Verses, hadiths, and sample texts from our oral and written literature (stories, poetry, couplets, sayings, breaths, etc.) are chosen based on the characteristics of the unit themes. Learning-teaching activities make use of materials developed in the Educational Information Network (EBA) environment and tailored to learning outcomes. Access dimension of media literacy for teachers calls for the use of some media content by the teachers, whether it be in printed or digital form.

2.1.1. The Objectives of the Curricula Grades 4th-12th

Regarding the objectives in primary and middle school curriculum (MoNE, 2018b), one objective in the 5th grade Manners and Courtesy unit that relates to media literacy is "The student acts in a manner consistent with communication and speaking manners" with an explanation of "Internet and social media etiquette are also considered in terms of communication etiquette." This objective is closely related to the Creation dimension of media literacy. It promotes the ethical and efficient use of media in digital communication environments.

The objective of the 9th grade Information and Faith unit is "The student describes the sources of knowledge in Islam." "In the context of Islamic theology's epistemological perspectives, evaluations made in the worlds of philosophy and science about the sources of knowledge and thinking, as well as sound mind, right news, and sound sense organs, are discussed." Current information sources (such as digital records) are also listed. The topics covered include "enjoying information, locating appropriate and useful information, information ethics, and the use and preservation of information (MoNE, 2018c)." This objective and explanation are quite thorough. It is related to all aspects of media literacy, such as accessing appropriate information, evaluating appropriate news and useful information, and creating information ethics.

The media literacy dimensions examined in the documents aim to use proper language usage while communicating whether mutual or through social media while also leading students to select and receive true and helpful media contents by only two objectives all out of the curriculum document

from fourth to twelfth grade. The rare mention of media literacy skills in the curricula's objectives and guiding principles demonstrates that religious education in Turkey lacks a clear intention of incorporating media education as a cross-curricular subject to its core purposes, character development and moral growth in light of Islamic principles and values.

3. CONCLUSION

In today's information culture, the media is viewed on the one hand as a challenge to the authority of traditional religious understandings or religious organisations, and on the other as an opportunity to preserve them (Aydın, 2019). Given that children are exposed to media content at a young age, the importance of religious instruction in mitigating the detrimental impacts of media cannot be overstated. The media promotes the uncritical use of the ideas and knowledge that they provide in an effort to minimize the need for critical analysis. As a result, there is a growing need for individuals to be educated so that they can choose the media content they want to watch, recognize beneficial habits of behaviour and put them into practice in their representations and behaviours, assess carefully information that is published, and avoid media products that promote inappropriate conduct. It is especially severe when the young are impressionable and unable to distinguish between right and wrong because of their immaturity. The necessity to cultivate and educate the audience, however, might be seen as a fairly illusory goal when taking into account the demand that media outlets produce shows that already generate revenue. especially when the general public does not anticipate such cultivation (Vrabec et al.,2013). The development of good values in people and raising true learners of Islam in religious instruction through media education can be highlighted by clear objectives. It is predicated on the idea that religious education will mainly employ the power of media education to reinforce its own place as a field to be studied in the process of learning, with the goal of impacting one's views toward life as a whole his or her instinctual personality, leading to one's own comprehension, and teaching to be liable toward oneself, other people, and the community in general.

Because both religious education and media literacy include reflections on ideas and values, their goals may be closely intertwined. Religious education curriculum should include objectives related to recognizing the influence of media on our perspectives of ourselves and the world around us, growing the abilities needed to evaluate culture via through

the prism of religion, having a focus on theological matters depicted in media, increasing children's understanding of their personal media activity and its moral consequences, advancing a just society, and producing messages from media (Campbell,2010).

Religious education should give media education more attention inside its own curriculum and treat it as another required cross-curricular topic as this cross-curricular subject actually helps religious education achieve its stated objectives. To promote media literacy in schools, teachers must receive training in teaching about media, and methodological materials for media education must be developed in order to align the program's objectives with those of the religious education course. Through integrating media literacy within religious education, it may gain a broader worldwide reach, including adopting more media literacy objectives into curricula, spreading religion, conveying fundamental values to the general population, and having an impact on a wider society.

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CHAPTER 5

A NEW PERSPECTIVE ON EDUCATION AND TECHNOLOGY RESEARCH: FORMATIVE EXPERIMENTAL DESIGN

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1. INTRODUCTION

When it is asked what comes to their mind about technology, most people express it briefly internet, computer, machines and useful gadgets (Rose,et al., 2004). In fact, it is more than these basic names. 21st century is referred to technology period. Today, technology has a significant role in our lives as it facilitates our works. Thanks to technology, not only our lives have changed undoubtedly, but also we have carried out our works easily and efficient (Raja & Nagasubramani, 2018). The technology triggers innovations and enables fundemental changings to carry out our works and to gain deeper information (Barley, 2015; Cascio & Montealegre, 2016).

These days, information and technology are in the centre and they bring developments and changings to each other. With society's knowledge and technology progress advancing, people need to learn how to catch up with technological and information developments. As we get deeper meaning and information, this triggers improvements in technology. On the other hand, it is the same with the technology, too. Technological progress affects information and learning skills (Alkhataba, et al., 2018; Hamidi, et al., 2011). The effect of technology can be seen in all aspects of life. One of these fields is education (Raja & Nagasubramani, 2018).

As facing with the technology's changing rapidly, the education system needs to put forward new strategies to integrate technology and education. What an essential point about integrating technology and education is that we can take the advantage of the technology to improve student's learning and achieving the goal (Anderson & Ronnkvist, 1999; Su & Cheng, 2015). With the help of the technolgy, learning process can happen wherever and whenever a learner wants. Using classrooms with teleconference, visual, audial and online materials, learning and teaching process doesn't require printed material anymore. Knowledge and information can be gained with easily and conveniently (Castro Sánchez & Alemán, 2011; De Jong, 2006). When new educational technologies are put into use, new ways how to use the technology and to organize new instructions can show up. This may cause some problems to use standard techniques. There is a relationship between the technology and the environment which includes a teacher, a student, materials to use and topics to teach. The more the technolgy changes and improves itself, the more it changes the environment (Newman, 1992).

New technological developments in education mean more than just a tool. To embody teaching and learning process, new ways and tools must be combined with well-planned classroom activities and technology. Modern education in technological environment is getting complex, put forward a new possibility and challenge (Conole & Alevizou, 2010; Rubin & Bruce, 1990). These changes and new opportunities in education should be in a quality that can be taken into account in scientific studies related to education.

While doing a research, you can use quanitative, qualititative and mixed methods. Quantitative research which is frequently used in education and technology is explained by Watson (2015). Quantitative research is a kind of research that uses statistics and numerical numbers to measure the phenomena and tries to generalize the data obtained using samples. There are different types of quantitative research: survey, correlational, causal-comparative and experimental research (Sukamolson, 2007). Studying with quantitative research, a researcher may confront with some limitations. It doesn't give flexibility to the researcher and the research setting consists of controlled and planned situations (Ary, et al., 2013; Ochieng, 2009; Queirós, et al., 2007).

In order to evaluate effectiveness of technology and education activities, various approaches have been used. However; most research have been using traditional experimental designs. Although experimental studies are common, it is suggested that traditional experimental design alone do not offer adequate information about interactive association between technology and information. This is because of having some limitations and researchers are dissatisfied with it. As technology assited information improve, experimental design should improve itself, too. In order to focus on these natural limitations in technology assited classroom, a new experimental design was proposed: formative experimental design (Newman, 1990; Reinking & Watkins, 1996).

2. Literature Review

2.1. Formative Experimental Design

Formative experimental design developed by Newman (1990) emerged as an alternative method to traditional experimental designs. This design includes detailed arrangements both teacher education and classroom activities. Models such as this design including detailed arrangements can be carried out with the help of technology. In addition to the idea of offering

cognitive changings of the education environment, formative experiment designs submit an experience for the researcher. The education environment combines with the idea of learning happening socially and mediating by technologic tools to carry out the methadological approaches (Newman, 1990).

The purpose of the formative experiment design is to close the gaps between practice and research and to eliminate deficiencies. This design is based on planned interventions that is meant to reduce or increase its effectiveness in order to carry out a pedagogical value and the implementation is adjusted at each stage to reach the best effective result. With the help of these interventions, formative experiment design provides flexibility to the researcher (Reinking & Watkins, 2000).

The formative experimental pattern has some advantages when compared to traditional experiments. Conducting a research in real classes rather than a lab is required since the effectiveness of the processes is aimed. Instead of a rigid control over the treatments and observe the differences in the consequence just like in a traditional experimental designs, formative experiments aim to observe the processes and achieve the goal (Newman, 1990).

Reinking and Watkins (2000) presents six questions so as to assist the researcher in designing and conducting formative experiments. These questions:

1. “What is the pedagogical goal of the experiment and what pedagogical theory
   establishes its value?
2. What is an instructional intervention that has potential to achieve the identified
   pedagogical goal?
3. As the intervention is implemented, what factors enhance or inhibit its effectiveness
   in achieving the pedagogical goal?
4. How can the intervention and its implementation be modified to achieve more
   effectively the pedagogical goal?
5. What unanticipated positive or negative effects does the intervention produce?

6. Has the instructional environment changed as a result of the intervention?"

These questions constitute the framework the main framework to conduct a formative experiment and serve as a guide to reach the goal.

2.2. The Aim of The Research

In this study, it is aimed to analyze the studies on the formative experimental design and to determine the extent to which this design included in the researches. Based on the purpose, the following research questions are determined in this paper:

RQ1:What is the distribution of the studies examined according to their types?

RQ2:What are the years of the studies were carried out?

RQ3: What are the education levels of the selected studies?

RQ4: What are the research methodologies used in the selected studies?

RQ5: What are the data collection tools used in the selected studies?

RQ6:What are the topics of the selected studies?

3. METHODOLOGY

A meta-analysis was used to answer the research questions of this search. This method was found to be suitable for the research questions to what extent the formative experimental design was used in colloboration with technology. That is why, meta-analysis was chosen for this study, which searched the content of the researches. Meta-analyses model, one of the qualitative research designs, is defined as obtaining data from written documents that contain information about the phenomenon and events related to the research topic and the analysis of these documents (Karasar, 2021; Karataş, 2015).

3.1. The source of the studies

In order to reach our purpose, the following digital databases were used:

- Eric
- Web Of Science (Wiley, Taylor&Francis, Sage, Elsevier, Springer Nature)
- ProQuest
- Science Direct

The literature search was conducted in January 2024 and using "formative experiment" keyword, the studies were searched in detail. First, Eric database was searched. When "formative experiment" was used as a keyword, there were 66 studies in total. 9 studies were eliminated because 5 of them were not formative experiments and 4 of them were not retrieved. When Web of Science database was searched, we reached 44 studies. While 33 studies were selected, 11 of them was eliminated because of not being related to formative experimental design. When we looked at Science Direct database, we reached 57 studies. When we searched ProQuest database, using "formative experiment" keyword, we reached 400 studies. When they were analyzed, most of them were not related to formative experiment. That is why we searched "formative experiment" in title and we reached 17 studies. All of them were included in the study. When it was looked at, we reached 566 studies in total. But when we analyzed, we observed some studies in common. There were 19 studies in common between ERIC and Web of Science databases while there were 2 studies in common between ERIC and ProQuest databases. With the inclusion criteria, we reduced this number to 24. The search and selection process can be better observed in Fig. 1.

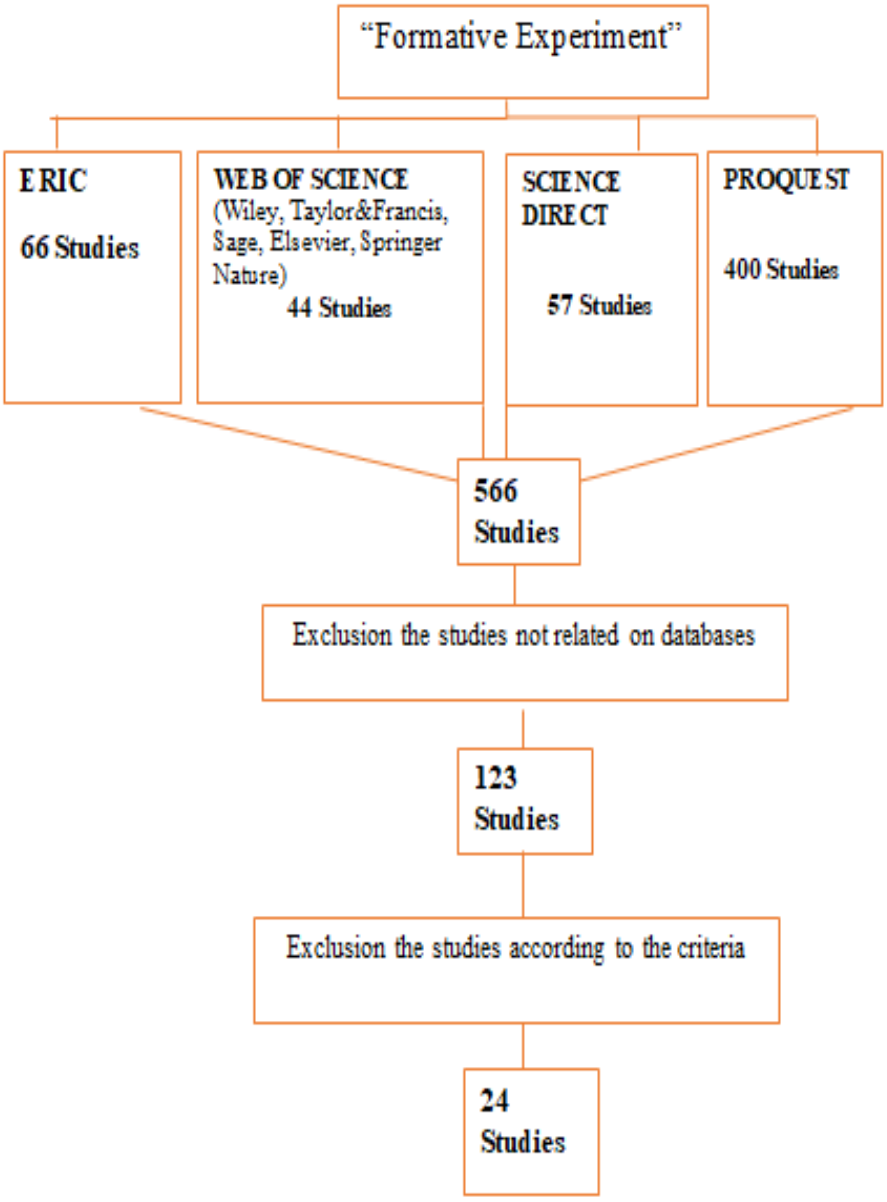

Figure.1 Selection process of researches

At the beginning, we reached 566 studies. Then we extracted some studies based on our qualities. Finally, we reached 24 studies to analyze and the results are presented in the next section.

3.2. Data extraction procedure

For this meta-analysis, in order to decide which studies to include to this research, we used some identifications. We checked the study language, the research design used in the studies, the studies' title and the subject. The study identifications highlighted to these items. The detailed explanation of the extraction process can better be seen in Table 1.

Table 1. The criteria of inclusion

S/N	Inclusion Criteria	Description
1	Language	The full text should be written in English
2	Reserch design	Quantitative, qualitative or mixed searches
3	The study title	Some of studies name include "formative experimental design"
4	The subject	Being related to technology and formative experimental design
5	The publication year	Being recent and relevant studies published from 2012 to 2023.

As can be seen in Table 1, when we search the studies, we checked the texts only written in English. For some studies, it was observed that they were meta-analysis and we extracted those studies. We decided to check only the texts whose title included "formative experimental design" for some databases. Because when we started to search with the word "formative experiment", we found a huge number of studies. So, we included the studies having "formative experiment" in their title. Besides, we checked the studies including technology and formative experimental design together.

4. RESULTS

The results of anlyzing the selected studies are presented in this section. For each research questions, the results are given in different titles.

4.1. Type of the studies

In this section, it was aimed to specify the type of the studies. The type of the selected studies were classified as articles, master's thesis and doctoral thesis.

Table 2. The Type of The Studies

Master's thesis	Phd Dissertation	Article
	Colwell, 2012	Colwell, et al. 2013
	Bell, 2012	Frey, et al. 2015
	Hart, 2012	Papadima-Sophocleous, 2015
	Witte, 2014	Gyamfi & Gyaase, 2015
	Howell, 2015	Colwell&Reinking, 2016
	Nieroda, 2019	Howell, et al., 2017
	Jorgensen, 2019	Bowers, et al., 2017
	Topper, 2023	Howell, 2018
		Ulusoy, 2019
		Dennis & Hemmings, 2019
		Ulusoy, 2020
		Ortlieb, et al., 2020
		Canady, et al., 2020
		Fjortoft, 2020
		Howell, et al, 2021
		Çetin & Ulusoy, 2022
Total	8	16
		24

As shown in Table 2, most of the studies were published as articles (16 out of 24 studies) and followed by doctoral thesis (8 out of 24 studies). Looking at the selected studies, there was no master's thesis.

4.2. The Year of Publication

In this section, the selected studies were published between 2012 and 2023. It is shown the details of the selected studies' years in Table 3.

Table 3. The Year of Publication

The year of publication	Frequency	Percentage
2012	3	12.5
2013	1	4.2
2014	1	4.2
2015	4	16.6
2016	1	4.2
2017	2	8.3
2018	1	4.2
2019	4	16.6
2020	4	16.6
2021	1	4.2
2022	1	4.2

2023	1	4.2
Total	24	100

As shown in Table 3, the year with the highest number of publications was in 2015, 2019 and 2020, when 4 studies were published each year.

4.3. Sample Levels

In this section, the aim is to answer the research's third question about sample levels. We analyzed the selected studies and classified the sample levels as adults, teachers, university, high school, secondary school, primary school, pre-school and not specified. In total 27 levels were specified because in some studies, more than one sample level was included in the same study.

Table 4. Sample levels of the selected studies

Sample levels	Frequency	Percentage
Primary school	7	26
Secondary school	4	14.5
High school	7	26
University	7	26
Teachers	2	7.5
Total	27	100

As shown in the Table 4, five sample levels were categoized in the selected studies. The most used levels were primary school level (7 out of 27 levels), high school level (7 out of 27 levels) and university level (7 out of 27 levels).

4.4. Research Methodologies

This section aims to specify the research methodologies of selected studies. When analyzing the selected studies, we classified the research methodologies as qualitative research, quantitative research and mixed researches.

Table 5. Type of The Research Methodologies

Research Methodologies	Frequency	Percentage
Qualitative research	12	50
Quantitative research	-	-
Mixed research	12	50
Total	24	100

As shown in Table 5, half of the studies were mixed researches (12 out of 24; 50%) and half of the studies were mixed researches (12 out of 24; 50%). There was not any quantitative researches.

4.5.Data Collection Tools

In this section, we tried to answer the fifth question about data collection tools. When analyzed, we specified 11 different data collection tools including questionnaire, scale, achievement test, ability test, reflective diary, interview, observation, rubrics, field notes, projects, documents. Although there were 24 studies, we specified 67 data collection tools. This was because of including more than one data collection tools in the same study.

Table 6. Data Collection Tools of The Selected Studies

Data collection tools	Frequency	Percentage
Interview	17	25.5
Field Notes	16	24
Questionnaire	8	12
Observation	13	19.4
Achievement Test	3	4.5
Rubrics	1	1.4
Document Analysis	1	1.4
Ability test	4	6
Reflective Diary	1	1.4
Project	2	3
Scale	1	1.4
Total	67	100

The most significant number of data collection tools were interviews (17 out of 67; %), followed by field notes (16 out of 67; %) while the least used ones were rubrics (1 out of 67; %), document analysis (1 out of 67; %), reflective diary (1 out of 67; %) and scale (1 out of 67; %) as can be seen Table 6.

4.6.Topics of the Studies

This section aims to clarify the topics in the selected studies. In order to carry out this, we defined 15 different topics.

Table 7. Topics of The Selected Studies

Topics	Frequency	Percentage
Literacy	1	4.2
Reading skills	1	4.2
Online platform	2	8.2
Digital literacy	1	4.2
Digital writing	3	12.5
Digital stories	1	4.2
Reading skills	2	8.2
Using a technology tool	3	12.5
Digital multimodal arguements	3	12.5
Developing history and literacy	1	4.2
Facilitate teacher reflection	2	8.2
Multiliteracies	1	4.2
Multimodal digital classroom	1	4.2
assessment	1	4.2
Oral retelling	1	4.2
Improving dialogue		
Total	24	100

When analyzed, as shown in Table 7, the most addressed topics were digital writing (3 out of 24; 12.5%), using a technology tool (3 out of 24; 12.5 %) and digital multimodal arguements (3 out of 24; 12.5%).

5. DISCUSSION

It can be seen that formative experimental design is a field that should be operated and researched more to show its effectiveness. This study investigated how formative experiment design was used in the literature. Based on the results on 24 studies, we tried to answer our six questions, including the study type, which year they were carried, the samples' grades, which the research methods were used, which data collection tools were utilized and the topics of the selected studies.

The first point is that when we look at the study type, most of the studies (66.6%) were articles and the rest was doctoral thesis (33.3%). That is why experimental designs force the researcher and their applications make it hard to study (Podsakoff & Podsakoff, 2019), it may be chosen in Phd dissertation. This is a deficit point that there was no study in master's degrees. Therefore, future works can be more carried out in master's degrees. Besides that we studied on the years between 2012 and 2023 in which the

studies were carried out. Most of the studies were carried more in 2015, 2019 and 2020 (49.8%). When we look at the studies' years, there is a growing number up to this year. This is because formative experiments are relatively new approach in the field (Bradley & Reinking, 2011). When we looked at the numbers were caried out, the rate of rise seems generally increasing.

Moreover, a considerable percentage of studies were carried out with primary school students, high school students and university students (78 %). Because students are the essentials parts of education systems, these three sample grades were studied alot (Taşkaya, 2012; Huda, et al., 2017; Higueras-Rodriguez, et al., 2020). Future new studies can explore new information in less searched levels, such as secondary education and teachers. Evaluating the research methods used in the included studies, we can observe equal percentages of studies belong to qualitative methods (50%) and mixed methods (50%). It could be explained by formative experiment is derived from quantitative research methods and it is supported with qualitative methods. Besides that qualitative researches offer and give a chance to study flexibly (Lu&Shulman, 2008; Holloway&Todres, 2003). It can be said that future new studies may be carried out with quantitave research method alone and can be gathered new information and outcomes.

Analyzing the data collection tools, we can observe that for qualitative methods, interview (25.5%) and field notes (24%) have higher percentage than other tools. Interviews and field notes submit the neccessary flexibilities which formative experiments need (Basch&Melchers, 2019). On the other hand, the number of rubrics, projects, document analysis, reflective diary and scales usage were limited compared to other data collection tools. Their effectiveness were not investigated enough and future works could use them to achieve the objectives.

Regarding the study topics, most aimed topics were digital writing (12.5%), using a technology tool (12.5%) and digital multimodal arguements (12.5%). This design can be easily connected to the technology because the formative experiment was designed to improve the education environment using technology (Newman, 1990). It is mainly because with the help of the technological tool, the environment could be better to achieve the pedagocical goal of the study.

This new design should be searched more to understand it better because the usage number is still considerably low in our country. This lack of

information about formative experiment design hinder the researcher's studying and producing new works. That is why, this research may take the researchers' attention and start to evolve itself.

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CHAPTER 6

THE EFFECT OF THE CHEMISTRY COURSE BASED ON THE 7E MODEL ON STUDENTS' METACOGNITIVE AWARENESS AND ANALYTICAL THINKING SKILLS

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INTRODUCTION

The main purpose of chemistry courses taught at high school and university levels is to provide students with knowledge and understanding of the field. In addition to this main purpose, it is aimed to ensure that chemical substances, their properties, and their applications in life are understood and, beyond these, to provide students with the ability to understand and apply scientific reasoning (Nduatı, 2023). Chemistry, one of the most important branches of science in understanding the natural world, serves as an important foundation for engineering, agriculture, biology, biochemistry, medicine, and many other professions and contributes functionally to both national and global development (Umanah & Anyanime, 2024). With the chemistry course taught in schools, students' consciousness can be developed as part of daily life, higher-level thinking skills such as inquiry, creativity, and analytical thinking can be improved, and thus, individuals who not only consume but also produce knowledge are raised (Nakum,2023).

Chemical equilibrium is a subject that students have difficulty learning and have misconceptions about (Derman, Pınar & Akkurt, 2023; Cetin, 2022; Sepet, Yılmaz & Morgil, 2004; Satay, 2010). To ensure that such course subjects that are difficult to learn and have widespread misconceptions are comprehended and to provide permanent learning, many different methods and models have been developed, ensuring the active attendance of students in the learning process instead of the teacher-centered teaching approach (Cetin, 2022). 5E and 7E learning cycles were developed on the basis of the constructivist approach. Using course activities developed based on the constructivist approach, it is aimed to ensure that students reach information themselves by supporting their active participation in courses. In this way, students can be given the opportunity to improve such as analytical and critical thinking and problem-solving skills (Güntaş-Işık, 2023; Uzun & Koparan, 2021). Information on the 7E model adopted to this end can be briefly summarized as follows.

1. 7E LEARNING CYCLE

When the course environments suitable for the aforesaid cycle based on scientific research steps are created, students' active participation can be ensured, and they can structure their knowledge in this way (Santi & Atun, 2021). The 7E model, which was developed from the 5E learning model by (Bybee, 2003) and (Eisenkraft, 2003) is included in the literature, organizes

course activities in seven stages (Gurbuz, 2023; Yıldız, 2023; Oztaş, 2016; Yıldızbas, 2019). Although the two researchers have similar views about these stages, there are some differences. The present study considered the stages developed by (Bybee, 2003) and developed course activities in the context of the characteristics briefly explained below.

1. E-Engage: At this stage, the teacher is expected to reveal students' prior knowledge and ensure that they focus on the new subject to be learned. The teacher should also arouse interest in the subject by ensuring students' active mental participation. To this end, various questions that reveal prior knowledge and arouse curiosity can be asked, stories can be told, and appropriate tools such as pictures can be used. In this way, students can be motivated to learn by attracting their attention.

2. E-Explore: This is the stage where students are expected to develop concepts in the context of the subject that they will learn based on the inquiry method and carry out activities that will contribute to improving their skills. At the engage stage, students who focus on learning the subject and have question marks in their minds try to find answers by establishing hypotheses, conducting experiments, and drawing conclusions regarding the questions they have determined. At this stage, the teacher should guide students without providing too much explanation on the subject they need by giving them the opportunity to work freely in groups. Furthermore, deepening questions can be asked to ensure that the subject is better understood, contributing to the improvement of students' high-level cognitive skills.

3. E-Explain: At the stage in question, students should be given the opportunity to explain the concepts related to the subject under the teacher's guidance using various resources, discussing in groups, and demonstrating their skills. When explaining the concepts, the teacher should prioritize students, complete the missing information, or correct misunderstandings. For this purpose, different teaching methods, such as drama, pictures, videos, and films, can be used. At the end of this stage, students should be able to express the concepts correctly and reach generalizations.

4. E-Elaborate/Expand: This is the stage where students are expected to apply the skills and concepts they have acquired at previous stages to new situations. To this end, students should be encouraged to solve the problems they encounter with the knowledge they have acquired and activities such as asking questions, offering solutions, and making decisions by designing

experiments. At this stage, the main purpose should be to enable students to adapt their newly acquired knowledge and prior knowledge to new situations.

5. E Extend: At this stage, the teacher should guide students to associate the concepts they have learned with concepts from other fields or with more advanced events using examples from daily life. Students extend the meaning of the concepts they have learned with the questions directed to them and try to establish a relationship between real-world concepts.

6. E Exchange: At this stage, called sharing or exchanging ideas, students are expected to cooperate not only with their group friends but also with friends in other groups according to their interests. In line with this purpose, discussion environments are created where students can exchange ideas with their friends. In this way, students' ideas can change at the end of discussions, and they can organize and implement different activities in line with new ideas.

7. E Evaluate: A formal one-time evaluation is not made at this stage, which is the model's last step. The teacher has evaluated all students' activities at each stage of the model, although not formally. Again, the teacher evaluates students' knowledge and skills at this stage by examining them as they apply concepts and skills. At this stage, students may be asked what their thoughts are, why they think like that, and how they will explain the events (Oztas, 2016; Gurbuz, Turgut & Salar, 2013).

2. METACOGNITION

Mental abilities are grouped into cognitive and metacognitive strategies. While basic mental abilities such as remembering, associating information, and making inferences constitute cognitive strategies, skills such as questioning, refining, processing, interpreting, and presenting require metacognitive strategies. Furthermore, planning the problem-solving process, using methods and skills in this process, evaluating the process, and making self-assessments also require metacognitive strategies (Schraw & Dennison, 2023). Nduatı (2023) and Flavell (1987) mentioned two components of metacognition, namely metacognitive knowledge and regulation, whereas Efklides (2023) mentioned three components, namely metacognitive knowledge, regulation, and experience. Metacognitive knowledge is the knowledge of individuals as learners about their cognition and consists of declarative, procedural, and situational structures. Metacognitive regulation is

explained as individuals controlling their learning and occur of the planning, monitoring, and evaluation stages. Metacognitive experiences include various judgments and suggestions related to learning, such as the decision to learn and the feeling of knowing (Blajvaz, Bogdanović, Jovanović, Stanisavljević & Pavkov-Hrvojević, 2020).

To improve metacognitive thinking skills, instead of focusing only on the subject to be taught in courses, methods allowing students to use metacognitive strategies should be included, and in this regard, it is important to use the 7E model in courses. Furthermore, by targeting the improvement of students' metacognitive thinking skills, their self-assessment, planning, and monitoring of their practices will also develop, thus contributing to the improvement of analytical thinking skills (Anthonysamy, Sugendran, Wei & Hoon, 2024).

3. ANALYTICAL THINKING

Analytical thinking is the initiator of the process of planning solutions, producing solutions, drawing conclusions, or producing correct answers and the ability to think at a higher level of mathematics (Anggoro, Puspita, Pratiwi, Agustina, Komala, Widyastuti & Widyawati, 2024). Analytical thinking, which is considered the lowest ability of students (Hasyim & Andreina, 2019) is a skill required for exploring concepts that can offer solutions to problems, comprehending course subjects (Dafrita, 2017) and developing innovative ideas (Astriani, Susilo, Suwono & Lukiati, 2017). Analytical thinking is a high-level thinking skill that includes producing solutions for problems, planning solutions, drawing conclusions, and evaluating them (Yildirim & Simsek, 2021). Analytical thinking, which is the understanding of the relationship between parts and the whole in a problem, is selecting the necessary data and information for the solution and deciding on the most logical conclusion (Eren & Dökme, 2022).

Based on the information attempted to be explained above, it is clear that learning environments in today's education system should be organized in a way that helps students improve their inquiry skills. It is accepted that only in this way, analytical thinking skills, which are among the high-level thinking skills, can be improved, and metacognitive awareness can be increased. Therefore, the present study developed course activities based on the 7E model using the inquiry approach and tried to establish the effect of these activities on students' metacognitive awareness and analytical thinking

skills. In line with this purpose, the scores acquired from the Metacognitive Awareness and Analytical Thinking Skill Scales by students in the intervention group, where the 7E model was applied. The control group, where the traditional teaching method was used, were compared.

METHOD

Research Design

This study investigated the analytical thinking skills and metacognitive awareness levels of students in classes receiving education with the 7E model and traditional learning methods and the differences between them. To this end, a quasi-experimental design with a pre-test/post-test control group was used. The intervention and control groups participating in the study were not randomly selected from the population, and the present study was conducted with groups whose academic achievement levels were very close to each other. Therefore, the study used a quasi-experimental design (Yildirim and Simsek, 2021).

Table 1: Research Design

Groups	*Pre-test*	*Implementation*	*Post-test*
Control Group	-Metacognitive Awareness Inventory - Analytical Thinking Scale	Teaching the Subject of Chemical Equilibrium with a Traditional Teaching Method	-Metacognitive Awareness Inventory - Analytical Thinking Scale
Exp. Group	-Metacognitive Awareness Inventory - Analytical Thinking Scale	Teaching the Subject of Chemical Equilibrium with the 7E Model	-Metacognitive Awareness Inventory - Analytical Thinking Scale

Participants

The current study was pursued in the 2023-24 academic year. The study participants studied at a Science High School that accepts students by exam (where highly successful students receive education) in Ankara, the capital of Türkiye. Since the study was conducted in a school selecting students by exam and providing education with special education programs, all participants had high academic achievement and high-level thinking skills.

There were 29 students in the control group and 30 students in the experimental group who were studying in the 11th grade. The implementation of the study was completed in 6 weeks.

Data Collection Tool

The Metacognitive Awareness Inventory (MAI) used in the study was developed by Schraw and Dennison (1994) and adapted into Turkish by Akın, Abacı, and Çetin (2007). This 5-point Likert-type scale comprises 52 items. The Cronbach alpha coefficient found for the scale in this study is 0.92. The Analytical Thinking Scale is a 24-item scale prepared by Ocak and Park (2020). The Cronbach alpha coefficient found for the scale in this study is 0.87.

Implementation Process of the Study

In the 2023-2024 academic year, 11th-grade chemistry courses on chemical equilibrium were taught with course activities based on the 7E model in the intervention group and with the traditional (question-answer, explanation, etc.) process in the control group. In two groups, the subject "Physical and Chemical Equilibrium" was taught for the first two weeks, and the subject "Factors Affecting Equilibrium" was taught for the next two weeks. In the last two weeks, the subject of "Aqueous Solution Equilibrium" was taught. In the 7E model applied to the intervention group students, the model's stages were meticulously considered, and attention was paid to ensure students' active participation in presentations and experiments.

Data Analysis

The data obtained from the scale applied to the students participating in the study were first transferred to the SPSS 22.0 program and percentage-frequency values were determined. Then, the significance levels of the differences between the scores of the experimental and control groups were determined by t-test.

FINDINGS

In the present study, the Analytical Thinking and Metacognitive Awareness Scales were first applied as pre-tests to all students participating in

the study. Upon evaluating the data obtained at the end of the intervention, the findings in Table 2 were obtained.

Table 2. Comparison of the metacognitive awareness and analytical thinking skill pre-test scores of the intervention and control groups

Tests	Groups	N	$\bar{X}$	SS	Sd	t	p
Metacog. Awareness	Control	30	187.83	26.21	57	0.66	0.947
	Exp.	29	188.24	20.88			
Analytical Thinking	Control	30	89.23	12.71	57	0.55	0.583
	Exp.	29	87.58	10.01			

As seen in Table 2, when the pre-test scores obtained by the intervention and control groups from the scales were compared, the scores of the intervention and control groups were found to be very close to each other, and no significant difference was observed between the groups (t=0.947 p>.05 for the Metacognitive Awareness Intervention); t=0.583 p>.05 for the Analytical Thinking Skill Scale). These values show that the intervention and control groups were at the same level before the interventions.

Table 3. Comparison of the metacognitive awareness and analytical thinking skill pre-test/post-test scores of the intervention group

Tests	Groups	N	$\bar{X}$	SS	Sd	t	p
Metacog. Awareness	Pre-test	30	187.83	26.21	29	39.25	0.000
	Post-test	30	196.73	24.90			
Analytical Thinking	Pre-test	30	89.23	12.71	29	38.44	0.000
	Post-test	30	89.80	12.37			

The values in Table 3 demonstrate significant differences in the scores students received from the scales at the end of the course activities based on the 7E model. For the Metacognitive Awareness Intervention pre-test/post-test mean scores of the intervention group students, t=0.000 p<.05 values were found, and t=0.000 p<.05 values were found for the Analytical Thinking Skill Scale pre-test/post-test mean scores.

Table 4. Comparison of the metacognitive awareness and analytical thinking skill pre-test/post-test scores of the control group

Tests	Groups	N	$\bar{X}$	SS	Sd	t	p
Metacog. Awareness	Pre-test	29	188.24	20.88	28	48.53	0.000
	Post-test	29	205.37	24.10			
Analytical Thinking	Pre-test	29	87.58	10.00	28	47.124	0.000
	Post-test	29	93.72	10.83			

When the pre-test/post-test scores of the control group students from the scales were compared, no significant difference was found between the scale scores of these students, as given in Table 4, just like the intervention group. The pre-test/post-test mean scores of the control group students on the Metacognitive Awareness Inventory were t=0.000 p<.05, and their pre-test/post-test mean scores on the Analytical Thinking Skill Scale were t=0.000 p< .05.

Table 5. Comparison of the metacognitive awareness and analytical thinking skill post-test scores of the intervention and control groups

Tests	Groups	N	$\bar{X}$	SS	Sd	t	p
Metacog. Awareness	Control	30	196.73	24.90	57	-1.354	0.181
	Exp.	29	205.37	24.10			
Analytical Thinking	Control	30	89.80	12.37	57	-1.196	0.237
	Exp.	29	93.72	12.83			

Table 5 presents the study's final results. These comparisons show no significant difference between the metacognitive awareness and analytical thinking skill post-test scores of the intervention and control groups (t=0.181 p>.05 for the Metacognitive Awareness Inventory, and t=0.237 p>.05 for the Analytical Thinking Skill Scale).

CONCLUSION AND DISCUSSION

Many studies have shown that students actively participate in the course based on the 7E model, thus they become motivated for the course and encourage each other in learning, and consequently, their academic

achievement increases (Gurbuz, 2023; Anthonysamy, Sugendran, Wei & Hoon, 2024; Hasyim & Andreina, 2019). While the positive effects of the 5E model are accepted because it is based on a constructivist approach and involves inquiry, it is accepted that adding the steps of extending, associating, and sharing/exchanging ideas to the 7E model, unlike 5E, increases success (Eren & Dokme, 2022). Since numerous studies have focused on academic achievement, the present study investigated the effects of the 7E model-based course activities used to teach the high school 11th-grade subject of chemical equilibrium on students' metacognitive awareness and analytical thinking skills.

The data collected in the study showed a significant difference between the metacognitive awareness pre-test and post-test scores of the control and intervention group students. However, no significant difference was found when comparing the metacognitive awareness post-test scores of the intervention group, where the 7E model was applied, and the control group students, where the traditional method was applied. Although it is known that using research-based student-centered teaching methods increases interest in chemistry courses (Irwanto, 2018) and improves the use of metacognitive skills (Nzomo, Rugano & Njoroge, 2023; Asy'ari, Ikhsan & Muhali, 2019) the results obtained from this study do not support the aforesaid findings. Furthermore, the fact that teaching based on metacognitive development effectively provides equality between different groups of students in learning chemical equilibrium (Liline, Tomhisa, Rumahlatu & Sangur, 2024) leads to the expectation that the metacognitive awareness scores of the intervention group students will be higher. The development of metacognitive awareness also supports the development of analytical thinking (Irwanto, 2018). Based on this view, it can be stated that increased metacognitive awareness will also contribute to increased analytical thinking skills. When the analytical thinking post-test scores of the intervention and control groups were compared, no significant difference was observed again. This result, as stated in the study by Lilian Anthonysamy et al. (Anggoro, Puspita, Pratiwi, Agustina, Komala, Widyastuti & Widyawati, 2024) is that students in both groups are highly successful individuals who were selected through a special exam and admitted to this high school.

Although the statistical results of the study do not show that the 7E model effectively improves the metacognitive awareness and analytical thinking skills of students receiving education with the 7E model, it is clear

that there are some points that should be considered. First, the post-test scores of the intervention group students are higher than those of the control group students. Furthermore, as stated in the study of (Mensah, 2017) these students have the highest success scores in Turkey.

The present study was conducted to determine the effects of courses developed with the 7E model based on the inquiry approach on students' metacognitive awareness and analytical thinking skills when learning the subject of chemical equilibrium, one of the most difficult concepts in high school chemistry courses. The study conducted to determine the effects of the 7E model and traditional teaching methods on the mentioned skills found no significant difference between the groups in which the methods were used. Although there was no statistically significant difference, it was revealed that students receiving education based on the 7E model had higher grade point averages. It is thought that the reason for the absence of a significant difference between the groups is that students in both groups are already highly successful. For these reasons, it is considered important to develop and implement course activities based on the 7E model in physics, biology, and chemistry courses on different subjects and with students at different academic achievement levels in future studies. Furthermore, it can be said that implementing different teaching methods that are thought to contribute to increasing high school students' metacognitive awareness and improving their analytical thinking skills will contribute to the field.

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CHAPTER 7

EDUCATION BASED ON PIAGET'S THEORY

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INTRODUCTION

According to Jean Piaget, children are active and motivated learners. A large part of children's cognitive development develops due to their efforts to make sense of the world. Piaget states that children are curious about their world and actively seek information to help them. Piaget's theory suggests that the ways children make sense of the world change according to the cognitive stages they experience. According to Piaget, children think in qualitatively different ways at different age levels. For this reason, the main feature of Piaget's theory is that he defined four stages of cognitive development, each with unique thought structures. Each stage is based on the completion of the previous stage (Bacanlı, 2004). Piaget suggests that the stages have a universal quality all over the world. Furthermore, he adds that development is limited to neurological maturation, that is genetically controlled developmental changes in the brain. A child can move from one stage to the next when the brain develops sufficiently to enable the thought processes and cognitive structures associated with the next stage. Piaget defines children's mental structures through four primary stages: Sensory-motor (0-2 years), Pre-operational (2-7 years), Concrete operational (7-11 years), and Abstract operational (11 years and above). Each stage shows the differences in children's understanding of their environment and developmental capacity(Kesselring,1999, pp. 76-98).

In Jean Piaget's theory of cognitive development, learning is an active process, and several basic concepts explain it. These concepts help explain how children make sense of the world and how they develop their mental structures. These basic concepts include processes such as schema, balance, imbalance, assimilation, and adaptation. According to Piaget, schema (or schemas) are cognitive structures and mental models that help individuals understand the world. Schemas are ways for children to organize and make sense of the world through their experiences (Aydın, 2000, p.31). For example, when a child encounters a cat for the first time, they create a "cat schema" using information they have heard or seen about cats before. This schema helps them recognize cats and interact with them. Schemas provide a framework for children's knowledge, but these schemas may be initially limited and straightforward. Schemas become more complex over time and with experience (Yöndem & Taylı, 2009, p.73). According to Piaget, the learning process begins with a state of balance, and the individual constantly strives to achieve balance. Balance is a state in which the child's schemas are

sufficient to understand new experiences and information. During this process, the child can understand his/her environment and feels safe. Balance is a type of internal balance in terms of cognitive development, and children try to maintain this state of balance as they interact with the world. However, as children experience experiences that challenge their schemas with new information they receive from their environment, they lose their balance. This loss indicates the beginning of the learning process and a stage of development (Bacanlı, 2014, p.84). Imbalance is when the state of balance is disrupted, and the child feels an incompatibility between their existing schemas and new information. When the child has a new experience, and this experience contradicts their existing schemas, a kind of mental discomfort arises. In this case, the child has difficulty making sense of the world because their old schemas do not match their new experiences (Senemoğlu, 2010, p. 35). This imbalance is the driving force of learning. Because the child tries to solve this situation and make his old schemas compatible with the new experiences, this stage is when learning begins and mental development accelerates. The process of assimilation and adaptation explains the child's ability to reach balance again at this stage (Charles, 2003, p. 2).

Assimilation is the process of the child incorporating new experiences or information into his existing cognitive schemas. In other words, when the child learns new information, he adds it to his own schemas or adapts it to his existing schemas. Instead of adapting to the new information, the child tries to explain it with his old knowledge. For example, when a child comes across another animal that resembles a cat he has seen before, he may call this new animal a "big cat" because this animal has the same characteristics as the previous cat. The child uses his old schema to adapt to the new information (Çolakkadıoğlu, 2014, p.101).

Accommodation changes or reshapes the child's schemas in line with his new experiences. If a child is forced to change existing schemas to adapt to a new experience, the process of accommodation comes into play. This shows that the child's mental structure is flexible and can be restructured to understand the world more accurately. For example, if a child knows a cat and realizes that the new animal he sees is a dog, he replaces his old "cat" schema with a "dog" schema. This process allows the child to form more accurate and comprehensive cognitive structures. After the imbalance, the child assimilates and adapts to the new information, becoming more suitable for his old or new schemas. This process allows the child to understand the next stage of

cognitive development better. This shows that Piaget's learning process is cyclical: the child experiences imbalance and then regains balance through assimilation and accommodation. This new balance makes it possible to move on to the next learning stage and form more complex cognitive structures (Morgado, 2003, p.164).

Piaget's learning process works through schema, balance, imbalance, assimilation, and accommodation. Children make sense of the world through these processes, and their cognitive structures constantly develop based on their experiences. These processes emphasize that learning is a dynamic and active process. Children can change, expand, or adapt their schemas with new information they receive from their environment. The concepts developed by Piaget regarding these processes provide an essential guide for educators and psychologists because they provide important clues on managing balance and imbalance situations in each child's learning journey (Richmond,2013).

DEVELOPMENT

Jean Piaget is a psychologist who significantly contributed to children's cognitive development. Piaget's views on education argue that children's learning processes are not passive receptivity but a dynamic process that requires active participation. In this context, Piaget stated that children's efforts to make sense of the world are the main driving force of their cognitive development. According to him, children become active participants at the center of their learning experiences as they constantly explore and try to understand their environment.

Piaget divides cognitive development into specific stages and states that each stage is built on the previous one. These four stages show that children's ways of understanding the world change according to different levels of their cognitive development. Piaget argues that these stages are universal and follow a similar developmental process for all children. Based on this understanding, Piaget's theory requires the development of teaching methods appropriate to the characteristics of children in each age group in education (Piaget, 1972).

Piaget's theory of cognitive development encompasses four primary stages: sensory-motor, pre-operational, concrete operations, and abstract operations. Each stage represents a period in which the child's thinking style,

approach to the environment, and problem-solving skills develop (Yeşilyaprak, 2013, pp.86-100).

Sensory-Motor Period (0-2 Years): During this stage, children discover the world through sensory experiences and motor skills. Piaget considers this period the first stage in which children consciously explore objects, movements, and their environment. During this period, children learn by manipulating objects and observing the results. In education, it is essential to provide children at this stage with physical exploration opportunities and to enrich their sensory experiences (Huitt&Hummel, 2003).

Pre-Operational Period (2-7 Years): During this period, children begin to gain the ability to think symbolically. Language use increases and imagination develops, but logical thinking skills are not yet fully developed. Although children can understand objects and events more abstractly, they cannot still think with specific logical rules. Piaget states that children in this period cannot fully grasp basic logical operations such as conservation (understanding that the quantity or form of objects does not change). At this stage, children can be encouraged to play symbolic games and develop their language skills (Huitt&Hummel, 2003).

Concrete Operations Period (Ages 7-11): Children develop their logical and systematic thinking skills at this stage. Children can form logical thoughts on concrete objects and events during concrete operations. Children can solve problems according to specific rules, make classifications, and relate the properties of objects to each other. However, they may still have difficulty working with abstract and abstract concepts. During this period in education, students can be presented with concrete materials and experimental learning-based problems (Huitt&Hummel, 2003).

Abstract Operations Period (Ages 11 and Above): This is the stage where children gain abstract thinking skills. Children can now work with abstract concepts and theoretical ideas and think about hypothetical situations. Abstract operations include more complex problem-solving and reasoning skills. Children in this period can plan for the future and develop more abstract and theoretical thoughts. In education, strategies that encourage abstract thinking and opportunities for operations that require analysis can be provided (Huitt&Hummel, 2003). Piaget's theory provides essential clues about how education should be. He argues that the child constructs knowledge with active participation (with his own experiences); education should be

appropriate for the child's cognitive development stage and that children learn by discovering new information. Therefore, focusing on discovery, experimentation, and problem-solving activities is essential. Piaget also supports children in learning by making mistakes. According to Piaget, making mistakes is a part of the development process. It is essential to allow mistakes to be made and to try again in education (Piaget, 1929).

Piaget's basic principles in education can be briefly explained as follows: Education should be adapted to children's individual needs and cognitive development levels. A conflict/imbalance between the student's existing knowledge and the new information they encounter can initiate the learning process. According to Piaget, children learn by interacting with their environment and developing social skills. This interaction supports cognitive development (Piaget, 1929).

According to Piaget, education should be suitable for children's cognitive development stages. Each child needs teaching techniques that can meet the needs of that stage while developing in a particular cognitive stage. Therefore, Piaget's views on education aim to align teaching with the child's natural development process. Applying Piaget's theory in education requires the correct selection of teaching strategies and learning materials (Piaget, 1972).

Applying Piaget's theory in education requires teachers to consider students' cognitive stages and understand how each student can contribute to the learning process. This approach considers individual differences and offers materials, activities, and teaching methods appropriate to the development level of each student. According to Piaget, education should stimulate students' natural curiosity and allow them to explore the world(Piaget, 1972).

CONCLUSION

Piaget's views on education have had a broad impact not only in theory but also in practice. Piaget laid the groundwork for a new understanding of education by emphasizing the active role of children in the learning process. Piaget's theory has revealed the importance of developing educational programs appropriate to students' developmental levels.

Based on Piaget's theory, students are allowed to learn actively in education. Students not only passively receive information but actively participate in discovery, problem-solving, and critical thinking. These processes help students discover themselves, develop problem-solving skills, and strengthen their cognitive structures. Teachers guide the learning processes by considering students' developmental levels and using appropriate materials to enrich students' active learning experiences. According to Piaget, education should be appropriate for the skills and ways of thinking each child gains in these cognitive stages. Piaget argued that children are not just passive recipients and that learning occurs through interaction and experience. Therefore, in Piaget-based education, students should have discovery, problem-solving, and critical thinking opportunities. Educators must enrich their teaching content and use appropriate learning materials by considering their students' developmental levels (Piaget, 1972).

Piaget's theory presents an educational approach based on children's developmental characteristics. It emphasizes the active participation of children and shapes education according to their needs. Piaget's theory does not sufficiently emphasize the effect of sociocultural factors on children's cognitive development and focuses more on individual development. However, although Piaget argued that children's mental development is universal, some studies have shown that this can vary depending on cultural and environmental factors. While Piaget suggested that cognitive stages progress sequentially, some studies have shown that children can go through these stages flexibly and that environmental factors can play a more significant role in this development process (Erdener,2009). It has also been suggested that obvious boundaries do not separate developmental stages and are a more flexible process. Piaget's theory has enabled the development of approaches that respect children's development processes in education, are based on discovery, and encourage active learning. By considering Piaget's suggestions, educators can adopt a teaching method appropriate for each child's learning pace and style. As a result, Piaget's theory continues to be one of the essential developmental theories in education. His views on how children understand the world have helped educators understand children's cognitive development processes and shaped teaching practices. Piaget's approach has opened the door to a child-centered understanding of education and encouraged students' participation in active learning processes. However,

considering the limitations of Piaget's theory, educational practices have evolved to adopt a more comprehensive and multifaceted approach.

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CHAPTER 8

ELIZABETH ROBINS (1862-1952): A LIFE DEDICATED TO THE CURTAIN

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INTRODUCTION

1- Elizabeth Robins' Early Life and Stage Career

Elizabeth Robins was born on 6 August 1862 in Kentucky, into a wild environment of Civil War. Her parents are Hannah Maria Robins, a housewife and pregnant nearly all the time, and Charles Ephraim Robins, a literate man interested in social sciences and business. Elizabeth Robins, called Bessie Robins during her childhood, was the eldest child of the Robins family. Robins' family, unfortunately, experienced a couple of miscarriages and early child deaths which would result in postpartum depression in Hannah Robins and triggered hereditary mental disorder in her. This was always a threat for Elizabeth to bear a child; she was continuously reminded of her mother's tragic condition by her father and grandmother. Charles Robins encouraged his daughter's intellectual curiosity as a young girl. Also, the women of her family, grandmother, mother, and aunt were all attending reading clubs, and writing poems. Her mother, mother's sister and father's sister had received education in Putnam Female Seminary in which Bessie would carry on this family tradition, too. Her early childhood was shaped in a literate family, which had a momentous effect on her formative years.

Her years at Putnam Female Seminary were a significant turning point in shaping the ideals of her future professions as an actress and writer. At the age of twelve, she wrote a short story titled *The Herstory of a Button* (published later in the American Voice in 1990) which was highly feminist in voice reflecting the soul of the age. In this story, a humanized-feminized button travels to a school's class in a young girl's pocket, then it falls suddenly on the floor and is forgotten in a corner all alone. Witty in form and use of language, she chose to use the word "herstory" intentionally to criticize a history class in which women are not mentioned but "Washington, his courage, and bravery, his sword and horse" (Robins, 1990). Robins satirized on man-centred education system with a button as a symbol of women who are dehumanized and rejected intentionally within "history", and wrote from the feminized button's point of view that "I think it was very stupid in them to forget his buttons, for what would "the father of his country" have done without his button?" (1990).

Robins's interest in drama and acting developed in these years, too. She was a member of a school group which was organizing recitals, and

she was also reading books about the accomplishments of famous actresses on stage. "Elizabeth and four Blandy girls were members of an Amateur Dramatics Club and performed a two-act comedietta *Which of the Two?* which she stage-managed. She also played the flirt Arabella in a short comedietta set in England entitled *Who's to Win Him*?" (John, 1995). Elizabeth Robins, when she was fourteen, encountered her first professional stage production at Macaulay's Theatre starring Edwin Adams as Macbeth. Bessie Robins was determined to become an actress and was at the dawn of becoming Clara Raimond, her future stage name. However, Charles Robins, the literate and supportive father of Bessie, was shocked when he heard his daughter's intentions to become an actress. For Charles Robins, acting in family meetings and recitals at school was acceptable; acting on stage as a social and school activity was preparing Bessie for her future college life. However, professionalization on stage for a living was out of the question for her father. Although more actresses were on stage in the late nineteenth century, especially in America, a sexist attitude towards daughters' professionalization as actresses was maintained among traditional patriarchal families. "Elizabeth's father criticized the way the press appropriated and exaggerated the personal lives of actresses. Associations with immorality lingered on. The term 'public woman' was used interchangeably for performer and prostitute" (1995). In family letters from her grandmother and mother during Robins' active acting career, the protective tone of traditional womanhood lingered and reflected assumptions for an actress at that time:

> *Grandma was mortified to think that Elizabeth was playing an outcast (Martha in Little Emily) before the Boston public. She also objected to her playing King Lear's daughter Goneril: 'How can you successfully assume such a character as the undutiful, unnatural daughter of the poor distraught king?' Hannah's letters urged her daughter to play modest and appropriate roles: 'Don't accept any role that a lady or pure girl would be ashamed to own, I could almost rather see you dead than personating vile women.'* (1995).

Fearing the possibility of Bessie's eloping, Charles Robins took her adolescent daughter with him to a camp for a summer at a gold mine in the Rocky Mountains of Colorado among hundreds of miners on a mountaintop. However, this journey encouraged her, and Bessie Robins pursued her

ambitions. First, she contacted some colleges and universities like New England Female Medical College and the Female Medical College of Pennsylvania. Studying medicine was a profession which her father had designed for her future although it was an unconventional profession for women of that time, too. Bessie was grateful for the letters of disapproval from these colleges, and she was also very aware of the fact that her family was in an economic crisis, and they would be unable to support her future education neither in medicine nor in any field. Hence, Bessie reaffirmed her decision to pursue her acting dreams. In hopes of improving the family finances, too, at the age of nineteen, penniless and under the protest of her family, she made her path to New York for a career on the stage; a profession for a living which her father most despised.

Born and educated in America, Elizabeth Robins performed in almost 300 plays on the stage both in America and England. Appearing on stage in the United States as Clare Raimond, Robins encountered notable difficulties associated with the actor-manager system, specifically during her formative years as an actress. Actor-manager system stood in actresses' way as an obstacle; "actresses had been starved throughout the nineteenth century for good roles; all the best roles were reserved for men, usually in fact the actor-managers" (Mackay, 1997). Actor-managers were principal investors and that is why they maintained their star status of the leading performer. Although not paid equally, the wage of an actress was very attractive, but, on the other hand, expenses for actresses were also very high to be met. "Actresses had to provide their costumes (a new peasant dress cost her $13) and had to pay hairdressers. Some of Mrs Robins' clothes were converted, and relatives on tour in St Louis came to Elizabeth's rescue, supplying some stage clothes" (John, 1995). In such an environment full of financial and sexist obstacles, she made a circle of intellectual friends who would later contribute her to starting a new beginning in England. She was also married to George Parks who was an actor in the same company as Robins. Unfortunately, their marriage ended with George's tragic death of suicide. Both her husband's death and being stuck in limited roles on the American stage led Elizabeth Robins to England, a new opportunity to make a fresh start, in 1888. Her career as an actress in England, especially her unforgettable performances in Henrik Ibsen's plays "gave her the chance to show her acting talent and to help further the cause of serious European drama on the British stage" (1995). Ibsen's "women's plays" contributed to the underestimated position of actresses on the British stage

with leading female characters who deconstruct the traditional gender standards of the age in his plays like Hedda Gabler and *A Doll's House*. "Robin's transition from an unknown into a 'star' was largely made possible by the fact that, although new to the English stage, she was fortunate in her timing, being in England when decent translations of Ibsen became available, and his plays began to be staged" (1995). In 1891, Elizabeth Robins made her first appearance in an Ibsen role as Mrs Linde in *A Doll's House* and afterwards staged the earliest English performance of Hedda Gabler, contributing particularly to the introduction of Ibsen's plays in English theatre. "Acting the parts of Ibsen's spirited protagonists politicized Elizabeth Robins and had a profoundly ratiocinative impact on her consciousness" (Joannou, 2010). Elizabeth Robins, especially after her Hedda performance, became a symbol of the New Woman image on the English stage.

2- Elizabeth Robins as a Playwright

Playwriting was mastered solely by male writers and playwriting was an "unnatural activity" for women. The author of *The Stage of 1871*, for example, identified playwrights "as men, specifically those with wide experience of the world – men who, in addition to literary ability, have mixed much with all classes, and experienced the ups and downs of life" (Powell, 2004). Another criticiser advised that an influential playwright should embody various qualities—not just those of a "man" but also a scope of experiences unapproachable to Victorian women. According to this attitude, an ideal dramatist should retain the wisdom of a politician, the mastership of a historian, the eloquence of an orator, and both the determination of a leader and the profoundness of a thinker. Such a dramatist, above all, would affect audiences, especially men, leading to the judgment that the most satisfactory dramas are produced by and intended for male audiences (Powell, 2004). When we have a closer look at the lists of women playwrights especially in the twentieth century, we comprehend how this sexist attitude lingered on women playwrights. We encounter "700 women writing plays in England during the first three decades of the twentieth century" and a recent checklist for the same thirty-year period in the U.S. shows "4,000 women writing plays of every variety, from "health plays" to pageants, to full-length tragedies" (Kelly, 1996). This raises the question of the destiny of the 4,700 women playwrights in the U.S. and England and the extensive body of works they produced. Plays written by women were always and intentionally marginalized in theatrical circles and they were silenced by "the institution of

theatre", an institution interwoven among star actors, playwrights, managers, critics, powerful financial supporters, and publishers who were all men.

> *Not until the 1980s and '90s have selected plays of Baker, Sowerby, Cicely Hamilton, Elizabeth Robins, and Florence Bell been returned to print. Most subsequent histories and anthologies of English Modern Drama published through the 1940s and into the 1990s erased the contribution of women playwrights from the history of English dramatic modernism* (Kelly, 1996).

Elizabeth Robins's playwriting career started in such a sexist environment. She was left with only one possible choice, using a male pseudonym to claim a seat among male playwrights. When Robins presented a play entitled *Befriad* (the word Befriad, meaning "released", was driven from the story originally written in Swedish) which is known as *Alan's Wife* (1893) to Beerbohm Tree who was managing Haymarket Theatre, she could not name the authors of the play because the manager uttered some words about the incapability of women in writing during their conversation. Declined by Tree, Robins turned her steps towards the Independent Theatre Society founded by Jacob Grein and "designed to 'search out plays that were 'artistic,' 'interesting,' and 'literary'" (D'Monte, 2015). Assuming written by a man, Grein accepted the play which was written jointly by Elizabeth Robins and Florence Bell. "In the printed edition he described it as 'one of the truest tragedies ever written by an Englishman'. Not until the 1920s did Florence admit to him her involvement" (John, 1995). During the late 1890s, five out of the eight female playwrights whose works were staged at the Independent Theatre either adopted pseudonyms or stayed anonymous. "They hid their identities in order to shock audiences without causing any future difficulties for themselves. The anonymous publication provided women with effective cover for exploring a variety of conventionally 'masculine' social issues" (Easley, 2004). In the premiere performance of the play, the audience was shocked by the theme of "infanticide" in the play. "When Grein said he did not know the author but would have liked to "shake "him" by the hand," one viewer shouted that he would like to "shake "him" by the throat" (Orme, 1936).

Alan's Wife, set in working-class northern England, is a three-act play portraying a young couple, Jean and Alan Creyke. In this play, we encounter

Jean, performed by Elizabeth Robins herself on the stage, as an enamoured wife. Alan, the husband is like a perfect Greek statue in the very eyes of Jean. Unfortunately, Alan dies of an industrial accident in his workplace. Jean, pregnant with Alan's child - the fruit of this physically perfect couple- is left all alone on this earth and suffers from his death in depth. Encountered with the ruined body of her statuesque husband, Jean desperately bears their child at that moment. This little boy, also named after his father Alan, turns out to be a physically crippled baby. She fails to create the perfect copy of her beloved husband. Jean, having postpartum depression, smothers this little deformed baby cold-bloodedly because she knows that as a widowed mother, she cannot adequately take care of him due to deprivation. “In her class, there are few alternatives to manual labour. If baby Alan remains unable to work, or even to care for himself, he cannot fulfil his role in Society” (Hill, 2014). In the end, she waits calmly for her execution, uttering no word neither as a confession nor as the denial of her son’s murder.

Despite the provocative issues, Robins’s portrayal fascinated the audience, who welcomed her performance with notable warmth and enthusiasm, however, criticisms of this “anonymous” play alternated between total hatred and full admiration. Bell as a playwright and Robins as both the playwright and starring actress of the play contributed theatrical and literary surrounding of the work as a means of admiration:

> *Robins and Bell used drama to expose the plight of poor women just as they later did with fiction and social commentary. Bell saw the poor of Middlesbrough up close and Robins had experienced poverty herself. Robins witnessed mental illness in her mother, so she could sympathize with a character like Jean Creyke. Also like Jean, Robins lost her husband. The realism of Alan’s Wife is effective across time, but the play would have been even more effective in the nineteenth century* (Hill, 2014).

The heroine, Jean Creyke, is a well-educated woman who is “playful, exuberant, and determined to have her own way” contradictorily to the nature of her class (Robins and Bell, 1983). Jean is a portrayal of the New Woman image of the nineteenth century with her literateness and desire to have autonomy over her life. With the birth of commercial capitalism in the nineteenth century, the concept of women’s economic independence attained

awareness but was soon repressed by the social expectations rooted in the Cult of True Womanhood and Domesticity which signifies "the attributes, by which a woman judges herself and was judged by her husband, her neighbours and society could be divided into four cardinal virtues-piety, purity, submissiveness and domesticity" (Welter, 1966). Robins's portrayal of the heroine, Jean, as a newly awakening New Woman, has a symbolic meaning in deconstructing the image of true womanhood in the nineteenth century. Jean makes a love marriage, she chooses her spouse as an indication of free will and after the death of her husband, she claims control over her life realizing that her financial dependence on her husband is over and decides on euthanizing her son. "I've had courage just once in my life" Jean utters "—just once in my life I've been strong and kind—and it was the night I killed my child!" (Robins and Bell, 1893). She refuses to speak in jail and so, secures her death to "reunite her family in Heaven" (1893) again.

"Succeeding as a professional woman playwright inevitably involves hard work, know-how, buckets of determination, and more than a little luck" (Engle, 2007). Elizabeth Robins, as an actress and playwright at that time, embodied this determination. Robins had hardships in staging her plays. One of the hardships she faced was censorship. She was justifiably oversensitive about the adaptation process of her works into drama. Her concern about staging a literary work adapted into drama was not only financial but also aesthetical. The actor-managers, on the other hand, had expectations of Robins to self-censor her plays and change her "female" attitude in language because "marketing" of a play by a woman was a challenging process for these managers and theatre holders; they preferred traditional subjects portrayed by traditional characters.

One of these challenging censorial adaptations was *My Little Sister* (1913). It was a novel that was based on a true story about white slavery and also adapted as a play but never staged. The story portrays two innocent young women tricked by a bogus aunt who traps them in a brothel. The novel was a great success in New York and saw its fourth edition in a month. So, Elizabeth Robins desired to stage this story and adapt it into a play. Robins was criticizing the organized traffic which entices young women (which is also a threat to upper-class white women) into prostitution and ships these women to international brothels which is known as the "white slave trade". "In developing the story, Robins even went undercover in London, wearing a Salvation Army uniform while walking the streets of Piccadilly, where she

hoped to speak with prostitutes. While this experience gave her material for her story, it also revealed the limits of her experiment" (Johnson, 2015). However, the dramatic version of My Little Sister was not staged due to the rejections of both theatre managers and Lord Chamberlain. For Lord Chamberlain, any indecent plays, "contained offensive personalities", invidiously represented either actual living persons or the recently dead, did violence "to the sentiment of religious reverence", or were calculated "to conduce to crime or vice . . . or to impair relations with any foreign power or to cause a breach of the peace" were not to be allowed" (D'monte, 2015). So, five days after Robins secured her play to be staged by Women's Theatre, "Lord Chamberlain rejected Robins' play because of its radical full-length brothel scene and its indictment of upper-class men and police for being complicit with prostitution" (2015). In her portrayal of a brothel, Robins did not hesitate to depict the complicity of the police and a bourgeois male client permitting brothels to exist in the middle of the city. This explicitly performed scene would have been scandalous for the English audience to see that patriarchy with its all institutions has its hand in this crime. Elizabeth Robins was forced to be self-censored, however, she faced up to the fact and chose not to stage the play. Failure in theatrical staging turned this project later into a script of a film in 1919. Unfortunately, this film did not survive today, but the script brought this play, buried under the depths of censorship, into the light.

3. *Elizabeth Robins's Literary Works*

Elizabeth Robins's writing career began after she left performing on the stage. As an actress who was always on the stage, Robins was also concerned with the process behind the curtains. Her writing journey began at a very young age in Putnam Female Seminary. She kept diaries throughout her life; these diaries were both a means of practising writing and her primary sources for her later works. In the beginning, she began to write professionally with travel letters for the press (in 1887) and her primary motivation for writing was earning money by her pen. The average income of the actresses at that time was not sufficient to lead a life. Salaries were changing relating to role and company (commercial or non-commercial). As a promising way to secure her income, writing was providing the money she was compelled to provide financial support to her family. In 1888, she wrote a short story, *Him and Her*, which is substantially based on her private life. This was a story of a young girl, Helen Raven, who was staying with her grandmother as Robins

had lived once. In 1890, Elizabeth Robins wrote a novel, *The Curse of Marriage*. Unfortunately, like many of her literary works, it has not survived today. Her later fiction *The Open Question* (1898), *The Convert* (1907), *Camilla* (1918) and *Time Is Whispering* (1923) conveyed significant messages to women. After *Alan's Wife*, she worked on a good deal of plays in the mid-1890s. However, some of these plays could not be published or staged in her lifetime due to subjects which were considered taboos for a woman playwright. For instance, *The Mirkwater* dealt with breast cancer and suicide. *The Silver Lotus* was about betrayal and *Camilla* (play) provided themes on women's sexuality and alcoholism.

In her writing career, Elizabeth Robins used male pseudonyms like Saxton (her brother's name), and C. E. Raimond (as a disguise for her actress identity- Clare Raimond) especially in her early literary works. She believed that being a well-known actress was an obstacle for her to be criticized fairly. She abstained from the curiosities of both the audience and reader that would possibly affect her writer identity unfavourably and judge her literary merits. And also "she did not want her fiction labelled "Ibsenish"; she feared that her reputation as an actress might diminish" (Gates, 1994). And also,

> *A pseudonym had other advantages. Elizabeth was increasingly concerned about the difficulties women writers faced from the public's insistence on identifying them with their heroines ... Recognising the difficulties women also faced more generally in being treated as professionals and understanding people's expectations in terms of gender, Elizabeth saw that a pseudonym which people would presume to be a cover for a male writer might at times be convenient* (John, 1995).

Within this respect, Elizabeth Robins' novel *George Mandeville's Husband* (1894) was a harsh criticism of the literary world which forced women writers to use pseudonyms. This novel deals with themes of gender, naming and identity, and Robins ironically uses the title as an embodiment of this criticism. This novel is about a woman novelist who uses the pseudonym "George" which is a popular pen name used by her female contemporaries like George Eliot, George Sand, George Egerton or George Fleming. Robins deconstructs heteronormative gender roles in her novel; Wilbraham, the husband, is the one who sacrifices his ideals and profession to support

the artistic journey of his wife because “she had "oracles to deliver." She would be not only a novelist but a teacher and leader of men. She would champion the cause of Progress; she would hold high the banner of Woman's Emancipation” (Robins, 1894). This novel was published under the pen name of C. E. Raimond, and it was assumed by readers that the author was male. She used a male pseudonym for a purpose: “It can therefore be argued that Elizabeth was seeking to present and deride how the male sex tended to envisage the consequences of women liberating themselves from the domestic ‘ideal’” (John, 1995).

Her later works vary from short stories to novels, autobiographies, and journals. Robins portrayed a vivid England in all respects in her works and her private life was a source for a great number of successful works. *The Threlkeld Ear* (1898), *A Dark Lantern* (1905) and *Where Are You Going To…?* (1913) were about doctors, medicine, and experiments in laboratories. *The Nineteenth Century* (1894) proposed professional training for bachelor girls. *Miss de Maupassant* (1895) satirized publishers who prey on risqué novels. After her journey to Alaska, she wrote *The Magnetic North* (1904) and *Come and Find Me* (1905) which were a vivid description of her Alaska experiences. *The Mills of the Gods* (1908) was about an Italian count, and his brutality over his wife and her silence to it. *Votes for Women!* (1907) is her most celebrated work especially associated with Robins’ activist identity in England and seen as the start of Suffrage Drama as well. “Introducing both feminist and specifically suffrage topics to the world of Edwardian society drama, Robins showed her sister playwrights how existing theatrical models might be manipulated to their advantage” (Stowell, 1989). A year after *Votes for Women!,* the Women’s Writers’ Suffrage League (WWSL) was founded, with Elizabeth Robins assigned as its first president. According to *The Suffrage Annual and Woman’s Who’s Who* (1913), their primary purpose was to ensure suffrage for women on equal terms with men (1989). To advance this purpose, the WWSL, alongside the Actresses’ Franchise League, published plays themed on suffrage and booklets produced by its members because for these suffragist dramatists and actresses “one play is worth a hundred speeches where propaganda is concerned” (D’Monte, 2015). Suffrage drama led by Elizabeth Robins was a part of “a consciously organized scheme to propagate political doctrine and advocate social and cultural changes which would contribute to the dismantling of a system based upon patriarchal oppression (Stowell, 1989). In suffrage plays, Elizabeth Robins also,

> *established a formula that other suffrage playwrights followed: a debate between those for and against the vote (anti-suffragists are unable to argue successfully against the suffragists' greater debating power); a conversion narrative (a female character changes her opinion and joins the suffragettes); and a reconciliation narrative (a male character agrees to support the cause)* (D'Monte, 2015).

This formula was formed in *Votes for Women!* in three acts; in Act I was a debate between suffragette Vida Levering and anti-suffragist others, in Act II Jean's conversion into a suffragette, and in Act III was Geoffrey Stonor's support of the movement with his signed letter.

To conclude, the career of Elizabeth Robins as an actress, playwright and activist embodies all the components of both sides of the curtain. Most of her works including short stories, biographical texts, novels, and plays have noteworthy traces in women's writing and the suffragette movement. As a passionate advocate of women's suffrage and political equality for women, Elizabeth Robins is a significant figure who demonstrates her ingenuity and passion in her performances and writings both on and behind the stage. During her lifetime and career in both the nineteenth century and the twentieth century, Elizabeth Robins is the woman who experienced the lines of Miss Ernestine Blunt that she wrote in *Votes for Women!* in flesh: "Men tell us it isn't womanly for us to care about politics. How do they know what is womanly? It is for women to decide that" (Robins, 1907).

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CHAPTER 9

REALISM IN SHAW'S *PYGMALION* AND *THE DOCTOR'S DILEMMA*

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INTRODUCTION

One of nineteenth-century Europe's most striking and characteristic features is undoubtedly the scientific developments. The scientific studies that started to sprout in the seventeenth and eighteenth centuries began to give their products in the nineteenth century. The nineteenth century was the period when scientific studies reached their peak. In the field of physics, the principle of conservation of energy, the wave theory of light, the laws of electromagnetism, the structure of the atom, the role of electrons, radiation and the propagation of waves; separation and classification of simple elements in chemistry; Darwin's theory of evolution in natural sciences; Freud's method of psychoanalysis in psychology; the discovery of the world of microbes in medicine and the emergence of sociology can be listed as the main developments, with the extension of all these, gaining a dynamic feature based on the progress of the understanding of history. As can be seen, the nineteenth century was an age of science and technique. Realism's fondness for science and technique greatly defines it as a modern art movement. These remarkable developments in science in the nineteenth century naturally affected philosophy closely. The philosophical view that left its mark on this period is Positivism, founded by Auguste Comte. Auguste Comte's positivist view of society contributed significantly to introducing art to concrete realities. With the effect of this approach, it is seen that the realities of society began to be reflected in the theatre with all its clarity. Positivism significantly impacts writers' interest in concrete facts, passion for objectivity, pursuit of severe truths, and avoidance of sentimentality.

Realism has established a new understanding on stage, in acting, and in playwriting. Realistic drama has been against romantic drama conventions and practices: Romanticism has been criticised for its detached life, its indifference to social problems, its morbid sentimentality, and artificiality. In this sense, the primary aim of realism in the drama is to approach daily life with an unbiased and scientific point of view. The realistic drama focuses on the realities of everyday

life, examines them with scientific methods, and presents the findings to the audience with an unadorned expression. While determining the principles of realistic theatre thought, a new interpretation has been brought to the concept of reflecting the truth, the responsibility of the theatre towards society has been underlined, and how the scientific methods will be applied in the plays has been emphasised. Realistic theatre has focused on the essence rather than the form in playwriting, directing and acting and gained a contemporary quality by turning to the life-like reflections of society (Şener, 2001).

The realistic playwright must be responsible for enlightening and making the audience think about the realities of society. Realistic drama takes concrete facts and reflects them as they are; it does not hesitate to reflect and portray reality's bitter and ugly aspects. Realism is directed towards senses, reason, and logic. Realistic drama discusses all aspects and issues of society by avoiding direct solutions, and it aims to compel its audience to think. Realism is not blind; it suffices to reflect the plain, current, and ordinary. Since the theatre aims to reflect the truth, the actor becomes an observer who insists on the truth. Realism uses language in theatre to create an aesthetic structure and to express facts in a way that emphasizes the meaning. The role of language in realistic theatre is meant to convey meaning clearly and understandably. Playwrights portray their characters as more dimensional characters with the use of colloquial language, which reveals the differences in speech between people. In line with this understanding, writers begin to benefit from the features of the language used by the people and the differences in dialects to increase the effect of reality. The real-like features on the realistic drama stage become crucial in decor, clothes, make-up, items used on the stage, and lighting. Attention to setting and costumes has been paid to ensure it is real-life-like. In light of the characteristics of realistic drama, this paper intends to discuss the aims of realistic drama in Shaw's *The Doctor's Dilemma* and *Pygmalion*.

1. *The Doctor's Dilemma*

The Doctor's Dilemma (1906) is a realistic play based on a debate about the doctor's choice of his patients' treatment and a dilemma on the doctor's final decision on two patients about to die. The theme "was taken directly from life, since a physician had to choose between giving a hospital bed to a gifted but morally contemptible person or to another who, of excellent character, was not a genius" (Burton, 1916). In Shaw's play, Dr. Ridgeon finds himself in a moral dilemma, forced to determine between saving Louis Dubedat, a charismatic yet morally flawed artist, and Blenkinsop, a genuine doctor dedicated to aiding the underprivileged. Ridgeon, having developed a cure for tuberculosis, encounters a limitation of resources: "There were fifty cases to choose from, and forty had to be condemned to death" (Shaw, 1965). His inner conflict is further strengthened by his romantic emotions for Jennifer, Dubedat's wife. Eventually, Ridgeon decides to save his colleague's life by justifying himself he is doing this for the good of the poor's healthcare. Shaw also puts a debate on modern and dated scientific methods, private practitioners who have evolved into merchants rather than physicians, doctors' mistreatments, and the health system in *The Doctor's Dilemma* to reflect contemporary issues on the health system since he is closely interested in this problem as he writes in his preface to the play, which is more than a hundred pages.

In *Preface to The Doctor's Dilemma*, Shaw criticizes doctors for damaging the health system carelessly, obscuring their failures in their experiments and treatments, and closing their eyes to the reality for fear that private medicine is threatened with extinction. The "advance of scientific therapeutics," as Shaw suggests, is developing with the involvement of "highly organized laboratories, hospitals, and public institutions generally" (1965). Shaw debates "private practitioners which we call the medical profession is, coming more and more to represent, not science, but desperate and embittered anti-science" (1965). Most pointedly, Shaw accuses doctors of avoiding public sanitation issues because "the advance of scientific hygiene tends to

make the private doctor's visits rarer and the public inspector's, frequenter" (1965).

In *The Doctor's Dilemma*, stage directions describe the characters' physical appearances, moods, national origins, manners, societal classes, and characteristics of their ideas in detail. Shaw employs lengthy and detailed stage directions to reflect real life as it is, leaving no question mark on the minds of both the audience and the actors. For each character in the play, Shaw writes detailed descriptions: "Ridgeon is a man of fifty who has never shaken off his youth. He has off-handed manner…His face is a good lined, his movements are slower than for instance Redpenny's" (Shaw, 1965); Dr Shoemaker is "a middle-aged gentleman, well dressed, comes in with a friendly but propitiatory air, not quite sure of his reception. His combination of soft manners and responsive kindliness, with a familiar yet foreign chiselling of feature, reveal the Jew" (1965); Sir Patrick Cullen's "manner to Ridgeon, whom he likes, is whimsical and fatherly" (1965); Cutler Walpole is "an energetic, unhesitating man of forty, with a cleanly modelled face, very decisive and symmetrical about the shortish, salient, rather pretty nose, and the three trimly turned corners made by his chin and jaws" (1965); Dr Blenkinsop is "a very different case from the others. He is not a prosperous man. He is flabby and shabby, cheaply fed and cheaply clothed" (1965); Mrs Dubedat is "beyond all demur an arrestingly good-looking young woman. She has something of the grace and romance of a wild creature, with a good deal of the elegance and dignity of a fine lady" (1965).

Shaw underlines that "the hero of my play is no one single character, but modern medical science …I have devoted this first act to a complete exposition of the present state of modern medicine" (cited in Henderson, 1930). In realistic theatre, scientific truth is the basis of the reflection of the entire truth, and as Sir Patrick utters in the play, "Modern science is a wonderful thing" (Shaw, 1965). By giving a detailed coverage of modern science from all perspectives, Shaw emphasizes the place of modern science in contemporary realistic

drama. In Act I, Shaw informs the audience about the medical profession with comprehensive information about treatments, medicines, and experiments to prepare the audience for the final dilemma of choosing a proper patient. An experiment is a significant component of modern science and discussions on experiments of older scientists, symbolizing bigot forefathers in the previous centuries, and young scientists, referring to the progressive and positive sciences in the nineteenth century, prevail in the play especially in Act I:

> *SIR PATRICK: There was my father's old friend George Boddington of Sutton Coldfield. He discovered the open-air cure in eighteen-forty. He was ruined and driven out of his practice for only opening the windows, and now we won't let a consumptive patient have as much as a roof over his head. Oh, it's very VERY interesting to an old man.*
>
> *RIDGEON. You old cynic, you don't believe a bit in my discovery.* (1965)

Experiments in the nineteenth century replaced the old practices, and older physicians are obstinate in believing and supporting progressive scientific practices: Ridgeon is firmly attached to the credibility of experiments, "we can find out nothing without experiment" (1965):

> *B. BONINGTON: Science is always simple and always profound. It is only the half-truths that are dangerous. A little learning is a dangerous thing; I mean no disrespect to your generation, Sir Patrick: some of you old stagers did marvels through sheer professional intuition and clinical experience; but when I think of the average men of your day, ignorantly bleeding and cupping and purging, and scattering germs over their patients from their clothes and instruments, and contrast all that with the scientific certainty and simplicity of my treatment of the little prince the other day, I can't help being proud of my own generation: the men who were trained on the germ theory, the veterans of the great struggle over Evolution in the seventies. We may have our faults; but at least we are men of science. That is why I am taking up your treatment, Ridgeon, and pushing it. It's scientific.*

In Shaw's play, Blenkinsop, despite his role as a doctor, plainly declares that he has ignored to read any books over the thirty years following his qualification, suggesting criticism of complacency in the medical

profession. He cannot afford medical papers and follow contemporary scientific discoveries and innovations. Blenkinsop does not feel obliged to develop his clinical experience since his patients are clerks and shopmen who do not dare to be ill. Here, Shaw puts a great debate on equal distribution of health services to all people both Ridgeon's patients who "are sent to St Moritz or Egypt or recommended horse exercise or champagne jelly" and Blenkinsop's patients "who are only ordered a slice of the moon" (1965). Shaw also criticizes advertisements of patent medicines, which have evolved into "a huge commercial system of quackery and poison"—Shaw discourses on the combination of science and capitalism as a possible deathly weapon for human health. Capitalistic attempts of both the medical sector and private practitioners are debated due to the reliability of science and health services. For Shaw, the fact that public funding increasingly supports private medical profits had important implications for the fair distribution of medical services for all citizens. For once, it is clear that public funding is becoming an essential part of medical practice; thus, health care is no longer a market commodity. Medicine is developing into public practice, and the kind of care it delivers is more socially responsible and less privileged than private wealth and affordability. According to Shaw, the objective of medicine should extend beyond treating illnesses to promoting overall community healthiness, as a trustworthy healthcare system should underline preventive health rather than profit. As a socialist reformist, Shaw proposes that doctors should become state employees. The main advantage of such a system to the public would be to rid medical practice of direct financial interest. "It is of the most extreme importance to us," Shaw writes, "that the [medical] experts on whose assurance [we rely] should have no interests but our own to think of; should judge our cases scientifically; and should feel about them kindly" (1965). Shaw hoped that, ultimately, the doctors would opt for public medicine once they appreciated the benefits of carrying out their profession without the anxiety of also having to run a profitable business.

2. *Pygmalion*

In *Pygmalion* (1913), Shaw retells the myth of Pygmalion by creating his myth by reinvigorating it. The classical myth of Pygmalion underlined the whole structure of the play. Shaw retains the symbolic significance of the myth and constructs the plot of the metamorphosis the main female character, Eliza, undergoes on a realistic basis. As women's creative power is confined to domestic life and personal relations, the educational role is attributed to the

male characters. The male characters, Higgins and Pickering are related to intellect. Both men are exempted from personal/familial relationships and concentrated on scientific experiments. In this realistic basis of *Pygmalion*, Shaw also strongly critiques class discrimination imposed by the capitalistic system. Thus, the transformation of Eliza Doolittle, the heroine, is elaborated within the framework of socially and economically based issues, such as class consciousness and prospects of class mobility and women's emancipation.

The opening scene of the first act of *Pygmalion* is quite significant in terms of revealing a hierarchical social stratification. A peculiar mixture of contrasting figures with contrasting voices reflects the range of differentiation between people in a classed societal structure. Amongst the group of people that on a rainy summer night take shelter in the portico of a church are two ladies, a mother and her distressed daughter, who send their Freddy (the son) to look for a cab, another gentleman defines as "the Note Taker", a flower girl and a mob labelled as "Bystanders". "The moment is chosen to show class antagonisms and personal idiosyncrasies at their sharpest" (Crompton, 2000). The ladies and the gentlemen are in evening dress, and as a dialogue between the mother and the daughter demonstrates, they belong to a class that can afford an evening enjoyment at a theatre and can hire a cab. The colloquial style of speech of the bystander ("He won't get no cab no until" (Shaw, 1965)) besides his attitude of addressing the mother as "Missus" denotes that he belongs to a lower class. Another bystander's remark concerning The Note Taker's attire reinforces the denotation of his class: "It's aw rawt: e's a genleman: look at his be-oots" (1965). The ultimate degree of poverty and deprivation is presented through the shabby old clothes, "boots…much the worse for wear", dirty hair and teeth of the flower girl. The flower girl's coarse pronunciation and accent are combined with several colloquial and slangy expressions like "Tanner" (sixpence) or "Garn!" (Go on) that mark her position in terms of social status. The slang words used by the flower girl and bystanders, like "Bloke" (man), "Tec" (detective), or "Toff" (gentleman), denote that they belong to an uneducated and disadvantaged social class. As a keen observer and critic of late Victorian theatre, Shaw offers a realistic portrait of how language functions as a defining element within England's class structure. He also criticizes the English for having no respect for their language. In the *Preface to Pygmalion*, he emphasizes that "they spell it so abominably that no man can teach himself what it sounds like. It is impossible for an Englishman to open his mouth without making some other Englishmen

hate or despise…The reformer England needed an energetic phonetic enthusiast: that is why I have made such a hero" (1965).

The flower girl reveals her self-confidence and self-esteem very directly when she reacts to the Note Taker by saying: "He is not right to take away my character. My character is the same to men as any lady's" (Shaw, 1965). When the Note Taker notes that a woman who "utters depressing and disgusting sounds like her" has "no right to be anywhere – no right to live... you squashed cabbage leaf", she stubbornly claims that 'I've a right to be here if I like, same as you". In this sense, Shaw illustrates two forms of social injustice: the flower girl belongs to the weaker side of the poverty-stricken class as a woman who is discriminated against both by sex and class. In this sense, "*Pygmalion* examines the assumptions of social superiority and inferiority that underline the class system and demonstrates how unconsciously regulated patterns of social behaviour help preserve social distinctions" (Morgan, 2000).

The theme of class discrimination is intensified with the conversation between the Note Taker and the elderly gentleman after all the characters except the flower girl leave the stage. The Note Taker, Henry Higgins and the gentleman, Colonel Pickering are revealed as educated men who study languages and phonetics. These two men make jokes about the possibility of transforming the flower girl into an upper-class woman. Claiming that the flower girl requires better English for class mobility, the scientist and linguist Henry Higgins attempts and bets to make a duchess out of a flower girl.

Motivated by Higgins' self-assertive joke, the flower girl with "a handful of money into her basket" (Shaw, 1965) thrown by Higgins, arrives at Higgins' house on Wimpole Street to hire him as a teacher. Since it is a male sphere that controls the public realms of discourse, she must strive to learn to understand the male's language to attain a better social position. Indeed, the didactic older male teacher and young female pupil relationship is based on a master-slave relationship as Higgins treats the flower girl like an object throughout the play. Higgins does not even ask her name when she comes to his house in the second act and the reader learns her name only when Pickering courteously asks it. The insensitive, rude and most of the time bullying male represented by Higgins dehumanizes Eliza in the play. Higgins connects Eliza with Monkey Brand, brown paper and dustbin. The threat of physical violence remains throughout the play; however, Higgins' threats of

violence remain verbal. Higgins never touches Eliza, but he threatens her by saying, "If you're naughty and idle, you will…be walloped by Mrs Pearce with a broomstick" (1965). Mrs. Pearce, Higgins's maid, is in the position of an employee and is obliged to obey her employer's commands for the sake of her survival. When Eliza is frightened at the thought that she might lose her respectability at the hands of Higgins, she attempts to run away. However, Higgins presents the option to persuade her to stay and submit to his experiment:

> *HIGGINS: The streets will be strewn with the bodies of men shooting themselves for your sake before I've done with you...And you shall marry an officer in the Guards, with a beautiful moustache: the son of a marquis, who will disinherit him for marrying you, but will relent when he sees your beauty and goodness—* (1965)

With these prospects, Shaw parodies the popular romances based on the rise of women of low rank through the wealthy men of high rank.

In the meantime, Eliza's biological father, Alfred Doolittle who is a dustman, arrives at Higgins' house "to rescue her from a fate worse than death" (1965) though he also admits that "I never brought her up at all, except to give her a lick of a strap now and again" (1965). Alfred is "one of the undeserving poor", morality is something that he "can't afford", and "middle-class morality is just an excuse for never giving me anything". He settles the situation for five pounds. In other words, Alfred sells his daughter for five pounds, as Gainor points out, "acting out the exchange of women in patriarchal culture" (1965). Shaw parodies an article titled "A Child of Thirteen Bought for £5" published in the *Pall Mall Gazette*. "The reader was left to conclude that a poor child called Lily had joined the ranks of the fallen, and it marked the British public's attention to the sexual exploitation of working-class women" (Marshik, 2000). Shaw presents a regular threat to Eliza's physical and sexual safety. In response, Eliza's awareness of these threats provokes her to defend herself by continually insisting that she was simply selling flowers: "I aint done nothing wrong by speaking to the gentleman. . . I'm a respectable girl: so help me, I never spoke to him except to ask him to buy a flower off me" (Shaw, 1965). Shaw also "mocks the fictions of late-Victorian on sexual predators and tales of drugged drinks and candies circulated widely as young women were told to regard any stranger's offer of refreshments with caution" (Marshik, 2000). Shaw criticizes social

portrayals of women's vulnerability by depicting Eliza's careful response to Higgins's chocolates. Her caution— "How do I know what might be in them? I've heard of girls being drugged by the like of you" (Shaw, 1965)—signifies her awareness of manipulative behaviours associated with men in her social sphere.

The detailed setting is also significant in depicting the male sphere in this realistic play. Higgins' drawing room has been converted into a laboratory with a simple and comfortable-looking masculine room of an unmarried scientist. In a way, Higgins rejects the traditional function of the drawing-room as a centre for familial life, since the materials he uses for his phonetic experimentation occupy quite a place in his laboratory-like drawing-room.

Shaw depicts Eliza as an economically self-sufficient woman who respects her independence. Though she lives modestly, finds joy in her modest luxuries—a famous actor's portrait, a fashion plate of ladies' dresses, and a birdcage. Rather than surrendering with despair, Eliza remains lively, counting her earnings and envisioning her future until the gaslight goes out. Eliza's plans for her future life are a significant component of her powerful character as a woman. With the motivation of her decision to upgrade herself, Eliza goes to Professor Higgins' home and states "I want to be a lady in a flower shop 'stead of sellin at the corner of Tottenham Court Road. But they won't take me unless I can talk more genteel. He said he could teach me. Well, here I am ready to pay him" (1965). She never loses her pride and when she is called by Higgins "a baggage to be thrown out of the window" (1965), she reacts: "I won't be called a baggage when I'm offered to pay like a lady" (1965). Her ability to rationalize and her self-confidence in bargaining with him, just like a lady, is notable. Emancipating herself from Higgins' tyranny informs the audience that she will retain the knowledge and, more importantly, the gender construction she has acquired during her educational process: "I'll go and be a teacher… (I will teach) what you taught me. I'll teach phonetics" (1965). "Liza Doolittle comes alive at the moment at which she suddenly understands Higgins well enough to know that she can shake his arrogance by striking at his professional pride" (O'Donnell, 1965). Eliza is a rational character, who at first is a simple and uneducated flower girl with a strong and dignified character. Higgins takes her up and she is developed into a mature and educated woman. Despite her low level of education, she is intelligent enough to define the means that will carry her to success. Concerning Eliza's educational process, Bloom points out that "she is strong

enough, independent enough, sensitive enough and humane enough to make an excellent job of it" (1988). Contrary to expectations of the stereotypes of fragile, pure, and meek "womanly woman" on the stage, "in play after play, Shaw presents us with various combinations of the traditional figure of temptress, goddess, or mother; and, even when he creates a woman who has broken out of a traditional female role, he tends to draw the "emancipated" woman" (Adams, 1974).

In the final scene, Eliza reminds Higgins that she is a human being and that she is to be taken seriously, "I want a little kindness. I know I'm not dirt under your feet" (Shaw, 1965). Eliza has become not only a person but also aware of the potential power in her. She learns to use her total capacity to adapt herself to new experiences and to use these experiences to broaden her horizon and increase her power in controlling situations; thus, she strengthens her character and intellect even more. Therefore, through her ability to rationalize the world around her, she can assert her new identity as a woman fully in charge of her own. Dukore points out the similarity between Ibsen's Nora and Eliza: "Eliza is a doll in Higgins' dollhouse. Like Nora she becomes self-reliant. Like Nora, she leaves the doll's house as an independent human being (1973). She is adamant that she is someone to be treated kindly; only at that time, she believes that she will be independent. Shocked by her words, Higgins answers that independence is a "middle-class blasphemy and all the people on the earth are to be dependent on one another" (Shaw, 1965). Suddenly, she goes on to say that if he can preach, she can teach phonetics; moreover, she is going to teach the things she has learned from him. He laughs and threatens to "wring her by the neck" (1965). She opposes obstinately saying that she can survive without him. With this cry of victory, Eliza gets her freedom and reveals her character's power. Eliza refuses to accept the role that man has bestowed on her; she refuses to "fetch Higgins's slippers". Through this refusal, she refuses the conventional role of a woman. Frustrated and disillusioned, Eliza decides to leave Higgins' house, glimpsing into the mirror one final time and mockingly showing her tongue at her reflection. This act symbolizes her developing independence, as she rejects the identity Higgins has imposed on her, offering her desire for self-determination and freedom. As a realistic play which is subtitled "A Romance", the ending reflects Shaw's anti-romantic intention and his objection to romantic endings and expectations of the middle-class audience of a possible marriage of Eliza and Higgins after her rise in the social class.

In conclusion, Shavian theatre achieves realism by integrating scientific methods and observations, populating the setting with characters from various social classes, using everyday speech and dialects, and constructing specific staging instructions, and modern environments, which together highlight everyday societal concerns like class mobility, class and sex discrimination, women's emancipation, and health care system with a realistic attitude. Shaw's *The Doctor's Dilemma* and *Pygmalion* fulfil the aims of realistic drama by approaching everyday life objectively and scientifically through the elements of drama, characters, language, setting, and themes discussed.

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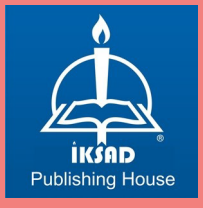

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