Discussions of Memorization in Education

Firdevs GÜNEŞ[1]

Öz

The general purpose of education is to raise individuals within advanced language, mental, social and emotional skills. New approaches and models are used to achieve this goal. Ineffective, useless practices, one of which is memorization are avoided in this process. Memorization has been used in the history of education for a long time. In the past, memorization was considered as an important method in schools and information was memorized with constant repetition within this concept. In today's educational approaches, memorization is regarded as useless and argued because it is not learning, yet it is the lowest level of the learning process. Memorization includes repeating information and keeping it in mind for a certain period of time. Later, this information is forgotten and all efforts are wasted in vain. There is no mental change in individuals through memorization. Conversely, it causes students to have mental and physical laziness, whereas learning includes understanding, thinking, integrating with prior knowledge, producing new information and applying it. With learning, the individual constantly improves and renews himself. Therefore, memorization is avoided. Although this issue is constantly debated among educators, it is known that students in the world and in our country still tend to memorize. Educators are expected to focus on qualified education and train individuals who will shape the future of our country.

[1] Prof. Dr., Ankara University Education Sciences Faculty, Turkey, firdevs.gunes@gmail.com , https://orcid.org/0000 0002 9449 8617

Introduction

Education is one of the most important forces shaping the future of any individual and society. The way to reach this power is through qualified education. In this process, language, mental and social skills such as reading, writing, understanding, thinking, questioning, and problem solving are very important. In addition, 21st century skills such as communication, collaboration, critical thinking, applying knowledge and skills, integrating with the world, taking social responsibility, innovation and entrepreneurship are also emphasized. These are determinants of the individual's learning process to learn and maintaining this throughout their lives, forming broad worldview and directing their future. With this attitude, new educational approaches and methods are applied in most countries, and existing practices are systematically evaluated. In this process, effective methods and techniques are determined; measurements are taken; and useless practices, one of which is memorization, are abandoned.

Memorization is one of the most frequently discussed topics among educators. Hence, why does this concept generate so much controversy? Memorization is beyond a simple teaching technique, it is an application that has extended from past to present and has a long history. This practice around for years in the world had a good reputation in the past (Maulini, 2016). However, it has faced harsh reactions in recent years, especially, in the 21st century. Various opinions have been put forward about benefits and deficits of this practice, which still has some supporters today. Different practices are observed in instructional approaches and models and teacher training programs regarding this controversial memorization. The aim of this study is to reveal the difference between memorization and learning, to determine its historical process and theoretical foundations, to deduce the positive and negative discussions in the field and the real reasons for this practice. Therefore, firstly, the concept of memorization is defined, and then several aspects such as fundamental features, historical, cultural, and conceptual developments, memorization in educational approaches, educational value of memorization, and its advantages and disadvantages are evaluated.

1. What is Memorization?

Explanations and applications about memorization date back to very old years. Preliminarily, it was regarded and defended as an important learning method, and then criticized for its deficits. In some periods, it was tried to make it effective by various techniques, in some it was opposed on the grounds that it was meaningless and useless. Thus, a series of positive and negative opinions about memorization emerged in areas such as history, philosophy, and education constitute. Despite all these debates, memorization has been used in schools for years and has been a method used by most students.

Memorization in the updated Turkish dictionary is defined as follows:

"1. Storing any learning item or perceptual tools in memory by repeating so as to be remembered later,

2. Keeping something in mind as it is, and memorizing,"

3. Keeping a text or a word in mind through a full repetition.

4. The ability to memorize and recall,

5. Lessons to be memorized" (TDK Contemporary Turkish Dictionary, 2020).

In foreign language dictionaries, memorization is defined as "the process of repeating or saying a list or a text without forgetting any word. For instance, poems, texts, word lists, multiplication tables, etc. are memorized " (Le Grand Dictionnaire Terminologique, 2020).

Memorization doesn't mean learning by rote. Andrée Letarte, who elucidates this concept as a legend that should be eliminated in educational studies, underlines the following explanations on memorization.

"The process and operation of memorization is based on the logical organization of information in the mind, establishment of relationships between prior knowledge in memory and new information, and frequently reactivation of the memorized contexts. (Thuot, Ghersi & Dion, 1994).

As seen, memorization is considered as "the process of repeating information and placing it in the memory, the ability to keep a text completely in mind, the lesson to be memorized". In other words, the process and method of placing information in memory, the process and ability to keep them in mind, and the information to be memorized are called "memorization". Thus, the concept of memorization includes not only operation and method, but also process and skill. In education, all procedures, methods, processes and skills related to memorization are generally considered "learning by memorization".

1.1. Basic Features of Memorization

Memorization is one of the oldest applications used in education. It is based on two basic features: repetition and imitation. Information is acquired through repetition, and behavior is acquired automatically through imitation. In this process, mental skills such as understanding and thinking remain in the background as underlined below.

Repetition: This practice is generally done by repeating information and events in order, memorizing the listed items, remembering definitions and concepts, and executing operations and processes automatically (Basque, Rocheleau, Winer, 1998, p.5). The information to be memorized is presented orally or written. Since it is easily applied in lessons, there is no problem encountered. It is widely used in the old behavioral approach. However, since processes such as understanding, thinking, questioning, combining with the information in the mind are not performed in this way, it is forgotten in a short time.

Repetition is mandatory and necessary in the memorizing process. It has to be repeated in order to embed, keep in mind, remember information or event as it is. The repetition process should be done regularly and conspiratorially. Techniques such as reading aloud, animation, emphasis and intonation are used for memorizing. This application is also valid for verbal information. In addition, techniques such as highlighting words in the text to be memorized, underlining, circling them by colored lines, visuals, enumerating, and putting stars are also utilized. Thus, information is superficially saved in mind. In order for the student to acquire knowledge or behavior, he is first asked to repeat it with the teacher and gradually repeat it himself alone.

As seen, mental operations such as understanding, examining, relating, thinking, questioning, and integrating information with prior knowledge in the mind during memorization remain in the background. During repetition, only taking information, placing and keeping it in mind come to the fore. The information received is forgotten after a while. Therefore, according to Bateson (1977), memorization is the lowest level of the learning process, that is, zero level. This practice is still included in most courses or classes, but it does not invest contribution to students' development (Bateson, 1977). In case the student starts to understand and thinks some of the information he learnt through memorization, then meaningful learning is activated.

*Imitation***:** When individuals acquire some information, they imitate people around them as a model. They act exactly what they do. Some of knowledge and skills acquired in daily life happen in this way. This practice is observed in both animals and humans. For example, a little girl imitates her mother and dresses her doll and feeds like her. Parrots imitate people's speech and repeat the same words. This is called imitative learning. Some of its features are as follows:

- It is an effective way to replicate a sample or model.
- It is based on repetition.
- Repetition is mandatory until it reaches a sufficient level.
- Low level students have difficulty while imitating (Güneş, 2015).

That an individual imitates people around him, acts like them, increasingly resembles them has caused harsh criticism in education. It is underpined that through this practice, everyone will be alike, and development and progress will remain limited (Bateson, 1977). Based on these criticisms, the contribution of learning by imitation to individual development is examined. Lev Vygotsky explains that there are two types of imitation. The first is "automatic imitation", which every living thing can do. The second is "conscious imitation", which merely humans can do.

• *Automatic imitation* is a purely mechanical process based on repeating or duplicating a behavior. It is enforced through conditioning. Imitation in animals is of this kind. This imitation is done by trial and error, and it is forgotten soon. This imitation makes no contribution to the development of people (Bateson, 1977). In particular, it does not affect the development of students' language, mental, and social skills (Güneş, 2015).

• *Conscious imitation* is a logical and effective imitation, in which learning is realized by discovering. While imitating, student tries to understand, think, question and explore processes. Conscious imitation becomes the motor force of the learner's language, mental, individual and social development. Vygotsky highlights its importance as "Conscious imitation contributes directly to development and learning" (Güneş, 2015).

As seen, automatic imitation is the most primitive way of learning process and has no contribution for students. Conscious imitation is placed in the primary level of learning process. To Vygotsky, conscious imitation is realized through natural interaction between teacher and student. Therefore, conscious imitation is regarded within the concept of modelling and observing.

2. Historical process

The concept of memorization appears in various fields such as literature, education, philosophy, history and religion in the historical process. These are briefly summarized below.

2.1 Cultural Developments

Since the primitive societies in the world, people have felt the need to learn about what is happening around them and to tell others what they have experienced. Thus, first communication was realized with signs, then languages developed and oral culture started to spread. Verbal culture dominated societies. In verbal culture, events, thoughts, and information spread through speech. The placement of knowledge in the mind is done by verbal memorization. Verbal methods were used in education of children, young people, and adults. The information, tales, epics, stories to be learned were repeated frequently and memorized in patterns. Memorization was considered as an important method, and those who memorized information fast and kept information in mind for a long time were called "the ones with strong memorization" (Abernot, Audran, & Penso,2011).

With the invention of writing, these practices started to change. Information was written on papers, tablets, wall newspapers, books, etc., and was reproduced. These were kept and read whenever needed and used as a document. Then, written communication and learning started, it became easier to reach the real source of information. Confidence in written documents, instead of verbal information memorized, has gradually increased. Over time, printed products became the most important resource and systematically took place in libraries. There was no need to memorize some information because of the permanence of information on papers. Thus, keeping the information on papers came to the fore rather than memorizing it in memory.

Today, with the rapidly developing information technologies, information is stored in electronic devices instead of memory or written on papers. Most information is loaded on devices such as mobile phones, computers, tablets, etc. With the audio-visual revolution, access to information is faster and easier in anywhere, anytime, and any situation. In addition, most information can be accessed within a few seconds through the search engines on the computer. Thus, the process of memorizing information such as words, indexes, lists, formulas, telephone numbers, and storing past events in memory is quickly abandoned. Memorizing information is loaded on technological tools.

2.2. Conceptual Developments

The concept and practices of memorization have a deep-rooted history in the world. In the historical process, this concept has been used in various fields such as literature, education, philosophy, religion, history and has undergone significant changes. Thus, various concepts similar and close to the concept of memorization emerged. For example, knowing by heart, learning by heart, breaking the rote, and rote learning. Each of these contains a different aspect of memorization. These concepts are briefly given below regarding the historical process.

Learning by heart: Memorization is used in French as "apprendre par coeur" meaning "learning with heart" (Grand Dictionnaire Terminologique, 2020). This idiom comes from ancient times. The ancient Greeks (700-200 BC) believed that the soul was settled in the heart. Based on the blood pumping function of the heart, Hippocrates and Aristotle thought that the heart was also the center of feelings and thoughts. The heart was seen as a symbol of courage, sensitivity, attention, and reason. The importance of the heart in learning was emphasized and it was stated that heart rhythms increased during an intense mental activity. In the middle ages, the term "superheart" was used for processes such as excitement, emotion and being affected during learning (Abernot, Audran, & Penso, 2011). Therefore, learning by heart was regarded very important.

In the following years, due to scientific advances, the human body was studied better and the functions of the brain were revealed. However, for centuries the heart was the center of emotions and passions. Therefore, expressions such as entering the heart, loving from the heart, heart to heart, heartless are used in many languages. Heart was associated with the concept of courage, and the concepts such as brave, strong-willed, willing, sincere, etc. have come up. During this process, the relationship between heart and memory was not clearly determined. However, based on the difficulty of forgetting a beloved one, it was stated that "memory is at the command of the heart" (Dufresne, 2001). Therefore, the word "heart" is also used to refer to "memory" in languages such as German, Spanish, Italian, French, and Portuguese.

Knowing by heart: In the 17th century, the phrase "to know by heart" or "know from the heart" came to the fore in addition to learning by heart. This phrase was used for the first time in some texts of Rabelais (Ricœur, 2000, p. 69). In this idiom, the word "heart" is again regarded as the center of feelings and thoughts. However, the concept of knowing from the heart or knowing by heart puts emphasis on keeping the memorized information in mind, and the process, rather than the word learning with the heart. This practice was widely adopted in the Middle Age and was extensively utilized by theologists or educators of religion. Bible verses, indexes, lists, etc. were utilizied so as to keep the information in memory and recite it (Ricœur, 2000, p.72). Thus, knowing and telling by heart has been emphasized for many years.

Knowing by heart is different from learning by heart. The former is the process and the latter involves the method. Knowing by heart is keeping the information in the mind, not the process of putting it in the mind. For this reason, it received harsh criticism in the following years. In his letter to Diane de Foix, Montaigne harshly criticized the phrase "to know by heart" or "to learn by heart". According to Montaigne, "To know by heart is not to know, but to keep something that we have given to memory. However, what we really know is what is in us, regardless of the text or the book. These are what we need". Later, memorization was opposed in Descartes' book "Malin Génie" and Rousseau's book "Emile". Rousseau proposes directing students' attention to natural events, curiosity and exploration rather than memorization. Tolstoy in his book entitled "Voyage en France" in 1860 emphasized that students memorize religious texts instead of understanding them (Abernot, Audran & Penso, 2011). Nowadays, the concept of knowing by rote is generally used adversely and is unaccepted.

Learning by memorization: It is a commonly used concept in education. This concept is expressed in various phrases such as rote learning, rote teaching, rote reader, memorizing, knowing by heart, memorization techniques, memorization method, permanent memorization, easy memorization. It has an important place in early learning theories and approaches in education. However, later educational approaches and theories oppose this. There are still some supporters today, and these practices are tried to be effective with various methods and techniques. Some others, however, explain what information should be memorized, and state that not every information should be memorized. (Weisser,2002). Yet, despite all these efforts, there are harsh criticisms on memorization by most educators (Maulini, 2016).

In the 1900s, memorization was included in the education and teacher training programs of most countries. Teachers taught students how to memorize in class for many years. It was introduced as an effective learning method and technique. It was suggested that information should have been repeated at least ten times in order to keep it in mind. These applications continued until the 1970s. In

the 1970s, new learning theories and approaches were emerged. Emphasis was put on meaningful learning, curiosity and exploring for students' learning. Thus, learning by memorization was strongly opposed. Then, in the 1980s, the constructive approach came to the fore. In this approach, the emphasis was on developing language, mental and social skills instead of memorization.

Breaking the mould: This concept is used in daily life. Since memorization is repeating what is already known and performing the same tasks and processes, breaking the mould indicates the opposite. In other words, it implies not doing the known and expected functions, repeating the same information and behaviors, but leading people to think by acting contrary rather than the usual.

Rote learning: The most important feature of learning by memorization is that it is not durable against time. What is memorized is forgotten after a while. It is called rote learning because it is not permanent and robust. According to Bateson (1977), learning by transferring knowledge is regarded as the lowest level or zero level of learning. This level of learning does not contribute any change for the individual. This practice causes various problems, namely achieving educational goals and providing students with the necessary knowledge and skills.

3. Memorization in Educational Approaches

Various educational approaches and theories have been applied since the 1900's in the world. These are grouped under four headings as traditional, behavioral, cognitive, and constructive approach. Upon consideration of memorization, different practices are observed in educational approaches and models, and teacher training programs related to the period. While memorization is valued in traditional and behavioral approaches, it is opposed in cognitive and constructive approaches. These are briefly summarized below.

Traditional Approach: It is the oldest approach used in education. Learning theories in this approach are classical, operant, juxtaposition and bonding theories (Güneş, 2014). Classical conditioning theory emerged with the laboratory studies by Ivan Pavlov. To Pavlov, most of learning takes place in a stimulus-response way. The emphasis is on clearly conveying information to be given to students. The concept of education is addressed in sense of giving lectures and courses. In this approach, importance is given to the form of transfer as much as the quality of the information conveyed to students. In order to facilitate the efforts of students, emphasis is placed on the gradual organization and consolidation of knowledge. In short, the traditional approach focuses on changing students' behaviors through conditioning, reinforcing knowledge with repetitions, and gradually forming habits.

Behavioral Approach: According to this approach, education is the process of causing a deliberate and desired change in an individual's behavior through his own life. Emphasis is placed on the process of creating behavioral changes in the individual, making them intentionally and in the desired direction meaning the aimed direction, and realizing these changes through the individual's own life. For this reason, issues such as behaviors, attitudes, stimuli, reactions, reinforcement, repetition, and habit formation are emphasized in the education process. The researchers of this approach are E.L. Thorndike, John B. Watson, Edward Tolman, and B.F. Skinner. Watson formed the basic principles of behaviorism. The purpose of the behavioral approach is to determine knowledge and behaviors to be taught in advance, and to teach students them through memorization, repetition and conditioning. Therefore, forgetting the information should be prevented by constantly repeating it in the classroom.

Cognitive Approach: According to this approach, education is the process of developing an individual's cognitive schemas through various experiences. Learning is taken as the processing of information in the mind, and student is considered a computer that receives and processes information. The functions of memory and information processing processes are emphasized in the learning process. Information received from the outside is processed in short-term memory, encoded and stored in long-term memory. Mental schemes are used for this. Mental schemas perform operations such as organizing, placing and using information. The fact that the schemas in the student's mind are rich and developed makes it easier to process the information they receive.

Researchers of the cognitive approach are far from the behavioral approach. They try to understand mental operations, thinking, concept formation, and learning processes. Most of their findings can be directly applied in educational settings. Representatives of this approach are Jean Piaget, Robert M. Gagne, Ausubel and Bruner. Jean Piaget and Bruner are also involved in the constructive approach. The harshest criticism of memorization in the history of education came from the cognitive approach accepted as "revolution". The researchers of the cognitive approach have tried to open the "black box", that is, the mind that behaviorists have not opened. For this reason, they examined how memory and information processing, gathering information in the mind, storing, transforming, decoding or encoding are done in the learning process. They focused on fast, slow, visual, auditory and tactile memories in minds. Ausubel, on the other hand, created principles that explain how an individual learns, the characteristics of the teaching activity and how to think about it in the theory of teaching through presentation. Ausubel distinguishes between meaningful learning and memorization. For him, memorization is a mechanical learning. He states that new information will gain meaning if it is associated with other information in the mind of the individual. It emphasizes that educational activities should focus on meaningful learning rather than memorization (Güneş, 2014).

Constructivist Approach: In this approach, education is not to convey the meanings and truths formed in an educator's mind to his students; on the contrary, it is the student himself to create the meaning. In other words, education is a process wherein new information is combined, interpreted and structured in mind. Learning takes place through processing and structuring information in the mind. It is envisaged that students learn to learn by discovering through activities and develop various skills. Therefore, the main purpose of the constructivist approach is "teaching to learn". The practice focuses on letting students examine and observe, ask questions, awaken their curiosity, accompany them while implementing the activities suggested, and guide them etc... The constructivist approach considers learning as an active work, focuses on real learning situations, adopts an entrepreneurial education and project approach, directs it to explain a matter from different aspects and to collaborative learning.

The researchers of this approach are Jean Piaget, Wygotsky and Bruner. According to Bruner, learning occurs when student acquires new information, puts it in his mind and integrates it with other information. This is called learning through exploration or discovery. This learning is deemed necessary so that information is kept in long-term storage. Bruner emphasizes that the student who stores the information will reach new information via comprehending and translating and this facilitates learning. In learning process, the emphasis should be on teaching concepts and principles rather than teaching information. This is how student performs mental activities such as perception, comprehension, translation, transference, analysis, synthesis, and application.

4. Educational Value of Memorization

The general purpose of education is to raise people needed for the country and society. Hence, what is focused on is the knowledge and skills to be acquired by future generations. Particularly, emphasis is put on developing individuals' language, mental and social skills. This situation changes according to instructional approaches, practices and the period in the historical process.

In the world, in the 1990s, old educational approaches, namely the traditional and behavioral approach, were applied. In these approaches, emphasis was put on teaching student's knowledge and behavior. The knowledge and behaviors to be taught were predetermined, divided into various stages and taught through continuous repetitions. These were repeated until they became automatic in the individual. The learning outcome was determined by the individual's observable behaviors, and habits were tried to be formed by reinforcing positive behaviors (Güneş, 2014). In this way of education, students' behaviors were more concerned than their minds. Therefore, memorization and repetition were considered as an important method, and a wide coverage was given to memorization in the lessons.

In the following years, due to the fact that this education approach received various criticisms and educational problems increased rapidly, educators turned to new searches. Thus, cognitive and constructive approach came to the fore. In this process, the purpose of education is listed as follows:

• Developing students' language, mental, social and emotional skills,
• Producing information instead of consuming information,

• Managing your own mind,
• Raising learning individuals, etc.

Along with these approaches, raising individuals, who research information, use it effectively, produce new information and develop themselves continuously, come to the fore. It was envisaged that the mind of the student and the student himself was put at the center, and the student should organize his mental structure by establishing a relationship between prior knowledge and new information. In order to regulate the mental structure, mental processes such as thinking, understanding, relating, sorting, questioning, classification have been emphasized. Otherwise, information that is not integrated with the preliminary information and is not mentally structured becomes memorized information to be forgotten in a short time. Briefly, instead of memorizing what is conveyed to the student, emphasis is put on understanding, thinking, researching, studying, learning by questioning and structuring his mind.

In recent years, together with lifelong education, individual initiative, productivity, active and independent learning, improving capacity of individual to the fullest are emphasized, and memorization and encyclopedic knowledge are opposed. Since the information memorized about various disciplines will age over time, these should be stopped. Indeed, all encyclopedic information hinders the mental development of the individual. However, education should focus on thinking, questioning and developing mental skills (Conseil de l'Europe, 1970.s.29).

As seen, memorization is avoided to achieve the desired goals and improve students' cognitive skills in today's educational attitude. Actually, memorization aims at placing information in the mind and keeping it in memory for a certain period of time. However, in today's educational mindset, it is foreseen that information obtained should be well understood, reflected on, integrated with preliminary information, should produce new information, transfer to daily life and used. It is impossible to do this with the information memorized and kept in memory for a short time. On the other hand, students' memorization of information by repetitions is the lowest level of learning. This learning does not bring mental change in the individual. Information is kept in memory for a while, it is forgotten and then all efforts are wasted. In brief, memorization has no educational value. However, if processes such as understanding, thinking, comparing some information with other information are performed during memorization, then meaningful learning starts.

As a result, memorizing and repeating information constitute the lowest level of learning and do not provide the desired change and development in students. This situation causes important problems of achieving educational goals and providing students with necessary knowledge and skills.

5. The Benefits and Disadvantages of Memorization

Today, some educators who adopt the traditional learning approach still defense learning by memorization, while advancers oppose it. These debates continue in the field. Innumerable studies are also conducted in the literature. Some of the views put forward on the benefits and disadvantages of memorization are briefly summarized below.

Benefits: Some educators state that learning by memorization and by understanding are different from one another, and that they should not be confounded. According to Alain Lieury, the human brain saves some of the important information. It is very hard to make our brain memorize anything. For this reason, memorization should be evaluated well in education, and it should be utilized during learning of names, lists, dates, formulas, tables and classifications. However, in the process of learning other information, emphasis should be placed on understanding and meaningful memory should be addressed. This type of application is the most ideal (Lieury, 2004). Some techniques should be used for the message to be effective in memorization. The primary of them is repetition. Texts should be read aloud and repeated. This situation makes it easier to record information to the mind. However, it is effective for visual learners to use information diagrams. Colors should also be used. Techniques such as drawing lines, marking specific places, etc. make memorization easier.

Disadvantages: Some of the claims regarding the damages of memorization are declared. According to these views, repeatitive reading the texts to memorize and focus all attention on

memorization causes students to diverge from the conteptual meaning of the text. This method gradually becomes a habit, and students start to accept the information in the text without understanding, thinking, questioning, and evaluating. However, the process of placing information in the mind without understanding, thinking or questioning is the lowest level of learning. This information will be inevitably forgotten after a while. In addition, this practice causes mental laziness and keeps students away from preparing and solving problems to encounter in their adulthood. The prediction, future plans and strategies of most students who are accustomed to memorization do not work. Mental and physical laziness adversely affects all aspects such as work, family, and social life. On the other hand, the fact that memorized information is generally verbal and superficial affects student's mind one way and leaves a limited effect (Giolitto, 1970). Thus, there is no mental change and development after memorization. According to some scholars, memorization is a "mental genocide", which hinders the development of future generations.

Situation in Turkey

Remarkable studies are also conducted on memorization in Turkey. As known, the primary education curricula put into practice in 2005 were based on a constructive approach. For example, in Turkish (Grades 1-5) Curriculum, it is said that "Along with the constructive approach, various approaches such as multiple intelligences, cognition-based learning, student-centered education, education sensitive toward individual differences, immersive, thematic and skills approach were used." Various outcomes were listed in the curriculum, activities were designed related to the outcomes, and active learning was envisaged for students. In addition, under the title of Turkish Education Curriculum in 2005;

The following aspect is adopted as follows:

Contemporary education approaches and models based on knowledge production, not on memorizing knowledge, are primarily grounded. These can be listed as constructivist approach, multiple intelligence approach, student-centered learning, education sensitive toward individual differences. (MEB,2005, s.14).

As seen, in the 2005 Turkish Education Curriculum, students' active learning is emphasized and this concept is also reflected in the textbooks. However, there have been changes in the sequential curriculum. For example, 3rd, 4th and 5th Grader' reading outcomes appear in 2015 Turkish Education Curriculum appear as follows:

"Student reads and understands stories, dramas and poems independently. *Provided that it does not force the student; memorization is done for some poems that are appropriate for the level and have literary value*. " statement is suplementarily added. (MEB,2015, s,19,24). Then, in the reading outcomes of the 2017 Turkish Education Curriculum for 2nd, 3rd and 4th Grade, the following explanation is given:

"Student reads poetry. *Provided that it does not force the students, they are given the reading and memorizing the first six continents of the Turkish National Anthem"* explanation is given (MEB, 2017, p.32,36).

The same "Reads poetry" reading outcomes and explanations are included in the 2019 Turkish Education Curriculum for 2nd, 3rd and 4th Graders, (MEB, 2019, p.24,27,31).

As observed, while the emphasis was on active learning in the 2005 Turkish Education Curriculum, the 2015, 2017 and 2019 Turkish Teaching Curricula included memorization. However, memorization and learning are completely different from each other. Memorization is for taking information automatically and keeping it in mind for a certain period of time. Learning, on the other hand, is aimed at understanding information, thinking, integrating prior knowledge with new information, and developing language, mental and social skills. Memorization does not contribute to student development and its use in lessons negatively affects student achievement and the quality of education. It also causes important problems for the future of our country. In short, our educators are expected to move away from memorization and focus on qualified education and raise individuals who will shape the future of our country.

References

Abernot, Y., Audran, J., & Penso, E. (2011). L'apprentissage par cœur, au-delà de la polémique. Les cahiers du Cerfée, 30, 119-139.

Basque, J. Rocheleau, J. Winer, L. (1998). *Une approche pédagogique pour l'école informatisée*, École informatisée Clés en main du Québec.

Bateson, G. (1977). *Vers une écologie de l'esprit,* Paris : Le Seuil.

Bautier, E., Charlot, B., & Rochex, J.-Y. (2000). Entre apprentissage et métier d'élève : le rapport au savoir. In A. Van Zanten (Ed.), *L'école, l'état des savoirs* (pp. 171-179). Paris : La Découverte.

Chanquoy, L., Tricot A., & Sweller J. (2007). *La charge cognitive : Théorie et applications*. Paris : Armand Colin.

Giolitto, P. (1970). Mémoire et 'par cœur', *Éducation Nationale*, n° 57 du 19 février p. 25.

Conseil de l'Europe, (1970). Education Permanente, Strasbourg,1970.

Cordier, F., & Gaonac'h, D. (2004). *Apprentissage et mémoire.* Paris : Nathan.

Couchaere, M.-J. (2001), *Le développement de la mémoire.* Paris : ESF.

Dufresne, J. (2001). Mémoire. Eloge du par cœur. *Encyclopédie de l'Agora. Thème : éducation, mémorisation poésie* [http://agora.qc.ca/Documents/Memoire—Eloge_du_par_coeur_par_Jacques_Dufresne]

Güneş, F. (2014). *Sınıf Yönetimi Yaklaşım ve Modeller,* PegemA Yayınları, Ankara

Güneş, F. (2015). *Eğitim ve Zihinsel Değişim,* Bartın Üniversitesi Eğitim Fakültesi Dergisi, 4 (1), s.1-20, doi : 10.14686/ BÜEFAD.2015111011

Le Grand Dictionnaire Terminologique (2020). Office québécois de la langue française

Lieury, A. (2004). *Mémoire et réussite scolaire*. Paris : Dunod.

Maulini, O. (2016). Que penser…de l'apprentissage par coeur à l'école ? Université de Genève, Faculté de psychologie et des sciences de l'éducation,Publ-1614

MEB (2015). *Türkçe Dersi (1- 8. Sınıflar) Öğretim Programı* Ankara : MEB Basımevi.

MEB. (2017). *Türkçe Dersi Öğretim* Programı (İlkokul ve Ortaokul 1, 2, 3, 4, 5, 6, 7 ve 8. Sınıflar), Ankara : MEB Basımevi.

MEB. (2019). *Türkçe Dersi Öğretim Programı (İlkokul ve Ortaokul 1, 2, 3, 4, 5, 6, 7 ve 8. Sınıflar)*, Ankara: MEB Basımevi.

Ricœur, P. (2000). *La mémoire, l'histoire l'oubli*. Paris : Seuil.

TDK (2020). Güncel Türkçe Sözlük,2020.

Thuot, J.-F., Ghersi, C, et Dion, J-M. (1994). *Stratégies d'étude*, Unité d'enseignement et de recherche Travail, économie et gestion, Sainte-Foy, Télé-université, 34 pages.

Weisser, M. (2002). *La lecture à l'école et au collège, entre psittacisme et délire*. Paris : L'Harmattan.

Vygotski, L.S. (1997). *Pensee et langage.* Paris : La Dispute.