

EXAMINATION OF THE IMPORTANCE OF MIND AND INTELLIGENCE GAMES BEING ELECTIVE COURSE IN TRNC SECONDARY EDUCATION SCHOOLS

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ABSTRACT

Today, science and technology change rapidly. Adapting to these changes depends on individuals' capacity to innovate and produce solutions. It is important for the individual to be able to produce unusual and original solutions to problems, to realize that a problem can have more than one solution, both for his own life and for his country. Any idea that facilitates the life of individuals and enables them to overcome a difficulty is the product of original thinking minds. The mind, which enables original thinking and producing original solutions, can be developed throughout human life. This development takes place more easily and quickly at a young age. The reason for teaching the mind and intelligence games course as an elective course in secondary schools is based on these foundations. The research is a qualitative study. The data of the study were obtained by semi-structured interview technique. The sample of this research consists of 48 participants working in TRNC secondary schools in the 2020-2021 academic year. 37 of the participants were female and 11 were male.

Keywords: Intelligence, learning, mind and intelligence games lesson

INTRODUCTION

Intelligence is defined as the individual's perception of his environment, shaping it with his mental schemas, and using what he has learned to solve the problems he encounters. In schools, just giving information to students is not enough for them to find solutions to the problems they face and to develop their minds (MEB, 2013). It is necessary to enrich learning environments with educational games in order to ensure permanent learning and to find different solutions for individuals in the face of problems (Türkoğlu & Uslu, 2016). The child starts to get to know his environment through games from a young age. Gains the ability to solve problems with applications in games. Play is one of the most important tools that explain the expectations and goals of the child and prepare him for life (Özer & Gürkan & Ramazanoğlu, 2006).

From a young age, playing games becomes a part of individuals' lives. The tendency to games decreases with the growth of the individual. But individuals remember the games they played. The games played create an enjoyable and entertaining learning environment. (Carpenter & Demirtaş, 2017). The learning environments created by the games enable the students to develop a positive attitude towards the lessons and enable easy, understandable and permanent learning to take place. Because while playing games, individuals use many mental skills together (Karaman, 2012). Observation, creative thinking, reasoning, decision making, problem solving, memory retention, strategic behavior are some of the important cognitive skills (Tural, 2005).

Each individual's intelligence, perception and ability are different. Learning is a process that varies according to the individual. It is not possible to talk about a type of learning that will suit all individuals. For this reason, despite all the researches, there is no definition of learning that explains all learning situations. With its general definition, learning is the process of forming partly permanent behavioral changes that occur as a result of the interaction of the individual with the environment, visible or invisible in the individual (Akpınar, 2011).

The most important part of educational games is mind and intelligence games. These games support the development of individuals' thinking skills and mental capacities (Demirel, 2015). Games provide active participation of learners in learning environments. Thus, the lessons become more interesting and enjoyable (Chen et al., 2012). Games are held with the active participation of students. Therefore, it reduces forgetting

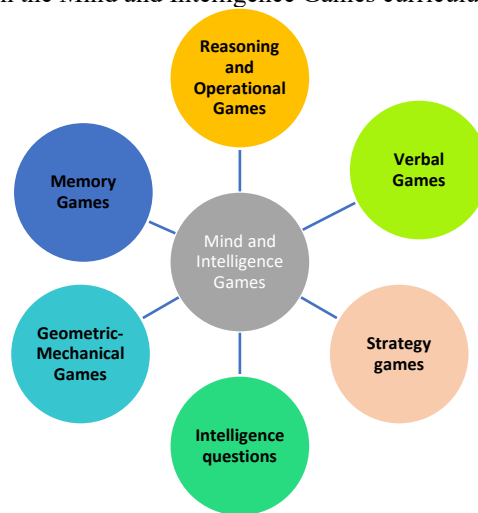
what has been learned, strengthens memory, provides fast learning, and is motivating (Erçetin, 2007). Thanks to games, students' interest and motivation increase, and their academic success improves (Yang, 2015).

The main purpose of the Mind and Intelligence Games course is for the student to realize and develop their own potential, to develop unique and different strategies for the problems they encounter, and to make quick and correct decisions. Mind and intelligence games create a competitive environment that can work both individually and as a team (Ministry of National Education, 2013).

A 3-stage curriculum is used in the mind and intelligence games course. The curriculum offers students a learning environment from concrete to abstract, from known to unknown, from simple to complex, from easy to difficult, from near to far. The contents of these stages are as follows:

1. **Beginner Level:** It includes acquiring basic skills about the games, learning the rules of the games and playing the beginner level games.
2. **Intermediate Level:** It covers developing different perspectives towards problems, acting in accordance with strategy games, starting from the right place in puzzles, playing intermediate level games and solving puzzles.
3. **Advanced Level:** It includes analysis and synthesis, generalization, creative thinking, evaluation, determining original strategies and playing advanced games, solving puzzles and benefiting from the experiences of others (Ministry of National Education, 2013).

There are 6 types of games in the Mind and Intelligence Games curriculum.



1. **Reasoning and Operational Games:** Generally, based on the clues given, which are played individually, conclusions are obtained with logical inferences. All four operations are used in these games. Examples are apartments, division, sudoku, admiral sunk puzzles, minesweeper puzzles, yin-yang, fence, logic square, plug, square doodle, operation square. (Board of Education and Discipline (TTKB), 2013).
2. **Verbal Games:** They are the types of games that make use of general cultures and vocabulary as well as logical inferences while playing games. Games can be individual or team games. Examples of verbal games are anagram, word grouping, word finding, word hunt (MEB, 2016).
3. **Strategy games:** These are the types of games played with two or more players, where there is a winner and a loser at the end of the game. During the game, while the strategy is being created, intuitive tactics and previous experiences are included, apart from logic. Examples of strategy games are chess, othello, backgammon, reversi, go, checkers, mandala varieties. (MEB, 2016).
4. **Intelligence questions:** It is usually played individually. These are the questions that the player evaluates the clues, finds solutions and reaches a clear conclusion. For example, "passing the wolf, lamb and grass across the river in a single boat", "measuring a different volume exactly using vessels of certain sizes", "liar-truth problems" can be given. (Acun, 2014).
5. **Geometric-Mechanical Games:** These games can be played individually, as a team game or against each other. Players play games using their mental and geometric thinking skills and hand-eye coordination. Examples are polyomino, figure making, tangram, cube counting, mazes, knot games, mechanical separation riddles, jenga, jigsaw puzzles, mikado. (Acun, 2014).

6. **Memory Games:** These games can be played as a team game, mutual game or individually. These are games that use long or short-term memory. Verbal or visual memory can be used depending on the type of game. For instance; Match finding games, picture recall, wayfinding games, object recognition games with close-up photos can be given (TTKB, 2013).

When the curriculum published by TTKB (2013) on mind and intelligence games is examined, the behaviors given for the gains of the course can be listed as follows:

- Developing self-confidence, increasing motivation,
- Ability to produce logical and original ideas,
- Ability to draw inferences from experience,
- Developing teamwork skills in problem solving and idea development,
- Three-dimensional thinking
- Ability to solve problems by generating ideas through simulation,
- Recognizing, understanding and defining problems, choosing the most appropriate method for their solution.
- To be able to develop the skills of expressing different and opposing views about the solution of a problem,
- Recognizing individual strengths and weaknesses.
- Developing quick and effective decision-making skills,

When the studies on mind and intelligence games are examined, it is seen that students improve their problem solving and reasoning skills (Kurbal, 2015), the interaction of active students with group work will increase and their comparison skills develop (Siew & Abdullah , 2012), analysis, and intelligence games. It has been found that it has positive contributions to the development of skills such as synthesis and establishing cause-effect relationships (Devecioğlu, Karadağ; 2014).

In this research, it is aimed to get the opinions of the teachers working in these institutions about the importance of mind and intelligence games as an elective course in TRNC secondary education institutions. For this purpose, answers to the following questions will be sought.

1. Akıl ve Zekâ Oyunları dersine ilişkin öğretmen görüşleri?

2. Akıl ve Zekâ Oyunları dersinin öğretmeye katkısı var mıdır?

3. Akıl ve Zekâ Oyunları dersi sayesinde, çocuğun öğrenmesi ve çocuğa psikolojik katkısı ile ilgili öğretmen görüşleri nedir?

4. Akıl ve Zekâ Oyunlarının branşa göre faydaları nelerdir?

The aim of this study is to determine the opinions of the teachers regarding the introduction of Mind and Intelligence games as an elective course in TRNC secondary schools and to present their suggestions on this subject.

METHODOLOGY

Research Model

In this study, qualitative research method was used to determine their views on the inclusion of Mind and Intelligence Games as an elective course in TRNC Secondary Education Institutions. A semi-structured interview form was used to collect data, and the collected data were analyzed and descriptive findings and results related to the examined situation were revealed. As it is known, such studies are not carried out to generalize the data obtained, but to evaluate a phenomenon with its unique characteristics (Yıldırım and Şimşek, 2005).

Research Sampling

The universe of this research is the teachers working in TRNC secondary schools in the 2020-2021 academic year. Research data were collected by the researcher. The research sample group is 48 teachers. 37 of these teachers are female and 11 are male.

Data Collection Tool

In order to solve the problem discussed in this research, semi-structured interview forms prepared by the researchers and data were collected through these forms. The data of the research were analyzed by content analysis. According to Cohen, Manion, and Morrison (2007), content analysis is also defined as the process of summarizing and specifying the basic contents of the written information and the messages they contain. The opinion of the relevant expert was taken in the interview form. Reliability and validity levels were determined in line with expert approval. Then it was applied to the relevant participants. The data in the research were obtained based on the qualitative data obtained in 4 question dimensions.

1. What are the benefits of enriching the lesson with games in the classroom?
2. Which aspects of the students can be revealed by the content of the Mind and Intelligence Games course?
3. What kind of contributions can the Mind and Intelligence Games course make to your branch?
4. What kind of changes can the mind and intelligence games course provide in the student's attitude towards school?

Data Analysis

Content analysis was used to solve the problems discussed in this study. According to Cohen, Manion, and Morrison (2007), content analysis is also defined as the process of summarizing and specifying the basic contents of the written information and the messages they contain. Categories, themes and percentages were used to define the identified problem.

FINDINGS

Findings related to demographic characteristics and demographic data of the teachers participating in the research are given in Table 1.

Table 1- Demographic Data of Teachers

Demographic Characteristics	N	%	
Gender	Female	37	77,08
	Male	11	22,92
	Total	48	100
Years of Work in the Profession	0-5 years	6	12,50
	6-10 years	8	16,67
	11-15 years	14	29,17
	16-20 years	5	10,42
	21-25 years	15	31,25
	Total	48	100
Status of receiving mind and intelligence games training	Yes	7	14,58
	No	41	85,42
	Total	48	100
Profession	Math	6	12,50
	Turkish	8	16,67
	Science	5	10,42
	History	3	6,25
	Geography	2	4,17
	Physical education	3	6,25
	English	8	16,67
	German	2	4,17
	Art	3	6,25
	Music	3	6,25
	Computer	5	10,42
	Total	48	100

As seen in Table 1, 48 people participated in the research. Looking at the relevant table; 77.08% of them are female teachers. When the professional working time of the teachers is examined, 31.25% of them see that they are teachers for 21-25 years. Considering the status of receiving mind and intelligence games training, it is seen that 85.42% did not receive training and the profession of the teachers participating in the research.

Table 2- Teachers' views on the benefits of enriching the lesson with games.

Category	Theme	N	%
Benefits of enriching the lesson with games.	Take attention	22	26
	Learning with fun	19	22
	Permanent learning	20	24
	Motivation	6	7
	Facilitating Learning	10	12
	Increasing Creativity	3	4
	Activating the Student	5	6
	Total	85	100

In Table 2, the answers given by the teachers to the questions asked about the benefits of enriching the lessons with games draw attention with 26%. Attracting attention and maintaining attention is seen as a very important skill for the whole life of the individual, but the place where this skill is most needed is classroom environments. Maintaining attention requires specific domain knowledge. Professional knowledge of teachers includes these skills. It is considered very important to attract attention and maintain attention for the effective use of classroom management (Aydin 2008; Celep, 2004; Kılbaş, 2007).

Table 3- Teachers' views on which aspects of the mind and intelligence games course can reveal students.

Category	Theme	N	%
Which aspects of the students can be revealed by the mind and intelligence games lesson?	Socialization	12	12,37
	Developing self-confidence	19	19,59
	Creativity	18	18,56
	Attention development	7	7,22
	Problem solving skill	21	21,65
	Quick learning	20	20,62
	Total	97	100

In Table 3, the answers given by the teachers to the questions asked to determine their thoughts about the Mind and Intelligence Games Lesson is 21.65%, finding different solutions. Intelligence games are games that require the use of problem solving skills (Alessi & Trollip, 2001). Therefore, it is a good tool to be used to teach problem solving (MEB, 2013).

Table 4- Teachers' views on the contributions of Mind and Intelligence Games according to course branches

Category	Theme	N	%
What kind of contributions can the Mind and Intelligence Games course provide to your branch?	Easy and Fast Learning	26	38,24
	Problem Solving skill	14	20,59
	Concentration	11	16,18
	Permanence	17	25,00
	Total	68	100

In Table 4, the answers given by the teachers to the questions asked about the contribution of the Mind and Intelligence Games Course to your branch is easy learning with 26%. According to MEB (2013), mind and intelligence games enable students to recognize and develop their intelligence potential, and to make fast, correct and original decisions in the face of problems.

Table 5- Teachers' views on the changes that the mind and intelligence games course will create in the student's attitude towards school.

Category	Theme	N	%
The changes that the mind and intelligence games course will create in the student's attitude towards school	Motivation	32	51
	Sense of belonging	5	8
	School love	26	41
Total		63	100

In Table 5, 32% of the answers given by the teachers to the questions asked to determine their thoughts about the changes in the students' attitude towards school in the Mind and Intelligence Games Course is that it increases their motivation to come to school. It is seen that there is a direct proportional relationship between student motivation and success. The increase in motivation allows students to feel more pleasure from school (Öncü, 2004). Motivated students have positive thoughts towards school (Yüksel, 2004).

If the teacher evaluates their opinions according to the gender variable,

Table 6- Teacher's view on the benefits of enriching the lesson with games according to the gender factor.

Category	Theme	Male		Female	
		N	%	N	%
Benefits of enriching the lesson with games	Take attention	3	25	19	26
	Fun	1	8	18	25
	Permanent learning	5	42	15	21
	Motivation			6	8
	Facilitating Learning			10	14
	Increasing Creativity	1	8	2	3
	Activating the Student	2	17	3	4
	Total		12	100	73

As seen in Table 6, if we compare the benefits of enriching the lesson with games with the gender factor, 42% of male teachers state that it is permanent learning, and 26% of female teachers state that it is to draw attention.

Table 7- Opinions of teachers according to their genders on which aspects of the students in the mind and intelligence games course can be revealed.

Category	Theme	Male		Female	
		N	%	N	%
Which aspects of the students can be revealed by the Mind and Intelligence Games course?	Socialization	1	5,56	11	13,92
	Developing self-confidence	3	16,67	16	20,25
	Creativity	3	16,67	15	18,99
	Attention development	3	16,67	4	5,06
	Problem solving skill	5	27,78	16	20,25
	Quick learning	3	16,67	17	21,52
	Total		18	100	79

Tablo 7'da görüldüğü gibi Akıl ve zekâ oyunları dersi öğrencilerin hangi yönlerini ortaya çıkarabilir cinsiyet faktörü ile karşılaştıracak olursak, Erkek öğretmenlerin %27,78 problem çözme becerisi, Kadın öğretmenlerin ise %21,52'si hızlı öğrenme olduğunu belirtmektedirler.

Table 8 – Teachers' views on what kind of contributions Mind and Intelligence Games can make to the course branches according to their gender.

Category	Theme	Male		Female	
		N	%	N	%
What kind of contributions can the Mind and Intelligence Games course make to your branch?	Easy and Fast Learning	6	46,15	20	36,36
	Problem Solving skill	3	23,08	11	20,00
	Concentration	1	7,69	10	18,18
	Permanence	3	23,08	14	25,45
Total		13	100	55	100

As seen in Table 8, if we compare what kind of contribution Mind and Intelligence games can make to your branch with the gender factor, 46.15% of male teachers and 36.36% of female teachers state that learning is easy and fast.

Table 9- Teacher's view on the changes in the attitude of the student towards school in the Mind and Intelligence games course according to the gender variable

Category	Theme	Male		Female	
		N	%	N	%
The changes that the mind and intelligence games course will create in the student's attitude towards school	Motivation	7	41	25	54,35
	Sense of belonging	1	6	4	8,70
	School love	9	53	17	36,96
Total		17	100	46	100

As can be seen in Table 9, if we compare the changes in the attitude of the students in the mind and intelligence games course towards the school with the gender factor, 53% of the male teachers state that they like school, and 54.35% of the female teachers state that they learn quickly.

CONCLUSION AND RECOMMENDATIONS

In line with the data obtained in this study, answers to research problems were sought. The answers obtained were evaluated during the analysis process and the results were determined. When the opinions of the teachers about the Mind and Intelligence games course are examined, it is stated that they can improve the students in many ways and contribute to their other lessons, support the communication and interaction between the students and create a pleasant learning environment.

In line with the data in the first problem statement in the research, the benefits of enriching the lesson with games were obtained to attract the attention of the students, to provide an entertaining environment and to ensure retention in mind.

In line with the data in the second problem sentence of the research, the content of the Mind and Intelligence Games course resulted in the students' ability to gain problem-solving skills and learn the subjects faster. As stated in TTKB (2013), students can develop different skills and competencies that they are not aware of. In fact, the most important achievement of this course is primarily in the development of competencies such as critical thinking, creativity and problem solving (TTKB; 2013).

In line with the data in the third problem sentence of the research, it was concluded that the Mind and Intelligence Games course contributed to the other courses and that it could learn the lessons easily and quickly.

In line with the data in the fourth problem sentence of the research, it was concluded that the Mind and Intelligence Games course could lead to positive results for the school, that the student could love the school more and increase motivation.

In general, in line with the findings I have obtained in my research, I think that the Mind and Intelligence games course will provide many benefits to the students. Acting with the foresight that students can develop their problem solving skills, gain self-confidence, make original and quick decisions, learn by having fun and develop

a positive attitude towards school, I think that Mind and Intelligence games course should be included in TRNC Education and Training programs as an elective course. The Ministry of National Education and Culture should raise awareness of administrators, teachers, students and families about the importance and necessity of Mind and Intelligence Games. Trainings and seminars should be given to the teachers who will teach the course, and trained and expert teachers should be provided.

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