Epitome : International Journal of Multidisciplinary Research
ISSN : 2395-6968

Difficulties Encountered by Classroom Teachers in Applications of Multiple Intelligence Theory

Bünyamin HERDEM
Teacher of Ministry of National Education- Sivas Science and Art Center–Sivas-Türkiye-
bünyaminherdem@hotmail.com

Assist.Prof. Dr. Kaan GÜNEY
Sivas Cumhuriyet University,
Faculty of Education-Sivas-Türkiye-
guney.kaan@gmail.com

ABSTRACT

The aim of this study is to determine the challenges that primary school teachers encounter while planning, implementing and evaluating the practices they carry out within the scope of MIT (Multiple Intelligence Theory). The research is a descriptive study and it was carried out using the survey model. The data required for the study were collected using a personal information form and interview form, which was used in another study and finalized with expert opinions. The sample of the study consists of 70 primary school teachers working in Sivas. Interview data were analyzed using the descriptive analysis method. According to the results of the research, it was determined what the teaching methods and techniques mostly used by the primary teachers participating in the study are in the lessons, and whether these methods and techniques are suitable for MIT practices. The sources from which teachers access MIT knowledge were determined. While teachers who have joined the education community in the last decade mostly accessed their current knowledge from universities, it has been observed that teachers with higher education in previous years have accessed this information through their own efforts. It has been revealed that the Ministry of Education has seminar / course deficiencies in this regard. It has been determined that there are many challenges that teachers encounter in MIT practices. The most important of these challenges are material deficiencies, insufficiency of the education program, inadequacy of the physical conditions of schools and classrooms. In the last part, what can be done to eliminate these challenges was discussed and solution suggestions were made.

KEYWORDS

Multiple intelligences theory, primary school teachers, teaching methods and techniques, Educational program.

RESEARCH PAPER

INTRODUCTION

Education constitutes the basis of all sciences, professions, arts, literature, in short all social life in society. It took thousands of years for education to get rid of its scattered image and take a systematic structure and it still continues. In order for societies to develop and to better determine their future in a rapidly changing world, governments should put education before all priorities (Sübaşı, 2007). From this point of view, the function of education is to make people compatible with the institutions they live in (Ergün, 2011).

The transformation of education into a science has proceeded in parallel with the evolution of human effort to know scientific knowledge and has been possible with systematic accumulation for many years (Toprakcı, 2008). As a result of the individual's centralization in education and teaching, some essential questions arose within the framework of the concepts of learning and teaching: "Does every individual learn the same way?", "Can intelligence be measured quantitatively?", and "Is there only one kind of intelligence?" Many questions like these have occupied the minds of scientists. Intelligence studies date back to Spearman's idea that intelligence consists of a single factor. In the 1920s, Spearman suggested that intelligence is a general factor and consists of some sub-abilities (Özdemir, Yalın & Sezgin, 2012). Over the past century, some scientists have developed IQ tests, which means intelligence quotient, claiming that intelligence is a measurable feature. This understanding, which continued its dominance for decades, lost its throne to a new theory developed by Prof. Dr. Howard Gardner in the early 1980s.

Intelligence requires the ability to coordinate many different mental processes. It can appear in different areas. It is specific to culture (Ormrod, 2003; cited in Erden & Akman, 2008). Despite the fact that the concept of intelligence is so comprehensive and complex, uniformity has always been accepted-following a wrong path- in the definitions of intelligence made so far. People are divided into two categories, "intelligent" and "unintelligent". To measure how smart people are at the beginning of the 20th century, a measurement tool prepared by French psychologist Alfred Binet and a group of friends was accepted over time, and new ones were added to this measurement tool and became widespread all over the world, especially in the United States (Saban, 2005).

This process continued in this way and the old model had a say in intelligence until the work of Howard Gardner. The Multiple Intelligence Theory (MIT), which Gardner started in the 1970s and outlined in the 1980s, pushed the old understanding aside and has gained reputation all over the world, especially educational scientists. MIT does not see intelligence as a single dimension. It denies that it can be quantified and can be achieved with one test.

Intelligence is multidimensional and has no numerical counterpart. However, it can be described using some tools. A person may be prone to success in more than one type of intelligence (Gardner, 2013).

Gardner said that intelligence has a multidimensional structure, not one. These intelligence areas, which were previously examined in seven dimensions, were collected under eight headings in Gardner's study "Intelligence Is Reconstructed" in 1999 (Genç, 2010). There is no disconnection between these types of intelligence; on the contrary, there is a tight bond (Sönmez, 2007). These types of intelligence are: verbal / linguistic intelligence, logical / mathematical intelligence, bodily / kinesthetic intelligence, visual / spatial intelligence, musical/ rhythmic intelligence, social intelligence, internal intelligence, naturalist intelligence.

Apart from these eight intelligences, there are several other types of intelligence that have been studied. These intelligence types have not been included in the list as there is no full consensus on them yet. These are existential intelligence that question the life-death relationship, our reason for existence, believing that human beings are unique and must be free (Engin, 2010), and moral intelligence that assumes that there are universal moral principles (Altan, 2012).

MIT includes an approach that is different and alternative to traditional education understanding and practices. It has brought important explanations about the relationships between learning paths, formation of learning and types of intelligence. In these explanations, there are many principles from learning-teaching activities to organizing the educational environment (Korkmaz, Yeşil, & Aydın, 2009).

The most common answers to the question "What are the indicators of an individual's intelligence?" are problem solving, using logic and critical thinking skills. This traditional approach has led to the idea that individuals should be recognized for their competencies and appropriate educational environments should be created by classifying them accordingly (Talu, 1999). This understanding gained a very different dimension in 1983, when Howard Gardner, an academician at Harvard University, wrote the book "Frames of Mind: The Theory of Multiple Intelligences" (Baş, 2011; Köksal, 2006).

The main point that MIT focuses on is that intelligence consists of a combination of different areas. Eight areas of intelligence are found in every person, but some areas are more dominant than others (Ayaydın, 2009). Individuals have different perception, understanding, approach to events differently, problem solving styles in different ways and different learning styles. The emphasis should be placed on what individuals in the learning process will be able to do rather than what they can do. Educators should be aware that there are different ways of teaching (Başaran, 2004).

It is a fact that the lessons taught according to the MIT are more enjoyable than the lessons taught according to classical methods. Old methods cause monotony in the classroom. According to Toprakçı's (2008) definition, monotony is the state of fatigue and boredom caused by the continuous and the same pace of learning. In order for teachers to cope with this problem, they should prefer rich and contemporary teaching methods and techniques instead of classical teaching methods and techniques.

Kucur's (2007) study titled "*Multiple Intelligence Applications and Challenges Faced by Teachers in Primary Education Science and Technology Lesson*" was designed to determine the methods used by Science and Technology teachers in MIT practices, what difficulties they faced while organizing these activities, and their opinions and suggestions about MIT applications.

Acat's (2001) study titled "*Usability of MIT in Planning and Control of Learning-Teaching Environments under the Conditions in Turkey*" was conducted on a sample of 180 prospective teachers attending the teacher certification program conducted at Osmangazi University in the 2000/2001 academic year.

Iyer (2006) examined the practices of teachers in schools where MIT was used in his study about MIT. In this study, practices that were performed in the classroom were analyzed.

In the study by Owolabi and Okebukola (2009), it was revealed that the learning carried out according to the MIT had a positive effect on students' reading skills. The research was conducted as a quantitative study. According to the results of the research, it is recommended that teachers have a guiding and regulatory role in the learning-teaching process and encourage students.

The problem sentence of this research is "What are the challenges faced by primary school teachers in MIT practices?" The sub-problems of the research are as follows:

- What are the usage weights of the teaching methods and techniques used by primary school teachers in terms of MIT applications?
- Do the primary school teachers feel themselves competent in MIT practices?
- Have the primary school teachers taken an in-service course on MIT?
- From what sources did primary school teachers get their information about MIT?
- Do primary school teachers need good practice in areas where they feel inadequate?
- What is the effect of the main challenges that primary school teachers face in MIT practices on the curriculum?

- What are the suggestions of primary school teachers to overcome the main challenges they encounter in MIT practices?
- "What would you recommend to overcome the difficulties you encounter in MIT practice?"

Pedagogy in the world is rapidly transitioning from classical teaching understanding to contemporary learner understanding. Our country has also taken some steps in line with this understanding and has adopted the MIT understanding in our education system since the early 2000s. This research is important in terms of determining the difficulties that primary school teachers encounter during MIT practices. Clarifying the challenges is essential to overcome them.

METHOD

The research model is a plan developed deliberately by the researcher in order to answer the questions of the research or test and its hypotheses (Büyüköztürk, 2007). Since the aim is to collect detailed information about a subject of interest and to define the subject (Yurtal, 2008), this research was conducted with the descriptive research method.

In this study, the survey model (descriptive) was used as a model. Survey model is a research model that aims to describe a past or current situation as it is (Karasar, 2009). The descriptive method is used in complete inventory research and sample research (Aslantürk & Aslantürk, 2011).

Both qualitative and quantitative analyzes were carried out together in the research. The verbal answers from the opinions of 70 primary school teachers who participated in the study were examined in depth, and quantitative analysis was made on the frequencies of the answers with statistical value.

Study Group

The universe for a research is a large group of living or non-living beings from which the data needed to answer the questions are obtained (Büyüköztürk et al., 2010). Researches are often carried out on small sample groups (samples) selected from the universe according to the random rule in order to generalize to a particular population (Karasar, 2000). For the sample determination of this research, the random rule was applied. The research was conducted on teachers working in primary schools affiliated to Sivas Provincial Directorate of National Education. The study group of the research consists of 70 primary school teachers who work in Sivas city center and reply the interview forms distributed to schools on a voluntary basis.

33 of the teachers participating in the study are female (47.1%) and 37 are male (52.9%). According to these rates, it seems that the gender distribution is

balanced. The professional seniority of the teachers participating in the study is shown in Table 1.

Table 1

Professional seniority distribution of the survey participants

Professional seniority	N	%
1-7 years	20	28,6
7-15 years	20	28,6
15 years and above	30	42,8

Data Collection Tools

The value of the subject or object related to the variable is called data. Data are of two types as qualitative and quantitative data. The data that can be explained with a unit of "quantity" is quantitative, while the data obtained by classifying the object in terms of a certain property is qualitative data (Büyüköztürk, 2011). In this study, one personal information form and one interview form were used as data collection tools. These forms were combined on a single page, providing convenience for teachers. The personal information form consists of four questions, and includes questions on gender, professional seniority, the faculty / department she/he graduated from, and whether she/he has participated in any in-service seminars related to MIT. Data collection tools were arranged and applied in line with expert opinions, based on the data collection tool used in the study titled “The Methods Preferred by Primary School Teachers within the Scope of Multiple Intelligence Theory in Science and Technology Lessons and Difficulties They Encounter While Organizing Activities” conducted by Sayın and Afyon (2011). Expert opinions are the comments of the authorized and experts working in the field that they measure the desired quality sufficiently and appropriately (Şeker & Gençdoğan, 2006).

Data Analysis

Simple percentages and frequency information were used during the solution and interpretation of the answers we received to the questions "Have you received an in-service training seminar?", "Do you feel competent?" and "What are the teaching methods and techniques you use?" One of the methods used in organizing, summarizing, making meaningful and understandable raw data is to give the frequency distributions of the data (Sezgin, 2008). The analysis and interpretation of the answers to the other questions of the interview form was made according to the content analysis method. The main purpose in content analysis is to reach the concepts and relationships that can explain the collected data (Yıldırım & Şimşek, 2008). The answers given by the teachers were categorized as much as possible and common expressions were clustered. The interpretation of the data is clustered in the answers given. The interpretation of the data was provided by the description of these common themes formed by the expressions in the answers given. Some of the answers

given to the interview questions are given in the interpretation part with direct quotes. Thus, statements that draw attention and statements that summarize the problems are used as they are.

FINDINGS and COMMENTS

In the findings section, comments on the sub-problems of the research are given in order based on the statistical analysis of the data obtained.

Findings Regarding the 1st Sub-Problem

The distribution of teaching methods and techniques used by primary school teachers participating in the study are given in Table 2 and Figure 1:

Table 2
Distribution of teaching methods and techniques used

Methods and techniques used by teachers	N	%
Brainstorming	24	34,3
Question Answer	19	27,1
Direct Instruction	18	25,7
Gamification	14	20
Visual Presentation / Visual Interpretation	13	18,6
Problem Solving	10	14,3
Demonstration	10	14,3
Teaching Through Song / Rhythm	7	10
Mind Mapping	6	8,6
Examination / Research	6	8,6
Experiment	5	7,2
Travel and Observation	5	7,2
Writing Text / Poetry	4	5,7
Six Thinking Hats	3	4,3
Picture Drawing	3	4,3
Case Study	3	4,3
Group Work	3	4,3
Graphic Interpretation	2	2,9
Project	2	2,9
Puzzle / Riddle	2	2,9
Dialogue Completion	1	1,4
Gap Filling	1	1,4
Portfolio	1	1,4
Station Technique	1	1,4
Computer Assisted	1	1,4
Fishbone	1	1,4

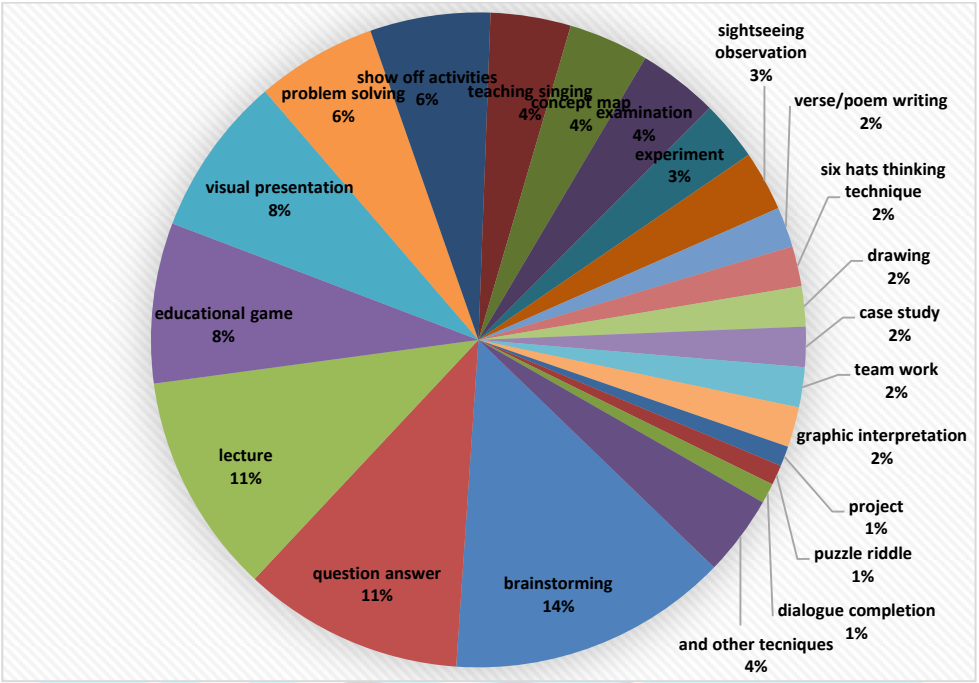

Figure 1. Usage distribution of teaching methods and techniques

When Table 2 and Figure 1 are examined, the first three methods and techniques (lectures, brainstorming and question-answer) with the highest usage rate correspond to 36% of the methods used, and these three methods are predominantly based on students' only verbal and logical intelligence types. Teaching through song / rhythm, which is the only activity that will support the musical intelligence type, is only 4% in terms of usage rate. The ratio of teaching methods and techniques that support the visual / spatial intelligence type is not at the desired level. The methods and techniques that can be considered to support the relevant intelligence type and preferred by the teachers participating in the study are as follows: Visual presentation / visual interpretation, drawing a picture, graphic interpretation, portfolio and computer assisted teaching method. Their usage percentage is not high, only 14%. When the variety and frequency of use of methods and techniques that support the type of physical intelligence are examined, the techniques used are gamification, demonstration, experimentation and travel / observation, and the total percentage of their usage is 20%. Even if it is not at the desired rate, the usage rate is higher compared to musical intelligence and visual intelligence. Considering the usage rates of the teaching methods and techniques that develop naturalistic intelligence, it is seen that it is at a much lower level than the desired rate: Experiment, travel / observation and project method. The preference of only at ratio of 7% indicates that sufficient effort has not been

made to develop this intelligence type. The use of teaching methods and techniques that are thought to improve social intelligence are as follows: Question / answer method, gamification, visual presentation, six-hat technique, group-work. Their percentage is equivalent to 31%. It can be considered sufficient compared to other intelligence types. Teaching methods and techniques that support the intrapersonal intelligence type and preferred by teachers are as follows: Brainstorming, problem solving, study / research, travel / observation, writing text / poetry, and six thinking hat techniques. It is 31%. This type of intelligence is also at a sufficient level as in social intelligence. It is seen that the methods and techniques that support the verbal intelligence type are used more than the others. Question / answer, direct instruction, visual presentation and comment, learning by song, text / poem writing, six thinking hats technique, graphic interpretation, puzzle / riddle, dialogue completion, gap filling, and portfolio. Frequency of use is 44%. It is observed that teachers often prefer activities that will improve verbal ability in their lessons. Finally, the methods and techniques related to the field of logical / mathematical intelligence are quite abundant and the most used techniques are brainstorming, question / answer, problem solving, mind-map, examination / research, experiment, six-hat technique, case study, graphic interpretation, puzzle / riddle and gap filling. The frequency of use is 50%. As can be seen in the percentage, the logical intelligence type is given a lot of placed. Teachers use various activities to increase students' thinking abilities and give importance to this issue, considering the frequency of use. However, whether a qualified thinking education is given or not, and whether high-level successes can be achieved in this regard is another matter of discussion.

Considering the findings above, it is seen that some intelligence types are neglected and some of them are emphasized during MIT applications. As in other countries, activities that can develop musical intelligence are almost never included. In addition, it can be concluded that the lessons were boring from the methods and techniques used predominantly. Because it is observed that while primary school teachers addressing children between the ages of 6-10 should prefer highly colorful, visual-based teaching methods and techniques that include music and games, they prefer the opposite methods and techniques. For example, the percentage of use of teaching through gamification is lower than other methods and techniques. In short, the analysis made on the teaching methods and techniques preferred by the primary school teachers and the frequency of their use is that it is not a suitable environment for the implementation of MIT in classrooms.

Findings Regarding the 2nd Sub-Problem

"Do you think you have enough knowledge and experience in terms of using Multiple Intelligence approach in your lessons?" The answers to the question and their percentages are given in Table 3 and Figure 2:

Table 3

Primary School teachers' perceptions of feeling self-sufficient

Perceptions of Feeling Self-Sufficient	N	%
I feel so sufficient	4	5,7
I feel sufficient	32	45,7
I feel moderately sufficient	25	35,7
I feel insufficient	8	11,4
I feel so insufficient	1	1,5
Total	**70**	**100**

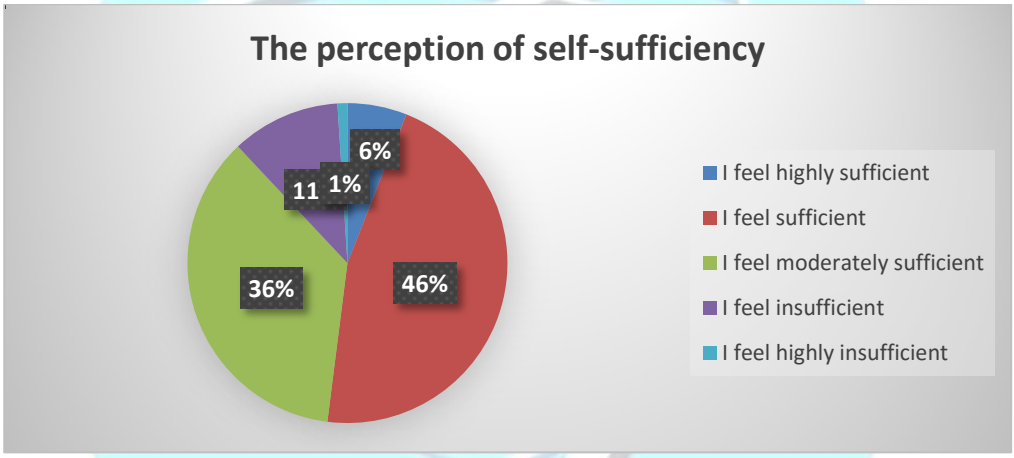

Figure 2. Classroom teachers' perceptions of feeling themselves sufficient in the applications of Multiple Intelligence Theory (MIT)

According to Table 3 and Figure 2, 52% of classroom teachers participating in the study feel themselves sufficient or highly sufficient. The rate of those who feel themselves insufficient or highly insufficient is only 12%. In other words, 88% of the teachers feel themselves sufficient in some way. This high rate may cause the interpretation that classroom teachers should be successful in MIT applications in general. However, it is seen that this comment is not correct in line with the answers received during the interviews and other questions. Because in their statements, they frequently express that they cannot properly implement the MIT in the classroom.

Findings Regarding the 3rd Sub-Problem

The answers received when the question ‘’Have you attended any in-service training seminars about MIT?’’ are given in Table 4.

Table 4
Participation rates of classroom teachers in the in-service training seminar

Based on professional seniority	YES (I participated)	NO (I did not participate)
1-7 years	2 (10%)	18 (90%)
7-15 years	5 (25%)	15 (75%)
15 years and above	8 (26%)	22 (74%)
Total	**15 (21%)**	**55 (79%)**

As it is seen in Table 4, nearly 80% of the classroom teachers participating in the study stated that they did not receive in-service seminars about MIT. Undoubtedly, this is a shortcoming of the Ministry of National Education (MONE). Because, more serious attention should be paid to introducing this theory to teachers, which deeply affects educational policy.

Findings Regarding the 4th Sub-Problem

When the teachers who participated in the study were asked where they got their information about MIT, the answers given were shared in Table 5.

Table 5
Findings of where classroom teachers accessed MIT information

Based on professional seniority	From university	From the courses/seminars	By my own efforts
1-7 years	18 (90%)	1 (5%)	7 (35%)
7-15 years	15 (75%)	5 (25%)	12 (60%)
15 years and above	7 (23%)	8 (25%)	20 (67%)
Total	**40 (57%)**	**14 (20%)**	**39 (56%)**

According to Table 5, almost all of the teachers with 1-7 years of professional seniority have learned MIT at the university. However, only one person stated that he/she received a seminar and approximately 30% of them stated that they increased their knowledge with their own efforts. Whether the education they received at the university is sufficient or not is another matter of research. Most of the teachers with 7-15 years of professional seniority have also received this training at the university, and the rate of those who take seminars / courses in this category is higher. 7 of the teachers with 15 years or more professional seniority stated that they received MIT training during their university education. But this information seems somewhat contradictory, assuming they were at the university at least 15 years ago. Because 15-20 years ago, it seems difficult to teach about MIT at universities. It seems unlikely, at least, to have this topic in their official curriculum. In addition, it is seen that nearly 70% of the teachers in this category have learned or reinforced this knowledge through their own efforts. The most important conclusion to be drawn from this section is as follows: Despite the fact that there is a serious deficiency, MoNE reported to the MIT at the highest tone that they see a serious

place in our education system, they do not provide the necessary in-service training.

Findings Regarding the 5th Sub-Problem

"If you feel insufficient, in which subjects do you feel insufficient? Do you need sample applications? "Was posed and answers were received from 57 (82%) of 70 classroom teachers. The following conclusion can be reached from the overall responses: Teachers generally need exemplary practices, whether they feel sufficient or not.

Some of the answers to the question are as follows:

"I feel that I have a hard time preparing materials and creating the physical environment. It would be better if there are sample applications, and we will identify our shortcomings from those applications."

"I have difficulty distinguishing which type of intelligence students are dominant. When I want to give information to the parents on this subject, the parents do not consider the talent of the child with good musical intelligence as an academic achievement. In this regard, I ask the Ministry of National Education to provide materials on types of intelligence and to organize a seminar on this subject."

"Theoretically I know the subject, but I can sometimes have problems with implementation. I need sample applications. A lot indeed…"

"I feel insufficient about how to use musical intelligence. Although I have tried many methods, I do not know what to use in addition to students who have not fully grasped the topics. I have trouble with this."

"I feel insufficient about methods and techniques …"

"I have problems with students with learning difficulties."

"I think I am incapable of gifted children …"

As it is clearly understood from the statements of the classroom teachers who participated in the study, classroom teachers need additional sample applications. These statements are observed in teachers who feel insufficient, and teachers who feel sufficient about the theory in general need exemplary applications.

Findings Regarding the 6th Sub-Problem

According to the study, the difficulties experienced by classroom teachers about MIT applications can be grouped under eight headings. This ranking was arranged according to the frequency of the difficulties stated by the teachers in their opinions. These are as follows:

- Lack of equipment (materials)
- The curriculum is not suitable
- Physical inadequacies of the classroom and / or school

- Students' resistance to learning
- Lack of time
- Teacher's finding himself/herself insufficient
- Social environment / parent resistance
- The crowded classes

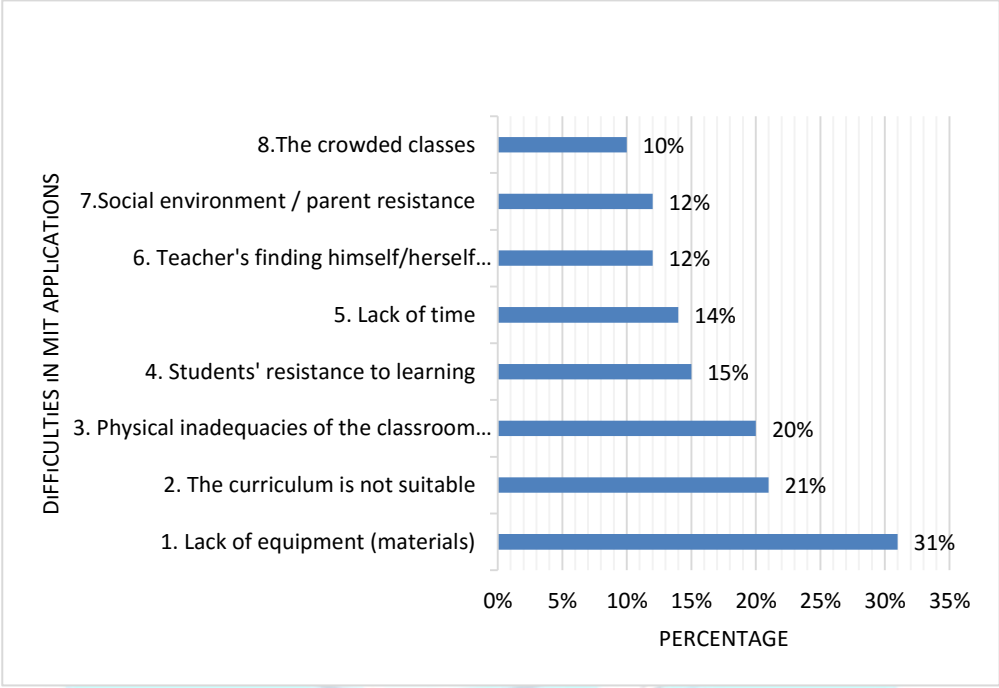

Figure 3. Difficulties in MIT applications

According to Figure 3, these difficulties are examined in the order above, with quotations from teachers' views as follows:

"... Not having enough material."

"Generally, we cannot teach a lesson suitable for everyone's level and abilities. The source of this is that the programs are not prepared accordingly."

"Classroom environments are not suitable for MIT."

"Some of the children have an insensitivity to learning no matter what we do."

"I'm having difficulties finding enough time."

Findings Regarding the 7th Sub-Problem

The answers to the question "what are the main difficulties you have encountered?" asked in the interview form to the teachers participating in the

study were examined under the previous heading. Under this heading, how curriculum that teachers are obliged to implement are affected as a result of the difficulties faced by teachers has been examined.

"It negatively affects…"

"Because of these difficulties, I have to use direct instruction technique more."

"We implement classical methods because we cannot use them effectively."

"It prevents the activities from being beneficial…"

"An effective and efficient learning-teaching environment does not occur."

"Lessons are getting monotonous…"

"Lessons are getting colder. Students' self-confidence is decreasing."

"It affects success negatively."

As a result of the examination, it was revealed that teachers had many difficulties in MIT practices and that these difficulties created a negativity in the implementation of the training program.

Findings Regarding the 8th Sub-Problem

The answers given to the last question of the interview form that was asked to the teachers participating in the study, "What would you recommend to overcome the difficulties you encounter in practice?" are as follows:

"Sufficient tools and equipment should be provided, a suitable environment should be provided ..."

"Material support should be provided ..."

"Conscious parents and a school with better opportunities ..."

"There should be in-service training seminars… I agree with the practices in Europe for measuring teacher competencies. I wish we had it too ..."

"A radical change should be made in the education system ..."

"... Students should be equipped socially and culturally…"

"... Seminars should be given periodically to parents."

"The physical condition and facilities of the school and classroom should be improved. Information devices should be increased. Students' readiness levels should be increased."

"Level classes should be created."

"Teachers should also be asked about education issues ..."

"Annual plans should be prepared accordingly ..."

"Course hours and types should be prepared according to the theory ..."

Views similar to the examples given above are also seen in the other interview form responses. We can summarize these views item by item as follows:

- Material deficiencies must be completed. However, these deficiencies should be eliminated not only in central schools, but also in every city center, district, town and village where we expect MIT to implement.
- Students should be subjected to a planned social and cultural education (activities) both inside and outside the school.
- General lines of the theory should be explained not only to teachers and students, but also to parents, and attention should be paid to parent education.
- Our national education program should be handled as a whole. If MIT will be included in our education system, programs, plans and books should be prepared in accordance with this theory with all its elements.
- Practical training should be emphasized. It should be noted that the development and training of many types of MIT intelligence can only be achieved through practical training, not through narration.
- Physical structures of schools and classrooms should be raised to the level of developed countries at the point of competence.
- Authorities should also consult teachers' opinions on education.
- Course hours should be arranged in a way that allows the effective implementation of MIT practices.
- The suggestions made by the classroom teachers, who were consulted through the interview form, in order to overcome the difficulties encountered in MIT applications, were classified in general terms in this way.

DISCUSSION, CONCLUSION and SUGGESTIONS

According to the research, one of the most common methods and techniques used by classroom teachers is direct instruction. The excessive use of this method makes education and training activities boring and causes the learning not to be permanent.

The methods and techniques preferred by classroom teachers mainly addresses to several types of intelligence. Methods and techniques suitable for some intelligence types are used less and students who are prone to that intelligence type are neglected.

According to the research carried out, most of the classroom teachers feel themselves competent in MIT applications. However, considering the teaching methods and techniques they use, their responses to interview questions, and the general failure of our country's MIT practices, feeling self-sufficient does not have much counterpart in education.

According to the study, the difficulties experienced by classroom teachers about MIT practices were grouped under 8 headings. This ranking was arranged

according to the frequency of the difficulties that our teachers stated in their opinions.

- Lack of equipment (materials)
- The curriculum is not suitable
- Physical inadequacies of the classroom and / or school
- Students' resistance to learning
- Lack of time
- Teacher's finding himself/herself insufficient
- Social environment / parent resistance
- The crowded classes

The following suggestions can be made in the light of the information obtained from the results of the study:

- Classroom teachers should use methods and techniques that addresses to the old understanding in education, such as direct instruction, as little as possible.
- Emphasis should be placed on methods and techniques that attract more attention of the student and enable them to learn with fun.
- More visual and applied methods and techniques should be used in order to ensure permanence in learning.
- Considering within the scope of the MIT; it should be kept in mind that the students are not monotonous people, each of them has different abilities and tendencies, and the learning styles of each may be different.
- In the education and training process, a wide variety of activities that address to all types of intelligence should be put into effect, and monotony should be avoided.
- The classroom teacher should determine which student is prone to which intelligence types and how he / she can learn better and use methods and techniques accordingly.
- Not only logical, verbal, social intelligence types in schools; activities that will address to types of intelligence such as musical, visual, and physical intelligence should be implemented. Only in this way, we can reach the desired level in the artistic activities that we fall behind compared to contemporary countries. It is very important that talented students who are inclined to art can be identified at an early age and that they receive art education at an early age.
- Classroom teachers should adopt the principle of lifelong learning and be guides who continuously research and learn. Hundreds of studies are carried out on MIT every year. It will enable teachers to improve

themselves by following these studies and to better understand and apply the theory.

- In education faculties, pre-service teachers should be taught comprehensively how to implement MIT practices.
- MoNE should pursue an effective in-service course policy and immediately eliminate the deficiencies of classroom teachers.

REFERENCES

Acat, B. (2001). *Çoklu zekâ kuramının Türkiye koşullarında öğrenme-öğretme ortamlarının planlanmasında ve düzenlenmesinde kullanılabilirliği.* Açık ve Uzaktan Eğitim Sempozyumu (23-25 Mayıs). Anadolu Üniversitesi.

Altan, M. Z. (2012). *Profesyonel öğretmenliğe doğru* (Üçüncü Baskı). Pegem Akademi.

Aslantürk, Z. ve Aslantürk, E. H. (2011). *Uygulamalı sosyal araştırma.* (İkinci Baskı). Çamlıca Yayınları.

Ayaydın, A. (2009). Eğitimde çoklu zekâ yansımaları ve görsel sanatlar. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi,* (13), 52-62. https://dergipark.org.tr/tr/pub/zgefd/issue/47954/606730

Baş, G. (2011). Çoklu zekâ kuramının öğrenme öğretme süreçlerine yansıması. *Bilim ve Aklın Aydınlığında Eğitim, 138-139*(Ağustos-Eylül 2011), 14-28.

Başaran, I. (2004). Etkili öğrenme ile çoklu zekâ kuramı: Bir inceleme. *Ege Eğitim Dergisi*, 5(1), 7-15. https://dergipark.org.tr/tr/pub/egeefd/issue/4920/67308

Büyüköztürk, Ş. (2011). *Sosyal bilimler için veri analizi el kitabı* (On Dördüncü Basım). Pegem Akademi.

Büyüköztürk, Ş. (2007). *Deneysel desenler* (İkinci Basım). Pegem Akademi.

Büyüköztürk, Ş., Kılıç-Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. ve Demirel, F. (2010). *Bilimsel araştırma yöntemleri* (Altıncı Basım). Pegem Akademi.

Engin, A. O. (2010). *Eğitim bilimlerine giriş-eğitimin felsefi temelleri.* İdeal Kültür & Yayıncılık.

Erden, M. ve Akman, Y. (2008). *Eğitim psikolojisi.* Arkadaş Yayınevi.

Ergün, M. (2011). *Eğitim felsefesi* (Üçüncü Baskı). Pegem Akademi Yayıncılık.

Gardner, H. (2013). *Çoklu zekâ: Yeni ufuklar*. Optimist Kitap.

Genç, S. Z. (2010). *Öğretim ilke ve yöntemleri-öğrenme öğretmede çağdaş yaklaşımlar* (Üçüncü Basım). Anı Yayıncılık.

Iyer, N. N. (2006). *Instructional practices of teachers in schools that use multiple intelligences theory (Sumit*) (Unpublished Ph. D Thesis). University of Cincinnati.

Karasar, N. (2009). *Bilimsel araştırma yöntemi* (Yirminci Basım). Nobel Yayın Dağıtım.

Karasar, N. (2000). *Araştırmalarda rapor hazırlama* (Onuncu Basım). Nobel Yayın Dağıtım.

Korkmaz, Ö., Yeşil, R. ve Aydın, D. (2009). Öğretmen adaylarının çoklu zekâ algıları. *Selçuk Üniversitesi Ahmet Keleşoğlu Eğitim Fakültesi Dergisi,* (27), 221-239.

Köksal, M. S. (2006). Kavram öğretimi ve çoklu zekâ teorisi. *Kastamonu Eğitim Dergisi*, *14*(2), 473-480. https://dergipark.org.tr/tr/pub/kefdergi/issue/49104/626623

Kucur, F. K. (2007). *İlköğretim fen ve teknoloji dersinde çoklu zekâ uygulamaları ve öğretmenlerin karşılaştıkları güçlükler* (Yayımlanmamış Yüksek Lisans Tezi). Selçuk Üniversitesi Fen Bilimleri Enstitüsü.

Ormrod, J. E. (2003). *Educational psychology: Developing learners* (Forth Edition). Merrill Prentice Hall.

Owolabi, T., & Okebukola, F. (2009). Improving the reading ability of science students through study groups and multiple intelligences. *US-China Education Review, 6*(2), 38-44. https://files.eric.ed.gov/fulltext/ED504954.pdf

Özdemir, S., Yalın, H. İ. ve Sezgin, F. (2012). *Eğitim bilimlerine giriş* (Sekizinci Baskı). Nobel Akademik Yayıncılık.

Saban, A. (2005). *Çoklu zekâ teorisi ve eğitim*. Nobel Yayın Dağıtım.

Sayın, F. K., & Afyon, A. (2011). Sınıf öğretmenlerinin fen ve teknoloji dersinde çoklu zekâ kuramı kapsamında tercih ettikleri yöntemler ve etkinlik düzenlerken karşılaştıkları güçlükler. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 11*(2), 161-182.

Sezgin, F. (2008). *Ölçme ve değerlendirme-ölçme ve değerlendirmede temel istatistiksel işlemler* (İkinci Basım). Pegem Akademi Yayıncılık.

Sönmez, V. (2007). *Program geliştirmede öğretmen el kitabı* (On Üçüncü Baskı). Anı Yayıncılık.

Sübaşı, G. (2007). *Eğitim psikolojisi.* Anı Yayıncılık.

Şeker, H. ve Gençdoğan, B. (2006). *Psikolojide ve eğitimde ölçme aracı geliştirme.* Nobel Yayın Dağıtım.

Talu, N. (1999). Çoklu zekâ kuramı ve eğitime yansımaları. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 15(15), 164-172. https://dergipark.org.tr/tr/pub/hunefd/issue/7820/102785

Toprakçı, E. (2008a). *Eğitim bilimine giriş.* Ütopya Yayınevi.

Toprakçı, E. (2008b). *Sınıfa dayalı eğitim*. Pegem Yayınevi.

Yıldırım, A. ve Şimşek H. (2008). *Sosyal bilimlerde nitel araştırma yöntemleri* (Altıncı Baskı). Seçkin Yayıncılık.

Yurtal, F. (2008). *Eğitim psikolojisi-eğitim psikolojisinin kapsamı.* Anı Yayıncılık.