



The Purposes of the 1st, 2nd, 3rd Grade Teachers to Determine Their Students' Multiple Intelligences Profiles

1, 2 ve 3. Sınıf Öğretmenlerinin Öğrencilerinin Çoklu Zeka Profillerini Belirlemedeki Amaçları

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Abstract

The aim of the current study was to find out the purposes of the 1st, 2nd and 3rd grade teachers to determine their students' multiple intelligences profiles. The study was a qualitative research. Criterion sampling method was used to select the participants of the study. The data were collected from six teachers, three psychologists, two sociologists, and one child neurologist using interviews, observation forms, and researcher's notes. The findings indicated that the teachers determine their students' multiple intelligences in order to (1) know students' characteristics affected by multiple intelligences in depth and detail; (2) learn students' weaknesses and strengths in terms of multiple intelligences; (3) assist students by activating their dominant intelligences to handle problems; (4) inform stakeholders (branch teachers, parents, school counselors etc.) about students' multiple intelligences profiles; (5) manage class in accordance with students' multiple intelligences profiles; (6) comprehend principles of MIT; (7) suggest leisure time activities according to students' dominant intelligences.

Keywords: Multiple intelligences theory, determining intelligences, action research.

Öz

Bu çalışmanın amacı, 1, 2 ve 3. sınıf öğretmenlerinin, öğrencilerinin çoklu zeka profillerini belirlemedeki amaçlarını ortaya koymaktır. Nitel bir araştırma olan bu çalışmada, katılımcılar ölçüt örnekleme kullanılarak seçilmiştir. Veriler altı öğretmen, üç psikolog, iki sosyolog ve bir çocuk nörologundan görüşme, gözlem formları ve araştırmacının notlarıyla toplanmıştır. Bulgular, öğretmenlerin öğrencilerinin çoklu zekalarını (1) öğrencilerin çoklu zekalarından etkilenen özelliklerini daha detaylı ve derinlemesine bilmek, (2) öğrencilerin çoklu zekaları açısından güçlü ve güçsüz yanlarını öğrenmek, (3) problemlerle başa çıkmak için öğrencilerin baskın zeka türlerini aktive ederek öğrencilere yardımcı olmak, (4) ilgili tarafları (branş öğretmenleri, ebeveynler ve okul psikolojik danışmanları) öğrencilerin çoklu zeka profilleri hakkında bilgilendirmek, (5) sınıfı öğrencilerin çoklu zeka profillerine göre yönetmek, (6) Çoklu Zeka Kuramının ilkelerini anlamak, (7) öğrencilerin baskın zeka türlerine göre boş zaman faaliyetleri önermek amacıyla belirlemek istediklerini göstermiştir.

Anahtar Kelimeler: Çoklu zeka teorisi, zekaların belirlenmesi, eylem araştırması.

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1. Introduction

Gardner (2004) asserted that scientific concern about the nature of intelligence began a century ago with Spearman and Binet in France. He also pointed out that the perception of intelligence had remained unchanged for the last 100 years even though there were significant improvements and innovations in the fields of physics and biology. In this regard, Gardner (2004) criticized the existence of the unchanged perception of intelligence by stating “This fact could mean that either Binet and Spearman got it right or their successors have been remarkably myopic” (p. 4). Gardner (2004) also added that enormous changes in the conceptualization of intellect had occurred in recent years in the fields of neuroscience, cognitive science, and artificial intelligence focusing on a multitude of intellectual capacities.

Multiple Intelligences Theory (MIT) was developed by Howard Gardner as an account of human cognition in 1983. According to Gardner (1983, 1993) cognitive competence had more than one dimension that included a set of talents, abilities, and mental skills called intelligences. Hence, he proposed eight intelligences; namely, logical-mathematical, linguistic, spatial, musical, bodily-kinesthetic, intrapersonal and interpersonal in 1983, and later in 1997 he added one more intelligence called “naturalistic” (Gardner, 1993, 1999). Moreover, he has studied a candidate intelligence “existential intelligence” (Moran, Kornhaber, & Gardner, 2006).

Gardner (2004) emphasized that the theory of multiple intelligences was not developed as an educational intervention. In fact, it was developed as a theory of mind. However, Gardner (2004) stated the impact of his theory on educational thinking and application throughout the world. Furthermore, Gardner explained two primary reasons for this impact. The first was about the variety of strengths and profiles of the individual taken into consideration and the second reason was about the expectation that students could learn and produce in various ways through MIT.

Congruent with Gardner’s thoughts, some such as Hopper and Hurry considered MIT as an instructional approach. They proposed three reasons for explaining why MIT should be considered as an instructional approach. First, MIT resulted in increased awareness of the learning process. Second, MIT emphasized an individual learning process. Third, MIT indicated the active learning process (2000, as cited in Saban 2009). Similarly, Saban (2009) projected four reasons for acknowledging MIT as an instructional approach. First, MIT accepts each child as an individual with different potentials. Second, MIT proposes new pedagogical approaches for teachers. Moreover, MIT enables teachers to cooperate with each other. Lastly, MIT lets students be aware of their own ways of learning. In this regard, Saban(2002) utilized Turkish version of Armstrong’s Checklist for Assessing Students’ Intelligences to identify students’ multiple intelligences for personalized education. In that study, in the school where the study was conducted, Multiple Intelligences Theory was found to have positive impacts on students, teachers, administrators and parents. Besides, the findings showed that MIT improved classroom environment and students’ achievement. Parallel to Saban’s study, Özdemir, Güneysu and Tekkaya’s (2002) study showed that Multiple Intelligences Instruction produced significantly greater achievement on students’ understanding and retention of knowledge rather traditional instruction.

In addition to the aforementioned study, Brualdi (1996) expressed that there were two implications of MIT on education; namely, educators’ recognition and teaching to a wide range of talents and skills as well as teachers’ presentations and assessments engaging most or all of the intelligences. The implications of MIT have brought a new question: “In what ways is this person smart?” as an alternative to the traditional question “Is this person smart?” (Gray & Vilens, 1994).

In this respect, there was a crucial shift affecting both the students and the teachers (Aborn, 2006). The shift, as Aborn (2006) emphasized, created an insight in relation to necessity and the importance of knowing students’ multiple intelligences in today’s classrooms. Correspondingly, researchers conducted various studies, and their results underlined the fact that MIT has positive effects on educational settings in terms of various aspects such as students’ motivation, achievement, attitudes towards courses, and teachers’ feeling about their pedagogy.

MIT is a theory of human cognition. Because of the focus on “human cognition” and “intelligence”, determination and assessment of intelligence came into question. Since the related literature indicated that knowing the multiple intelligences of students was important, the reasons for the tendency to determine and assess multiple intelligences included demand originated from the implications of MIT on education. In this regard, Aborn (2006) stated that knowing the multiple intelligences of their students was essential for teachers to understand the principle of multiple

intelligences theory, and it helped their students who had learning difficulties by using their strengths as a guide for career development.

Therefore, educators especially the teachers knowing MIT have been in need of determining their students multiple intelligences profiles. In this point, the purposes of the teachers are important in terms of understanding how they use the profiles, and how they integrate the MIT in the educational settings. Using the above mentioned benefits of MIT as springboard, the present study aims to find out the purposes of the 1st, 2nd and 3rd grade teachers to determine students' multiple intelligences profiles.

2. Method

The present study is carried out as an action research. There are many purposes for conducting an action research as one of the qualitative research types. For example, Strauss and Corbin (1990) stated that "to uncover and understand what lies behind any phenomenon about which little is yet known"(p.19) action research can be conducted. In this respect, exploration of what lies behind determining 1st, 2nd and 3rd grade students' multiple intelligences profiles could be best investigated through a qualitative approach.

2.1. Participants of the Study

Two groups of informants participated in the study; namely, the teachers and the experts from the fields of multiple intelligences, psychology, sociology, and child neurology.

As one of the purposeful sampling methods, criterion sampling was used to determine the participants of the study. The criteria for determining the participant teachers were as follows;

1. The teachers needed to have known about Multiple Intelligences Theory for at least three years.
2. The teachers needed to have experienced Multiple Intelligences Theory for at least three years.
3. The teachers should be willing to participate in the study.

On the basis of the criteria, three teachers from Gazi University Foundation Private Elementary School and three teachers from Emin Sağlam Public Elementary School, totally six teachers (two 1st grade, two 2nd grade, two 3rd grade) participated in the study. Four of them were female and two of them were male. All of them were experienced teachers in terms of teaching and MIT.

The criterion to select the participant experts was that the experts should deal directly with Multiple Intelligences Theory or its bases (sociology, psychology, neurology, etc.). The experts who agreed to participate in the study were three psychologists, two sociologists, one child neurologist and Dr. Armstrong who developed Multiple Intelligences inventory for Adults and checklist for assessing students' multiple intelligences and MIT.

2.2. Data Collection Method and Instrument of the Study

The data were collected through semi-structured interview instruments, observation forms, and researcher's notes.

The semi-structured interview instruments were prepared and conducted by the researcher. Based on the experts' opinions, the semi-structured interview instruments were re-prepared and piloted before actual implementation. After that, necessary modifications were made to the interview instrument to improve its readability, meaningfulness, and appropriateness. Besides, informal conversational interviews were conducted with the teachers whenever it was possible.

Observation form was prepared by the researcher. The observations were conducted by the researcher when the teachers were determining their students' multiple intelligences profiles. In addition, the researcher took notes when conducting observations.

2.3. Data Analysis Procedure

The qualitative data were subjected to descriptive and content analysis techniques with the help of the steps constructed on the basis of the descriptions by Yıldırım and Şimşek (2003) and Strauss and Corbin (1990) for the

present study. The four main steps were (1) data coding, (2) generating categories, (3) organization and definition of the data by codes and categories, and (4) conclusion.

3. Findings

The data analyses indicated that there were seven purposes of the 1st, 2nd and 3rd grade teachers to determine students' multiple intelligences profiles. The purposes were presented under the following titles.

Purpose I: Knowing students' characteristics affected by multiple intelligences in depth and detail

Interviews were conducted with six teachers to find out why they determined their students' multiple intelligences profiles. Their responses indicated that while some of the purposes were common for all teachers, some of them were specific to the teachers teaching to the same grades. The purpose of knowing the students' characteristics affected by multiple intelligences in detail was one of the purposes stated by all teachers. By stating this purpose, they meant that they wanted to know how the students think and learn and what students are interested in, what they like or dislike. The teachers thought that the students' characteristics were affected and determined by their multiple intelligences profiles. In this regard, one of the teachers said "As a teacher, I should learn about my students' multiple intelligences to know their thinking and learning styles better." Similarly, the teacher TB stated "...my purpose is to know my students' learning methods with which they learn best. I think the methods were directly related to their intelligence profiles composing of multiple intelligences."

Moreover, the teacher TE emphasized that she wanted to know her students practically as soon as possible and she thought that the best way to do this was by determining students' multiple intelligences profiles. Furthermore, the teacher TC expressed that knowing students' multiple intelligences profiles enabled him to know students in a whole and realistic view. Furthermore, the teacher TA congregates all of the responses of the teachers as follows:

I have tried to understand my students' multiple intelligences since I learned multiple intelligences theory because the intelligence profile of a student enables a teacher to see how the student thinks, learns and what the student is interested in, likes and dislikes.... (TA).

Similarly, in addition to the formal interviews during the informal conversational interviews, teachers brought out the same purpose. In this respect, underlying importance of the 1st grade, the teacher TE stated,

In my opinion, especially 1st grade teachers should know their students' multiple intelligences. Why? Because we should know their characteristics as soon as possible because we teach them how to read and write. If we learn our students' strengths and weaknesses we can enable our students to develop positive attitudes towards school.... (TE).

Observations of teachers' implementations of existing or their own methods to determine students' multiple intelligences profiles were essential to reach the real examples for the purposes they had. The analyses of the researcher's observation notes indicated that all the teachers used the information in order to know their students in detail. However, the analyses displayed that their considerations for knowing their students in detail were different from each other.

Two 1st grade teachers and one 3rd grade teacher started to determine their students' multiple intelligences profiles at the beginning of the semester. The 1st grade teachers thought that they should know their students in terms of the learning methods with which they learn best and most easily and their interests as soon as possible because they meet the students at the beginning of school. In addition, the 3rd grade teacher thought that children changed in terms of their developmental phases at the 3rd grade. The teacher TB supposed the students could recognize their interests, talents, and abilities between the period from 1st grade and the beginning of the 3rd grade:

My observations indicated that the students start to evaluate themselves at the beginning of the 3rd grade in terms of their strengths and weaknesses in their abilities, talents, and interests. Before that time, they were

temperamental about activities. I think at the beginning of the 3rd grade students start to give signals of their certain and keen abilities, talents or interests. Thus, I tried to determine my students' multiple intelligences at the 1st day of 3rd grade in order to discover their characteristics on the basis of multiple intelligences.

Data analysis further displayed that the participant psychologists agreed with the purpose. One of them stated that 1st, 2nd and 3rd grade classes constituted the basic cycle of elementary education including basic, first and second. According to the psychologists, the 1st, 2nd and 3rd grade classes were basic level, the 4th and 5th grades were the first level and 6th, 7th and 8th grades were the second level of elementary education. Because of these reasons, the basic level teachers should determine their students' multiple intelligences in order to know them in detail at the basic level for the psychologist. Another psychologist underlined that the purpose also belonged to the school counselor saying "...The purpose belongs not only to the 1st, 2nd and 3rd grade teachers, but also to school counselors like us, and school principals because all of us need to know the students in depth" (PS3). The psychologist PS2 went a step further about the purpose:

Actually, multiple intelligences determination is important not only in terms of the 1st, 2nd and 3rd grade students, but also all human beings. Everything starts with knowing an individual and one of the keys is determining multiple intelligences profiles (PS2).

As a result, one of the purposes the teachers had in order to determine their students' multiple intelligences profiles was knowing students' characteristics affected by multiple intelligences in detail. The data analyses showed that the characteristics included how they think and learn best and what their interests, skills, abilities are.

Purpose II: Learning students' weaknesses and strengths in terms of multiple intelligences

Another purpose stated by all of the teachers was to learn students' weaknesses and strengths in terms of multiple intelligences. However, the data analyses showed that the purpose could be separated into two subcategories according to the teachers' foci. The first group of teachers focused on strengths, and the other group focused on weaknesses.

The analysis of the interviews conducted with the teachers revealed that four of the six teachers focused on students' dominant intelligences when explaining why they determined their students' multiple intelligences profiles. They emphasized that they should know their students' dominant intelligences because they used the information in various situations including extra-curricular activities, encouraging the students to educational clubs and planning learning-teaching activities for individualized education. In this regard, the teacher TA expressed how they used the information about her students' dominant intelligences:

... I used the information about their strengths when planning learning-teaching activities for personalized instruction; making decisions as to which student participates in which school show activities.

Furthermore, the analysis of the interviews conducted with the teachers demonstrated that two 2nd grade teachers and one 3rd grade teacher, emphasized that the purpose of learning about students' strengths was very important because of cultivating happy individuals. According to the teachers, the information about their students' strengths helped them cultivate happy individuals; for example, the 2nd grade teacher TD stated:

If you want to raise happy individuals for the future as a teacher, you should provide your students with learning activities in which they can be successful and then they can improve their self-confidence. If you know students' strengths in terms of multiple intelligences, it is possible.

The 3rd grade teacher expressed the importance of determining students' dominant multiple intelligences and how she used the information as follows:

I give importance to learning children's strengths when determining multiple intelligences. I used the information when distributing them to school clubs. Because I cannot give them the opportunity to determine their own clubs because they tended to select the clubs their best friends selected. Also, I want them to be successful and enjoy in the clubs. I reach my aim by using the information about their dominant intelligences (TF).

According to the data analysis, while the four teachers focused on dominant intelligences, the others, TB and TE, focused on determining the recessive ones. TB explained that teachers could have an opportunity to improve their students' weaknesses. He stated that "...MIT emphasizes the necessity and importance of improving weak intelligences. Thus, one of my purposes for determining my students' multiple intelligences is to learn both their weak and strong intelligences."

Like the teacher TB, the teacher TE emphasized that determining weak intelligences was important as well as determining dominant ones. In this regard, TE clarified one of the purposes she had when determining her students' multiple intelligences as follows,

... The purpose is to learn about students' weak and strong intelligences. Teachers should give opportunities to their students to use their dominant intelligences when teaching them; otherwise, teachers paralyze students' dominant intelligences. Moreover, they should improve their students' weak intelligences. The possibility of improving weak intelligences is the most powerful aspect of MIT, I think.

Interestingly, the analysis of the informal conversational interviews showed that two 2nd grade teachers and one 1st grade teacher had focused on dominant intelligences during the formal interviews, but they put equal importance on both activating dominant intelligences and improving weak intelligences throughout the informal conversational interviews conducted with them. One of them was a private school teacher while the others have worked in public schools. Both of the 2nd grade teachers stated that the purposes of determining multiple intelligences profiles in the 2nd grade were different from the ones in the 1st grade. They emphasized that the ultimate purpose of determining multiple intelligences in the 1st grade was to know the students; however, in the 2nd grade the purpose had started to move from knowing students towards developing non-dominant intelligences and satisfying the needs originating from the dominant intelligences of the students. The teacher TA was the 1st grade teacher in a public school. She stated that:

I am a 1st grade teacher now. My purpose of determining multiple intelligences of my 1st grade students is to know their strengths and weaknesses. In this manner, I can know my new (1st grade) students in the first semester of the academic year and then I can start to develop their weak intelligences and feed their dominant intelligences in the second semester with the help of the knowledge I gained about their multiple intelligences (TA).

The analysis of the interviews conducted with the experts presented that one of the participant sociologists of the study supported the teachers' purpose "to learn about students' strengths and weaknesses." The sociologist emphasized that teachers and parents should determine their children's multiple intelligences to prepare them for social life because individuals used all multiple intelligences in social life to some extent. In this regard, she followed,

Actually, if an individual can use all intelligences well, s/he is/will be a social person in all societies. Therefore, parents and teachers as guards and counselors of the children should achieve realistic knowledge about their children's multiple intelligences through which they help the children develop their weak intelligences, recognize their own strengths and use them effectively as a part of a society for the future.

Moreover, the data analysis pointed out that the participant psychologists emphasized the purpose "to learn about students' weaknesses and strengths in terms of multiple intelligences". All three gave importance to the weaknesses and improvement of the weaknesses because of being healthy human beings. They thought that an individual should

improve his / her weaknesses for his / her life. Moreover, they stated that one of the keys was using strengths in order to improve the weaknesses.

Purpose III: Assisting students by activating their dominant intelligences to handle problems

The analysis of the interviews conducted with the experts showed that according to two psychologists participating in the study, the purpose of determining multiple intelligences profiles was to assist children having problems to solve their problems related to learning in the most effective and efficient ways. The psychologist PS2 asserted that "If a teacher wants to suggest a student the most effective way to solve her/his problems, the teacher should refer to the child's intelligence-composition." The other psychologist also expressed the importance of determining multiple intelligences by stating the road to reach the child should be constructed on the child's special intelligence-composition including multiple intelligences in a different proportion.

The data analysis presented that, like the psychologists, three teachers indicated that they determined their students multiple intelligences profiles because they used the information when assisting the students to solve their learning difficulties and social problems. One of the teachers explained an anecdote related to this point as in the followings,

... Two students who have been my students for three years commonly faced difficulties in mathematics. I knew their multiple intelligences profile. Thus, I used activities touching their dominant intelligences when explaining the math subjects they have difficulty with. Finally, they overcame the difficulties using this method (TB).

Furthermore, the analysis of the interview conducted with Dr. Armstrong who developed the MI inventory for adults and the MI checklist for students showed that he commented on the reasons to determine multiple intelligences as follows "I believe that the rationale to determine a student's multiple intelligences is valid, and this can help us reach the students' real learning needs." Actually Dr. Armstrong's comment supported the teacher TB's anecdote because TB reached his students in terms of their real learning needs in the math course.

Furthermore, the analysis of the observations indicated that three teachers used the information about their students' multiple intelligences profiles when assisting the students having problems and challenges related to learning. In other words, they used the information to teach the students facing difficulties in learning a subject and to manage the classroom effectively. The observation analyses revealed a different result from the formal interviews conducted with the same teachers; that's, the teachers often used the information for the purposes they did not express during the formal interviews. The analysis of the researcher's observation notes displayed that the teachers who did not state the current purpose assisted the students facing difficulty in the learning process by activating their dominant intelligences. In this regard, one of the teachers used visual teaching materials for visually dominant students facing difficulties in learning maths. On the other hand, the same teacher made a group with three students facing difficulties in maths and let them study in a group because she knew the students' dominant intelligence was interpersonal intelligence.

Purpose IV: Informing stakeholders (branch teachers, parents, school counselors etc.) about students' multiple intelligences profiles

The data analysis pointed out that there were three sub-purposes under the purpose "informing stakeholders (branch teachers, parents, school counselors etc.) about students' multiple intelligences profiles" namely; informing parents about their children's multiple intelligences profiles, informing branch teachers about students' multiple intelligences profiles and informing students about their own multiple intelligences profiles.

Purpose 4.1: Informing parents about their children's multiple intelligences profiles

The analysis of the interviews conducted with the teachers revealed that two 3rd grade teachers emphasized the importance of informing parents about their children's multiple intelligences profiles as a purpose of determining students' multiple intelligences. They emphasized that the information had vital importance not only for teachers but

also for parents. They thought that parents could form their expectations of their children and their behavior towards the children in a realistic view if they knew their children's multiple intelligences profiles. However, the findings revealed that there was an important difference between the two teachers' thoughts. The difference was the tendency the teachers had towards the parents. The 3rd grade teacher working in a public school wanted to share the information about the students' multiple intelligences profiles with their parents in order to inform them with positive tendency towards the parents. The teacher TB stated that

The parents are ready to take instruction from me as their children's teacher. Thus, they believe me when making decisions about their children. In this regard, I feel that I should give advice to them about their children's education. Therefore, one of my purposes is to inform the parents about their children's multiple intelligences profiles.

The 3rd grade teacher TF thought that parents had unrealistic views about their children. She stressed that she had tried to make the parents be realistic about their children's talent and abilities in terms of multiple intelligences. She said that

... The parents cannot be objective about their children. The information I give them enables them to behave realistically towards their children, to form realistic expectations about them. For this reason, one of my purposes is to inform parents about their children's multiple intelligences profiles.

Analysis of the informal conversational interviews showed that the teachers internalized the purposes they explicitly stated during the formal interviews. The same teachers spoke on the same purposes they had stated previously. Therefore, the analysis of the informal conversational interviews supported the results gained from the analysis of the formal interviews. Some excerpts taken from the informal conversational interviews are as follows "I want to share the results of your research with my students' parents in order to inform them about their children's real intelligence potential in terms of MIT" (TF). "Could I share the results of your research with my students' parents? Besides, I want to organize a seminar and share the results with the parents if you accept" (TB).

The analysis of the interviews conducted with the experts from the field of psychology, sociology and child neurology supported the purpose stated by the teachers "to inform parents about their children's multiple intelligences profile." One of the sociologists expressed that the importance of the purpose as a mother was as follows:

I am not only a sociologist, but also a parent. My child is a 1st grade student. Therefore, for me, teachers should have the purpose of informing parents about the children's multiple intelligences. Besides I do not believe we are objective observers of our children, so teachers should help us... (SO1).

Like the sociologist, the child neurologist participating in the study was a mother of twins who attended to the 2nd grade. She said that

If I were not a mother, I would not learn about multiple intelligences. As you know, we deal with intelligence, cognition, but we have not studied the theory yet. We still use IQ tests and maintain the IQ approach to intelligence in the field of neurology. Thus, I feel lucky because I know multiple intelligences; otherwise, I would not try to determine and evaluate my children's intelligence profile and their characteristics. In this regard, one of the purposes teachers have should be to determine the multiple intelligences and inform parents about both multiple intelligences theory and their children's multiple intelligences profiles.

One of the psychologists stressed that they informed parents about their children's psychology. Furthermore, the psychologist stated that most parents consulted her about their children's learning difficulties, learning skills and intelligence quotation. Moreover, she added that she explained MIT to parents however she could not determine multiple intelligences profiles. In this regard, she expressed that teachers should share the information about the

students' multiple intelligences profiles with parents. She believed that the sharing enabled teachers to cooperate with parents in order to construct effective and efficient teaching.

Purpose 4.2: Informing branch teachers about students' multiple intelligences profiles

The data analysis of the study revealed that the purpose "to inform branch teachers about students' multiple intelligences profiles" was stated by only two teachers. One of the teachers was from the 1st grade and the other, a 2nd grade teacher. Both worked in the private school.

The teachers emphasized that they were classroom teachers and they dealt with their students more closely than the branch teachers. They explained that music, art, physical education and drama were taught by branch teachers to their students. Besides, they believed that the courses were critical courses for multiple intelligences. They explained that they had a responsibility to share information about the students' multiple intelligences profiles with the branch teachers because they should also be responsible for feeding the students' multiple intelligences. Furthermore, they wanted to take information from the branch teachers about the students' talents and abilities. The teacher TE emphasized that the other educators who dealt with her students in some ways should know the students' multiple intelligences in order to speak the same language with her and give the students opportunity to develop or use their multiple intelligences. Besides, the teacher underlined that the branch teachers focused on the intelligences which were in harmony with their courses so the branch teachers should be informed in terms of students' multiple intelligences profiles:

... Unfortunately, the courses in which we can easily develop intelligences are rarely touched in classic courses including math, life science taught by the branch teachers. I say "unfortunately" because the courses give the students opportunity to improve or use the intelligences in their nature. However, the branch teachers, I think, feed the students with only the intelligence in the foundation of the course. Thus, they should know the students' multiple intelligences profile in order to use their dominant intelligences to improve the abilities in their courses.

TD said similar things to the teacher TE and gave an example "For example, if a music teacher knows students' multiple intelligences profiles, he can improve their musical intelligences by using their dominant intelligences...."

Purpose 4.3: Informing students about their own multiple intelligences profiles

The data analysis implied that one of the purposes of the teachers was "informing students about their own multiple intelligences profiles." The analysis of the interviews conducted with teachers demonstrated that three teachers had the purpose. Teacher TC stressed the importance of informing students about their multiple intelligences profiles and taking information about their multiple intelligences for themselves by referring to Gardner:

Teachers absolutely should make their students be aware of their strengths and weaknesses. Furthermore, Gardner defined intrapersonal intelligences emphasizing individuals' realistic view of their strengths and weaknesses. There is no need to hide their multiple intelligences profiles; on the contrary, we should share our information related to their intelligences and also ask them to help us when determining their multiple intelligences.

The data analysis also demonstrated that two other teachers asserted the purpose containing a risk of labeling. Therefore, they offered a solution while stating the purpose. In this regard, the teacher TF stated:

... Actually I was not aware of the solution I have used for years. The solution is not saying the "intelligences" as "intelligences". I share my students multiple intelligences profiles with them without articulating the concept "intelligence" because most of the students, like their parents, have a tendency to put huge importance on mathematical and linguistic intelligences. Therefore, I use the words "ability or skill" rather than "intelligence..."

The teacher TB explained how he shared the information about multiple intelligences profiles with his students: *...Also, I have shared my observation results related to their multiple intelligences with the students. However, I have been careful when sharing. I started with “you can do this if you use your strengths” and then I tell her/him strengths. Thus, students could see what I meant or indicated by their strengths and weakness. Moreover, whenever it is possible I say that everyone has weaknesses and strengths and everyone has a chance to improve their weaknesses by using strengths...*

Furthermore, the analysis of the interviews conducted with the psychologist PS1 and sociologist SO2 showed that for both psychologist and sociologist the purpose was valid. However, the psychologist focused on individuals (students), while the sociologist focused on society while stating their agreement on the purpose.

I think the purpose was meaningful. Individuals should know their weaknesses and strengths for their physical and psychological health. I have spoken with children realistically as much as possible. This is right. However, there is an important line between causing psychological problems and helping them be happy individuals with information of realistic characteristics of themselves (PS1).

If we want to raise students as social people for the future, teachers should inform students about their weaknesses and strengths. If the teachers do this in the limits of pedagogy, the students will have opportunities to improve their weak intelligences and use strength intelligences properly. Thus, the students will be healthy social people and then there will be a healthy society composing of healthy people (SO2).

Purpose V: Managing class in accordance with students’ multiple intelligences profiles

The data analysis of the study showed that the purpose “managing class in accordance with students’ multiple intelligences profiles” was stated by two teachers. Teacher TD associated multiple intelligences with language of communication. For the teacher, the teachers who knew students’ multiple intelligences profiles could manage the class easily:

... to find out the students’ ways of communication. I believe that the intelligences are communication channels. Besides, I had difficulty in classroom management before learning MIT. Now, I am managing the class by seeing in their communicative intelligences (TD).

The analysis of the interviews conducted with the teacher TA revealed that the teacher emphasized the important function of knowing students’ multiple intelligences profiles in classroom management. The teacher stressed that students’ dominant intelligences were the key for classroom management.

I manage my classroom easily and effectively by activating the dominant multiple intelligences of my students. Thus, it is a very important purpose for me to determine the multiple intelligences of my students when determining multiple intelligences (TA).

The analysis of the observation notes supported that the teachers (TD, TA) used the information about their students’ multiple intelligences profiles when managing their classroom. Furthermore, TC did not state the purpose during both formal and informal conversational interviews. However, the analysis of the observations conducted in the classroom of TC indicated that she activated her students’ dominant intelligences very well when managing the classroom.

Purpose VI: Comprehending the principles of MIT

The data analysis of the interview conducted with Armstrong via e-mail indicated another purpose for determining multiple intelligences profiles. The purpose was “comprehending the principles of MIT.” Armstrong explained how he decided to develop a checklist and inventory as follows;

My decision to create a “checklist” of items was determined by my desire to have people think about Multiple Intelligences Theory more deeply. I thought that if they applied the model to their own lives, they would be more likely to be interested in the theory, and apply it effectively. I did not develop the checklists for evaluative purposes, nor was I interested in obtaining reliability or validity on the checklists. I see them as “awareness tools” rather than diagnostic instruments, and feel my own checklists should be used with this in mind.

It was clear that Armstrong highlighted the importance of comprehending MIT and he emphasized the purpose “comprehending the principles MIT” when determining the multiple intelligences.

Purpose VII: Suggesting leisure time activities according to students' dominant intelligences

Data analysis of the study showed that only one of the teachers stated the purpose of “suggesting leisure time activities according to students' dominant intelligences”. Teacher TD stated that “...one of my purposes for determining my students' multiple intelligences profiles is to suggest hobbies, leisure time activities and school clubs related with their dominant intelligences.”

The informal conversational interviews and observations have been conducted throughout the study. The purpose has not been supported by the other sources yet.

4. Conclusion and Discussion

While Gardner (2004) expressed that MIT was not developed as an educational intervention, he also stated the impact of MIT on educational thinking and application throughout the world. In this regard, Sternberg (1997) indicated that Multiple Intelligence Theory is one of the theories indicating ways in which the theory might be infused into education and school curricula. Furthermore, Aborn (2006) expressed that MIT has manifested itself in the field of education over two decades. In addition, Demircioğlu and Güneysu (2000) stated that Gardner with MIT enabled educators develop curricula which place importance on individual differences by actualizing the principles of MIT (as cited in Güneysu, Çağlayan & Kaygısız, 2005).

Additionally, Gardner and Moran (2006) emphasized that research studies about the schools implementing MIT-based practices indicated various ways in which the schools and their students had benefited from the implementations. Therefore, educational process should determine and focus on their students' dominant intelligences rather than weaknesses or inabilities Aborn (2006) emphasized the importance of the knowing students' multiple intelligences in today's classrooms, indicating implications of MIT on education. When we look at the issue in Turkey where the current study was conducted, all above is valid. Demirel, Başbay and Erdem (2006) expressed that the implications of multiple intelligences theory on education had drawn attention and the theory had been adopted by teachers in recent years. Furthermore, they expressed that one of the emphases of the primary education curricula developed in 2004 was Multiple Intelligences Theory because of importance of individual differences in educational process. Therefore, educators especially teachers have tendency to determine their students' multiple intelligences profiles. In this respect, the purposes of the teachers to determine their students' multiple intelligences were important to see what lies behind their wish to determine students' multiple intelligence profiles. This study revealed how the teachers use the profiles in their educational process. Furthermore, since the teachers to participate in the current study were selected on the basis of the criterion that they had known about MIT and experienced MIT at least three years, the purposes found out in the study indicated not only how they use the profiles but also how students' multiple intelligences should be pressed into service.

The overall data analyses indicated that there were seven purposes of the 1st, 2nd and 3rd grade teachers to determine students' multiple intelligences profiles. The teachers determine their students' multiple intelligences in order to:

- (1) know students' characteristics affected by multiple intelligences in depth and detail,
- (2) learn students' weaknesses and strengths in terms of multiple intelligences,
- (3) assist students by activating their dominant intelligences to handle problems,
- (4) inform stakeholders (branch teachers, parents, school counselors etc.) about students' multiple intelligences profiles,

- (5) manage class in accordance with students' multiple intelligences profiles,
- (6) comprehend principles of MIT,
- (7) suggest leisure time activities according to students' dominant intelligences.

The purposes indicate the following inferences;

(1) If teachers know their students' multiple intelligences profiles, they can know how students think and learn and what students are interested in, what they like or dislike.

(2) If teachers know their students' dominant intelligence, they can use the information in various situations including school activities, encouraging the students to educational clubs and planning learning-teaching activities for individualized education. They can also assist students having difficulties in solving their problems related to learning in the most effective and efficient ways by activating their dominant intelligences.

(3) If teachers know their students' weak intelligences, they can let them develop the intelligences.

(4) If teachers know their students' multiple intelligences profiles, they can inform their parents in order to make the parent form their expectations of their children and their behavior towards the children in a realistic way.

(5) If teachers determine their students' multiple intelligences profiles, they can comprehend the principles of MIT. When he was introducing his MI Inventory for Adults, Armstrong (2000) emphasized that educators should grasp the theory and personalize its content before applying it in a classroom environment. Therefore, he suggested that educators should determine the nature and quality of their own multiple intelligences because that was an important step in implementing multiple intelligences. In this regard, the purpose of comprehending the principles of MIT is meaningful.

The review of the literature under the broad topic of Multiple Intelligences Theory presents supportive information for the purposes found out in this study. Furthermore, the content or chapters of the books about MIT have touched upon the implications and implementations of MIT on education indicating most of the purposes which were found in the present study. In this respect, Armstrong's book of "Multiple Intelligences in the Classroom" can be given as an example in terms of its parts; namely, MI and Classroom Management; MI and Assessment; MI and Teaching Strategies; MI and Special Education; Career Counseling. Therefore, it is obvious that the literature review directly or indirectly indicated that the purposes are meaningful.

Finally, the purposes revealed by the study indicated that if teachers know their students' multiple intelligences profiles, they can benefit from the data in terms of managing various aspects of educational processes including effective and efficient instruction, assessment, and classroom management.

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