Multiple Intelligences Theory in Action in EFL Classes: A Case Study

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ABSTRACT

The current study aimed to investigate the application of Multiple Intelligences Theory (MI) in intermediate language classes at Eastern Mediterranean University (EMU) English Preparatory School (EPS) by evaluating the textbooks and classroom activities used. To this aim, first the students' intelligence profiles were identified by adopting and using a 'Multiple Intelligences Survey' instrument (McKenzie, 1999). Secondly, the intelligence profiles of the materials used were found out. Thirdly, teachers' perceptions about the application of MI Theory in their classes, as well as their evaluations of the materials in terms of MI Theory were investigated.

The research study was designed as a qualitative case study which involves descriptive methodology with a particular sample of 148 students and 10 teachers at EMU EPS. The study employed triangulation approach to collect the data. The study collected data from multiple sources through: 1) MI survey, 2) textbook evaluation, 3) classroom observation, and 4) teacher interviews for triangulation.

In order to identify the students' MI profiles, Multiple Intelligences Survey (McKenzie, 1999) was adapted and utilized in this study. Teacher interviews were conducted to find out about teachers' overall perceptions regarding the MI Theory and its applications in their classes as well as their evaluations of the materials used. Also, classroom observations were carried out in order to identify the intelligence types catered for by the classroom activities. Finally, the textbooks used were analyzed in terms of MI Theory.

The results of the study revealed that there were discrepancies between the students' and textbooks' MI profiles. The students' most dominant intelligence type was found to be intrapersonal intelligence, while the textbooks' most dominant intelligence was obtained to be linguistic intelligence. Similar results were obtained from classroom observations. That is, the observed classroom activities did not correspond to the students' MI profiles. As for the analysis of the textbooks' MI profile, it was found out that there was a wide range of distribution of eight intelligences in the textbook activities. This means that there is no balanced distribution in the textbook activities in terms of the intelligence types addressed to. Although teachers reported that MI Theory is important and it affects their teaching and their students' learning positively, the classroom observations showed that eight intelligences were not catered for in balance in their classes.

Finally, the results of this study may have some practical and theoretical implications. First of all, it may help language teachers in designing or adapting materials in terms of MI Theory to better cater for the students' multiple intelligences and, as a whole, improve learning and teaching process. Moreover, the framework can be used in various educational and cultural contexts to analyze textbooks of different levels. Finally, the findings of this study may contribute to the related literature regarding the application of Multiple Intelligences in language classes, as a whole.

Keywords: Materials Evaluation, Multiple Intelligences Theory, MI Profile, MI Activities.

Bu çalışma, Doğu Akdeniz Üniversitesi (DAÜ) İngilizce Hazırlık Okulu'ndaki orta seviye dil sınıflarında Çoklu Zeka Kuramı'nın uygulanışını kullanılan materyallerin (ders kitapları ve sınıf etkinlikleri) bu kuram bağlamında değerlendirilmesi açısından incelemeyi hedeflemektedir. Bu amaca ulaşmak için öncelikle, Çoklu Zeka Ölçeği (McKenzie, 1999) kullanılarak öğrencilerin çoklu zeka profilleri belirlenmiştir. İkinci olarak, kullanılan materyallerin çoklu zeka profilleri bulunmuştur. Üçüncü aşamada ise, öğretmenlerin sınıflarında Çoklu Zeka Kuramı'nın uygulanışı ile ilgili algılamaları ve kullandıkları ders materyallerini bu kuram bağlamında değerlendirmeleri incelenmiştir.

Bu araştırma, DAÜ İngilizce Hazırlık Okulu'na kayıtlı 148 öğrenci ve 10 öğretmenden oluşan örneklem bağlamında, betimlemeli yöntem içeren bir nitel durum çalışmasıdır. Bu çalışmada veri toplamak için 'çeşitleme' (triangulation) yaklaşımı kullanılmıştır. Bu bağlamda, 1) Çoklu Zeka Ölçeği 2) ders kitabı değerlendirmesi 3) sınıf gözlemleri 4) öğretmen görüşmeleri gibi çeşitli veri kaynaklarına başvurulmuştur.

Bu çalışmada öğrencilerin zeka profillerini tanımlamak için McKenzie'nin (1999) Çoklu Zeka Ölçeği uyarlanıp kullanılmıştır. Öğretmenlerin Çoklu Zeka Kuramı'na yaklaşımları ve bu kuramın sınıflarda uygulanması ile ilgili genel algıları ile kullandıkları materyalleri değerlendirmeleri ise görüşme yöntemi ile belirlenmiştir.

Ayrıca sınıf etkinliklerinin hangi zeka türlerini içerdiğini belirlemek için sınıf gözlemleri yapılmıştır. Son olarak, kullanılan ders kitapları Çoklu Zeka Kuramı açısından incelenmiştir.

Çalışmanın sonuçlarına bakıldığında, öğrencilerin çoklu zeka profili ile ders kitaplarının çoklu zeka profili arasında uyumsuzluklar görülmüştür. Öğrerencilerin en yüksek zeka türü içsel zeka olarak bulunurken, kitaplarınki ise dilsel zeka çıkmıştır. Benzer sonuçlar sınıf gözlemlerinde de görülmüştür: gözlemlenen sınıf etkinliklerinin de öğrencilerin çoklu zeka profilleri ile uyuşmadığı belirlenmiştir. Ders kitapların çözümlemesi sonucunda, kitaplardaki etkinliklerde sekiz zeka çeşidi geniş dağılım göstermiştir. Diğer bir deyişle, ders kitaplarındaki etkinliklerde zeka türleri açısından dengeli bir dağılım söz konusu değildir. Ayrıca, öğretmenlerin Çoklu Zeka Kuramı'nın ve bu kuramın öğretim ve öğrenim üzerindeki olumlu etkilerini vurgulamalarına rağmen, sınıf gözlemleri sekiz zeka türünün sınıf içi etkinliklere dengeli bir şekilde yansımadığını göstermektedir. Sonuç olarak, bu çalışmanın sonuçlarının işlevsel ve kuramsal sezdirimleri vardır. Öncelikle, bu çalışmadan çıkan sonuçlar öğretmenlere Çoklu Zeka Kuramı bağlamında materyal geliştirme veya uyarlamada yardımcı olabilir ve genel olarak, öğrenme ve öğretme sürecine katkıda bulunabilir. Ayrıca, bu çalışmada kullanılan materyal değerlendirme farklı eğitim ortamlarında, farklı düzeylerdeki ders modeli kitaplarının değerlendirmesinde kullanılabilir. Genel olarak, bu çalışmadan çıkan sonuçların Coklu Zeka Kuramına da katkıda bulunabileceği düşünülmektedir.

Anahtar Kelimeler: Materyal değerlendirmesi, Çoklu Zeka Kuramı, Çoklu Zeka Profili, Coklu Zeka Etkinlikleri.

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Chapter 1

INTRODUCTION

This chapter presents background of the study, statement of the problem, purpose of the study as well as the research questions, and significance of the study.

1.1 Background of the Study

Theory of intelligence can be traced back to Alfred Binet, a French psychologist who created the first practical intelligence test, known as intelligence quotient (IQ) test. He pointed out recognizing those students who need to be supported in getting along with school program. Binet's traditional view of intelligence was based on psychometric testing which supports single, fixed intelligence and the ability to use language and do mathematics (Sternberg, 2000). This view was used by many educators and schools in testing language abilities and skills in mathematics in order to identify how well the students can perform (Chapman, 1993).

In recent years, the traditional view of intelligence and IQ tests have been questioned because they view intelligence as a single construct and individuals as having a single quantifiable intelligence (Campbell, Campbell and Dickinson, 1996/1999).

For example, Gardner (1983) argues against the uniform view of intelligence by suggesting a pluralistic view of human mind. In his book, *Frames of Mind: the Theory of Multiple Intelligences*, Gardner (1983) puts forward an argument regarding two approaches to intelligence: (i) the uniform view and (ii) pluralistic view of mind. Favoring the pluralistic view of mind, he suggests an individual-centered school with a multifaceted view of intelligence. He expects to contribute to the realization of individuals' needs in improving and achieving the ultimate intellectual potential (Gardner, 1993).

Howard Gardner's theory of Multiple Intelligences introduces human intelligence as eight different categories namely logical, linguistic, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist intelligences. Gardner searches for a picture of individual ability which is more than the scope of traditional IQ results, thus defining intelligence as "the ability to solve problems and create products, that are valued in one or more cultural or community settings" (Gardner, 1983, p. 7).

Gardner (1983) gathered his data from different sources such as the development of different kinds of skills in normal children, "brain damaged patients", "prodigies", "idiot savants", "gifted individuals" (p. 9), and children with learning disabilities at the Boston University, School of Medicine, the Veteran's Administration Medical Center of Boston and Harvard's Project Zero. Later on, Gardner went further on investigating the curricula, schools and educational systems from the perspective of Multiple Intelligences Theory (Gardner, 1983).

Rapidly changing community requires teachers to participate in an extensive change. Multi-aged, heterogeneous, individual and diverse classrooms with diversely intelligent students demand teachers to adapt their teaching to meet the challenges of diverse students (Chapman, 1993). According to Gardner's pluralistic view of intelligence, people have different features of cognitive strengths and cognitive styles (Gardner, 1993). In other words, each individual differs in his/her intelligence profile. Multiple Intelligences Theory makes it possible for teachers to give individualized instruction by identifying students' strong and weak intelligences, and individualizing the learning process to help the students to activate the intelligences which are less developed (Chapman, 1993). Gardner's theory offered a wide variety of practical applications to teachers and educators in order to improve language classroom practices and match intellectual profiles with educational opportunities (Altan, 2001; Berman, 1998; Campbell, Campbell and Dickinson, 1996/1999; Chapman, 1993; Checkley, 1997; Christison, 1996).

1.2 Statement of the Problem

Gardner (1983) believes that human beings have eight distinct intellectual potentials which operate together in coping with the world. These potentials are "abilities that work together to solve problems or create products" (p.7). All human beings have all of the intelligences but they all differ in their intelligence profiles that they have by birth and the profiles that they end up with (Gardner, 1993).

Altan (2001) highlights that Gardner's theory of Multiple Intelligences offers a great variety of practical implications for organizing and presenting materials to engage and develop students' intelligences. Therefore, teachers should take into account learners' intelligence profiles in order to cater for students' various intelligences and help them develop the less developed ones.

Christison (1996) focuses on the importance of identifying the activities that are most frequently used in the language classrooms and categorizing them according to the eight intelligences. As Gardner (1993) states, this helps to create an individual-centered setting, and therefore, leads to the development of each student's cognitive profile. However, majority of education systems address only linguistic and logical-mathematical intelligences without recognizing and attending to the other intelligences existing in each learner (Altan, 2001).

Moreover, Christison (1996) suggests that teachers can teach students about the MI Theory to help them be aware of their own intelligences and use them while learning. Christison (1996) mentions four stages which can be used in lessons based on the MI theory: (i) stimulate and encourage the intelligences, (ii) develop and emphasize them, (iii) design lessons based on the multiple intelligences, and include them to (iv) solve problems.

Regarding the situation in English Preparatory School (EPS) at Eastern Mediterranean University (EMU), the students come from different backgrounds and enter different departments. Therefore, it is expected that they possess different MI profiles. However, there is a need for a study to find out whether the classroom practices and materials used address different intelligences. According to the literature reviewed (Berman, 1998; Brougher, 1997; Brualdi, 1998; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997; Christison, 1996; Christison, 1998; Emig, 1997; Gibson and Govendo, 1999), addressing different intelligences in language classrooms leads to more effective language teaching and learning. As generally textbooks are utilized in language teaching, teachers need to analyze materials and textbooks in terms of MI Theory in order to identify whether the

activities address and develop learners' intelligence profiles. The present study will mainly focus on the application of the MI Theory in EPS at EMU by analyzing the textbooks, observing classroom practices and identifying teachers' perceptions regarding this issue.

1.3 Purpose of the Study

According to Howard Gardner's theory of Multiple Intelligences, every human being possesses distinct and independent intelligences (Gardner, 1983). It is important for teachers to be aware of and know their students' potentials in order to respond to each student's MI profile and promote his/her strengths. Multiple Intelligences theory has been applied in many language classrooms. Specifically, the majority of educators adapt language materials and curriculums on the basis of the theory of multiple intelligences to promote self-directed learning activities (Campbell, 1997). Moreover, with the emergence of the MI Theory in language, teachers have started catering for learners' different intelligence types by including activities which address their intelligence profiles. Related literature in the field (Berman, 1998; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997; Christison, 1996; Christison, 1998; Gibson and Govendo, 1999) shows that activities addressing the students' intelligence profiles tend to bring effective learning in language classes. With this perception in mind, this study intends to explore the relationship between the students' MI profiles and the MI profiles of the materials which are currently being used at EMU English Preparatory School, as well as teachers' perceptions about the application of the MI theory in their classes. To this aim, firstly the students' intelligence profiles will be identified by using a 'Multiple Intelligences Survey` (McKenzie, 1999). Secondly, the multiple intelligence profiles of the language materials used will be found out. Thirdly, teachers' perceptions about the application of MI Theory in their classes, as well as their evaluations of the materials in terms of MI theory will be investigated.

Overall, this study aims to investigate the application of Multiple Intelligences Theory in intermediate level language classes at EMU English Preparatory School by evaluating the materials used in terms of MI Theory (i.e. by identifying the MI profiles of the students and the materials and how they correspond to each other), as well as by finding out teachers' perceptions as regards the application of MI Theory.

1.4 Research Questions

This study aims to answer the following research questions:

- 1. What are the students' MI profiles?
- 2. What are the MI profiles of the textbooks?
- 3. What are the MI profiles of the classroom activities?
- 4. To what extent do the MI profiles of the textbooks relate to the MI profiles of the students?
- 5. To what extent do the MI profiles of the classroom activities address the students' MI profiles?
- 6. What are the teachers' perceptions of MI Theory and its application in their classes?
- 7. How do the teachers evaluate the materials and activities used in their classes in terms of MI Theory?

1.5 Significance of the Study

Multiple Intelligences Theory has caught the attention of many educators and language institutes and it has been used in many classes (Berman, 1998; Brougher, 1997; Brualdi, 1998; Campbell, Campbell and Dickinson, 1996/1999; Checkley,

1997; Christison, 1996; Christison, 1998; Emig, 1997; Gibson and Govendo, 1999; Oliver, 1997). With the realization of learner diversity in language classrooms, practitioners and educators have started addressing individual differences by creating activities in the light of MI theory and catering for learners' intelligence profiles.

For instance, Oliver (1997) argues that MI Theory suggests a student-centered way in which teachers can examine their instruction and evaluation to create new ways to address important skills. Moreover, Shore (2004) has examined the changes that emerged in two teacher preparation courses which applied MI theory in their instruction. The results showed that the application of MI theory brought an increase in learner involvement in MI activities and tasks, as well as teacher's positive experience participating in a cooperative course of making choices and reaching conclusions. Similarly, Haley (2001) investigated the application of MI Theory and found out that teachers experienced a radical change towards a more learner-centered teaching in their classes when they taught on the basis of the theory. In short, application of MI theory in language classes is believed to bring positive outcomes in terms of effective learning and teaching.

This study can be considered significant in a number of ways. Firstly, it suggests a framework for evaluating materials and tasks in terms of MI Theory. Secondly, the findings of this study can give a better understanding of the application of MI Theory in the field of materials evaluation. Thirdly, the findings of this study can show how MI Theory is applied in language classes at EMU EPS. Fourthly, this study is expected to raise awareness of administrators and teachers at EMU EPS regarding the application of MI Theory in materials evaluation specifically, and in language

teaching and learning in general. Finally, this awareness raising is expected to bring improvement in teaching and learning English at EMU EPS, as it does elsewhere.

Chapter 2

LITERATURE REVIEW

This chapter presents literature review regarding the construct of intelligence, in general, and the development of Multiple Intelligences Theory specifically. It also reviews literature on the application of MI Theory in education and English Language Teaching. Furthermore, frameworks in materials evaluation are focused on. In addition, related studies on materials evaluation in terms of MI Theory are reviewed.

2.1 Intelligence

Human intelligence has been defined and measured by many psychologists and in different cultural contexts. In other words, the concept of intelligence took different interpretations across different cultures (Gardner, 1999).

Ruzgis and Grigorenko (1994, cited in Sternberg, 2000) explained that in Africa the concept of intelligence was reflected by strong and reliable intergroup and intragroup ties. Participation in family and social life were important for intelligence in Kenyan families. On the other hand, Western view of intelligence involved speed of mental processing and high IQ score results. In the last few years, the definition of intelligence has comprised the notions of knowledge and mental processes and the role of context and culture (Sternberg et al., 1981, cited in Sternberg, 2000).

As explained by Sternberg (2000), Alfred Binet, the French psychologist argued that intelligence consists of complex mental processes and individual differences involving complex functions. Sternberg (2000) claims that one of the findings of the 20th century related to the concept of intelligence was the development of the first intelligence test by Binet and Simon in 1905. The test aimed to measure children's mental and academic abilities to predict their success or failure in school. Sternberg (2000) further explains that when Binet and Simon published their test, they claimed that they aimed to categorize children into two groups as successful (because they have enough intelligence) and unsuccessful (because they lack intelligence) in school. Binet and Simon headed towards devising instrument which would place students to different educational programs. The scores of the test were used to make decisions about the placement of a child in a particular program or level (Sternberg, 2000).

According to Wechsler (1958), intelligence was the ability to perform, think and cope with the environment. He believed that intelligence could be measured on the basis of different features of abilities.

On the other hand, Gardner (1983) took a naturalistic look at how people across the world use their potentials to cope with the environment, and he took various public roles such as sailors (in the South Seas), surgeons, engineers, hunters, fishermen, dancers, etc. into account when defining the concept of intelligence.

Gardner (1993) put forward a pluralistic view of human mind, distinguishing different components of cognition and potentials that all human beings possess. His theory of Multiple Intelligences challenged the standard view of intelligence testing.

While IQ tests aimed to identify students' success in schools and measure their logical-mathematical and linguistic abilities, they did not give any account to imagination and creativity of human mind. Therefore, Gardner (1993) defined intelligence as "the ability to solve problems, or fashion products, that are valued in one or more cultural or community settings" (p. 7).

In defining intelligence, Sternberg (1997) referred to environmental context, noting that "this context has physical, biological, and cultural aspects which may interact" (p.1031).

Another definition was put forward by Jensen (1998), who defined intelligence as "application to the whole class of processes or operation principles of the nervous system that make possible the behavioral functions that mediate an organism's adaptation to its environment" (p.46).

Lately, the concept of intelligence was defined as "processing and that processing can be measured by performance on elementary cognitive tasks" and influenced by cultural setting (Fagan, 2000, p.168). It was assumed that this processing enables to foresee IQ scores from early years of childhood. Regardless of different IQ scores and cultural contexts, people are equally intelligent (Fagan, 2000).

2.2 Multiple Intelligences Theory

Gardner (1983) put forward the theory of Multiple Intelligences (MI), a new view of human intelligence as a result of his dissatisfaction with the traditional IQ tests. Gardner (1999) worked with gifted and ordinary children at Harvard's Project Zero trying to "understand the development of human cognitive capacities" (p.31), and he came up with a definition of intelligence as "a biological potential to process

information that can be activated in a cultural setting to solve problems or create products that are valued in a culture" (pp. 33-34). According to Gardner's theory of MI, individuals possess at least eight intelligences which are independent and can be genetically inherited, developed or improved through education or social environment. As Gardner did not support the results of psychometric measures of human intelligence, he started searching for appropriate scientific data to validate the existence of multiple intelligences and, as a result, set up eight criteria/signs for identifying intelligences:

1) Potential of isolation by brain damage:

Specific parts of the brain injury can support the existence of distinctive human abilities. As Gardner (1983) stated, "to the extent that a particular faculty can be destroyed, or *spared* in isolation, as a result of brain damage, its relative autonomy from other human faculties seems likely" (p.63). Christison (1998) supported Gardner's view by saying that as a result of brain damage, one intelligence can be harmed. That is, one may not be excellent linguistically but yet can be successful at musical intelligence.

2) An evolutionary history and evolutionary plausibility:

Human intelligence has developed throughout the human evolutionary paths supported by cultural and anthropological sources. Gardner (1999) explained, "the roots of our current intelligences reach back millions of years in the history of species" (p.65). Christison's (1998) example supporting Gardner's claim was the archaeological evidence for the existence of musical instruments (p.2).

3) An identifiable core operation or set of operations:

According to Gardner (1999), particular intelligences work in combination with other intelligences in a set of operations. For instance, musical intelligence requires ability to recognize rhythmic composition, pitch, tone, and melody (Christison, 1998).

4) Susceptibility to encoding in a symbol system:

Gardner (1999) explained the existence of different symbol systems which are used in conveying meaning. In other words, existing societal and personal symbol systems signify meaning in different forms such as graphic languages, computer languages, music languages, ideographic languages (Christison 1998).

5) A distinctive developmental history, along with a definable set or expert "end-state" performances:

Human intelligences need to be exposed by going through developmental record which involves time of the beginning, time of reaching its highest point and finally slowing down. For example, mathematicians must have well-developed logical-mathematical intelligence (Christison, 1998; Gardner, 1999).

6) The existence of idiots, savants, prodigies, and other exceptional individuals:

Individuals with excellent ability in one intelligence but poor in another one, show the evidence for the view that MI is based on developmental psychology (Gardner, 1999). For example, savants exhibit high level of one intelligence while low level of other intelligences (Christison, 1998).

7) Support from experimental psychological tasks

Studies of cognitive psychology show that intelligences work independently. For instance, individuals may be excellent in one or more particular intelligences but may, however, be weak at other intelligences. Christison (1998) supported this criterion by giving an example: "subjects may master a specific skill, such as solving arithmetic problems, but they may still not be able to read well" (p.2).

8) Support from psychometric finding:

Gardner (1999) said:

Since MI theory was devised as a reaction to psychometrics, it may seem odd to see psychometrics evidence cited in discussion of supporting criteria. As psychologists have broadened their definitions of intelligence and increased their tools for measuring intelligence, psychometric evidence in favor of MI has grown (p. 41).

Christison (1998) supported this criterion with the following statement: "The Weschsler Intelligence Scale for Children includes subtests that focus on several of the different intelligences" (p. 2). To sum up, Gardner (1999) came up with the above-mentioned eight criteria to validate candidate intelligences.

According to the Theory of Multiple Intelligences, the eight intelligences are defined as the following:

Linguistic Intelligence consists of the ability to manipulate words and to use language to express and understand complex meanings. Authors, poets, journalists, speakers, and newscasters demonstrate high levels of linguistic intelligence (Campbell, Campbell and Dickinson, 1996/1999; Gardner, 1993). Skills representing linguistic intelligence are remembering information,

convincing others to help, and talking about language itself (Christison, 1996). The linguistic student enjoys reading, writing, and speaking as well as poetry and word games. (Griswold, Harter and Null, 2002).

Logical-mathematical Intelligence includes both mathematical and scientific abilities. Mathematicians, scientists and logicians naturally have well-developed skills of working with abstraction and a desire for exploration (Chapman, 1993; Gardner, 1993; Gardner, 1999). Sample skills of this intelligence can be understanding numbers, cause and effect relationship, and the ability to predict (Christison, 1996). The logical-mathematical student typically likes puzzles, mysteries, and problem-solving activities (Griswold, Harter and Null, 2002).

Musical Intelligence involves ability to recognize pitch, melody, rhythm, and tone musical composition and performance (Gardner, 1999). Those representing this intelligence include composers, conductors, musicians, critics, instrument makers, as well as sensitive listeners (Campbell, Campbell and Dickinson, 1996/1999). Typical skills indicating musical intelligence can be recognizing simple songs and being able to vary speed, tempo, and rhythm in simple melodies (Christison, 1996). Students with high level of musical intelligence may be fond of melodies and harmonies and may compose music and stand out in playing a musical instrument or in writing music and lyrics (Griswold, Harter and Null, 2002).

Spatial Intelligence entails the distinctive ability to understand the visual world perfectly. Those showing high level of spatial intelligence are able to correspond to spatial information graphically and have well developed mental images (Chapman, 1993). Spatial intelligence is well evident in those who have the ability to think in

three-dimensional ways as do sailors, pilots, sculptors, engineers, surgeons, painters, and architects (Campbell, Campbell and Dickinson, 1996/1999; Gardner, 1993). Students with high degree of spatial ability inspire visual representation of language, love to draw, think in pictures and enjoy art activities (Griswold, Harter and Null, 2002).

Bodily-kinesthetic Intelligence involves the ability to solve problems and fashion products by using one's bodily movements (Gardner, 1993). Typically, athletes, dancers, surgeons, craftspeople demonstrate highly-developed bodily-kinesthetic ability (Campbell, Campbell and Dickinson, 1996/1999). Sample skills representing bodily-kinesthetic intelligence are coordination, flexibility, speed, and balance (Christison, 1996). Bodily-kinesthetic students are athletic and learn by doing. Students with high level of bodily-kinesthetic ability may need to do or act out concepts in order to understand them (Griswold, Harter and Null, 2002).

Interpersonal Intelligence is the ability to value and cooperate effectively with others. It is highly marked in successful teachers, social workers, actors, salespeople, clinicians, religious leaders or politicians (Campbell, Campbell and Dickinson, 1996/1999; Gardner, 1993). For example, skills such as responding effectively to other people, problem solving, and resolving conflict are typical for interpersonal intelligence (Christison, 1996). Interpersonal students show highly developed ability to understand and interact with people. They are usually class leaders, volunteers to help others, and working in groups (Griswold, Harter and Null, 2002).

Intrapersonal Intelligence refers to the ability to construct an accurate representation of oneself and to use it effectively in directing one's life (Campbell,

Campbell and Dickinson, 1996/1999; Gardner, 1993). Individuals with well-developed intrapersonal ability intuitively understand their own emotions, moods and behaviors (Chapman, 1993). Sample skills which represent intrapersonal intelligence are: understanding uniqueness of oneself, controlling and directing one's feelings and actions (Christison, 1996). Intrapersonal students get pleasure spending time unaccompanied and may want to work in an individual setting during activities (Griswold, Harter and Null, 2002).

Naturalist Intelligence is the ability to recognize and classify various kinds of flora and fauna (Gardner, 1999). It consists of observing natural pattern, identifying and classifying objects, and understanding environments (Campbell, Campbell and Dickinson, 1996/1999). Students who have highly developed naturalist intelligence demonstrate an understanding of nature and the environment, weather changes and patterns (Griswold, Harter and Null, 2002).

In addition to the eight intelligences mentioned above, there are six more intelligences namely: existential, spiritual and moral (Gardner, 1999), as well as emotional, mechanical and culinary intelligences (Kagan and Kagan, 1998). These intelligences were beyond the scope of this study as they are less accountable to be tested. As Gardner (1999) mentioned, adequate support have not been found to include them in his identified criteria.

Finally, Armstrong (2000) suggests four key points of MI Theory that instructors should attend to (pp. 15-16):

- **1. Each person possesses all eight intelligences**. Every individual has all eight intelligences with different degrees of dominancy. Some intelligences can be highly developed, less developed or undeveloped.
- **2.** Most people can develop intelligences to an adequate level of competency. According to Gardner (1983), all eight intelligences can be developed through improvement and training.
- **3. Intelligences usually work together in complex way.** Intelligences are always interacting with each other. For example, to cook a meal, one must read a recipe (linguistic), perhaps double the recipe (logical-mathematical), develop a menu that satisfies all members of the family (interpersonal) and placate one's own appetite as well (intrapersonal).
- **4.** There are many different ways to be intelligent within each category. "There is no standard set of attributes that one must have in order to be considered intelligent" (p.16). For example, a person might not be able to swim but can be good at dancing which require bodily-kinesthetic intelligence.

2.3 Application of MI Theory in Education

The literature on MI Theory in education contains information about the application of MI theory in classrooms, curriculum design, assessment as well as suggestions for teachers, students and students' parents. According to Jie-Qi, Moran and Gardner (2009), MI Theory can be a very helpful "vehicle for broadening the remit of education: to include subjects that address the several intelligences and ways of thinking, as well as teaching methods that speak to individual differences, and assessments that go beyond standard, short-answer language-and-logic instruments" (p. 14).

Researchers and educators have considered and analyzed the application of MI Theory in various educational settings. For example, Multiple Intelligence Theory has become a "philosophy of education" (Hoerr, 2000, p. 8) at New City School in St. Louis, Missouri. Application of MI Theory has led to the development of new assessment methods, the formation of MI based curriculum and instruction as well as positive experiences and close connection with students and their parents (Hoerr, 2000).

As indicated by Christison (1996), the schools should function on the basis of the principles of Multiple Intelligence Theory to identify and foster the students' intelligence in order to cater for students' intelligence profiles, needs and interests and match them to a particular curricula and styles of learning.

Brougher (1997) focused on the benefits of the theory in graduate education classes. The results showed students' enthusiasm and increased ability to engage in problem solving tasks; students experienced the meaning from a different perspective, stayed active during the discussions, and had memorable experiences working with partners and a sense of happy learning environment.

Similarly, Kallenbach (2008) explained the effects of applying multiple intelligence-influenced instructions in adult education classes. As a result, six themes emerged from the Adult Multiple Intelligence (AMI) study. In addition to recognizing students' individuality, MI Theory gave a large variety of learning tasks and activities and knowledge about the students' learning preferences and interactions. As Kallenbach (2008) pointed out, one of the teacher's opinions about MI in education was: "In the end, it's all about looking at everyone from a strengths perspective. We all have strengths." (p. 9).

In the study which involved the evaluation of activities in a textbook according to the MI Theory, Ferro (2004) revealed that MI Theory is very practical in encouraging the creation of activities according to the different intelligence types and enhancing the learning experience of students.

Brualdi (1996) also focused on positive effects of the MI Theory and explained the positive role of the MI theory in teachers' classroom practices. He claimed that in contrast to traditional education system, all the intelligences should be given equal importance and teachers should identify students' differences and teach accordingly. In addition, materials should be organized and taught in a way that captures most or all of the intelligence types because this would arouse students' inactive intelligences and result in better understanding of the subject.

Correspondingly, Altan (2001) claimed that the theory of MI is a possible solution to a problematic matter concerning the traditional methods of teaching that doesn't take into account the diversity of the students. He also argued that teachers should present materials in a way so that they include most or all of the intelligences. The action research conducted by Kuzniewski et al. (1998), on the other hand, focused on the development program of MI with an aim to increase reading comprehension in English and Mathematics. The results of the study revealed an improvement in students' reading comprehension skills in English and Math and an increase in students' learning expectations.

According to Lash (2004), the theory of Multiple Intelligences could facilitate the learners in using their existing intellectual potentials while learning, and activate the undeveloped intelligences as well.

Christison (1998) suggested teachers take an MI inventory before applying the theory in the classroom. Christison (1998) adds that the rationale behind taking an MI inventory "is to connect one's life experiences to the ideas presented in Multiple Intelligence Theory" (p. 8). Teachers often choose activities according to their own life experiences and their own MI profiles. In this case, students' MI profiles are left neglected but Christison (1998) suggested classifying EFL activities according to the multiples intelligences theory to cater for students' intelligence types.

Drawing on Gardner's ideas, Hoerr (2000) summarized the positive influence of the MI Theory in education with the following statement: "When viewed through an MI lens, more children succeed" (p.1). In MI-based classes, while students have more opportunities to learn and to use their creativity, teachers have different ways to reach more students.

In a similar vein, Shearer (2004) believed in the positive role of the MI Theory in creating valid and reliable assessment for students. Furthermore, using MI profiles of learners can help teachers in creating MI-based instruction to promote students' use of strength-based, personalized educational practices.

In a case study by Shore (2004), a detailed description of the change that emerged in two multiple intelligences-based graduate level teacher preparation courses was explained. The results revealed that learners' participation was enhanced through the activities and discussions based on MI Theory and the teachers gained understanding in a more conscious way through non-traditional manner responses.

Cuban (2004), likewise, supporting Gardner's work regarding MI Theory, strongly believes in great influence of the theory on teachers, teaching practices, educators' beliefs, assessments as well as students' success. Similarly, Emig (1997) favored the use of MI Theory because he claimed that it has "put magic" (p. 50) to teaching. He further stated that the MI Theory helped to expand teaching instruction and assessment strategies.

To sum up, educators and teachers have claimed that the application of MI Theory in education and classrooms certainly has positive effects in terms of learner motivation and success. Moreover, implementing MI Theory in curriculum and syllabus design has been found to improve and develop teaching practices and assessment techniques.

2.4 Application of MI Theory in ELT

The MI Theory has important implications for English language teaching. Application of MI Theory in ELT can be considered valuable for both teachers and students as well as for the curriculum design, instructional strategies, materials and textbooks used in language teaching and learning. A number of studies have been done to investigate the application of the theory in an English class.

One of the first attempts considering the application of MI Theory in foreign language teaching and learning belongs to Christison (1996). In her paper, she emphasized the importance of applying the MI Theory in ELT classrooms in order to create an individualized learning setting and help the students with diverse abilities to develop their multiple intelligences. According to Christison (1996), the theory of MI gives EFL teachers opportunity to look at their teaching practices from individual

differences perspective. Furthermore, instruction directed by the MI Theory can create learner-centered environment in which learners exhibit their strengths and potentials (Christison, 1996). Christison (1996) also suggests teachers identify and categorize activities in their classes, and presents four stages of how MI-based lesson can be reinforced: arouse the intelligence, improve and support it, organize lessons according to different intelligence types and integrate intelligences into solving problems.

As Gahala and Lange (1997) noted, MI Theory offers multiple ways for presenting valuable materials and taking students' differences to take full advantage of learning and understanding in language classes.

The results obtained by Erozan and Shibliyev (2006), who focused on identifying the relationship between prospective English teachers' MI profiles and their preferred activities, revealed consistency between learners' preferred activities and their MI profiles. The results of this study can contribute to the effectiveness of teaching and learning in ELT courses, specifically, and in designing tasks and activities to promote individualized learning situation, generally.

On the other hand, Haley (2001) aimed to analyze applications of MI Theory to create and update teaching practices and instructional strategies. The focus of this study was to discover and encourage successful real-world applications of MI Theory in foreign and second language classrooms. The findings showed that there was a significant change in terms of pedagogy, teaching, students' and teachers' attitudes, classroom and instruction. Specifically, application of MI Theory promoted learner-

centeredness, student involvement and interest in the lessons and teacher eagerness in teaching.

Akbari and Hosseini (2007) focused on possible connection between the use of language learning strategies and the scores of multiple intelligences among the foreign language learners of English. The results revealed that there were significant correlations between the learners' use of language strategies and IQ scores. More specifically, the analysis indicated that musical intelligence had no correlation with any of the strategies, whereas, kinesthetic intelligence correlated with only memory learning strategies.

In a study by Bakić-Mirić (2010), the outcomes of applying the MI Theory in teaching English were investigated. The results showed that the implementation of MI Theory in English language teaching at the University of Nis Medical School, helped teachers to better recognize and value students' abilities. The results also indicated that the students showed higher interest and participation in the learning process.

Furthermore, Sarıcaoğlu and Arıkan (2009) investigated: 1) the relationship between students' gender and intelligence types, 2) the relationship between particular intelligence types and students' success in grammar, listening and writing in English as a foreign language, and 3) parental education and students' intelligence types. The participants of the study were preparatory students studying at Erciyes University, School of Foreign Languages (in Turkey). The results indicated that there were both positive and negative relationships among the variables. More specifically, relationship between gender differences and linguistic intelligence was positive,

however, negative relationship was found between students' grammar test scores and bodily-kinesthetic, spatial and intrapersonal intelligences. Finally, positive relationship was obtained between musical intelligence and writing but there was no important relationship found between parental education and students' intelligence types.

Similar to the studies reviewed above, Kong (2009) also reported the positive outcomes of applying MI Theory in English language teaching (ELT). He claimed that MI Theory gives English language teachers opportunity to recognize that students bring their distinct strengths and learning potentials with them and they should teach in multiple ways to cater for the needs of different students.

2.5 MI Activities in English Language Teaching

A thorough review of different sources (Berman, 1998; Brougher, 1997; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997; Christison, 1996; Govendo and Gibson, 2000; Soares, 2000) regarding the practical applications of MI Theory in language classrooms, revealed a variety of activities addressing eighth intelligence types. These activities are categorized under eight intelligence types and presented below:

Activities catering for logical-mathematical intelligence: Crossword, ordering, matching, categorizing and classifying, science demonstration and experiments, logic puzzles and games, story problems with numbers, logical/sequential presentation of subject matter, summarizing, analyzing grammar, solving word problems, creating categories for spelling/vocabulary, organizing information with Venn diagrams, determining cause and effect, sequencing events in a story, designing and conducting

an experiment, making up syllogisms to demonstrate, making up analogies to explain, describing the patterns or symmetry, number games, critical thinking, science combinations, mental calculations, guided discovery, syllogisms, comparing, phrasal verb grids, sequencing/ordering, predicting, identifying errors, inferring, giving reasons and defending them, testing hypothesis, examining pairs to choose the correct answer (grammar/vocabulary exercises), identifying main ideas/components/attributes, describing patterns of the causally related event sequences in stories.

Activities catering for linguistic intelligences: Note-taking, listening to lectures/stories, reading books/response journals, reading with a partner, sustained silent reading, storytelling, debates, tape recording, teacher reading to students, translating, presenting materials orally, writing a poem, myth, legend, short play, news article, creating a talk show radio program, conducting an interview, composition, literature, word games, poetry, writing, speaking, using language in games, puzzles and creative activities, group discussions, completing worksheets, giving presentations, word building games, memorizing, exercising four skills, completing worksheets, yes/no questions, asking questions, identifying various themes, round table discussion, answering comprehension questions.

Activities catering for spatial intelligence: Using charts and grids, clusters, videos, slide, movies, using art, graphic organizers, illustrating stories, using sentence strips, using drawings to express ideas and feelings, making maps, charts, sequencing sentences to form a coherent story, creating a slideshow, videotape or photo album, inventing a board or card game to demonstrate, illustrate, sketch and sculpt, art activities, imagination games, geometric figures, visualization, problem solving,

communicating visually, enjoying creative puzzles, maps, designs, 3-D models and graphic representations, mind maps, visualizations, diagrams, TV, interpreting visual information, photographs, art work, drawing, creating visual summary, painting, flow charts, card games, visual outlines.

Activities catering for bodily-kinesthetic intelligence: Hands-on activities, field trips, role-plays, pantomime, Total Physical Response, field experiences, creating a movement or a sequence of movements to explain, making task or puzzle cards, building or constructing, art forms, movements, drama, sports, manipulatives, object coordination, dancing, crafts, miming, circle dancing, brain gym, relaxation exercises, craftwork, using computers, acting, classroom games, mingling in the classroom, simulations, find someone who... game, circulating round the classroom, tracing intonational contours with arms and fingers while saying a given utterance, outcome balls and cards.

Activities catering for intrapersonal intelligence: Tasks with self-evaluation component, interest centers, options for homework, personal journal keeping, dialogue journals, learning logs, choice in assignments, describing qualities you possess, setting and pursuing a goal to, describing one of your personal values about, writing a journal entry on, assessing your own work, individualized instruction, independent study, reflective practices and activities, teaching for achievement and success, introspective and metacognitive tasks, project work, learner diaries, self-study, personal goal setting, discussion about what is important and of value in life, reflecting on the personal importance of what is being learned, reacting to the qualities, values, and actions of those featured in stories or poems, expressing feelings and emotions, evaluating web sites.

Activities addressing to interpersonal intelligence: Pair work or peer teaching, board games, group brainstorming, group problem solving, project work, pen pals, writing group stories, playing vocabulary games, peer editing, intercultural awareness, conducting a meeting, using social skills to learn about, participating in a service project, teaching someone about, practice giving and receiving feedback on, using technology to, tutoring, cooperative learning, role playing, collective writing, information-gap activities, conducting a class survey, teamwork games/exercises, peer feedback.

Activities catering for musical intelligence: Singing, playing recorded music, playing live music (piano, guitar), jazz chants, reciting poetry, associating music to story mood/story plot, writing song lyrics, using rhythm to learn/present intonation patterns, giving presentation with appropriate musical accompaniment, explaining, sound differentiation, musical games, background music, responding emotionally to music, welcoming students with music, writing words to simple well-known melody, songs, background music to shape focus, calm down, energize and relax, record of a burst of applause.

Activities catering for naturalist intelligence: Creating observation notebooks of, describing changes in the local or global environment, caring for pets, wildlife, gardens, parks, using binoculars, telescopes, microscopes or magnifiers, drawing or taking pictures of natural objects, outdoor activities, natural and environmental materials and concepts, noticing relationships, making collocations, changing words in brackets into correct forms, classifying and categorizing activities, background music in the form of sounds created in the natural world.

According to Gardner (1983), MI activities facilitate the existing intelligence types, and encourage and develop the undeveloped ones. As Christison (1996) indicated, Gardner's theory of MI provides various approaches for teachers to foster learners' intelligences by analyzing their teaching ways according to multiple intelligences to have a better idea of the benefits of MI Theory in TESL/TEFL. Furthermore, identifying activities which are commonly used in classes and categorizing them in terms of multiple intelligences is considered to help teachers to know which activities respond to which intelligence types, to cater for learners' intelligence profiles (Christison, 1996).

2.6 Materials Evaluation

Instructional materials as well as textbooks are fundamental elements in language classrooms. According to Hutchinson and Torres (1994), "No teaching-learning situation, it seems, is complete until it has its relevant textbook" (p. 315). Similarly, Sheldon (1988) notes that, textbooks "represent the visible heart of any ELT program" (p. 237).

Moreover, Cunningsworth (1995) defines course book as "a resource in achieving aims and objectives that have already been set in terms of learner needs" (p.7) and suggests that through evaluation, the appropriateness of the course book for a particular group of learners can be assessed at different levels and teaching settings.

As Tomlinson (2003) stated, "materials evaluation is a procedure that involves measuring the value (or potential value) of a set of learning materials" (p. 15). It refers to a process of "...making judgments about the effects of the materials on the people using them" (p. 15). More specifically, materials evaluation tends to measure

the attractiveness of the materials to learners, reliability of the materials to learners, teachers and administrators, and how interesting and motivating the materials are for the learners.

It is possible to determine the appropriateness of the materials for the needs and interests of the learners in a particular context through materials selection. The process of materials evaluation and selection should be based on some criteria which can include the following components: learner goals and needs, learning styles, classroom contexts, proficiency levels, the potential of materials for generating motivation, variety and interests (Rubdy, 2003).

Ellis (1997) proposes two types of materials evaluation: macro-evaluation and micro-evaluation. The macro-evaluation is related to large-scale program evaluations, whereas micro-evaluation involves evaluation of specific materials in a particular context. As Ellis (1997) explains, micro-evaluations can demonstrate the extent to which tasks and activities fit particular learners, as well as the weak points of those tasks and materials.

In addition to Ellis (1997), Breen and Candlin (1987) and Breen (1989) put forward three types of materials evaluation: tasks-as-workplans, tasks-in-process, and tasks-as-outcomes. The first type of evaluation, tasks-as-workplans, involves the analysis of materials before they are used. The second type of evaluation, tasks-in-progress takes place while materials are being used. The third type of evaluation, tasks-as-outcomes, is the evaluation of the effects of the materials on the learners after they have been used.

McDonough and Shaw (1993) suggest two types of materials evaluation: external evaluation and internal evaluation. The external evaluation, as the name implies, is designed to assess the physical features of the textbooks including the layout, introduction, presentation), whereas internal evaluation involves assessing the grading and sequencing of tasks, distribution of skills, kinds of texts and exercises in the textbooks.

Furthermore, Cunningsworth (1995) and Ellis (1997) proposed three different types of materials evaluation. The first type of materials evaluation, the (predictive) preuse evaluation, is used to identify the potential quality of the textbook. The second type of materials evaluation is in-use evaluation which focuses on assessing the material while it is being used. The third type of materials evaluation aims to evaluate the actual effects of the textbook on its users. As Littlejohn (1998) suggests, a before-programme evaluation makes it possible to select materials to better relate to learners needs and make necessary adaptations.

A wide variety of evaluation checklists have been proposed by different researchers to help teachers in their evaluation of textbooks in different situations (Breen and Candlin, 1987; Cunningsworth, 1984; Cunningsworth, 1995; Hutchinson and Waters, 1987; Littlejohn, 1998; McDonough and Shaw, 1993; Sheldon, 1988; Tucker, 1975; Van Lier, 1979; Williams, 1983).

Several theorists (Brown, 1995; Cunningsworth, 1995; Harmer, 1996; Sheldon, 1988; Williams, 1983) have the same opinion regarding the elements to be included in the evaluation checklists. In other words, criteria related to the physical layout of the textbooks are common among many evaluation checklists. In addition, theorists

agree that criteria should assess the extent to which aims, methodology, approaches of the textbooks relate to the approaches used by the teachers and curriculum. Also, equal attention should be given to the evaluation criteria that assess language, grammar, skills, and functions, as well as the components of culture, gender, topics and content in relation to students' needs, personalities and interests.

Moreover, Littlejohn (1998) puts forward two main measurements in materials evaluation which are publication and design. The publication measures the physical characteristics of the materials whereas design refers to the assessment of the aims, the content, the sequence of tasks, as well as language and content of the materials. Tomlinson (2003), on the other hand, specifies the following criteria for the evaluation of materials:

- To what extent are the materials related to the wants of the learners?
- To what extent do the materials help the learners to achieve connections with their own lives?
- To what extent are the materials likely to emotional engagement?
- To what extent are the materials likely to promote visualization? (p.20)

Tomlinson (2003) further highlights:

- Materials should help learners to feel at ease
- Materials should help learners to develop confidence
- Materials should require and facilitate learner self-investment
- Materials should take into account that learners differ in affective attitudes
- Materials should maximize learning potential, by encouraging intellectual, aesthetic and emotional involvement which stimulates both right and left brain activities. (p. 21)

2.6.1 Frameworks in Materials Evaluation

Many different researchers in the field suggested various frameworks/checklists for evaluating materials. To begin with, Mukundan and Ahour (2010) presented a review of textbook evaluation checklists across four decades (1970-2008). The whole chapter is devoted to 48 checklists which were chosen from different academic

publications and journals between 1970 and 2007. The checklists were presented in tables and described in terms of being quantitative, qualitative, number of sections included in each checklist and the frequency of running words in each checklist in each decade. The criteria and components of checklists were parallel but there was a difference in terms of the sections which were placed under different categories. Overall, the analysis of checklists across 40 years (1970-2008) showed a number of commonly used items emphasized in different sections under different categories. As it was observed, the checklists developed towards the 2000s seemed to give priority to criteria related to the suitability of the materials to the students.

Based on pedagogical perspective, Littlejohn (1998) suggests a general framework for materials analysis consisting of two parts: 1. Publication, and 2. Design. Publication section takes into account aspects of the materials concerned with the physical layout, as well as the sections, subsections, continuity, coherence, content lists, wordlists and indexes included in the book. On the other hand, design is related to the internal layout of the book. That is, the presentation and sequence of tasks and activities, language and content as well as the nature and focus of content in the teaching and learning activities.

Moreover, Hutchinson and Waters (1987) explained that in order to find the suitability of the materials in terms of the needs of learners, analysis of the course in terms of subjective need (materials requirements) and analysis of objective solution (materials) are necessary. Therefore, they suggested four main steps to be followed in the evaluation process:

- 1. Defining criteria-on what bases you will judge materials
- 2. Subjective analysis-what realizations of the criteria do you want in your course (who are learners, what language points should be covered)

- 3. Objective analysis-how does the materials being evaluated (who is the materials intended for).
- 4. Matching-how far does the material match learners needs (p.97).

Furthermore, Tomlinson (2003) noted that since evaluations have subjective nature and are impressionistic, it is vital to follow a set of principles related to the evaluator's theory of learning and teaching to ensure more validity and reliability in evaluating materials.

On the other hand, a multidimensional framework consisting of three wide-ranging categories was suggested for the selection and evaluation of materials: 1) psychological validity, 2) pedagogical validity, 3) process and content validity (Rubdy, 2003).

Psychological Validity is related to student-centeredness and has five subsections: rationale/learners needs, independence and autonomy, self-development, creativity and cooperation. Pedagogical Validity is focused on the following aspects: guidance, choice, reflection/exploration/innovation. Process and Content validity aims to find answers to the following: methodology, content, appropriacy, authenticity, cultural sensitivity, layout/graphics, accessibility, linkage, selection/grading, sufficiency, balance/ integration/challenge, stimulus/practice/revision, flexibility and educational validity (Rubdy, 2003).

To conclude, various checklists have been proposed and applied in different contexts, and a general set of criteria have been suggested for ELT practitioners in evaluating and selecting appropriate materials in various settings.

2.6.2 Materials Evaluation and MI Theory

The review of literature has revealed that there has been little research regarding the materials evaluation in terms of Multiple Intelligences Theory. Only two studies have been found regarding this issue.

In his study, Palmberg (2000) analyzed a course book to identify the relative distribution of exercises catering for different intelligence types. The results of this study revealed that verbal-linguistic and intrapersonal intelligences were predominant. Palmberg (2000) concluded that teachers should be able to evaluate the intelligence profile of the course book to cater for the intelligence profiles of a particular group of learners.

The second study by Botelho (2003), focused on the investigation of the application of MI Theory in textbook and materials evaluation in a Brazilian ELT context. This study aimed to analyze six current English textbooks in order to find out whether the textbook activities cater for learners' intelligence types. The study also aimed to identify ELT teachers' perceptions related to the MI Theory and its application in their classes. The results of this study revealed that only four intelligence types (linguistic, spatial, intrapersonal and interpersonal) were mainly addressed to in the textbook activities. Moreover, the results showed that teachers needed more guidance and insights in applying MI Theory in their classes.

Overall, there has been an increasing interest in the application of MI Theory in language classes, thus there seems to be a need for more research specifically in the area of materials evaluation in language classes. However, there is little research concerning the materials evaluation in light of the MI Theory in the field of ELT.

Therefore, this study attempts to fill this gap by focusing on the materials evaluation and the MI Theory in EPS at EMU.

2.7 Summary

This chapter presented the review of literature regarding Multiple Intelligence Theory and its application in education and ELT, as well as materials evaluation. More specifically, the development of Multiple Intelligences Theory was explained, MI activities for ELT were discussed; applications of MI Theory in ELT and in education were reviewed. Also, materials evaluation and frameworks for materials evaluation were explained. Finally, materials evaluation in terms of MI Theory was discussed.

Chapter 3

METHOD

In this chapter, the first section presents the overall research design. The second section explains the context of the study. The third section presents the research questions of the study. The fourth section describes the population participated in this study. The fifth section gives information about the data collection instruments used in the study. The sixth section explains the data collection procedures. The seventh section gives information about piloting. Lastly, the eighth section focuses on the data analysis procedures used in the study.

3.1 Overall Research Design

This study is a qualitative study which involves descriptive methodology. It is a case study conducted with a particular sample of students and teachers enrolled in English Preparatory School at Eastern Mediterranean University.

As Yin (1984) explains, the case study research method is "an empirical enquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (p. 23).

To provide insights and in-depth data for this research, the study has been designed as a qualitative case study. As Denzin (1994, cited in Rossman and Rallis, 2003), stated: "qualitative research is a broad approach to the study of social phenomena:

the approach is naturalistic, and interpretive, and it draws on multiple methods of inquiry" (p. 6). According to Fraenkel and Wallen (2006), qualitative research is characterized by naturalistic inquiry of the quality of relationships, activities, situations, or materials with a holistic perspective on unique case based on subjective and flexible stance. On the other hand, Gillham (2000) defines case study aims:

"...to answer specific research questions (that may be fairly loose to begin with) and which seeks a range of different kinds of evidence, evidence which is there in the case setting, and which has to be abstracted and collated to get the best possible answers to the research questions" (p.2).

Moreover, this study is descriptive because it intends to describe the existing status of events and actions, as well as beliefs of participants. Furthermore, the study employed a naturalistic approach. This approach aims to understand what happens in the classroom without using any intervention (Allwright and Bailey, 1991).

The current study employs triangulation approach in collecting the data because it "draws on multiple methods of inquiry" (Denzin, 1994, cited in Rossman and Rallis, 2003, p. 6). Olsen (2004) defines triangulation as "the mixing of data or methods so that diverse viewpoints or standpoints can light upon a topic" (p. 3). In the present study, various sources of data and data collection instruments have been used to identify different perspectives concerning the topic of research. Being qualitative, the study also includes quantitative source of data (e.g. frequencies). Overall, the present study is a qualitative case study which adopts a naturalistic inquiry approach and which is descriptive.

3.2 Context

The context of this study is English Preparatory School (EPS) at Eastern Mediterranean University (EMU) in Turkish Republic of Northern Cyprus (TRNC). EMU is an English-medium university which offers programs fully recognized by the Council of Higher Education in Turkey.

According information the given on the web page of **EMU** (http://emu.edu.tr/academic/eps.aspx), EPS provides intensive English courses to students with an aim to equip them with effective learning, study and communication skills and strategies in order to help them be ready for their departmental studies. During the 2007-2008 academic year EPS re-designed its syllabus and curriculum in accordance with the Common European Framework (CEF) criteria to attain the standards of The European Association for Quality Language Services (EAQUALS). The teachers at EPS hold 4 years of Bachelor's maximum, Master's and Doctorate degrees in the field of language teaching. Methods and approaches of language teaching are frequently updated and ongoing teacher training is given. EPS gives a Placement Test which places students into levels suitable for their language needs. There are two semesters in the program of EPS. The students take mid-term and final exams. If the students pass the exams, they proceed to the next level. After passing the mid-term and final exams at the Intermediate level, the students can take the English Proficiency Test. If the students pass the English Proficiency Test they can start their departmental studies. If students do not succeed in the Proficiency exam, they are offered the EPS 105 course and sit the Proficiency test again at the end of the semester (http://emu.edu.tr/academic/eps.aspx). The following table illustrates the details of the EPS program and textbooks:

Table 3.1: EPS courses and textbooks.

Course Code	Program	Course length	Textbooks
EPS 101	Beginners & Elementary	16 weeks	Success (Students' Book and Workbook) in Beginners and Elementary levels Get Ready to Write (Beginner) Fundamentals of Academic Writing (Elementary)
EPS 102	Elementary Pre-intermediate	16 weeks	Success (Students' Book and Workbook) in Elementary and Pre-intermediate levels Academic Writing 1 (Pre- intermediate)
EPS 103	Pre-intermediate Intermediate	16 weeks	Success (Students' Book and Workbook) in Pre- intermediate and Intermediate levels Academic Writing 2 (Intermediate)
EPS 104	Intermediate	16 weeks	Success (Students' Book and Workbook) Academic Writing 2
EPS 105	Upper-intermediate	16 weeks	Success (Students' Book and Workbook) Academic Writing 3

Currently, there are seven books which are being used in EPS at EMU. For each level, there are two main books for students: *Success Students' Book, Success Workbook*. There are five additional books: *Get Ready to Write* (Beginner level), *Fundamentals for Academic Writing* (Elementary level), *Academic Writing 1* (Preintermediate level), *Academic Writing 2* (Intermediate level), *Academic Writing 3* (Upper-intermediate level). There is one *Teachers' book* as well.

3.3 Research Questions

The purpose of this study is to explore the relationship between the students' MI profiles and the MI profiles of the textbooks which are currently being used at EMU

EPS (in EPS 103 and EPS 104 courses), as well as to identify teachers' perceptions about the application of MI Theory in their classes. The study aims to answer the following research questions:

- 1. What are the students' MI profiles?
- 2. What are the MI profiles of the textbooks?
- 3. What are the MI profiles of the classroom activities?
- 4. To what extent do the MI profiles of the textbooks relate to MI profiles of the students?
- 5. To what extent do the MI profiles of the classroom activities address the students' MI profiles?
- 6. What are the teachers' perceptions regarding MI Theory and its application in their classes?
- 7. How do teachers evaluate the materials and activities used in their classes in terms of the MI Theory?

3.4 Participants

The participants of this study were EPS teachers and EPS students from intermediate level EPS 103 and EPS 104 courses. The participants were chosen on the basis of purposive sampling method since it is used to obtain the best understanding of what is being studied Fraenkel and Wallen (2006). Each group of participants is explained in the following subsections. This study included voluntary sample of participants from intermediate level EPS courses.

3.4.1 Students

English Preparatory School students who were enrolled in Intermediate level EPS 103 and EPS 104 courses participated in this study. In total, 166 students were enrolled in these courses, but 148 students participated in the study. Of the 148

students, 103 (69.6%) were from Turkey (TR), 29 (19.6%) were from Cyprus (TRNC). In the rest of the participants, 16 students (10.8%) were from countries such as Iran, Iraq, Syria, China, Russia, Palestine, Kazakhstan and Azerbaijan. Among 148 participants, 108 (73%) were males and 40 (27%) were females. Age range was between 16 to 28 years old. One of the participants was a PhD student aged 50. The students who participated in the study were from different faculties and schools, namely Engineering (36.7%), Architecture (14.3%), Business and Economics (25.9%), Arts and Sciences (10.9%), Education (4.8%), School of Tourism and Hospitality Management (0.7%), School of Computing and Technology (1.4%), Communication (5.4%).

3.4.2 Teachers

10 teachers, who were teaching EPS 103 and EPS 104 courses, volunteered to participate in this study. The gender distribution of the teachers is as 3 males and 7 females. Their ages range between 28 and 47. Their years of teaching experience vary from 6 to 21 years. Of 10 teachers, 4 teachers hold BA and MA in ELT, 2 hold BA in ELH and MA in Educational Sciences, 2 hold BA in ELT/ELH and a DOTE certificate, 1 holds BA in ELT and ICELT certificate, and only 1 teacher holds BA degree. Finally, among 10 teachers, 8 are non-native speakers and 2 were native speakers of English.

3.5 Data Collection Instruments

The present study used multiple sources of data collected through: MI survey, classroom observations, teacher interviews, and textbook evaluation. As Patton (1990) explains, gathering data through multiple sources like interviews, observations and document analysis increases validity and reliability of the data.

3.5.1 Survey

The survey adapted and used in this study was "Multiple Intelligences Survey" (McKenzie, 1999), which aimed to identify the students' multiple intelligences (MI) profiles (see Appendix A). According to McKenzie (2005), MI Survey enables teachers to identify their students' multiple intelligence types in their classrooms.

In this study the adapted English (see Appendix A) and Turkish (see Appendix B) versions of McKenzie's (1999) MI Survey were used. Ten statements which address existential intelligence were left out in the adapted survey because this intelligence type was not in the scope of this study. Moreover, in order to ensure that all the items would be well understood by the participants, Turkish version of the questionnaire was adapted from a previously conducted research by Sözüdoğru (2009). However, few changes regarding language use were made by getting expert opinions from three instructors who revised the Turkish version of the survey.

The MI Survey (see Appendices A and B) used in this study was comprised of two parts. Part 1 included 4 items related to participants' background, such as their age, nationality and department/faculty at EMU. Part 2, the adapted MI Survey, contained 80 statements (randomly organized), addressing to eight intelligence types. The participants were asked to complete the survey by putting a check next to each statement which accurately described them. The statements were categorized into eight subparts, each part having 10 items. The first category included statements from 1 to 10 addressing 'naturalist intelligence'. The second category included statements from 11 to 20 addressing 'musical intelligence'. The third category, statements from 21 to 30, focused on 'logical intelligence'. The fourth category, statements from 31 to 40, referred to 'interpersonal intelligence'. The fifth category,

statements from 41 to 50, emphasized 'kinesthetic intelligence'. The sixth category, statements from 51 to 60, covered 'verbal intelligence'. The seventh category, statements from 61 to 70, addressed 'intrapersonal intelligence'. Finally, the eighth category, statements from 71 to 80, focused on 'visual intelligence'.

3.5.2 Teacher Interviews

After administering the Multiple Intelligences Survey to students, teacher interviews (see Appendix C) were conducted to gather data regarding teachers' perceptions on the theory of MI and its application in their classes.

According to Patton (1987), there are three ways to conduct an interview. The first one is informal conversational interview, which is based on unstructured questions coming from the immediate situation. This type of interview focuses on unplanned creation of questions during the interview with spontaneous topics and wording. The second type is general interview guide which follows a guide which involves a list of questions or issues regarding specific topics to be covered. This type of interview is carried out with this guide to guarantee covering all the important issues which the interviewer aims to investigate. The interviewer adapts the sequence of questions and their wording during the interview. The third type of interview, standardized openended interview, includes open-ended questions which are carefully worded and arranged allowing less flexibility and less variation regarding the questions.

On the other hand, Nunan (1992) presents similar three types of interview named as unstructured, semi-structured and structured. Unstructured interview is entirely based on the interviewee's answers where there is no particular path to be followed during the interview. The situation is changeable according to the responses of the respondent. However, in a semi-structured interview there is no planned list of

questions to ask but there is a control over what to ask, where to proceed next and what to expect from it. Lastly, the structured interview, as the name implies, follows a plan in which there are a set of structured questions to be asked in a predetermined order.

The type of interview this study employed was a mixture of structured and semistructured. The researcher prepared a set of questions she would ask during the interviews, but she was also flexible to change the wording of some questions or to add more questions during the actual interviews to cover all the important issues she aimed to investigate. In other words, the researcher was ready for any unplanned issues that might rise during the interviews. Few changes regarding the questions were made by getting expert opinions from two instructors, who revised teacher interview questions.

Teacher interview questions (see Appendix C) consisted of 3 parts. The first part aimed to elicit background information about the teachers' age, years of teaching experience, mother tongue, degree and field of study and postgraduate qualifications.

The second part included 7 questions aiming to identify teachers' overall perceptions about MI theory and its application in their classes. The third part included 4 questions, questions from 8 to 11, aiming to identify teachers' perceptions related to the extent to which the materials address the students' MI profiles.

3.5.3 Textbook Evaluation

Materials evaluation involves a careful and professional "activity for all ELT teachers" (McDonough and Shaw, 1993, p. 63). Certain issues like fitting with students' age, needs, level, culture, variety of tasks, types of tasks and the inclusion

of individualized learning are fundamental to be taken into account. There is a need for a checklist to conduct a systematic evaluation of a textbook (McDonough and Shaw, 1993).

As this study aimed to analyze the textbooks used in EPS intermediate classes, a checklist was prepared by the researcher to analyze the activities in the textbooks to find out which intelligence type(s) each activity addressed. The checklist (see Appendix D) was prepared by referring to different sources (Berman, 1998; Brougher, 1997; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997; Christison, 1996; Govendo and Gibson, 2000; Soares, 2000). Expert opinion was obtained from two instructors who revised the textbook evaluation checklist.

The checklist included eight intelligence types and a list of activities under each intelligence type. In other words, activities were categorized according to the intelligence types that they addressed. The textbook activities were analyzed according to this checklist; each activity in two textbooks, *Success Intermediate Students' Book* and *Success Intermediate Workbook* (White and Fricker, 2007) were analyzed carefully and the intelligence type(s) it addressed were identified. Then, the frequencies of intelligence types were counted and the percentage of each intelligence type was calculated.

3.5.4 Observations

Chaudron (1988) describes observation as "an interaction analysis of classroom interaction in terms of social meaning and an inferred classroom climate" (p. 14). According to Salmani-Nodoushan (2006), classroom observation involves "keeping a record of what goes on in the classroom" (p. 2). The researcher can use various

procedures like note-taking, audio-recording or video-recording depending on the nature of observation.

In this study, EPS intermediate classes were observed to find out intelligence types that the classroom activities addressed. In order to track the activities done in the classroom and identify the intelligence types addressed in the activities, the researcher developed the observation form which had 5 sections (see Appendix E). Expert opinion was obtained from two instructors to revise the observation form. The first section aimed to identify the task/activity done in the class. The second section intended to describe the material used during the task/activity. The third section focused on the steps/procedures the teacher followed during the activity/task. The fourth section included all the behaviors of the students during the lesson. The last section involved the analysis of the task/activity and identification of the intelligence types that were addressed to in the task/activity.

There were 18 groups in the EPS 103 course; however, only the instructors of 10 groups accepted to participate in observations. In total, 10 classes were observed during 2009-2010 academic year spring semester. One class session lasted for 50 minutes. This means that in total 500 hours of observation was carried out in three weeks. During the observations, the researcher used the observation form and wrote down detailed notes to fill in the form. Then, after the observations, the researcher analyzed the activities and identified the intelligence types addressed in all activities during the lesson. In the analysis of the activities, the checklist (see Appendix D) prepared by the researcher by referring to different sources (Berman, 1998; Brougher, 1997; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997;

Christison, 1996; Govendo and Gibson, 2000; Soares, 2000) to evaluate the textbooks.

3.6 Data Collection Procedures

The data of the current study were collected in several stages through different instruments. After obtaining a written permission from the Director of English Preparatory School (See Appendix F), the data collection procedures started.

The data were collected during the spring semester of the academic year 2009-2010 at EMU English Preparatory School in TRNC.

Firstly, the students' MI profiles were identified. Prior to the administration of the survey, students were given the Written Consent Form (see Appendix G) and then asked to complete the Multiple Intelligences Survey. While foreign students were given the English version of the survey (see Appendix A), Turkish students were given the Turkish version (see Appendix B) of it.

Secondly, classroom observations were carried out in 10 groups of EPS intermediate course. The observations were carried out in three weeks. The observation procedure was in the form of taking detailed notes on the observation form (see Appendix E).

Thirdly, teacher interviews were conducted. EPS teachers were contacted, and appointments for interviews were taken. Ten teachers accepted to participate in an interview, and each teacher was interviewed in his or her office after taking his/her written consent (see Appendix H).

Finally, a careful evaluation of the activities in the two books was carried out: Success Students' Book (White and Fricker, 2007) and Success Intermediate Workbook (White and Fricker, 2007). In order to analyze each activity in terms of MI, the researcher used the checklist (See Appendix D) prepared for this study by using different sources (Berman, 1998; Brougher, 1997; Campbell, Campbell and Dickinson, 1996/1999; Checkley, 1997; Christison, 1996; Govendo and Gibson, 2000; Soares, 2000).

3.7 Piloting

As Mackey and Gass (2005) note: "a pilot study is an important means of assessing the feasibility and usefulness of the data collection methods and making any necessary revisions before they are used with the research participants" (p. 43).

Prior to the administration of the survey to the intermediate students studying at EPS (participants of the study), the survey was piloted with 29 students from the Faculty of Education. The pilot testing revealed that the students did not experience any kind of difficulties in understanding the items and completing the survey.

3.8 Data Analysis

The current study used both qualitative and quantitative data (frequencies). Quantitative data were collected from the survey whereas qualitative data were collected from the interviews, observations and evaluation of the activities in the textbooks, which were also quantified (turned into frequencies).

Statistical Package for Social Sciences (SPSS 15) was employed for analyzing the quantitative data collected from the Multiple Intelligences Survey. Descriptive statistics were used to analyze the data and calculate frequencies of responses for

statements in the survey. More specifically, firstly, for each ticked statement, 1 point was given. Then, frequencies (mean score) for each statement was obtained. Finally, mean scores (frequencies) for eight different intelligences were computed by calculating the mean scores for 10 statements under each intelligence type.

On the other hand, qualitative data obtained from teacher interviews were analyzed by categorizing all raw data under each item in the interview. The researcher focused on how each teacher responded to each question to find similar responses and organize them into categories/themes and count frequencies. That is, the present study analyzed interviews through categorizing the data in terms of the each question responded. Parallel responses of teachers to each question were grouped and frequency counts were calculated. Taylor-Powell & Renner (2003) describe the steps of narrative data analysis and interpretation in the following way: "organize the data by question to look across all respondents and their answers in order to identify consistencies and differences" (p. 2).

According to Patton (1990), observation analysis focuses on analyzing, organizing and presenting the data in terms of chronology, incidents, key events, situations, practices, concepts or ideas. In this study, the data obtained from the observations were analyzed according to the tasks and activities used in the classrooms by identifying intelligence (s) each activity addressed to.

As for the analysis of the textbooks, the researcher identified the intelligence types included in each activity according the checklist prepared by the researcher. After identifying the intelligences addressed in each activity, the total number of occurrences of each intelligence type in all activities in the textbook was calculated

and frequencies of occurrences of 8 intelligence types in the textbook activities were obtained.

3.9 Summary

Overall, this chapter explained the method of the present study. More specifically, first, the overall research design of the study was presented. Next, the context of the study and the participants, teachers and students were described. Then, the data collection instruments (MI survey, teacher interview, observations and materials evaluation) and procedures were explained. Finally, piloting and data analysis were presented. The results of the study will be summarized and presented in the following chapter.

Chapter 4

RESULTS

This chapter presents the results of the current study. More specifically, based on the research questions in this study, the results are presented under several subcategories: students' MI profiles, textbooks' MI profiles, teachers' perceptions, and classroom observations.

Firstly, the results obtained through the MI inventory are presented. Then, the results concerning the evaluation of the textbooks in terms of MI theory are explained. Next, the results of the inventory and the results of the textbook evaluation are compared. Afterwards, the results related to the classroom observations are presented. Lastly, the results obtained from the teacher interviews are interpreted to show the teachers' perceptions about the MI Theory and its application.

4.1 Students' MI Profiles

The data obtained through the MI Survey are presented as in Table 4.1 below. As can be seen in Table 4.1, intrapersonal intelligence ranks first among students. In other words, the mean score for intrapersonal intelligence is 7.35 out of 10 (73.4%). Logical-mathematical intelligence ranks second, with a mean score of 6.89 (68.9%). These two intelligence types are followed by bodily-kinesthetic intelligence (65.7%) and naturalist intelligence (61.4%), respectively. Spatial intelligence ranks fifth with a mean score of 5.80 (58.0%). Musical, linguistic and interpersonal intelligences rank sixth, seventh and eighth, respectively. The mean score for musical intelligence is

5.76 (57.6%), 5.35 (53.5%) for linguistic intelligence and 5.18 (51.8%) for interpersonal intelligence. Overall, the results show that the mean scores for different intelligence types ranged between 5.18 (51.8%) and 7.34 (73.4%), intrapersonal intelligence being the most dominant and interpersonal intelligence the least dominant.

Table 4.1 Students' MI Profiles

Multiple Intelligence Types	Mean score (out of 10)	Percentage (%)	
Intrapersonal intelligence	7,34	73.4	
Logical-Mathematical intelligence	6,89	68.9	
Bodily-Kinesthetic intelligence	6,57	65.7	
Naturalistic intelligence	6,14	61.4	
Spatial intelligence	5,80	58.0	
Musical intelligence	5,76	57.5	
Linguistic intelligence	5,35	53.6	
Interpersonal intelligence	5,18	51.8	
-			

4.2 Textbooks' MI Profiles

This section presents the results obtained through the evaluation of the activities in *Success Intermediate Students' Book* (White and Fricker, 2007) and *Success Intermediate Workbook* (White and Fricker, 2007) in terms of MI theory. The total number of activities analyzed in *Success Intermediate Students' Book* was 599. On the other hand, 347 activities were analyzed in *Success Intermediate Workbook*. Overall, 946 activities in two textbooks were analyzed to identify the intelligence type(s) each activity addressed. The results of the textbook evaluation are summarized in Tables 4.2, 4.3 and 4.4 below.

Table 4.2 MI Profile of the Students' Book

Multiple Intelligence Types	Number of activities (n=599)	Percentage (%)
Linguistic intelligence	599	100
Logical-mathematical	244	40.73
intelligence	176	29.38
Interpersonal intelligence	174	29.05
Spatial intelligence	138	23.04
Naturalist intelligence	43	7.18
Intrapersonal intelligence	19	3.17
Bodily-kinesthetic intelligence	14	2.34
Musical intelligence		

As shown in Table 4.2, linguistic and logical-mathematical intelligence types were the most dominant in the Students' Book. Linguistic intelligence was present in 100% of the activities, indicating that all 599 activities addressed to linguistic intelligence type. Logical-mathematical intelligence was present in 40.73% of the activities. This means that out of 599 activities, 244 activities addressed to logicalmathematical intelligence type. Interpersonal, spatial and naturalist intelligence types appeared to be dominant in the Students' Book. Interpersonal intelligence was present in 29.38% of the activities. This means that out of 599 activities, 176 activities addressed to interpersonal intelligence type. Spatial intelligence had a frequency of 29.05%, indicating that 174 activities addressed to spatial intelligence type. Naturalist intelligence appeared in 23.04% of the activities, meaning that out of 599 activities, 138 activities addressed to naturalist intelligence type. Intrapersonal intelligence was present in 7.18% of the activities, meaning that 43 activities in the Students' Book addressed to intrapersonal intelligence type. Bodily-kinesthetic intelligence had a frequency of 3.17%. This indicates that 19 activities in the Students' Book addressed to bodily-kinesthetic intelligence. Musical intelligence was

present in 2.34% of the activities in the Students' Book, suggesting that 14 activities catered for musical intelligence. Overall, the results showed that the intelligence profile of *Success Intermediate Students' Book* was composed of linguistic and logical-mathematical intelligence types as the most dominant, with a percentage of occurrences of 100% (linguistic) and 40.75% (logical-mathematical). Interpersonal (29.38%), spatial intelligence (29.05%) and naturalist intelligence (23.03%) types ranked as the third, fourth and fifth dominant intelligences. Lastly, the less common intelligence types were found to be intrapersonal (7.18%), bodily-kinesthetic (3.17%) and musical (2.34%) intelligence types. As for the evaluation of the activities in the Workbook, the results are presented in Table 4.3.

Table 4.3 MI Profile of the Workbook

Multiple Intelligence Types	Number of activities Percentage (* (n=347)		
Linguistic intelligence	347	100	
Naturalistic intelligence	192	55.33	
Logical-mathematical intelligence	152	43.80	
Spatial intelligence	97	27.95	
Intrapersonal intelligence	26	7.49	
Interpersonal intelligence	10	2.88	
Bodily-kinesthetic intelligence	2	0.58	
Musical intelligence	0	0	

As can be observed from Table 4.3 above, linguistic, naturalist and logical-mathematical intelligences were the most dominant intelligence types in the Workbook activities analyzed. 100% of the activities addressed to linguistic intelligence type, indicating that linguistic intelligence is present in all of the 347 activities in the Workbook. Naturalist intelligence existed in 55.33% of the activities, which means that 192 activities in the Workbook attended to naturalist intelligence types. Logical-mathematical intelligence appeared in 152 activities in the

Workbook. This means that 43.80% of activities addressed to logical-mathematical intelligence type. Spatial intelligence appeared in 27.95% of the activities. That is, 97 activities address to spatial intelligence type in the Workbook. Intrapersonal intelligence had a frequency of 7.49%%, indicating that out of 347 activities, 26 activities in the Workbook addressed to intrapersonal intelligence. Interpersonal intelligence was present in 2.88% of the activities, which means that out of 347 activities, only 10 activities in the Workbook concentrated on interpersonal intelligence. Bodily-kinesthetic intelligence was addressed to in 0.58% of the activities. Finally, none of the activities in the Workbook addressed musical intelligence. Overall, the results showed that there was a considerable gap in the distribution of eight intelligence types in *Success Intermediate Workbook* (0%-100%) while linguistic intelligence was catered for in all 347 activities, musical intelligence was not identified in any activity.

Table 4.4 MI Profile of the Two Books: Students' Book and Workbook

Multiple Intelligence Types	Number of activities	Percentage (%)
	(n=946)	
Linguistic intelligence	946	100
Logical-mathematical intelligence	396	41.86
Naturalistic intelligence	330	34.88
Spatial intelligence	271	28.65
Interpersonal intelligence	186	19.66
Intrapersonal intelligence	69	7.29
Bodily-kinesthetic intelligence	21	2.22
Musical intelligence	14	1.48
-		

When the data from the two books (Students' Book and Workbook) were combined, the following results, as shown in Table 4.4, were obtained. As can be seen in Table 4.4, linguistic (100%) intelligence type is the most dominant intelligence in the textbooks. The second dominant is logical-mathematical (41.86%) intelligence.

Naturalist (34.88%) intelligence type appeared in 330 activities out of 946 activities in the textbooks. Spatial intelligence (28.65%) type was found to be addressed to in 271 activities in the textbooks. Interpersonal intelligence (19.66%) catered for in 186 activities in the textbooks. The remaining less dominant intelligences were found to be intrapersonal (7.29%), bodily-kinesthetic (2.22%), and musical (1.48%).

4.3 Students' MI Profiles and Textbooks' MI Profiles

When the data regarding students' MI profiles were compared with those about textbooks' MI profiles, the following results presented in Table 4.5 were found out.

Table 4.5 Students' MI Profiles and Textbooks' MI Profiles

	Students' MI Profiles			Textbooks' MI Profiles	
MI Type	Mean score (out of 10)	(%)	MI Types	# of activities (946)	(%)
Intrapersonal	7,34	73.4	Linguistic	946	100
Logical-mathematical	6,89	68.9	Logical/mathematical	396	41.86
Bodily-kinesthetic	6,57	65.7	Naturalist	330	34.88
Naturalist	6,14	61.4	Spatial	271	28.65
Spatial	5,80	58.0	Interpersonal	186	19.66
Musical	5,76	57.6	Intrapersonal	69	7.29
Linguistic	5,35	53.5	Bodily-kinesthetic	21	2.22
Interpersonal	5,18	51.8	Musical	14	1.48

As can be seen in Table 4.5, intrapersonal intelligence ranks first in students' profiles. This means that 73.4% of the students have intrapersonal intelligence as the most dominant intelligence. However, the textbooks' most dominant intelligence type is linguistic intelligence, which is present in all 946 (100%) activities.

Moreover, logical-mathematical intelligence ranks second in students' profiles with a mean score of 6.89 (68.9%). Similarly, logical-mathematical intelligence ranks

second in the textbooks' MI profiles, as well, but with a frequency of 41.86%. When the two profiles are compared, it can be seen that logical-mathematical intelligence ranks second in both profiles, but with different frequencies 68.9% in students' MI profiles and 41.86% in the textbooks' MI profile. The third dominant intelligence in students' MI profiles with a mean score of 6.57 (65.7%), is bodily-kinesthetic intelligence, whereas it is naturalist intelligence in textbooks' MI profiles with a frequency 34.88% (330 activities). The intelligence type ranking fourth in students' MI profiles is naturalist intelligence (61.4%) whereas it is spatial intelligence (28.65%) in the textbooks' profiles. The fifth intelligence, on the other hand, is spatial intelligence (58.9%) in students' MI profiles while it is interpersonal intelligence (19.66%) in the textbooks' profiles. As to the sixth intelligence, the musical intelligence has a frequency of 57.6% in the students' MI profiles, while it is the intrapersonal intelligence which has a frequency of 7.29% in the textbooks' MI profiles. The students have a mean score of 5.35 (53.5%) in terms of linguistic intelligence ranking seventh in their profiles. On the other hand, the textbooks have 21 activities (2.22%) addressing to bodily-kinesthetic intelligence, ranking seventh in their profiles. Lastly, the intelligence type ranking eight in students' MI profiles is interpersonal intelligence, with a mean score of 5.18 (51.8%), but it is the musical intelligence in textbooks' profiles with a frequency of 1.48% (14 activities).

4.4 Teachers' Perceptions

This section presents the results obtained through teacher interviews. The teacher interview consisted of two parts: Part 1- Teachers' perceptions about MI Theory and its application in their classes, and Part 2- Teachers' evaluation of materials in terms of MI Theory. The results are presented according to these two parts in the teacher interview.

4.4.1 Teachers' Perceptions about MI Theory

The Importance of MI Theory (Question 1): Teachers' responses to the first question reveal that all 10 teachers consider MI Theory important in their teaching, but they give different reasons for that. Forty percent of the teachers believe that MI Theory is important because it helps them to see the uniqueness of each student. Similarly, 50% of teachers argue that MI Theory is useful in teaching a language because students have different abilities, skills and learning styles to learn. Likewise, 10% of teachers believe in the importance of MI Theory because it gives a chance to use different activities in the classroom.

The Application of MI Theory in classes (Questions 2 and 3): Regarding the teachers' perceptions about the application of MI Theory in their classes, 70% of the teachers reported applying MI Theory in their classes, and 10% of them (only one teacher) reported applying it but not all the time. On the other hand, the remaining 20% of the teachers reported that due to the overload of work, syllabus and lack of time and resources, they could not apply MI Theory in their classes.

With regard to the application of MI Theory, teachers gave different examples of activities they use in their classes. Sixty percent of the teachers use group and pair work activities to address to interpersonal and verbal intelligence types. Thirty percent of the teachers have their students draw or write on the board cater for students' spatial intelligence. Twenty percent of teachers address to bodily-kinesthetic, verbal, and interpersonal intelligence types by having students participate in role play activities or dialogues. Forty percent of the teachers reported using visuals, pictures, posters, picture cards, story scenes to attend to visual/spatial intelligence. Ten percent of the teachers stated that they ask students to help them to

distribute something (e.g. handouts) in the class to address to bodily-kinesthetic intelligence.

Twenty percent of the teachers reported that they use story- telling activities to help students develop their verbal/linguistic intelligence. Thirty percent of them use activities in which students can draw tables, put pictures in the order or in different categories, match words, or guess meanings of words to cater for logical-mathematical intelligence.

Fifty percent of teachers reported bringing music to class by playing different songs and asking students to listen to lyrics, or giving students the lyrics of the songs with missing words and ask them to fill in the gaps while listening to the song. In this way they address musical intelligence.

Twenty percent of the teachers address to bodily-kinesthetic intelligence by asking students to come to the board and write something, stand up and change their sits, stand up and find their partners. Ten percent of them ask students to write a poem by using the new vocabulary (linguistic intelligence). Thirty percent of the teachers have their students in groups for competition games. Finally, 10% of the teachers reported using activities in which students work in mixed abilities in the same group (interpersonal intelligence).

The Effects of Applying MI Theory on Students (Question 4): In response to Question 4, teachers reported the effects of applying MI Theory on their students' learning and on their teaching. Sixty percent of the teachers reported that their students get motivated, and encouraged. They feel comfortable, express themselves

easily and enjoy learning. They also become happy when MI is applied in the classroom.

Furthermore, 40% of the teachers reported that when they apply MI in their classes, the students show their actual abilities; they use different strategies while learning, they participate more, stay active and involved during the lesson. According to the teachers' responses, as a result, the students learn, understand and remember better, which brings more productive work.

As for the effects of applying MI Theory on teachers' teaching, 50% of the teachers reported that they feel happy and satisfied, they can observe, reach and address the students' intelligences as a result of applying MI Theory in their classes.

According to another 50% of the teachers' responses, the MI Theory brings variety to the lesson; therefore, teachers receive positive feedback because they see positive outcomes such as more productive work and higher participation, involvement and happiness on the part of the students.

The Teachers' and Students' Awareness of Students' Intelligences (Questions 5 and 6): With regard to administering MI Test to the students, majority of the teachers (80%) reported that they had never given any MI Test to their students. On the other hand, they said that they know their students' abilities by observing and watching their behavior during the class activities. Ten percent of them reported not giving any MI Test to their students, and not knowing the names of the intelligences, but added that they could observe students' abilities. Only one teacher stated that he had given an MI Test to the students. Teachers were also asked if their students are aware of their own MI profiles. Two teachers (20%) reported that they had never asked their

students about it, and 30% of the teachers were not sure if their students knew their intelligences.

On the other hand, 50% of the teachers reported that some of the students were not aware of their intelligences until they tried to do something and learned that they actually could do things. Teachers also stated that some students said: "I like drawing", or "I can write poems", showing that they are aware of their abilities. As teachers stated, most of the students asked for activities which focus on their intelligences during the lesson by saying "Let's play a game" or "Can we listen to some music?", for example.

The Teachers' Awareness of Their Own Intelligences (Question 7): Teachers were also asked whether or not they were aware of their own intelligences. The results show that 90% of the teachers have never taken any MI Test but they know their abilities. Only one teacher has taken an MI test. When asked about the influence of their MI profile on their teaching, 80% of the teachers stated that they teach according to their students' abilities and interests.

However, the remaining 20% of them reported that their intelligence profiles shape the way they teach. For example, one of the teachers said: "I like writing poems and I teach vocabulary by giving my students different types of speech like noun, adjective, verb etc. and ask them to write a poem by using them". In addition, another teacher reported: "I am a visual learner myself and, probably, that is the reason why I always use visuals in my lessons".

4.4.2 Teachers' Evaluations of Materials

The Teachers' Evaluation of Materials in Terms of MI Theory (Question 8):

Regarding the teachers' evaluation of the materials in terms of MI Theory, only 40% of the teachers stated that the activities in textbooks they use are integrated and have a variety of tasks like puzzles, music, individual and group work tasks and visuals. Forty percent of the teachers claimed that it is mainly linguistic intelligence that is emphasized in the textbooks. Ten percent of teachers are not happy with the textbooks they use and 10% of teachers think that the textbooks do not address to MI.

How Teachers Adapt Activities to Cater for Students' Multiple Intelligences (Question 9): Regarding the activities that teachers use to address the intelligence types of the students, 90% of the teachers reported adapting activities on the basis of MI Theory to address the students' intelligences by bringing songs to class, getting students to act out or do role play, draw on the board, play games, and put words into categories. However, 10% of the teachers stated that there is lack of time and resources to adapt activities.

Integrating MI Theory into Supplementary Materials (Question 10): With regard to supplementary materials, 70% of the teachers reported that they prepare supplementary materials "if necessary". However, 20% of them stated that they do not prepare any supplementary materials because the existing materials are sufficient to fill the curriculum, and 10% stated that they have never paid attention to this issue.

Variety in Activities (Question 11): Upon the last question, teachers stated that to bring variety to class they addressed the majority of the students' intelligences

profiles. They do so by getting the students to do different actions such as miming, acting out, drawing, changing the seats and playing roles. One teacher reported: "I don't just do listening or get students to fill in the gaps, but bring a song, give them the lyrics and ask them to use their bodies or gestures to show the meaning of a word or of the whole sentence from the song".

4.5 Classroom Activities

This section presents the results obtained from the classroom observations. In total, 10 classes were observed, focusing on the task/activities used in each lesson, materials used during the activities, and the intelligence types addressed in each task/activity. Each lesson was observed and firstly all the activities were noted down. Then, the activities were analyzed to find out which intelligence type(s) each activity addressed. After analyzing all the tasks/activities in all 10 lessons by using the textbook evaluation checklist (see Appendix D), the frequencies of eight intelligences in all observed tasks/activities were computed. The results obtained from the classroom observations are summarized in Table 4.6 below.

As indicated in Table 4.6, linguistic intelligence was present in 100% of the activities observed in 10 classes. This means that all of 47 activities addressed linguistic intelligence. Spatial intelligence was present in 42.55% of the activities, indicating that 20 observed activities catered for spatial intelligence. Moreover, bodily-kinesthetic intelligence had a frequency of 25.53%. This indicates that only 12 activities addressed bodily-kinesthetic intelligence. Interpersonal intelligence was catered for in 23.40% of the activities, which means that out of 47 activities, 11 activities addressed interpersonal intelligence.

Table 4.6 Results of Classroom Observations

Course/ Group	Total # of activities observed	Linguistic	Logical- mathematical	Bodily- kinesthetic	Spatial	Interpersonal	Intrapersonal	Musical	Naturalist
EPS 103/02	6	6	1		2	1	1		
EPS 103/04	4	4			4		2		1
EPS 103/13	6	6			2	3			
EPS 103/12	3	3	2	2			2		
EPS 103/14	8	8	1	3	3		1		
EPS 103/18	3	3		1	2	1	1	1	
EPS 104/02	5	5		1	1	1	1		
EPS 104/03	4	4		3	2	3			
EPS 104/6	4	4		1	1	1	1		
EPS 114/01	4	4		1	3	1			
Total (All 10 group)	47	47	4	12	20	11	9	1	1
Percentage (%)	100 (%)	100 (%)	8.51 (%)	25.53 (%)	42.55 (%)	23.40 (%)	19.15 (%)	2.13 (%)	2.13 (%)

The results also show that 8.51% of the activities emphasized logical-mathematical, and 2.13% of them focused on musical and naturalist intelligences. As can be seen in Table 4.6, musical and naturalist intelligences had the same frequency, 2.13%. This means that out of 47 activities, 1 activity catered for musical and 1 activity for naturalist intelligence. Finally, intrapersonal intelligence had a frequency of 19.15%, indicating that it was addressed in 9 activities in the classes observed.

Overall, the frequencies of eight intelligences catered for in the observed classroom activities can be summarized as follows: 1) Linguistic intelligence (100%), 2) Spatial intelligence (42.55%), 3) Bodily-kinesthetic intelligence (25.53%), 4) Interpersonal intelligence (23.40%), 5) Intrapersonal intelligence (19.15%), 6) Logical-mathematical intelligence (8.51%), 7) Musical intelligence (2.13%), and 8) Naturalist intelligence (2.13%).

4.6 Summary

Throughout this chapter, the results of the present study have been presented. More specifically, the students' MI profiles, the textbooks' MI profiles, and the comparison of the two have been explained. In addition, the intelligences catered for in the activities observed in ten classes have been given. Moreover, teachers' perceptions regarding the application of MI Theory in their classes and their evaluations of the materials in terms of MI Theory have been reported. In the following chapter, these results will be discussed, some conclusions will be reached, and theoretical and practical implications of the present study will be suggested.

Chapter 5

DISCUSSION OF RESULTS AND CONCLUSION

In this chapter, first the results of the study in relation to the research questions are discussed. Then, practical and theoretical implications of the study are explained, and implications for further research are suggested.

5.1 Discussion of Results

In this section, the results are discussed under the research questions of the study.

5.1.1 Research Question 1: What are the students' MI profiles?

As a result of the analysis of responses obtained through the MI survey, students' multiple intelligences profiles were identified. As mentioned in section 4.1, out of 10, the mean scores for eight intelligence types ranged between 5.18 (51.8%) and 7.34 (73.4%). Intrapersonal intelligence was the most dominant intelligence type among the students. The percentage of students possessing intrapersonal intelligence was 73.4%; in other words, the mean score was 7.34 out of 10. This means that these students possess the ability to understand themselves, as well as to appreciate one's strengths, weaknesses, feelings, needs and goals, and they can operate effectively in life (Gardner, 1993; Christison, 1996). Correspondingly, in another study which was carried out in EPS at EMU (Sözüdoğru, 2009), intrapersonal intelligence (37.3%) was found out to be as students' most dominant intelligence type.

As it was expected, logical-mathematical was the second dominant intelligence type among the students. Mean score for this intelligence type was found out to be 6.89,

which means that 68.9% of the students have logical, mathematical and scientific ability (Gardner, 1993). These students can use numbers effectively and reason well. A rational justification for this can be the fact that majority of the students' departments were in the field of Engineering (36.7%) and Business and Economics (25.9%) which requires skills of reasoning, calculating, solving problems by using numbers.

Bodily-kinesthetic (65.7%), naturalist (61.4%), spatial (58.0%), and musical (57.6%) intelligences ranked third, fourth, fifth and sixth, respectively. More specifically, the results show that 65.7% of the students have the ability to solve problems or to fashion products using their body (Gardner, 1993, p. 9). 61.4% of them have "the ability to identify the natural forms around birds, flowers, animals and other fauna and flora, as well as geographical features" (Armstrong, 2000, p.20). 58.0% of the students have the ability to use and represent visual and spatial ideas like form, space, color and shape (Gardner, 1999) and 57.6% of them can recognize rhythms, tones, pitch and musical patterns (Gardner, 1983).

Linguistic intelligence and interpersonal intelligence ranked seventh and eight, as two least dominant intelligence types in the list. According to the results, 53.5% of the students possess linguistic intelligence indicating that they have high communicative, spoken and written forms (Gardner, 1999).

Interpersonal intelligence was found to be the least dominant intelligence type. Only 51.8% of students can understand moods, feelings and motivations of other people (Gardner, 1999).

In general, when the survey results are analyzed, it can be seen that the range of mean scores is not much wide; it is between 5.18 and 7.34. This result can be explained in the following way: since the students are from different faculties and schools such as Engineering (36.7%), Architecture (14.3%), Business and Economics (25.9%), Arts and Sciences (10.9%), Education (4.8%), School of Tourism and Hospitality Management (0.7%), School of Computing and Technology (1.4%), and Communication (5.4%) it seems possible to expect a balanced distribution of eight intelligences in the students' MI profiles.

5.1.2 Research Question 2: What are the MI profiles of the textbooks?

Analysis of the textbooks in terms of MI theory reveals a wide range of distribution of eight intelligences in the textbook activities, (1.48%-100%). The results show that 100% of the 946 activities in the textbooks catered for linguistic intelligence type. A reasonable justification for this is the fact that it is quite normal for a language textbook to be composed of activities catering for linguistic intelligence type mostly. In other words, every language textbook comprises skills like reading, writing, speaking and listening, as well as language areas such as grammar, pronunciation and vocabulary. Thus, the result of linguistic intelligence being the dominant intelligence type in the textbooks is expected and typical.

On the other hand, logical-mathematical intelligence type is the second highest dominant intelligence addressed in the activities, but with a percentage of 41.86%. Some activity types for this intelligence type are matching, categorizing, reading statistics from the tables, predicting, ordering, etc.

The third ranking intelligence is naturalist intelligence type which was addressed by 34.88% of the activities. There seemed to be a variety of activities such as

categorizing, classifying, ordering, noticing relationships, etc. addressing naturalist intelligence type.

Spatial intelligence (28.65%) ranked fourth in the textbooks' MI profile. This result may be because of the fact that generally language textbooks include visual illustrations integrated into activities. For instance, pictures of various events, people, situations as well as tables, graphs or charts, pie charts, etc. are commonly included in the majority of language textbooks.

The fifth dominant intelligence type was interpersonal (19.66%). It can be suggested that this intelligence type seems to be common in some activity types since certain tasks can incorporate interpersonal study. For example, using pair or group work activities can create interaction between or among the learners, and this caters for their interpersonal intelligence. However, frequency of 19.66% activities catering for interpersonal intelligence cannot be considered high. More group/pair work would be better for students' learning and improving their communicative competence. As Brown (1995) suggests, group work activities promote linguistic interaction among students by providing affective environment in which the students take part in different situations, and initiate and develop responsibility for their learning.

Intrapersonal intelligence type ranks sixth (7.29%). This situation seems to give explanation for few interpersonal activity types in the textbooks. The analysis of the textbooks reveals a shortage of activities addressing personal opinions and reflections of the individuals.

Bodily-kinesthetic intelligence types ranks seventh, with a percentage of 2.22%. As a result of the analysis of the textbooks, only few activities like group/pair work, role-plays interviews conversations, acting out the situations, and dialogues, which address bodily-kinesthetic intelligence, have been found.

Finally, musical intelligence type (1.44%) appeared to be the least common intelligence type identified in the textbooks. This intelligence type is included only in the activities like recognizing vowel sounds, stress patterns, listening and guessing the style of music (White and Fricker, 2007, p. 76).

Overall, the analysis of the textbooks showed that linguistic (100%) and logical-mathematical (41.86%) intelligence types were dominant in both textbooks. This seems to indicate that it can be quite natural for language textbooks to be mainly composed of activities addressing linguistic and logical-mathematical intelligence types since the traditional education system emphasizes these two intelligences.

Moreover, as Kornai and Pullum (2003) claim, understanding algebra and logic requires coherence of linguistics and therefore, mathematical linguistics is linked to formal syntax and semantics. Also, Rodman (1975) mentions that language students have two reasons to learn mathematical subfields: 1) comprehension of essential mathematical concepts which exist in contemporary linguistic literature, and 2) knowledge of transformational generative theory which includes formal grammars and automata.

As for the profiles of each textbook, Workbooks' profile was approximately similar to the results of the Students' Book's profile in terms of the most dominant and least

dominant intelligence types. Some differences in the percentages of intelligence types were identified. For example, when compared to Students' Book, the percentage of interpersonal intelligence type in the Workbook was very low (2.88%). The percentage of interpersonal intelligence type in the Students' Book was 29.38%. Low percentage of this intelligence type in the Workbook can be related to the fact that Workbook included activities for individual or self-study. Moreover, there were other differences: Workbook's intelligence profile was found out to be limited to only 6 out of 8 intelligence types. Bodily-kinesthetic and musical intelligences were not catered for in any activities in the Workbook.

5.1.3 Research Question 3: What are the MI profiles of the classroom activities?

The analysis of the classroom observations gives information about the intelligence types catered for in EPS intermediate classes. As it was expected, linguistic intelligence type was prevailing in 100% of the activities observed. As explained in the results of the textbook evaluation, linguistic intelligence type is naturally expected to exist in any language activity. In other words, it can be concluded that any language activity in a language classroom requires some linguistic ability to perform.

Spatial intelligence was the second most frequently emphasized intelligence type in classroom activities observed. The percentage of spatial intelligence was 42.55%. Regarding this situation, it is possible to say that visual aids are commonly used in the observed classes to present different situations, actions, events, characters and language points with a purpose of facilitating language learning.

Bodily-kinesthetic intelligence type ranked third, with a percentage of 25.53%. As it was observed, some activities required students to perform different tasks by using

their bodily-kinesthetic abilities. For instance, students were sometimes asked to stand up and change their seats in order to exchange their papers or partners, go to the board and pull down the OHP curtain, stand up and find their partners, who had the same animal on the card, go to the board and correct the error in the sentences written on the board and write or draw on the board or help the teacher in distributing materials to the class.

On the other hand, interpersonal intelligence type had a percentage of 23.40%, ranking fourth. Observed activities catering for interpersonal intelligence required the students to work in pair works, group discussions, role playing, and writing in pairs and problem solving in groups.

Intrapersonal intelligence type was catered for 19.15% of the activities in the classes observed. This can be an indication of the fact that observations were limited to only 10 classes. Observed activities, catering for intrapersonal intelligence, included expressing opinion about certain topics, thinking individually on a topic to be discussed with the whole class, and answering personal questions about any kind of accidents that students had in the past.

Contrary to the textbooks' profiles, only 8.51% of the observed classroom activities were identified addressing logical-mathematical intelligence type. As it was observed, activities addressing logical-mathematical intelligence type were limited to tasks which required putting words in categories and matching related words. Identical results were detected for musical (2.13%) and naturalist (2.13%) intelligence types. Regarding the musical intelligence type, only one activity which involved background music during the activity to create a relaxing atmosphere in the

class was observed. On the other hand, naturalist intelligence was addressed only in one activity which was describing a picture of a mountain climbing.

Finally, observed activities mostly addressed linguistic (100%) and spatial (42.5%) intelligence types dominantly. However, bodily-kinesthetic (25.53%), interpersonal (23.40%) and intrapersonal (19.15%) intelligence types were also commonly used. Lastly, logical-mathematical (8.51%), musical (2.13%) and naturalist (2.13%) intelligence types appeared to be less commonly addressed in the observed activities.

5.1.4 Research Question 4: To what extent do the MI profiles of the textbooks relate to the MI profiles of the students?

Except for the logical-mathematical intelligence type (ranking second in both profiles), two profiles showed differences from each other. They differed from each other in terms of the ranking of different intelligence types as well as the range of distribution of these intelligences. The range was between 51.8% and 73.4% in the MI profiles of the students whereas it was between 1.48% and 100% in the textbooks' MI profiles. In other words, while balanced distribution of eight intelligences was observed in students' MI profiles, the distribution of these intelligences was not balanced in the textbook activities.

Linguistic intelligence was found to be as the most dominant intelligence type addressed in the textbooks (100%). However, students' most dominant intelligence type was intrapersonal intelligence (73.5%). Thus the textbooks' MI profile and students' MI profile differed in terms of the most dominant intelligence type.

Likewise, the results of interpersonal, spatial, naturalist, bodily-kinesthetic, musical, and linguistic intelligence types were considerably different between the students' and textbooks' MI profile.

Overall, the results show inconsistency among students' and textbooks' MI profiles. Except for logical-mathematical intelligence, which ranked the second in both profiles, but with different frequencies.

5.1.5 Research Question 5: To what extent do the MI profiles of the classroom activities address the students' MI profiles?

In general, the analysis of the results of the survey and the classroom observations shows that the classroom activities do not address the students' MI profiles. They show differences in terms of the dominant and less common intelligence types. For example, the students' most dominant intelligence was found out to be intrapersonal (73.4%), ranking first. However, only 9 (19.15%) observed classroom activities addressed this intelligence. The reason for this can be a limited number of observations: only 10 classes were observed.

Another major difference was related to linguistic intelligence. It ranked first in the observed classroom activities (100%). Unfortunately, it ranked seventh, with a percentage of 53.5 % in the students' profiles. Similarly, students' logical-mathematical intelligence (68.9%) ranked second, whereas it ranked sixth (8.51%) in the observed classroom activities. This and similar results can be seen as an indication of discrepancy between students' dominant intelligence types and intelligence types emphasized in the observed classroom activities, in general.

On the other hand, there seems to be some consistency regarding the bodily-kinesthetic intelligence type. Students' bodily-kinesthetic intelligence ranked third with a percentage of 65.8%. It was also found to be the third dominant intelligence type but with a percentage of 25.53%.

Overall, relative discrepancies were identified between the students' MI profiles and the intelligence types addressed in the classroom activities. Except for bodily-kinesthetic intelligence, classroom activities do not address the students' MI profiles. Both the ranking and the balance of distribution of eight intelligences were found to be different.

5.1.6 Research Question 6: What are the teachers' perceptions regarding MI Theory and its application in their classes?

The results obtained through teacher interviews reveal that all ten teachers consider MI theory important in their teaching because of different reasons such as bringing variety into their classes and addressing individual differences. Moreover, majority of the teachers (80%) reported applying the theory in their classes through using pair and group work activities (60%) in order to address to students' interpersonal and linguistic intelligence; role play activities (20%) to cater for kinesthetic, linguistic and interpersonal intelligences; visuals (40%) such as pictures, posters, cards, story scenes to address to spatial intelligence; matching, guessing, putting words or pictures into categories activities (30%) to focus on logical-mathematical intelligence. Contrary to observation results, teachers stated that they bring music to class and give students lyrics of the song with missing words to fill in the gaps to cater for musical intelligence.

Related to the effects of applying MI theory, the teachers (60%) experienced positive outcomes. They think that when they apply MI Theory in their classes, their students get motivated; they enjoy the task more and feel happy. Some teachers claim that students understand and remember language points better when MI Theory is applied in the classroom. They also claim that MI- based activities keep students active and involved in the class activities. According to their responses, they can reach more students and relate to their intelligences by bringing variety to their lessons. Therefore, they feel happy and satisfied and they can receive positive feedback and see positive outcomes.

Overall, teachers' responses reveal that the MI Theory has positive influence on their students' learning, motivation and success, as well as on their teaching. This is parallel to research findings reviewed in Chapter 2 (Christison, 1996; Haley, 2001; Kong, 2009; Bakić-Mirić, 2010).

It is interesting to find out that although 90% of the teachers have never given any MI Test to their students, they claim that they know their students' abilities by observing them during the class activities.

Finally, the interview results show that half of the teachers think that their students are not aware of their abilities or intelligences. The rest of the teachers reported not being sure or knowing whether or not their students are aware of their intelligences. On the other hand, 90% of the teachers stated that they knew their own abilities, although they had never taken a test.

Teachers reported positive attitudes towards considering MI Theory in teaching and applying it in their classes. They also reported that applying MI Theory in their classes brings positive outcomes related to teaching practices and the students' learning. However, classroom observations showed the opposite results.

5.1.7 Research Question 7: How do teachers evaluate the materials and activities used in their classes in terms of MI theory?

Based on the results, only 30% of the teachers think that the activities in the textbooks have variety, thus address different intelligences. However, 30% of them claim that the textbooks mainly focus on linguistic intelligence which is parallel to the findings of textbook evaluation. In relation to this, majority of the teachers reported adapting activities on the basis of the MI Theory, by bringing songs to class, getting students to act out, role play, draw on the board, play games, and put words in categories.

Teachers' responses/evaluations are parallel to the findings of the textbook evaluation. However, although they claim that they adapt activities on the basis of the MI Theory, the results of classroom observations do not support this because the eight intelligences are not addressed in balance in the observed classroom activities.

5.2 Summary

In conclusion, while a balanced distribution of intelligences in the students' MI profiles was found (the range was between 51.8% and 73.4%), however, there was a wide range of distribution of intelligences in the textbooks' MI profiles, with a range of 1.48% and 100%. This can be interpreted as there was no balance in the textbooks activities in terms of the intelligence types addressed. Similarly, textbook activities do not address the students' MI profiles, when the results of textbook evaluation

were compared with the results of MI survey. Teachers think that MI theory is important and it affects their teaching and their students' learning positively. However, the classroom observations show that eight intelligences are not catered for in a balanced ways.

The following table (Table 5.1) summarizes all the results of this study:

Table 5.1: Summary of All Results

Students' MI Profile (in %)	Textbooks' MI profile (in %)	Classroom Activities (in %)	Teachers' Perceptions	
Intrapersonal (73.4) Logical-Mathematical (68.9) Bodily-Kinesthetic (65.7) Naturalistic (61.4) Spatial (58.0) Musical (57.6) Linguistic (53.5) Interpersonal (51.8) Balanced distribution of intelligences	Linguistic (100) Logical-mathematical (41.86) Naturalistic (34.88) Spatial (28.65) Interpersonal (19.66) Intrapersonal (7.29) Bodily-kinesthetic (2.22) Musical (1.48) Unbalanced distribution of intelligences	Linguistic (100) Spatial (42.55) Bodily-kinesthetic (25.53) Interpersonal (23.40) Intrapersonal (19.15) Logical-mathematical (8.51) Musical (2.13) Naturalistic (2.13) Unbalanced distribution of intelligences	MI is important Positive attitudes towards MI and its application in classes Positive outcomes of applying MI theory Motivated students MI brings variety in activities Teachers adapt activities on the basis of MI (e.g. bringing music, role plays, drawing/writing on the board, playing games, etc.)	

5.3 Implications for English Language Teaching

As it has been explained in chapters 4 and 5, the results of the current study reveal that textbook activities and observed classroom activities do not cater for the students' MI profiles. This can be considered as one of the problematic issues in many education systems because students have different intelligences but they are not addressed in classrooms (Altan, 2001). Therefore, the results of this study may have some practical implications for teachers and educators, as well as some theoretical implications for further research.

In order to help learners to better develop and improve their English language skills and abilities, it can be suggested that ELT teachers take advantage of the data obtained in the present study to expand their awareness of students' multiple intelligence types in relation to the MI profiles of the textbooks and classroom activities that they use in teaching. Taking MI Theory into consideration in shaping materials for students might improve learning and teaching processes, encourage students, and raise their interest and motivation.

Moreover, teachers and administrators in EPS at EMU could make some adaptations in terms of materials or syllabus design so that they address individual differences. By using the MI activities presented in this study, the teachers can devise their lessons to promote individualized learning by addressing different intelligences in balance. In addition, MI Theory could be taught in classes to raise students' awareness of their abilities.

5.4 Suggestions for Further Research

The focus of this study was limited to Intermediate level classes in EPS. Moreover, classroom observations were limited to 10 classes and teacher interviews were conducted with 10 volunteer teachers and two textbooks were analyzed. Although the results cannot be generalized, it is expected that some theoretical implications could be obtained from the results of this study.

It can be suggested that future studies expand the scope of investigation by including different proficiency levels, interviewing more teachers and observing more classes at EPS. In addition, more textbooks from different levels could be analyzed.

Furthermore, future studies could focus on materials adaptation and design in terms of MI Theory.

Finally, the framework used in this study to evaluate the textbooks in terms of MI Theory could be used not only by the English teachers in EPS at EMU but also by other teachers in different teaching-learning contexts to evaluate and adapt the textbooks to better cater for all intelligence types.

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APPENDICES

Appendix A: Multiple Intelligences Survey (English Version)

Dear Students,

This survey aims to identify your Multiple Intelligences profile. It is very important that you answer all the questions sincerely. Your identity and individual responses will be kept confidential, and the findings of the survey will be used only for research purposes.

Thank you for participation and cooperation.

Nigera Ibragimova

MA student Faculty of Education English Language Teaching Department

QUESTIONNAIRE

PART 1 - Background Information

1.	Your age:				
2.	Your gender:		Fema	le 🗌	
3.	Your nationality: specify)	TRNC \square	TR \square	Other	_ (please
4.	Department that y	ou will study a	at EMU (please specify):	
Fa	culty/School of				
De	partment of				

PART 2 - Multiple Intelligences Inventory (adapted from © 1999 Walter McKenzie)

Put a check $(\sqrt{})$ next to each statement you feel accurately describes you. If you do not identify with a statement, leave the space provided blank.

1. I enjoy categorizing things by common traits.
2. Ecological issues are important to me.
3. Classification helps me make sense of new data.
4. I enjoy working in a garden.
5. I believe preserving our National Parks is important.
6. Putting things in hierarchies makes sense to me.
7. Animals are important in my life.
8. My home has a recycling system in place.
9. I enjoy studying biology, botany and/or zoology.
10. I pick up on subtle differences in meaning.
11. I easily pick up on patterns.
12. I focus in on noise and sounds.
13. Moving to a beat is easy for me.
14. I enjoy making music.
15. I respond to the cadence of poetry.
16. I remember things by putting them in a rhyme.
17. Concentration is difficult for me if there is background noise.
18. Listening to sounds in nature can be very relaxing.
19. Musicals are more engaging to me than dramatic plays.
20. Remembering song lyrics is easy for me.
21. I am known for being neat and orderly.
22. Step-by-step directions are a big help.
23. Problem solving comes easily to me.
24. I get easily frustrated with disorganized people.
25. I can complete calculations quickly in my head.
26. Logic puzzles are fun.
27. I can't begin an assignment until I have all my "ducks in a row".
28. Structure is a good thing.

29. I enjoy troubleshooting something that isn't working properly.
30. Things have to make sense to me or I am dissatisfied.
31. I learn best interacting with others.
32. I enjoy informal chat and serious discussion.
33. The more the merrier.
34. I often serve as a leader among peers and colleagues.
35. I value relationships more than ideas or accomplishments.
36. Study groups are very productive for me.
37. I am a "team player".
38. Friends are important to me.
39. I belong to more than three clubs or organizations.
40. I dislike working alone.
41. I learn by doing.
42. I enjoy making things with my hands.
43. Sports are a part of my life.
44. I use gestures and non-verbal cues when I communicate.
45. Demonstrating is better than explaining.
46. I love to dance.
47. I like working with tools.
48. Inactivity can make me more tired than being very busy.
49. Hands-on activities are fun.
50. I live an active lifestyle.
51. Foreign languages interest me.
52. I enjoy reading books, magazines and web sites.
53. I keep a journal.
54. Word puzzles like crosswords or jumbles are enjoyable.
55. Taking notes helps me remember and understand.
56. I faithfully contact friends through letters and/or e-mail.
57. It is easy for me to explain my ideas to others.
58. I write for pleasure.
59. Puns, anagrams and spoonerisms are fun.
60. I enjoy public speaking and participating in debates.

61. My attitude effects how I learn.
62. I like to be involved in causes that help others.
63. I am keenly aware of my moral beliefs.
64. I learn best when I have an emotional attachment to the subject.
65. Fairness is important to me.
66. Social justice issues interest me.
67. Working alone can be just as productive as working in a group.
68. I need to know why I should do something before I agree to do it.
69. When I believe in something I give more effort towards it.
70. I am willing to protest or sign a petition to right a wrong.
71. Rearranging a room and redecorating are fun for me.
72. I enjoy creating my own works of art.
73. I remember better using graphic organizers.
74. I enjoy all kinds of entertainment media.
75. Charts, graphs and tables help me interpret data.
76. A music video can make me more interested in a song.
77. I can recall things as mental pictures.
78. I am good at reading maps and blueprints.
79. Three dimensional puzzles are fun.
80. I can visualize ideas in my mind

Appendix B: Multiple Intelligences Survey (Turkish Version)

Sevgili Öğrenciler,

Bu anket, sizin çoklu zeka profilinizi belirlemek amacıyla hazırlanmıştır. Soruların/maddelerin tümünü istenilen şekilde yanıtlayıp, kendiniz ile ilgili düşüncelerinizi (değerlendirmelerinizi) gerçekçi bir biçimde ortaya koymanız çok önemlidir. Kimliğiniz ve bireysel yanıtlarınız kesinlikle gizli tutulacak ve anket sonuçları sadece araştırma amaçlı kullanılacaktır.

Katılımınız ve işbirliğiniz için teşekür ederim.

Nigera İbragimova

Yüksek Lisans Öğrencisi Eğitim Fakültesi İngiliz Dili Eğitim Bölümü

ANKET

I. l	BÖLÜM - Kişisel Bilgiler			
1.	. Yaşınız: (lütfen belirtiniz)			
2.	Cinsiyetiniz: Erkek	Kız 🗆		
3.	Uyruğunuz: KKTC ☐ belirtiniz)	тс 🗆	Diğer 🗆	_ (lütfen
4.	J. DAÜ'de okuyacağınız bölüm (lütfen belirtiniz):			
		_ Fakülte	si/Yüksek Okulu	
		_ Bölümü	ı	

II. BÖLÜM - Çoklu Zeka Ölçeği (© 1999 Walter McKenzie'den uyarlanmıştır)

Aşağıdaki cümlelerden sizi doğru şekilde tanımladığına inandığınız her cümleyi işaretleyiniz ($\sqrt{}$). Sizi tanımla<u>ma</u>dığını düşündüğünüz cümleleri boş bırakınız.

 1. Nesneleri ortak özelliklerine göre sınıflandırmaktan hoşlanırım.
 2. Ekolojik (çevresel) konular benim için önemlidir.
 3. Sınıflandırmalar bana yeni bilgileri anlamakta yardımcı olur.
 4. Bahçe işleri yapmaktan hoşlanırım.
 5. Doğal çevremizi korumanın önemli olduğunu düşünüyorum.
 6. Nesneleri önem sırasına göre dizmek bana mantıklı geliyor.
 7. Hayvanlar yaşamımda önemli bir yer tutar.
 8. Çöplerin/atıkların geri dönüşümüne önem veriyorum.
 9. Biyoloji, botanik ve/veya zooloji çalışmaktan zevk alırım.
 10. Anlam farklılıklarındaki ince ayrıntıları görebilirim.
 11. Biçim düzenlerini veya kalıpları kolayca fark ederim.
 12. Gürültü ve sesler dikkatimi çeker.
 13. Ritme uygun hareket etmek bana kolay gelir.
 14. Müzik yapmaktan hoşlanırım.
 15. Şiirin ahengi/ritmi beni etkiler.
 16. Aklımda tutmam gereken şeyleri kafiye yaparak hatırlarım.
 17. Gürültülü ortamlarda dikkatimi odaklamakta güçlük çekerim.
 18. Doğadaki sesleri dinlemek beni rahatlatır.
 19. Müzikaller, bana tiyatro oyunlarından daha çekici gelir.
 20. Şarkı sözlerini kolayca hatırlarım.
 21. Temiz ve düzenli birisi olarak bilinirim.
 22. Adım adım verilen açıklamalar/talimatlar bana çok yardımcı olur.
 23. Problem çözmek benim için kolaydır.
 24. Düzenli olmayan insanlardan rahatsız olurum.
 25. Kafadan çabuk hesap yapabilirim.
 26. Mantık yürütülmesi gereken bulmacalar eğlencelidir.
 27. Yapacağım herhangi bir iş için ihtiyaç duyacağım herşeyi hazırlamadan
önce işe başlayamam.
28. Planlı-programlı olmak iyidir.

29. Düzgün (doğru dürüst) çalışmayan birşeyin hatasını bulup gidermekten
hoşlanırım.
30. Herşeyin bir anlamı olmalı, aksi halde tatmin olmam.
31. En iyi başkaları ile çalışırken öğrenirim.
32. Hem sohbet (muhabbet) etmeyi hem de ciddi konularla ilgili tartışmayı
severim.
33. Ne kadar kalabalık olursa o kadar eğlenceli olur.
34. Arkadaş ve veya meslektaşlarım arasında liderliği ben üstlenirim.
35. İnsan ilişkileri benim için düşüncelerden veya başarılardan daha
önemlidir.
36. Çalışma grupları (grup halinde çalışmak) benim için çok verimlidir.
37. Ben bir "takım oyuncusuyum".
38.Arkadaşlarım benim için önemlidir.
39. Bir kaç kulübe veya derneğe üyeyim.
40. Tek başıma çalışmaktan hoşlan mı yorum.
41. Uygulama yaparak öğrenirim.
42. Ellerimle birşeyler yapmaktan zevk alırım.
43. Spor hayatımın bir parçasıdır.
44. Konuşurken mimik ve işaretler kullanırım.
45. Birşeyin nasıl yapıldığını göstermek onu anlatmaktan daha iydir.
46. Dans etmeyi severim.
47. Aletlerle çalışmaktan hoşlanırım.
48. Hiçbir iş yap ma mak beni çok iş yapmaktan daha çok yorar.
49. Uygulamalı aktiviteler eğlencelidir.
50. Hareketli bir yaşam tarzım var.
51. Yabancı diller ilgimi çeker.
52. Kitap, dergi ve web sayfalarını okumaktan zevk alırım.
53. Günlük tutarım.
54. Kelime bulmacaları eğlencelidir.
55. Not tutmak hatırlamama ve anlamama yardımcı olur.
56. Arkadaşlarımla mektup ve/veya e-posta yoluyla hep haberleşirim.
57. Fikirlerimi başkalarına anlatmak benim için kolaydır.
58. Zevk için yazı yazarım.
59. Kelime oyunlarından hoşlanırım.

60.	Tartışma toplantılarına katılmak ve kalabalık karşısında konuşmak
	hoşuma gider.
61.	Tutumlarım, öğrenmemi etkiler.
62.	Başkalarına yardım amaçlı yapılan işlerde yer almayı severim.
63.	Ahlaki inançlarımın tamamen bilincindeyim.
64.	Bir konuyla duygusal bağım varsa onu en iyi şekilde öğrenirim.
65.	Adil olmak benim için önemlidir.
66.	Sosyal adalet ile ilgili konulara ilgi duyarım.
67.	Tek başına çalışmak grup çalışması kadar verimli olabilir.
68.	Bir şeyi yapmadan önce onu neden yapmam gerektiğini bilmeliyim.
79.	İnandığım birşeyi gerçekleştirmek için daha fazla gayret ederim.
70.	Bir yanlışı düzeltmek için protesto etmekten ya da imza vermekten
	kaçınmam.
71.	Bir odayı yeniden düzenlemek ve dekore etmek benim için eğlencelidir.
72.	Kendi sanat eserimi yaratmak hoşuma gider.
73.	Grafikler kullanmak daha iyi hatırlamama yardımcı olur.
74.	Bütün eğlence araçlarından hoşlanırım.
75.	Grafikler ve tablolar bilgileri daha iyi yorumlamama yardımcı olur.
76.	Kliple sunulan bir şarkıya daha fazla ilgi duyarım.
77.	Hatırlamam gereken şeyleri kafamda canlandırarak hatırlarım.
78.	Harita ve plan okumakta iyiyim.
79.	Üç boyutlu bulmacaları eğlenceli bulurum.
80	Fikirleri kafamda canlandırahilirim

Appendix C: Teacher Interview Questions

Part 1. Background information about teachers

Age:	Years of teaching experience:
Mother tongue:	
Degree and field of study:	in
Postgraduate qualifications (e	e.g., MA, PhD, certificates, etc.):

Part 2. Teachers' overall perceptions about MI theory and its application in their classes:

- 1. Do you consider MI theory important in your teaching? (Why do you think it is important? or Why do you think it is not important?)
- 2. Do you apply it in your teaching? If no, why?
- 3. How do you apply it? (Can you please give examples?)
- 4. What are the effects of applying MI theory on your teaching and on your students` learning? (Can you please give examples?)
- 5. Are you aware of your students` MI profiles (potentials, strong/weak intelligences)? (How? Have you given an inventory to them?)
- 6. Are your students aware of their own MI profiles? (How do you know?)
- 7. Are you aware of your own MI profile? (How have you learnt about your MI profile?) If yes, how do you think your MI profile influences your teaching? (Can you please give examples? Can you please elaborate on this?)

Part 3. Teachers' perceptions about the extent to which the materials address to the students' MI profiles (Teachers' evaluation of materials in terms of MI theory):

- 8. To what extent do the *materials* (e.g. course book, workbook, etc.) you use address to different intelligence types? (Can you please explain? Can you please give examples?)
- 9. Do you *adapt* the existing materials on the basis of MI theory so that they can cater for different intelligence types and your students' MI profiles? If yes, please explain how. If no, why? (Can you please give examples?)

- 10. Do you take MI theory into consideration when preparing *supplementary materials*? (Can you please explain how you do this? Can you please give examples?)
- 11. To what extent do the *activities* you use in the classroom address to different intelligence types? In other words, is there variety in terms of intelligences emphasized? (How do you achieve this variety? What do you do to address to different intelligences? Can you please give examples?)

Appendix D: Checklist for Activities Evaluation

Intelligences	Activities
Bodily-kinesthetic	Hands-on activities, field trips, role-plays, pantomime, Total Physical Response, field experiences, creating a movement or a sequence of movements to explain, making task or puzzle cards, building or constructing, art forms, movements, drama, sports, manipulatives, object coordination, dancing, crafts, miming, circle dancing, brain gym, relaxation exercises, craftwork, using computers, acting, classroom games, mingling in the classroom, simulations, find someone who game, circulating round the classroom, tracing intonational contours with arms and fingers while saying a given utterance, outcome balls and cards.
Intrapersonal	Tasks with self-evaluation component, interest centers, options for homework, personal journal keeping, dialogue journals, learning logs, choice in assignments, describing qualities you possess, setting and pursuing a goal to, describing one of your personal values about, writing a journal entry on, assessing your own work, individualized instruction, independent study, reflective practices and activities, teaching for achievement and success, introspective and metacognitive tasks, project work, learner diaries, self-study, personal goal setting, discussion about what is important and of value in life, reflecting on the personal importance of what is being learned, reacting to the qualities, values, and actions of those featured in stories or poems, expressing feelings and emotions, evaluating web sites.
Interpersonal	Pair work or peer teaching, board games, group brainstorming, group problem solving, project work, pen pals, writing group stories, playing vocabulary games, peer editing, intercultural awareness, conducting a meeting, using social skills to learn about, participating in a service project, teaching someone about, practice giving and receiving feedback on, using technology to, tutoring, cooperative learning, role playing, collective writing, information-gap activities, conducting a class survey, teamwork games/exercises, peer feedback.

Note-taking, listening to lectures/stories. reading books/response journals, reading with a partner, sustained silent Linguistic reading, storytelling, debates, tape recording, teacher reading to students, translating, presenting materials orally, writing a poem, myth, legend, short play, news article, creating a talk show radio program, conducting an interview, composition, literature, word games, poetry, writing, speaking, using language in games, puzzles and creative activities, group discussions, completing worksheets, giving presentations, word building games, memorizing, exercising four skills, completing worksheets, yes/no questions, asking questions, identifying various themes. round table discussion, answering comprehension questions. Crossword, ordering, matching, categorizing and classifying, science demonstration and experiments, logic puzzles and Logicalgames, story problems with numbers, logical/sequential presentation of subject matter, summarizing, analyzing mathematical grammar, solving word problems, creating categories for spelling/vocabulary, organizing information with diagrams, determining cause and effect, sequencing events in a story, designing and conducting an experiment, making up syllogisms to demonstrate, making up analogies to explain, describing the patterns or symmetry, number games, critical thinking, science combinations, mental calculations, guided discovery, syllogisms, comparing, phrasal verb sequencing/ordering, predicting, identifying errors, inferring, giving reasons and defending them, testing hypothesis, examining pairs to choose the correct answer (grammar/ vocabulary exercises), identifying main ideas/ components/ attributes, describing patterns of the causally related event sequences in stories. Singing, playing recorded music, playing live music (piano, guitar), jazz chants, reciting poetry, associating music to story Musical mood/story plot, writing song lyrics, using rhythm to learn/present intonation patterns, giving presentation with appropriate musical accompaniment, explaining, differentiation, musical games, background music, responding emotionally to music, welcoming students with music, writing words to simple well-known melody, songs, background music to shape focus, calm down, energize and relax, record of a burst of applause.

Using charts and grids, clusters, videos, slide, movies, using art, graphic organizers, illustrating stories, using sentence strips, using drawings to express ideas and feelings, making maps, **Spatial** charts, sequencing sentences to form a coherent story, creating a slideshow, videotape or photo album, inventing a board or card game to demonstrate, illustrate, sketch and sculpt, art activities, imagination games, geometric figures, visualization, problem solving, communicating visually, enjoying creative 3-D models puzzles, maps, designs, and graphic representations, mind maps, visualizations, diagrams, TV, interpreting visual information, photographs, art work, drawing, creating visual summary, painting, flow charts, card games, visual outlines. Creating observation notebooks of, describing changes in the local or global environment, caring for pets, wildlife, gardens, Naturalist parks, using binoculars, telescopes, microscopes or magnifiers, drawing or taking pictures of natural objects, outdoor activities, natural and environmental materials and concepts, noticing relationships, making collocations, changing words in brackets into correct forms, classifying and categorizing activities, background music in the form of sounds created in the natural world.

Appendix E: Observation Form

Date:	Course/group:
Date	Course/group.

Activity/Task/ Exercise	Materials used	What does the teacher do?	What do the students do?	Intelligence(s) addressed

Appendix F: Permission Letter

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	r. Osman YILMAZ Yardımcısı (Akademik İşler)	Tarih/Date : 06.04.2010
Gönderen/From : Doç. Dr Eğitim	. Necdet OSAM	Sayı/Ref No. : 0A/521.5/406
		0A/521.5/406-1295
Konu/Subject : Veri To	plama Çalışması Hk. (Nigera İbrag	imova)
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	Uspariment of English Language Teaching Eastern Maditerranean University	Sa Yab. Dil. ve Iry Hoz. Black Md Bilgi redegerlendirmenia lutter
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00	EKTÖRLÜK AKALLI.	
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Appendix G: Written Consent Form

Dear Student,

I am currently doing my M.A. degree in English Language Teaching Department at

Eastern Mediterranean University. As part of my thesis study, you are requested to

respond to the attached questionnaire, which aims to identify your Multiple

Intelligences profile.

If you agree to participate, it will take you about 20-25 minutes to complete the

questionnaire. Your identity and individual responses will be kept confidential, and

the findings of the questionnaire will be used only for research purposes.

If you have any questions about the study, please feel free to contact:

Nigera Ibragimova M.A. Student ELT Department Faculty of Education Eastern Mediterranean University

E-mail: <u>nigara.ibragimova@gmail.com</u>

CONSENT FORM

I have read and understood the purpose of this study and how my responses will be

used. Therefore, I agree to participate in this study.

Name - Surname:

Signature:

Date: _____

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Appendix H: Teacher Consent Form

Dear Teacher,

I am currently doing my M.A. degree in English Language Teaching Department at

Eastern Mediterranean University. As part of my thesis study, you are requested to

participate in an interview, which aims to identify your perceptions about Multiple

Intelligences theory and its application in your classes, as well as your evaluation of

the materials you are currently using in terms of Multiple Intelligences theory.

If you agree to participate, it will take you about 15-20 minutes to answer the

questions in the interview. Your identity and individual responses will be kept

confidential, and the findings of the interview will be used only for research

purposes.

If you have any questions about the study, please feel free to contact:

Nigera Ibragimova M.A. Student ELT Department Faculty of Education Eastern Mediterranean University

E-mail: nigara.ibragimova@gmail.com

CONSENT FORM

I have read and understood the purpose of this study and how my responses will be

used. Therefore, I agree to participate in this study.

Name - Surname:

Signature: _____

Date: _____

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