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**STUDENTS' PERCEPTIONS OF EDUCATIONAL ENVIRONMENT IN AN
EFL CLASSROOM WHERE MULTIPLE INTELLIGENCES THEORY IS
IMPLEMENTED**

MA THESIS

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TUTANAK

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YEMİN

Yüksek lisans tezi olarak sunduğum “Students’ Perceptions of Educational Environment in an EFL Classroom Where Multiple Intelligences Theory is Implemented” adlı çalışmanın, tarafımdan bilimsel ahlak ve geleneklere aykırı düşecek bir yardıma başvurulmaksızın yazıldığını ve yaralandığım eserlerin Kaynakça’da gösterilenlerden oluştuğunu, bunlara atıf yapılarak yararlanmış olduğumu belirtir ve bunu onurumla doğrularım.

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TEZİN KONUSU (KONULARI)

- 1) What are students' perceptions of learning in an EFL classroom where Multiple Intelligences Theory is implemented?
- 2) What are students' perceptions of teacher in an EFL classroom where Multiple Intelligences Theory is implemented?
- 3) What are students' perceptions of classroom atmosphere in an EFL classroom where Multiple Intelligences Theory is implemented?
- 4) What are students' perceptions of social self-concept in an EFL classroom where Multiple Intelligences Theory is implemented?
- 5) What are students' perceptions of academic self-concept in an EFL classroom where Multiple Intelligences Theory is implemented?

TÜRKÇE ANAHTAR KELİMELEER:

1. Çoklu Zeka
2. İngilizce Öğretimi
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4. Eğitim Ortamı
5. Algı

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1. Multiple Intelligences
2. ELT
3. Academic Self-Concept
4. Educational Environment
5. Perception

- | | |
|--|-------------------|
| 1-Tezimde fotokopi yapılmasına izin vermiyorum | O |
| 2-Tezimden dipnot gösterilmek şartıyla bir bölümünün fotokopisi alınabilir | O |
| 3- Kaynak gösterilmek şartıyla tezimin tamamının fotokopisi alınabilir | O |
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ABSTRACT

This study aimed to find out students' perceptions of educational environment in relation to students' perceptions of learning, teacher, classroom environment, social self-concept, and academic self-concept in an EFL classroom where Multiple Intelligences Theory is implemented. A purpose sampling group was constructed by the participation of 102 students studying English as a foreign language in 7th grade. 51 of them studied the topic "used to , expressing past habits" through techniques stemming from Multiple Intelligences Theory for five weeks while the others studied the same topic through more traditional methods. Dundee Ready Education Environment Measure (DUNDEE) was administered to all participants as pre- and post-test. All participants were also asked to reflect on and give feedback about this experience in exit slips through their own words. The post-test results show that there is not a significant difference in students' perceptions of learning, teacher, classroom environment, and social self-concept in experiment group and control group. But the post-test result points to a significant change in students' perceptions of academic self-concept in experiment group. Students' exit slips of both groups were analyzed in relation to students' educational environment perceptions. They reveal that students in experiment group hold a positive attitude towards Multiple Intelligences based techniques in terms of their educational environment perceptions. The results suggest that a Multiple Intelligences based approach may have encouraged students to perceive themselves academically more successful in learning English as a foreign language.

KEY WORDS

Multiple Intelligences, ELT, educational environment, perception, academic self-concept.

ÖZET

Bu çalışmada, Çoklu Zeka Kuramı uygulanan bir İngilizce sınıfında öğrencilerin eğitim ortamına yönelik öğrenme, öğretmen, sınıf ortamı, sosyal özkavram ve akademik özkavram algıları araştırılmıştır. Bu araştırma için İngilizce'yi yabancı dil olarak öğrenen 102 ilköğretim 7. sınıf öğrencilerinden bir örneklem grubu oluşturulmuş, bu öğrencilerden 51 tanesi beş hafta süre ile “used to, geçmiş zamanda alışkanlıkları ifade etme” konusunu Çoklu Zeka Kuramı'na dayanarak geliştirilen etkinliklerle çalışırken, diğer öğrenciler aynı konuyu daha geleneksel yöntemlerle çalışmışlardır. Dundee Ready Education Environment Measure (DUNDEE) anketi tüm örneklem grubuna ön ve son test olmak üzere iki kez uygulamıştır. Bunun yanında tüm öğrencilerden bu uygulamaya yönelik duygu ve düşüncelerini kendi cümleleriyle ifade etmeleri istenmiştir. Son test sonuçlarına göre deney grubu ve kontrol grubu arasında öğrenme algısı, öğretmen algısı, sınıf ortamı algısı ve sosyal özkavram algısı açısından önemli bir farklılık bulunmamıştır. Fakat deney grubunun son test sonucu, deney grubundaki öğrencilerin akademik özkavram algısında önemli bir artış olduğunu ortaya koymuştur. Öğrencilerin kendi ifadeleriyle vermiş oldukları dönütler eğitim ortamı algılarına ilişkin olarak analiz edilmiştir. Bu dönütlerden deney grubundaki öğrencilerin uygulamaya yönelik olumlu tutumlar geliştirdikleri sonucuna varılmıştır. Bu sonuçlar, Çoklu Zeka Kuramı'na dayanan bir yaklaşımın, öğrencilerin kendilerini İngilizce öğrenirken akademik anlamda daha başarılı algılamalarına yol açabileceğini göstermektedir.

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Çoklu Zeka, İngilizce öğretimi, eğitim ortamı, algı, akademik özkavram.

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CHAPTER 1

INTRODUCTION

1. 1. Background to the Study

English teachers have been strongly influenced by the constantly changing methodology of English language teaching (ELT) and have tried to keep the pace by tailoring the techniques and ideas that best fit their teaching environment. Language teaching methods have changed throughout history due to the needs of learners and the shift of the theories regarding language learning and the language itself (Richards and Rodgers, 1986, p.1).

Study of Latin guided foreign language teaching by the nineteenth century. In this period, learners were asked to translate sentences divorced from meaning, memorize lists of vocabulary and study abstract grammar rules because teaching how to speak the language was not the goal of language teaching (Brown, 2001, p.18). This method, which was known as Grammar Translation Method, dominated from the 1840s to the 1940s. In the late 1800s, Gouin (1880) observed how children acquired language and put forward two important suggestions about language and language learning: “language learning is primarily a matter of transforming perceptions into conceptions.....language is a means of thinking of representing the world to oneself” (cited in Brown, 2001, p.20). His perception of language learning and emphasis on the importance of context, the use of gestures and actions to boost the meaning of the utterances led to approaches and methods as Situational Language Learning and Total Physical Response (Brown, 2001, p.18).

Direct Method shared the basic premise of Gouin’s approach by emphasizing communication and avoiding grammar rules and mechanical use of language. The exclusive use of the target language brought some drawbacks such as wasting time

on explaining everything in the target language and basing its success mostly on the teacher's skill rather than coursebook. By the decline of Direct Method in the early twentieth century, three methods were on stage; a modified version of Direct Method with grammar-based activities, a reading-oriented approach and a reading-oral approach (Richards and Rodgers, 1986, p.44).

With the World War II, the importance of oral proficiency gained importance, therefore, an effective method which would facilitate language learning in a short time with a true pronunciation was an urgent need. Learners memorized dialogues and presented them with a certain regard to pronunciation, performed various kinds of drill and pattern-practice exercises as the theory of language learning was shaped with ideas of behavioral psychology which claimed that language learning is a habit formation (Larsen-Freeman, 1986). This approach to language learning began to decline when learners failed to transform these 'habits' outside the classroom and complained about the boring and unsatisfying experience of language learning. Still, in some of the coursebooks which are extensively used, we can detect the hints of this method in the extensive use of dialogues rather than texts. The teachers, who teach through these books, let students read and memorize these dialogues, study the related vocabulary and therefore emphasize 'linguistic material' in ELT.

In the 60s, Chomsky (1957) directed attentions of linguists and psychologists to the innate mental aspects of human in terms of language learning and language use and proposed his theory of 'generative transformational grammar' (cited in Richards and Rodgers, 1986). Contrary to rote learning in Audio-lingual Method, Chomsky's approach led teachers to present rules of language deductively in a way that learners can understand and construct a deep learning of language (cited in Richards and Rodgers, 1986). But presenting grammar rules in detail and the effort to explain the nature of language deductively addressed only logical and linguistic aspects of language and therefore failed to fulfil learners' needs. By the decade of the 1970s, methods that addressed the needs and characteristics of learners at the first place drew from research on second language acquisition and affective domain (Richards and Rodgers, 1986). Community Language Learning (CLL) considered the learners

as a group and primarily dealt with the social dynamics of the group and the learning environment suggested by this method is the one that each member in the group is valued and respected and primarily a warm relationship should be initiated among the members beforehand any kind of learning activity starts (Brown, 2001). With Suggestopedia, for the first time a connection between music and language learning has been made. Lozanov's music-centered approach aimed to relax learners in comfortable chairs and put them in a 'suggestible' state of mind (Brown, 2001). This method had an effort to address a good classroom environment since it emphasized a relaxing classroom atmosphere along with comfortable seats. Although it was criticized as not suggesting a creative problem solving context and it depended on memorization techniques as well as being impractical to apply, it has inspired language teachers to use music in the classroom to relax learners and help them enjoy language learning experience. Jedynak (2000) suggests that involving music in foreign language teaching encourages students to produce the language. Asher (1977) advocated the mutual aspect of communication and emphasized the importance of physical responses such as moving, smiling, nodding, taking instructions in his method, Total Physical Response (cited in Brown, 2001, p. 30). The peculiar properties of right brain and left brain hemispheres have been in the heart of Asher's language learning theory. Brown (2001) defines the place of physical activities in language learning as "...motor activity is a right brain function that should precede left-brain language processing" (p.30).

CLL emphasized the importance of communication and interaction among learners and meaningful tasks to lead meaningful communication. Group work is a well known technique of this method and in Brown's (2001) terms "it is a step toward individualizing instruction" (p.179). Each learner in the foreign language classroom has different needs, abilities, and learning styles and appreciating these differences and addressing them for a better instruction is another responsibility of foreign language teachers. Multiple Intelligences (MI) Theory, as proposed by Gardner (1983), guides teachers to enrich their teaching strategies, materials, and techniques to accommodate different types of learners (Stanford, 2003). Although language learning appears to be a primarily linguistic process, research on brain

functions shows that even reading a single written word involves many intelligences (Armstrong, 2003). Strien et al. (1995) and Coney et.al. (2000) suggest that linguistic ability is realized in left brain hemisphere but right brain is also involved in speaking and writing activities (cited in Armstrong, 2003, p. 18-19). Armstrong (2003) suggested teachers to teach literary skills by ‘making the words come alive for all students’ (p.21). MI Theory suggests that the classroom environment may need to be fundamentally restructured to accommodate the needs of different kinds of learners (Armstrong, 2000, p.67). In that sense, how we set up the educational environment obviously affects the way that our students perceive themselves in the midstream of learning, make inferences and discover their intelligences. MI Theory contributes to the notion of educational environment by guiding teachers to view students from different windows which they haven’t looked before, to insert the activities that cover the needs of each learner into lesson plans, finally to re-organize the physical and social atmosphere of the classroom tuning in all intelligences.

1. 2. Statement of the Problem

Some of the course books, which are extensively used, mostly offer linguistic and logical activities. Therefore, in foreign language classrooms, students generally deal with words, grammar rules, and logical assumptions such as true false exercises, sequencing events, filling in the blanks etc. They come to perceive language learning process no more than memorising dialogues, re-writing and repeating words, making sentences with new vocabulary. Besides, only limited types of materials are used in foreign language classrooms and obviously they do not satisfy the individual needs of all learners, and far from motivating them. As second language acquisition (SLA) studies indicate, motivation is a key factor in language learning (Ellis, 1994, p. 508). Techniques stemming from MI Theory has been implemented in educational settings and proved to increase student motivation and engagement in learning process (Chen, 2004)

Carlson and Crowther (2004) describe the place of logical and verbal intelligences that feature in traditional language teaching system:

Traditionally, language acquisition has focused primarily on two intelligences: verbal linguistic and logical mathematical. Verbal linguistics naturally is conducive to the acquisition process through reading, writing, poetry, literature, storytelling, humor, grammar, syntax, and metaphors (Carlson, Crowther, 2004, p.8).

MI Theory reveals the importance of six more abilities to consider in the classroom besides logical and linguistic abilities. They are kinesthetic, musical, visual/spatial, interpersonal, intra-personal, naturalistic abilities. The theory redefines these abilities as intelligence.

Gardner (1993) suggests teachers to think of the topic to teach as ‘a room with at least five doors or entry points into it’ (p.203). In this way, each student will certainly find one path to explore the topic if the other four paths fail. Students should be encouraged to demonstrate their language skills through other intelligences, so students with weak linguistic intelligence will have opportunity to communicate their understanding through their ‘best means of expressions’ (Smagorinsky, 1991, p.5). Gardner (1993) explains the relationship between linguistic intelligence with other intelligences as:

Sensitivity to multiple intelligences may help a teacher not only determine which modalities are the most effective for the presentation of a new language but also how to make sure that the linguistic intelligence is interacting in optimal fashion with other intelligences that may participate in the communicative process (p. 206).

Transferring skills seems to be an important notion in Gardner’s theory of Multiple Intelligences. A good understanding of ecology may be a natural opener for an English course and from the other side poetry or arts aid students to excel in science and transferring skills in this way provide students with fresh metaphors (Schwartz, 2004).

Campbell et al. (1999, p.17) state that overemphasizing linguistic and mathematical intelligence in educational programs minimizes the importance of other forms of knowing. Thus, many talents or intelligences remain untouched therefore undiscovered which inevitably indicates a loss both for the individual and society. Stanford (2003) describes the classroom environment that MI Theory presents: “The MI classroom provides the environment for teachers to use varied teaching strategies, expanded curricula, and authentic assessment to provide creative and active learning that engages all students (especially those with disabilities) in the construction of their own learning” (p.84). In the light of current research on implications of MI Theory, it is evident that an MI Theory centered instruction can make a difference in terms of educational environment.

Burnett (2002) indicates that students spend nearly 15,000 hours in the classroom environment during their primary and secondary schooling. Therefore, students’ learning experience in a positive learning environment, their social and academic self perceptions during this period are very important. Dart et al. (2000) point out that students’ approaches to learning and the quality of their learning outcomes are strongly influenced by students’ perceptions of educational environment. Waxman et al. (1997, p. 108) identify the characteristics of positive learning environments as enhancing students’ self esteem and academic achievement and reducing their alienation and boredom.

Students have varying perceptions of educational environment. Perceptions of educational environment might vary compared to males versus females, students who have high marks versus low marks, students coming from rural areas versus students living in city center. MI Theory seems to appreciate individual differences and offers a hopeful perspective in which each intelligence can be nurtured; even one weakness may be an area of strength if enough effort is given. Changing general beliefs about ‘intelligence,’ the theory offers multiple educational environments to comfort multiple intelligences. This study will focus on students’ perceptions of educational environment in a classroom context where English is taught as a foreign language (EFL) and techniques stemming from MI Theory are implemented.

1. 3. Significance of the Problem

MI Theory has attracted many researchers in educational field throughout the world. Research has produced different techniques to implement this theory. In Türkiye, these studies have been acknowledged and MI Theory has a growing importance in development and re-designing curriculum. The national curriculum of primary education has been re-constructed regarding key principles of MI Theory starting from the year 2005. It is expected that English language teaching (ELT) will also undergo a reform period. Studies on students' perception of educational environment are very beneficial to find out the advantages and disadvantages of the new system being implemented. This study provides an essential step to reveal how students perceive the teacher, the learning experience, the classroom atmosphere, and themselves socially and academically in a second language classroom in which principles stemming from MI Theory are implemented. Looking at the students' perceptions of educational environment in a second language classroom where MI Theory is implemented provides a starting point for this study, and other studies in language teaching in Türkiye. Besides, the findings of this study will suggest multiple ways to design a foreign language classroom physically and socially respecting and addressing a diversity of students.

1. 4. Purpose of the Study

The aim of the study is to find out students' perceptions of educational environment in an EFL classroom where MI Theory is implemented.

1. 5. Research Questions

This study addresses the following research questions:

1. What are students' perceptions of learning?
2. What are students' perceptions of teacher?
3. What are students' perceptions of academic self concept?

4. What are students' perceptions of social self concept?
5. What are students' perceptions of classroom atmosphere in an EFL classroom where MI Theory is implemented?

1. 6. Assumptions and limitations

It was assumed that the activities which were designed regarding the principles of MI Theory encouraged students to learn the topic using their eight intelligences. It was also assumed that students reflected on their learning experience and honestly responded the pre-test and the post-test items.

This study was conducted with the participation of 102 7th grade students. Therefore, it cannot be generalized beyond its limits. The result of the t-test analysis showed that after five weeks of MI Theory experience, students gained a more positive academic self-concept perception but it would not be accurate to say that implementation of MI Theory leads to the same result at every context with any students.

Based on the exit slips, again, it cannot be said that every student who are taught through MI techniques respond in exactly the same way.

Within the limitations of the study, it can be counted that there may exist an emotional connection between the researcher and participants since the researcher taught them for two years and this may have interfered with students' perceptions of educational environment and evidently affected the results of the study.

1. 7. Operational Definitions

Educational environment: It is the learning environment where learning and teaching events take place. In this study, five aspects of educational environment

are studied: (1) learning, (2) teacher, (3) classroom atmosphere, (4) social self-concept, (5) academic self-concept.

EFL classroom: It is the language classroom in which English is taught as a foreign language.

Multiple Intelligences Theory: MI Theory was put forward by Gardner (1983) and suggests a pluralistic view of intelligence. According to this theory, each person has got eight intelligences with varying values.

The term “**student**” refers to the students who study at 7th grade and learn English as a foreign language because the scope of the study includes those ones.

CHAPTER 2

LITERATURE REVIEW

2. 1. Introduction

MI Theory was put forward by Gardner (1983) as a means to gain a broader perspective to human intelligence and emphasizes the fact that we are cognitively different, we have different kinds of minds which we can sharpen each with a certain effort if provided enriched environments and students receive a much better education if these differences are considered seriously (Gardner, 1999a, p.91).

There is a body of research on different educational implications of this theory across cultures. But, unfortunately the implementations in foreign or second language classes are quite restricted (Haley, 2004).

In this chapter, the foundations of MI Theory, the basic qualities of each intelligence from EFL perspective and their needs in the EFL learning environment will be reviewed. Besides, current implementations of MI Theory along with lesson planning techniques will be covered and the points where EFL methodology and some of the techniques of MI Theory overlap will be put forward.

The second part of this chapter is devoted to the definition of the concept of educational environment perceived by students with its five essential factors which are important to this study: (1) students' perceptions of learning, (2) students' perceptions of teacher, (3) students' perceptions of classroom atmosphere, (4) students' perceptions of social self-concept, (5) students' perceptions of academic self-concept.

2. 2. Multiple Intelligences Theory

MI Theory was proposed by Howard Gardner in 1983. After years of study and observation on gifted and handicapped children Gardner (1999) concluded that the mental potential of human does not consist of one single intelligence but multiple intelligences processing autonomously and localized in different parts of the brain. Drawing on his research, Gardner (1999a) redefined intelligence as: “....a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (p:34).

In his theory of multiple intelligences, Gardner (1983) argues for a pluralistic view of brain rather than a single unit responsible for many functions. According to MI Theory, our brain has multiple units, each functioning independently to qualify our life but also when we attend to a complex task these units engage their forces and work in great harmony (Gardner,1983). Before MI Theory, intelligence was regarded as a totally innate potential that could be predicted. Up to 1983, intelligence was considered as an ability which can be measured by paper- and-pencil tests. The first intelligence test was prepared by Alfred Binet (1900) in need to have a quick opinion of students' potential and determine whether they would be successful or not in their future education (cited in Gardner, 1999). Since then, many intelligence tests appeared mostly measuring verbal memory, verbal reasoning, numerical reasoning, appreciation of logical sequences, and ability to state how one would solve problems of daily living (Gardner, 1999). As teachers, we experience that a student may not perform well on a test but may be a very good speaker, dancer, athlete, leader, etc. Many more abilities may be counted as considered irrelevant for intelligence tests but actually essential for life. Campbell et al. (1999) contend that IQ tests measure a limited range of abilities, but MI Theory introduces a bigger picture of human with multiple abilities.

Drawing on MI Theory, Armstrong (2000) identifies some key points which are crucial in educational framework:

1. Everybody possesses all eight intelligences but in different proportions which make each human brain unique,
2. It is possible to nurture our intelligences to some level by working on it. But three concepts, "biological endowment, personal life history and cultural and historical background" strongly determines development of intelligences,
3. Intelligences engage their forces and function together in complex ways,
4. Each intelligence has multiple representations of abilities that give a person multiple strengths or weaknesses in that intelligence (p.8-9).

Armstrong's (2000) key points are also helpful to understand the different needs of learners and address a diversity of students in EFL classrooms (Christison, 1998).

2. 3. Gardner's Criteria to Identify the Intelligences

Gardner has set a criteria to make a distinction between intelligence and ability and then he identified the intelligences which has the items on this criteria in common. Gardner's (1999a, p.36-40) criteria is :(1) The potential of isolation by brain damage, (2) An evolutionary history and evolutionary plausibility, (3)An identifiable core operation or set of operations, (4). Susceptibility to encoding in a symbol system, (5). A distinct developmental history, along with a definable set of expert "end state" performances, (6). The existence of idiot savants,prodigies,and other exceptional people, (7). Support from experimental psychological tasks, (8). Support from psychometric findings.

2. 4. Basic Qualities of the Intelligences and Their Needs in Terms of EFL Classroom Environment

The characteristics of each intelligence are easy to detect in the learning environment. Armstrong (2000) suggests teachers to observe the ways students misbehave in class and their natural tendency will show their strongest intelligence:

The strongly linguistic student will be talking out of turn, the highly spatial student will be doodling and daydreaming, the interpersonally inclined student will be socializing, the bodily-kinesthetic student will be fidgeting, and the naturalistically engaged student might well bring an animal to class without permission! These students are metaphorically saying through their misbehavior: "This is how I learn, teacher, and if you don't teach me through my most natural learning channels, guess what? I'm going to do it anyway." (p. 21).

We can conclude that each student has a different kind of mind but, in common, each needs to satisfy their specific needs in the learning environment. It is possible to enhance intelligence by creating 'smart environments' which involve interaction with other people, books and databases, and by providing appropriate tools to think, learn, and problem-solve (Campbell et al, 1999, p.21).

Gibson and Govendo (1999) argue for the positive affect of infusing MI Theory into the classroom in terms of physical and social environment of the classroom, developing classroom customs and routines, facilitating transitions, nurturing social skills and problem solving skills, providing students with different needs with supports and interventions; therefore multiple implications can be drawn from this theory by giving students' needs the primary importance in terms of educational environment.

In the following section the characteristic of each intelligence is given along with their needs in the EFL classroom.

2. 4. 1. Linguistic intelligence

Gardner (1999a) defines linguistic intelligence as: "an intelligence involving sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. Lawyers, speakers and writers and poets are among the people with high linguistic intelligence" (p.41).

This intelligence also gives the ability to manipulate the syntax or structure of language, the phonology or sounds of language, and the pragmatic aspects of or practical uses of language such as rhetoric use of language (for the purpose of convincing others to take a specific course of action), mnemonics (for the purpose of informing people), and metalanguage (for the purpose of talking about language itself) (Armstrong, 2000, p.2). Students who excel in linguistic intelligence are interested in reading, speaking, writing and listening activities, because they think in words, therefore, they like to play with words. They tend to learn other languages, communicate their thoughts effectively through written and spoken language, they have a sharp ability to imitate sounds, language, and remember reading and writing of others. Children who have an outstanding linguistic ability think in words, and love reading, writing, telling stories, playing word games (Armstrong, 2000).

Each intelligence has a different developmental map which identifies the certain periods in a lifetime that intelligence emerges and blossoms (Campbell et al., 1999, p.17). The development of linguistic intelligence begins even before birth but for some people, it may take longer to excel in this intelligence. In the classroom, we have a diversity of students. Some students, even, don't want to open the books or hesitate when it's time to practice. Bearing in mind the necessity to address each student in the classroom, Armstrong (2000, p.52-53) suggests story telling, brainstorming, tape recording, journal writing and publishing to facilitate the flow of words in every learner.

Story-telling is a widely-used technique in foreign language teaching. Wilhelm et al. (1999) mention the benefits of using stories to reach a variety of instructional goals: "stories may be a means to activate learner schemata before reading or writing. Storytelling linked with writing projects can be used to engage learners in the sharing of personal narratives, cultural experiences, and folktales" (p.27). In addition, Pedersen (1995) makes clear the place of storytelling in foreign language classrooms as follows: "in dealing with stories, learners have an experience with the powerful real language of personal communication, not the usual 'teacherese' of the foreign-language classroom" (p.2).

Table 1

Needs of linguistic intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does linguistic intelligence need in the foreign language classroom environment?
1. Spoken language exhibiting a good match with the students' level of understanding, encouraging students speak, listen, discuss, and invoking them to be curious to initiate communication, 2. Written language through posters or quotations, primary sources such as novels, newspapers, historical documents, textbooks, workbooks, dictionaries, 3. A creative context to encourage students to develop their own linguistic materials and bulletin boards, 4. A technology-empowered environment to support linguistic studies such as a tape recorder, computer, videotapes.

2. 4. 2. Logical-mathematical intelligence

For this intelligence, Gardner (1999a, p.42) comments that “logical-mathematical intelligence involves the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. Mathematicians, logicians, and scientists exploit logical-mathematical intelligence”.

Children who are highly logical-mathematical are strongly aware of quantity, time, cause and effect, love posing and testing hypothesis, uses a variety of mathematical skills such as visually representing information, predicting outcomes, interpreting statistics (Campbell et al., 1999). Another characteristic of students with highly developed mathematical intelligence is that they do well in the traditional classroom because they can “follow the logical sequencing behind the teaching” (Nolen, 2003).

Armstrong (2000, p.54-55) states that this type of intelligence is unfortunately restricted to math and science courses and suggests five strategies that can be applied in all school subjects:

1. Calculations and quantifications: these concepts can be injected in every school subject along with the idea that they belong to life not just math lessons. By giving importance to important statistics, which is available in all courses, populations prepare a basis to think in numbers.
2. Classifications and Categorizations: The logical intelligence is invoked anytime when information is presented in a rational framework by classifying and putting into categories.
3. Socratic questioning: By using this technique, the teacher turns to be a questioner rather than the traditional lecturer and participates in dialogues to question students' points of view.
4. Heuristics: Finding analogies, analyzing the problem, finding a solution to the problem, and working for it, and finding a problem in your life and then solving it are all examples of heuristic principles and essentially guide students to help themselves when they are faced with a problem in any lesson.
5. Science thinking: Armstrong (2000) has cited research that about 95 percent of adults do not know a basic knowledge of scientific vocabulary and "demonstrate a poor understanding of the impact of science on the world" (p.55). This is partly because this type of thinking is usually stimulated in science and math lessons, but actually science thinking can be encouraged in every lesson and also in foreign language teaching in order to enable students to gain a broader perspective.

Campbell et al. (1999, p. 37) suggest using open-ended problems, sequencing, establishing a connection between mathematical concepts to the subjects to be learned or to real life, providing a context for students to reflect upon their studies and construct meaning, encouraging students to demonstrate their understanding through concrete objects.

Table 2

Needs of logical-mathematical intelligence in the foreign language classroom Environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does logical-mathematical intelligence need in the foreign language classroom environment?
1. Tools to use for mathematical purposes such as calculators to solve story problems, 2. Visual aids demonstrating information in numbers, graphs; questions triggering scientific thinking, 3. A context available for open-ended activities which is sequenced in accordance with students' attention spans and scientific publications.

2. 4. 3. Musical intelligence

Gardner (1999) defines musical intelligence as: “an intelligence entailing skill in the performance, composition, and appreciation of musical patterns. In his view, musical intelligence is almost parallel structurally to linguistic intelligence, and it makes neither scientific nor logical sense to call one (usually linguistic) an intelligence and the other (usually musical) a talent” (p.42). The children who are highly musical enjoys listening to and responding to a variety of sounds, tend to sing or play musical instruments, analyze and appreciate musical selections, and respond to music by using body movements such as dancing, performing (Campbell et al., 1999). Armstrong (2000, p.59-60) suggests the following strategies to integrate music into the curriculum:

1. Rhythms, songs, raps, and chants: In foreign language teaching, integrating songs into curriculum is widely used. Songs, raps and chants enable the language learner to practice the target language in a comfortable context.
2. Discographies: The key points of the subject to be learnt can be introduced through songs, chants. These topics related musical selections work well as “openers” and set up the scene for effective learning.

3. Musical concepts: Musical tones are creative expressions of thoughts, patterns and concepts.

4. Mood music: Appropriate selections of music can be used to put students into the optimal mood for effective learning. Storytelling can be enhanced by playing relevant background music such as playing a recording of sea sounds while reading a story that takes place near the sea. Jedynek describes the positive effects of music in the classroom : “music stimulates images for the inner eye, even in students who claim to have no imagination. Music promotes conversation because listeners may interpret the same piece of music differently. Music makes people act spontaneously, not only on a dance floor but also in a classroom” (Jedynek, 2000, p. 30). Jedynek (2000) also suggests encouraging students to convey their feelings about the music they have listened and ask them to associate music with a color or an object.

There is a strong connection between music and emotions, therefore, using music in the classroom provides a positive emotional environment (Campbell et al., 1999). Music can well be used as a catalyst to improve skills such as critical reading, writing, and understanding skills (DiEdwardo, 2005). Furthermore, DiEdwardo (2005) points out that music integrated linguistic classrooms transform the educational environment. It is evident that music has an ability to positively alter the atmosphere of the classroom and encourage learners to naturally participate and enjoy the environment. Mills (2001) also suggests that involving music in the elementary classroom can enhance the learning environment.

Table 3

Needs of musical intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does musical intelligence need in the foreign language classroom environment?
1. Background music for smooth transitions and a relaxing atmosphere,

2. Lyrics of popular songs in English and musical instruments,
3. Teacher's voice varying in intensity, inflection and emphasis,
4. Publications (magazines, news lines) and such information about music, singers, bands that attract students,
5. Optimal auditory environment far from being noisy but pleasant which facilitates learning.

2. 4. 4. Bodily-kinesthetic intelligence

Gardner (1999a) describes this intelligence as a potential that enables one to solve problems or fashion products through using his/her body or parts of body as dancers, athletes and actors do. Armstrong (2000, p.2) emphasizes other essential skills for this intelligence as coordination, balance, dexterity, strength, flexibility and speed.

Many children and adults cannot rely on visual and auditory sensory channels and prefer kinesthetic experience for learning. In other words, kinesthetic children need to experience what they learn (Campbell et al., 1999). Therefore in the need to experience their thoughts, they “externalize their mental processes in a physical object” (Campbell et al., 1999, p. 67). The developmental map of this intelligence varies in terms of component such as flexibility or balance and domain such as football, mime (Armstrong, 2000, p. 5). It is important to make a distinction between “tactile” and “kinesthetic”. Tactile students enjoy touching, moving objects and therefore tend to learn through their hands but kinesthetic students participate in learning by using their whole body and prefer concrete, real-life experiences (Campbell et al., 1999, p.67). Campbell et al. (1999) also put forward that: “physical activities focus student attention in the classroom and aid memory by encoding learning throughout the body neuro-musculature. We all possess ‘muscle memory’ which can be effectively applied to the learning of academic subjects” (p.67).

Armstrong (2000, p.57-58) suggests the following techniques to address bodily-kinesthetic intelligence in the classroom environment:

1. Body answers: This technique is based on students' physical responses such as nodding head, or raising hands to some questions posed by the teacher or while reading the textbook, doing an activity in the classroom.
2. The classroom theater: Students enact the subject matter through role play activities or dramatization which engages the students both physically and mentally.
3. Kinesthetic concepts: The concepts or specific terms from the lesson may be introduced by pantomiming or using physical illustrations. In this way, students translate linguistic concepts into bodily-kinesthetic expression.
4. Hands-on thinking: Students are provided with opportunities in which they can manipulate objects or building things with their hands.
5. Body maps: For a better understanding of the main concept, students use their body as a map or a relevant area and act to represent the core idea of the lesson. This physical movements and using the body as a material help students to internalize the process.

Table 4

Needs of bodily-kinesthetic intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does bodily-kinesthetic intelligence need in the foreign language classroom environment?
1. Classroom zones to accommodate the physical, psychological and academic needs of children, 2. Topic related materials to build or manipulate, 3. Props for theaters, role-play and drama sessions, 4. Manipulative such as board-games, card games, or flash cards,

In addition to Armstrong's suggestions, Halliwell (1992) emphasizes the importance of body movements in making the meaning clear in foreign language learning and states that "responding through doing" is widely practiced as a

supportive element of communication since articulation is usually a step behind understanding and ‘responding through action’ signals that the message is received.

Rogers et al. (1995) define drama as “a response to literature” which helps students to surface a variety of skills of their own and suggest that drama makes a connection between real and fiction which “encourages multiple and creative forms of expression and ‘frames of mind’ not commonly found in classrooms” (p.46). Classroom theatre, drama and such “as if” acts enable students to take a new perspective on a theme, change their knowledge about it and finally they happen to have a new picture of the external world (Courtney, 1990).

2. 4. 5. Spatial intelligence

Gardner (1999a) describes spatial intelligence as follows: “spatial intelligence features the potential to recognize and manipulate the patterns of wide space (those used, for instance, by navigators and pilots) as well as the patterns of more confined areas (such as those of importance to sculptors, surgeons, chess players, graphic artists, or architects)” (p.42). Armstrong (2000) presents some essential features of this intelligence: “This intelligence involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, and to orient oneself appropriately in a spatial matrix” (p.2). Students who are strong in this intelligence like pictures and illustrations because they tend to catch the meaning through visual clues.

Armstrong (2000, p. 55-57) states that visualization, color cues, picture metaphors, idea sketching are effective teaching strategies to activate spatial intelligence.

1. Visualization: This technique enables students to visualize the information given in words. Students translate the linguistic forms into images through their inner eye.
2. Color cues: Using colors serves to several purposes such as emphasizing a piece of

information, pointing out varieties, catching students' attention. By "color-coding" the information students remember it longer.

3. Picture metaphors: A metaphor is transferring what a learner already knows into a new form of expression in relation to the presented content area. Picture metaphors serve for expressing this connection between the already known and recently learned in pictures.

4. Idea sketching: This strategy helps students to understand and summarize the topics by drawing the core idea or concept.

5. Graphic symbols: The concepts or the themes central to the content area can be introduced through drawings. Writing words on the blackboard is widely used in all lessons. Along with writing, drawing can address more students and encourage them for creating metaphors, idea sketching, and visualization.

It is important for EFL students to be exposed to natural language as much as possible therefore chants, diagrams and such visual aids are necessary to guide the students to make the meaning clearer (Bell, Lorenzi, 2004).

Richison et al. (2002) emphasize the importance of creating visual images to retain information: "visual imaging encourages students of all backgrounds to access and apply their prior knowledge as they read, increases comprehension, and improves the ability to predict, infer, and remember what has been read" (p.76-82).

Table 5

Needs of spatial intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does spatial intelligence need in the foreign language classroom environment?
1. Picture dictionaries for different level of language learners, students can also create their own picture dictionaries as they progress,
2. Imagination games, mazes, language puzzles, illustrated books in line with

- students' level and pictures of art work,
3. Highlighters, colored pencils to color-code different types of linguistic material,
 4. Posters that convey grammar rules or essential topics as an aid for peripheral learning,
 5. Pictures of people, and views taken from different places to pose open-ended questions and start a student debate,
 6. Real objects to boost the meaning during story telling or drama sessions.

2. 4. 6. Interpersonal intelligence

Gardner (1999a) points out that “interpersonal intelligence denotes a person’s capacity to understand the intentions, motivations, and desires of other people and consequently, to work effectively with others. Salespeople, teachers, clinicians, religious leaders and political leaders, and actors all need acute interpersonal intelligence” (p.43). People with high interpersonal skills are sensitive to read facial expressions, voice, gestures, and other interpersonal cues and respond to them appropriately (Armstrong, 2000). Students who are strong in this type of intelligence are easy to detect in the classroom. They usually exploit any opportunity to socialize, they are known to have good relationships with friends and exploit a natural tendency for leadership.

Planning activities that enable language learners to participate in a project, solve problems and resolve conflicts nurture interpersonal intelligence (Christison, 1998). Armstrong (2000, p.60-62) presents the following strategies to apply in the classroom to address the students’ feelings of communication and sense of belonging:

1. Peer sharing: Sharing the ideas, feelings, thoughts, and questions with peers provides a purpose for communication and creates a social framework to study. Peer sharing and peer tutoring has long been used as an effective strategy in ELT.

2. People sculptures: Students come together and become the major material to study the core of the topic. They can form a group, each holding a word of a sentence. This strategy works for creating a social setting in which students enjoy together, establish a group and communicate.
3. Cooperative groups: Forming cooperative groups serves well for the purpose of integrating all intelligences to the learning environment.
4. Board games: Board games offer a friendly and enjoyable learning environment. Students can chat, discuss, have fun and learn.
5. Simulations: Students can come together and simulate the core of the topic through interacting, communicating, and personally experiencing.

These ideas speak for students who are comfortable with interpersonal relationships and also help the others to nurture their communication abilities. In EFL classroom, since the purpose of language learning is to communicate, students should be encouraged to take part in interpersonal relationships within language learning. Each learner prefers to use specific intelligences while learning a language. Basing on his research Loori (2005) recommends extensive use of cooperative learning techniques since interpersonal intelligence received the highest rate among the eight intelligences by EFL students.

Role-play activities are extensively used in EFL classes to practice the language as well as to prepare the learner for relevant occasions in real life. In role-play activities, students need to grasp the characters which call interpersonal intelligence; they evaluate these data and reflect upon them in 'empathetic and insightful ways' which requires intrapersonal intelligence (Rogers, O'Neill, Jasinski, 1995). The strategies that address interpersonal intelligence have been widely used under the title of Cooperative Language Learning (CLL). This method aims to create an interactive context for maximum level of communication in the target language.

Kessler (1992) comments on CLL as follows:

CL offers more opportunity for language development and for integrating language with content through increased active communication (active use of language both comprehending and producing), increased complexity of communication, and use of language for academic and social functions (p.5).

Long and Porter, (1985); Pica, Young and Doughty, (1987) suggest gains in second language acquisition (cited in Kessler, 1992, p.1); and Aranson et al., (1978); Bejarano, (1978); Kagan, (1988, 1989a); Johnson, (1987, 1989); McGroarty, (1989); Sharan, (1989); Slavin, (1983a, 1990), Webb, (1985, 1988) put forward gains in academic achievement when there is a carefully planned interactions between students (cited in Kessler, 1992, p.1).

Table 6

Needs of interpersonal intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does interpersonal intelligence need in the foreign language classroom environment?
1. Opportunities to interact with others such as pair work and group work sessions for language projects, 2. Setting up classroom rules and procedures that establish and keep a positive relationship among students, 3. Valuing students as members of a community whose purpose is to learn English and distribute roles or responsibilities equally, 4. Giving opportunities for students to learn from each other, 5. Organizing class meetings and parties where students present their skills in English, 6. Activities that allow students to observe and understand others' feelings, opinions and appreciate the differences, 7. Experiences of other students across cultures learning languages,

8. Opportunities to make pen pals from another city or country and share this experience in the classroom,
9. Having various clubs such as language clubs, fun clubs to satisfy students' sense of belongings in the classroom,
10. A bulletin board that public announcements are made.

2. 4. 7. Intrapersonal intelligence

For this intelligence, Gardner (1999a) puts forward that “intrapersonal intelligence involves the capacity to understand oneself, to have an effective working model of oneself-including one's own desires, fears, and capacities-and to use such information effectively in regulating one's own life” (p.43). Intrapersonal intelligence gives a person some inner strength such as motivation, determination, ethics, integrity, empathy, and altruism (Campbell, 1999). A person with high intrapersonal qualities usually has an accurate image of self, give importance to understanding inner experiences, attempts to express his thoughts and feelings (Campbell, 1999). Nolen (2003) lists some strengths of intrapersonal intelligence: “people with intrapersonal intelligence are usually imaginative, original, patient, disciplined, motivated, and have a great deal of self-respect” (p.115).

Self- esteem and self-worth are central concepts for intrapersonal intelligence. Campbell et al. (1999, p.197) emphasize the importance of “community, participation, collaborative grouping, active learning processes” in relation to gaining a high self-esteem and suggest teachers to create a frame that is based upon “attention, acceptance, appreciation, and affection” to help students develop their sense of self-worth. In order to nurture intrapersonal intelligence in the EFL environment, Christison (1998) underlines the importance of teacher's efforts to make students aware of their feelings and the way of handling things as well as to find out their preferences and their own learning styles.

Armstrong (2000, p.62-64) suggests the following strategies to teach for intrapersonal intelligence:

1. One-minute reflection periods: Intrapersonal intelligence needs some private time for ‘deep thinking’. These reflection periods help them to reflect upon what they have learnt and connect it to their lives.
2. Personal connections: A connection between the information taught and lives of students should be established because school subjects should have a meaning for children with high intrapersonal intelligence.
3. Choice time: Making decisions helps students to add their personal choices to their learning experience.
4. Feeling-Toned moments: Integrating feelings to learning helps to ‘feed our emotional brain’. Excitement, enjoyment, anger can be expressed in the classroom by the teacher and the students.
5. Goal-setting sessions: Naturally human beings set goals. But for intrapersonal intelligence goal-setting is a characteristic feature. To live a quality life and prepare for real world, students should be encouraged to set short-term or long-term goals.

Table 7

Needs of intrapersonal intelligence in the foreign language classroom environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does intrapersonal intelligence need in the foreign language classroom environment?
1. Motivating stories about people learning languages, 2. Encouraging students to set daily, weekly or monthly goals, 3. Some private time to reflect on classroom experience, 4. Giving opportunities for students comment on the activities done, 5. Having students plan the steps of an activity or project, 6. Magazines, newspaper columns that present the keys of self-development, 7. Offering choices for every taste in the classroom, 8. A bulletin board that students share their various experiences or feelings.

2. 4. 8. Naturalist intelligence

Gardner added naturalist intelligence into his intelligence list in 1995 (cited in Campbell et al., 1999). Identifying people, animals, plants around us and interacting with them, distinguishing among species, formulate and test hypothesis, extract meaning, comparing, contrasting, and perceiving interdependence are all gifts of naturalist intelligence (Campbell et al., 1999). Students with high naturalist skills are interested in topics about nature; they are also sensitive to environmental problems. In the EFL classroom, such topics may heighten students' attention and engage them in production of the target language. When the world around us is integrated in the language learning process, it is obvious that naturalist students will widely benefit and the others will be much more aware of the world we live in.

Armstrong (2000, p.64-66) identifies five strategies that accommodate naturalist students' needs in the classroom and outside the classroom:

1. Nature walks: Students visit the natural scene that the topic of the lesson takes place. Afterwards, students feel themselves more ready to involve in creative writing, drawing sessions.
2. Windows onto learning: Students love looking out of the window. This tendency is used to direct them to observe what's happening outside and report on their observations as a part of a language learning activity.
3. Plants as props: For some language learning techniques, such as drama and role-play, props are necessary to set the scene. Plants meet this need of language classrooms and become living props.
4. Pet-in-the-classroom: Relating topics to be learned to a pet in the classroom heightens students' observation and scientific questioning skills.
5. Ecostudy: When nature is a part of the school day, students get more aware of the natural systems which we live in and gain respect.

Table 8

Needs of naturalist intelligence in the foreign language classroom

Environment (adapted from Armstrong, 2003; Campbell et al., 1999).

What does naturalist intelligence need in the foreign language classroom environment?
1. Magazines, texts, stories on environmental issues, 2. Pictures of interesting places in the world along with open-ended questions to start a debate, 3. Different sorts of animals and plants living in different places on earth with their names in English, 4. A list of websites relating to nature and environment that can be a good source for homework.

Campbell et al. (1999, p. 17) contribute to the distinction of eight intelligences in his attempt to put them into three broad categories:

1. Spatial, logical-mathematical, bodily-kinesthetic, and naturalistic intelligences may be viewed as “object-related” forms of intelligence as certain objects in the environment control and shape these potentials.
2. Verbal-linguistic, musical intelligences are considered as “object-free” intelligences as they don’t rely on any objects in their environment and rather depend on language and music,
3. Interpersonal-intrapersonal intelligences may be considered as “person-related” intelligences as they essentially deal with people.

2. 5. MI Theory and Foreign Language Learning Studies

Studies on learner differences have directed the attention to the fact that each learner has different needs and therefore unique expectancies in educational environment. Given the same effort, same environment with the same teacher, it is usually observed that language learners end up with different performances.

Language learners' beliefs, their affective status, their ages, their aptitudes, learning styles, motivation and their personality can be counted as the major factors that lead to varied performances (Ellis, 1994, p.522-523). Ellis (1994) also puts forward that research on language learning and language learners constitutes two distinct fields within second language acquisition research and little connection have been made so far. On the other hand, the fashion in second language education has constantly shifted toward the broad concept of communicative language teaching (CLT) (Jacobs and Farrell, 2001). Thus, respect to diversity has become one of the significant changes in second language education. Jacobs and Farrell (2001) criticize the old approach as attempting "to fit all the students into a one-size-fits-all learning environment" and comparing with the current paradigm they also note that diversity of students is a factor to enhance the teaching strategies. By reflecting on diversity, we consider the background of our students such as ethnic and religious identities, their social class and their mother tongue, sex, and achievement levels, learning styles, intelligences and learning strategies (Jacobs and Farrell, 2001). Thus, MI Theory seems to accommodate the concept of diversity in terms of intelligences in second language classrooms.

In second language classrooms, MI Theory emphasizes 'all aspects of communication' as well as 'linguistic' side of language learning by integrating music, kinesthetic activities, social relationships (Richard and Rodgers, 2001). In this respect, one's highly developed intelligence facilitates his/her language learning when language studies are introduced in the framework of that strong intelligence (Richard and Rodgers, 2001). Richard and Rodgers (2001) describe the MI classroom as : "the one designed to support development of the "whole person," and the environment and its activities are intended to enable students to become more well-rounded individuals and more successful learners in general" (p. 120).

Regarding this premise, Schwartz (2004, p.30-37) suggests EFL teachers to welcome other disciplines in EFL classes in order to offer students new perspectives and 'new possibilities of perception'. In this context, Richison et al. (2002) criticize the overuse of linguistic intelligence by pointing out that "teachers who give

traditional pen-and-paper assignments or essays to measure students' understanding of a literary unit are utilizing only the foundational language competency, the linguistic intelligence, perhaps forfeiting the potential of those who possess an alternate intellectual strength" (p.76-82).

Although second language acquisition research has guided teachers a long way to how individuals acquire language skills, there is still a gap in determining the most appropriate social dynamics of the EFL classroom where language learners bring a set of emotions and these feelings and thoughts mean a lot for all kinds of relationships in the classroom (Holliday, 1994).

There is not a large body of research relating MI Theory directly to foreign language studies. One of the researches in this field is Haley's (2004) study. Haley (2004) conducted a study with the 23 EFL and ESL teachers and 650 students in order to report on the learner-centered instruction from the perspective of MI Theory in EFL and ESL classrooms, and she notes that MI Experience affected both the teachers and the students profoundly; the teachers reported a paradigm shift to a more learner-centered instruction, and the students reacted positively to the enriched instructional strategies. In addition to this, her research puts forward that students learning a foreign/second language through MI techniques demonstrate enthusiasm about learning and behavior problems decline.

Although the target language is totally foreign to all students in the second language classroom, our students have already developed styles, strategies, personal characteristics that determine the way they learn (Harmer, 2001). In the second language classroom, it is possible to experience many kinds of language study; thus some students may love discovery activities, some may prefer a rather deductive approach; some students have joy out of creative writing or speaking sessions while some of them needs more structured patterns to follow; and it's the teacher's job to satisfy all these tastes and reshape the practice accordingly (Harmer, 2001). Embracing individual differences with no doubt would provide the best response to

the students' needs and ensure that they will answer back in different ways as they have been taught/guided. Harmer (2001) describes the preferences of language learners in relation to individual differences in a second language classroom :

While some people with a strong logical-mathematical intelligence might respond well to a complex grammar explanation, a different student might need the comfort of diagrams and physical demonstration because their strength is in the visual / spatial area. Other students who have a strong interpersonal intelligence may acquire a more interactive climate if their learning is to be effective (p. 47).

Bell and Lorenzi (2004) suggest that MI Theory can well serve to the purpose of relating written and verbal information in language classes by integrating dance, movement and sense of rhythm in a creative way.

The notion of individual differences also surfaces the problem that some lessons are not useful for some students than the others (Harmer, 2001). But being aware of these differences guides us to offer students equal yet multiple chances to benefit from our instruction. In this context, the dominating intelligence types of teachers may also affect the way they teach (Campbell, 1999). For example, a teacher who has high verbal/linguistic intelligence may tend to emphasize the linguistic aspect of language more and may not insert some activities that are beyond his/her comfort zone. This point of view contributes to the fact that there should be diversity in instruction both from the teacher's side and learner's side. Relying on a few intelligences can comfort the teacher and some students in the classroom but obviously some other participants will switch off and exhibit a negative attitude in the learning environment which will probably affect the general atmosphere of the environment.

2. 6. Lesson planning in EFL classroom in the framework of MI Theory

An effective lesson in EFL classroom partly depends on the preparation and the supply of necessary materials. Coherence in lesson planning enables the learners to understand as a whole, variety presents multiple ways for understanding whereas flexibility allows to branch away the plan and focus on a more important item (Jensen, 2001). In this respect, Gardner (1999a) claims that memorizing or paraphrasing doesn't lead to understanding; thus, for a deep understanding of the courses students should necessarily involve in analyzing, interpreting, comparing, criticizing and performing. These cognitive processes also activate the prior knowledge and help students to encode information into the long term memory (Driscoll, 2000, p.91). By the same token, Gardner (1999a,b) suggests three essential steps for lesson planning:

1. Entry points: Entry points catch the attention of students and prepare them for further instruction with more cognitive challenges in order to guarantee a deep learning. This very first step invites the learner to explore the topic to be learned through various ways that overlap with the intelligences:

1. 1. Narration: Stories facilitate learning and help some students to grasp the idea beyond teaching.

1. 2. Quantitative/numerical: This entry point attracts students who love numbers, patterns, and curious about size, ratio, and change.

1. 3. Logical: Logical entry point catches students who are good at deductive thinking.

1. 4. Foundational/existential: Some students like to pose questions in relation to the foundation of the world which we live in. This curiosity can facilitate learning of such students by simply connecting the topic to be learned to any fundamental issue of existence.

1. 5. Aesthetic: Aesthetic design of materials and works of art attract some students and encourage them to produce such works or metaphors that convey the main idea of topic.

1. 6. Hand-on: Hands-on activities engage students both physically and mentally. Some students prefer learning by fashioning a product or manipulating materials.

1. 7. Social: It's much more effective for some students to study in a group setting where they can consult, discuss and collaborate on a common task. (Gardner, 1999b, p. 188-199).

2. Telling analogies: In this step Gardner (1999a) advises teachers to use metaphors "to illuminate new topics" and "to come up with instructive analogies, drawn from material they already understand, that can convey important aspects of the less familiar topic" (p.172). Courtney (1990) describes the relationship between metaphor and thought: "...a metaphor combines two thoughts in order to create a new meaning. Often mistakenly thought of as only existing in language, the metaphor is inherent in human thought and can be expressed in metaphoric form" (p.65). Understanding requires activation of our fictional world which separates our inner world and the real world; at this point metaphor mediates between them and helps us understand the real world with the elements of our inner world (Courtney, 1990). Courtney (1990) continues to describe metaphors as an aid for understanding: "something new is created when a metaphor is understood, and some metaphors lead us to understand elements of reality that they help to create" (p.68).

3. Approaching the core: Through multiple opportunities reinforcing varied intelligences and related cognitive skills, students can perform their understandings and approach the topic with an expert style (Gardner, 1999a, 1999b). Projects can well serve this purpose by demanding many kinds of work which students draw on their understandings of the topic. Gray et al. (2002) acknowledge that through MI Theory students find opportunity to internalize their learning and their learning experience becomes more motivating for everybody present in the learning environment.

At this point, Kimberly and Waggoner (2002) relate Bloom's (1956) taxonomy to MI Theory in terms of an ideal education which involves all thinking levels in relation to intelligences. Bloom (1956) categorized learning in six different levels each demanding distinctive cognitive skills (cited in Kimberly, Waggoner, 2002). This hierarchical scheme has indicated that unnecessary time has been spent on the lowest level of learning, thus limited opportunities have been offered for students to develop their higher-level thinking skills (Kimberly, Waggoner, 2002).

There are various ways to integrate Gardner's ideas into lesson planning. The educators who have conducted research on MI Theory has contributed to the theory and found many effective strategies. Kezar (2001) notes that MI Theory has found its practice extensively in elementary and secondary schools and shifted the practice in terms of curriculum, pedagogy, facilities, schedules, assessment and assignments to a rather "individual learner centered" fashion. Museums, community centers, science centers are the places where students can find materials of a specific intelligence and work there actively whereas in flow rooms students make a choice of either working in their weak or strong intelligences for a longer time (Kezar, 2001). Building intelligence centers and organizing the students rotate these learning centers on a daily, weekly or voluntary basis enables students to explore the topic from different angles and learn and apply skills in various modes (Campbell et al., 1999). Campbell et al. (1999) note that fewer centers are also possible depending on the specific requirements of the topic or due to the lack of space in the classroom.

The idea of building centers in the language classrooms has been suggested by methodologists but there is a gap in identifying some elements of the whole procedure as well as the ways to fit this type of activity into the lesson plans. Harmer (2001) notes that EFL teachers especially those who work with young learners are expected to let students engage in study groups in different parts of the classroom and shift their activities periodically.

Harmer (2001) identifies the necessary elements for an effective language learning environment which shares the basic premises of Gardner's (1999a and 1999b) suggestions for lesson planning:

1. engage: In this first stage, the teacher draws students' interest and prepares them for the new topic to explore by involving their emotions. He calls some of the activities and materials "games/depending on age and type), music, discussions (when handled challengingly), stimulating pictures, dramatic stories, amusing anecdotes etc." (p.25).
2. study: The main aim of study activities is production of target language. Some study activities can be counted as grammar explanation by teacher, studying in work

groups on reading or vocabulary, focus on grammar inductively.

3. activate: This last stage aims to create conditions for students to “activate their knowledge” by using language naturally with no specific concern for grammar rules in a given situation. Harmer (1998) notes that these activities may take different forms of presentation such as role-plays, advertisement design, debates and discussions, describe and draw, story and poem writing, writing in groups etc. (p.26). He also emphasizes the importance of these activities as follows: “They are not taught language until and unless they have shown (in the activate phase) that they have a need for it” (p.28).

Harmer’s “engage” stage overlaps with Gardner’s studies (1999a and 1999b) and described as “entry points” in which students are provided with many doors leading to the central theme. Especially, “activation” stage is very similar to Gardner’s “approaching the core” phase in nature; both of them allow learners to come up with meaningful products in a variety of ways.

2. 7. Recent Research on Educational Environment

Classroom learning environment has been a major topic to study from the perspective of student perception for nearly two decades (Fisher and Kent, 1998). How students perceive the characteristics of the learning environment, with no doubt, guide teachers a long way to plan, reconsider and implement the best teaching strategy. Also, in language teaching, it is the duty of the teacher to decide on the most appropriate methodology and set the environment which serves best for an effective language learning setting.

The learning environment can be defined as the whole activities taking place in the time allocated for classroom work, the individuals who are present, and the physical quality of the classroom constructs the essence of a learning environment (Lorsbach et al. 1999).

Waxman and Huang (1997) report that learning environment research has often been constrained to variables such as instruction and curriculum, but little attention has been given to grade level, subject area and sex-related variables. Their studies (1997) suggest that there are a number of context-sensitive differences on how students perceive their classroom learning environment.

Harmer (2001) notes the importance of students' experiences in the classroom: "students do develop as a result of classroom experiences of success or failure. They will almost certainly change in some way as a result of their learning environment and the tasks they perform (p.51). In this concept, Fraser (1991); Wang, Haertel and Walberg (1994); Wentzel (1994) relate academic achievement to positive classroom environments; Pienta and Walsh (1996) associate academic achievement with improved schooling for children at-risk; Fisher and Kent (1998) have found a high correlation between positive classroom environment and personality type of teacher; Battistich, Schaps, Watson and Solomon (1996) have found that positive classroom environments have a positive effects on motivation, social interaction and attitudes of students (cited in Burnett, 2002).

In this study five aspects of educational environment as perceived by the students are considered. They are: (1) students' perceptions of the classroom atmosphere, (2) students' perceptions of the teacher, (3) students' perceptions of learning, (4) students' perceptions of social self-concept, (5) students' perception of academic self-concept.

2. 7. 1. Students' perceptions of learning

Research on students' approaches to learning suggests that students tend to have deep approaches, surface approaches and achieving approaches which affect the way students perceive the educational environment (Dart et al., 2000). Deep approaches are often "characterized by an intention to seek meaning of the material being studied" and lends itself to transformation and elaboration of the material (Dart

et al., 2000). On the contrary, surface approach is associated with the process of reproducing the material being studied (Dart et al. 2000). Dart et al. (2000) suggest that there's a strong relationship between students' conceptions of learning and their approaches to learning. They found out those students who had qualitative and experiential conceptions tended to have deep approaches to learning, on the other hand students who had quantitative conceptions of learning employed surface approaches. They cited a relevant research by Biggs (1993). In his study, students' perception of the learning environment is the main determinant of whether to develop a surface approach or a deep approach in order to learn the target material." That perception is dependent on how students interpret the factors present in the learning environment in the light of their personal characteristics" (Dart et al., 2000, p.2).

Dart et al. (2000) cite another relevant research by Soljo (1979) and Marton, Dall Alba, and Beaty (1993) which propose a hierarchic framework of students' views on learning : (1) increasing one's knowledge, (2) memorizing and reproducing , (3) applying, (4) understanding, (5) seeing something in a different way, (6) changing as person. The sixth level was identified by Marton et al. (1993) (cited in Dart et al., 2000). According to Biggs (1994), levels 1, 2 and 3 can be considered as quantitative efforts whereas levels 4, 5 and 6 are qualitative in nature (cited in Dart et al., 2000). The 'quantitative outlook' is about the amount of the content that the student masters on the other hand the 'qualitative perspective' is held when students search for meaning through prerequisite knowledge (Dart et.al., 2000). On the other hand, Wierstra et al. (2003) state that surface learning approach and deep learning approach are not two opposite approaches, and it would not be fair to imply that a student may tend to have either a surface or deep approach. They also provide the research of Vermetten et al.(1999c) and Busato et al. (1998) in which students who increasingly employ constructive learning approaches do not drop reproductive learning approaches, yet, altering the learning environments makes a change in students' approaches to learning (Wierstra et.al., 2003). Wierstra et al. (2003) have come to a conclusion that "student's learning approach may be regarded as a typical coherent combination of several components: views about learning, regulation

activities (also called metacognitive learning activities) and processing activities” (p. 505)

It's desired that EFL students develop deep approaches to foreign language learning and primarily search for meaningful learning. "Teachers can promote deep approaches to learning through the creation of learning environments that students perceive as safe, supportive, and that offer helpful relationships" (Dart et al., 2000, p.7).

2. 7. 2. Students' perceptions of teacher

Teacher is another vital element of educational environment. Within EFL teaching methodology, the term 'teacher' has changed into new form in accordance with the shift in language learning theories. Scrivener (1994, p.6) identifies three types of teachers according to the roles they perform in EFL classroom:

1. the explainer: This type of teacher tends to explain or lecture as a teaching strategy and let students answer questions, take notes or follow related exercises as a follow-up activity.
2. the involver: This teacher is more informed of the language teaching methodology and has more techniques to reach students as well as to create environments for them to respond actively.
3. the enabler: This kind of teacher knows well about the methodology, moreover he/she diagnoses students' needs, desires as a learning community and address a diversity of students by creating nontraditional learning environments in which every student learns for himself/herself.

According to Scrivener (1994, p.8), in the EFL classroom, three basic teacher characteristics work most effectively:

1. empathy: a strong sense of other's feelings, thoughts, and desires; a talent of seeing things from other person's perspective,
2. respect: to hold an objective and a positive view for other people,

3. authenticity: the ability to be natural, divorced from identities of the outer world.

Scrivener (1994) also adds that these three teacher characteristics contribute to the social relationships within the classroom and draws the quality of communication between people to a higher level; thus educational environment naturally becomes a place that students feel supported, and evidently have self-esteem and self-understanding.

Ryan and Patrick (2001) mention four factors that are effective to change students' motivation and engagement: (1) students' perceptions of teacher support, (2) the teacher as promoting interaction, (3) the teacher as promoting performance goals, (4) mutual respect. In their research, students' perceptions of teacher support, the teacher as promoting interaction and mutual respect were found to be related to positive changes in students' motivation and engagement. The characteristics of students' perceptions of teacher support perceived by students can be counted as caring, friendliness, understanding, dedication and dependability (Ryan and Patrick, 2001). A relevant study may be Waxman and Huang's (1997) research which explored a high correlation between teacher support and student outcomes.

A teacher plays different roles in the classroom such as authority figure, leader, knower, director, manager, counselor, guide, friend, confidante, and parent (Brown, 2001, p.200). In the classroom atmosphere these roles might be perceived by students in many different ways. Teaching style is another important factor to effect students' perceptions of educational environment. Brown (2001) notes that teaching style is always consistent with personality style and vary greatly from individual to individual.

Students' relationships with their teachers and teacher feedback influence their perceptions of educational environment (Burnett, 2002). In his research, Burnett (2002) found out that students who reported having positive relationships with their teachers perceived the classroom environment in a more positive way.

Traditional teaching style puts the teacher in the middle of the teaching-learning situation; the teacher performs the role of “knower” who passes over his/her knowledge to the students (Scrivener, 1994). He also criticizes the assumption that explanations and demonstrations when performed by the teacher will always lead to learning and adds that as he/she keeps the control of the subject matter, makes decisions about what work is needed and orchestrates what the students do, he/she evidently becomes the most active person in the classroom.

2. 7. 3. Students’ perceptions of the classroom atmosphere

McLeod (2003) proposes that a positive classroom climate depends on the relationships between the teacher and students and among the students as well, and holds that these relationships also determine the success of classroom management in the classroom context. When students feel safe, secure and member of the classroom community, they will naturally have a high self-esteem which reflects in academic achievement. McLeod (2003) also cites Kohn’s (1996) suggestion that the roots of misbehaviours of children stem from the way that their environment has been organized. Here with the term environment both the physical and social structure of the classroom is emphasized. Gibson and Govendo (1999) emphasize the effect of the way that classroom is designed on active student participation as follows: “The most engaging classrooms-the ones in which students are actively involved in their work and where the hum of activity exudes enthusiasm and positive energy rather than ‘rumblings of discontent’ -are those that provide a variety of options for participation and where the space supports and enhances learning” (p.16-22). Harmer (2001) puts a great value on the importance of a positive learning environment in language learning, and continues to say that “an obvious enthusiasm for English and English learning, in this case, would seem to be prerequisites for a positive classroom atmosphere” (p.52).

Another relevant research is Given’s (2002) research in which she emphasizes the importance of emotions and links them to learning ability. Given (2002) cites Pert’s (1993) research and concludes that “emotions link the body and

brain and provide the energy that fuels academic achievement as well as personal health and success” (p.15). Therefore emotions of students deserve much more attention of teachers because they can be critical. External sensory stimulators such as seeing, hearing, smelling or internal stimulators such as thoughts or inferences about general concepts of self-concept activate “the behavioral aspects of emotion” (Given, 2002, p.19). Thus, how students feel in the classroom atmosphere determines their positive or negative attitudes towards the lesson and can interfere with their learning ability. Given (2003) also states that emotional state determines learning and she concludes that:

Consequently, teachers cannot ignore emotion as a vital influence in the learning process. Teachers who understand the links between emotions and learning can help students use their emotions productively in assessing strengths, set personally relevant goals, resolve conflicts, manage anger, and express emotions in socially acceptable ways. Without question, emotions are linked to attitude, motivation, persistence, perseverance, and self-worth. Thus, emotion drives personal qualities that dramatically affect a student’s success or failure at school (p.32).

2. 7. 4. Students’ perception of self-concept

Given (2002) defines the concept of self as “a combination of genetic predispositions and how we mold these predispositions into rather consistent behavior and thought patterns” (p.28). She stresses that “sense of self” might change according to the situation one experiences. Thus, the way a student perceives himself/herself may vary depending on the quality of factors to initiate positive or negative feelings in the environment. By the same token, a student may feel honored and valuable in science lesson, but on the other hand in math lesson s/he can feel like a loser. De Charms (1976) comes to the conclusion that self-concept is closely related to intrinsic motivation.

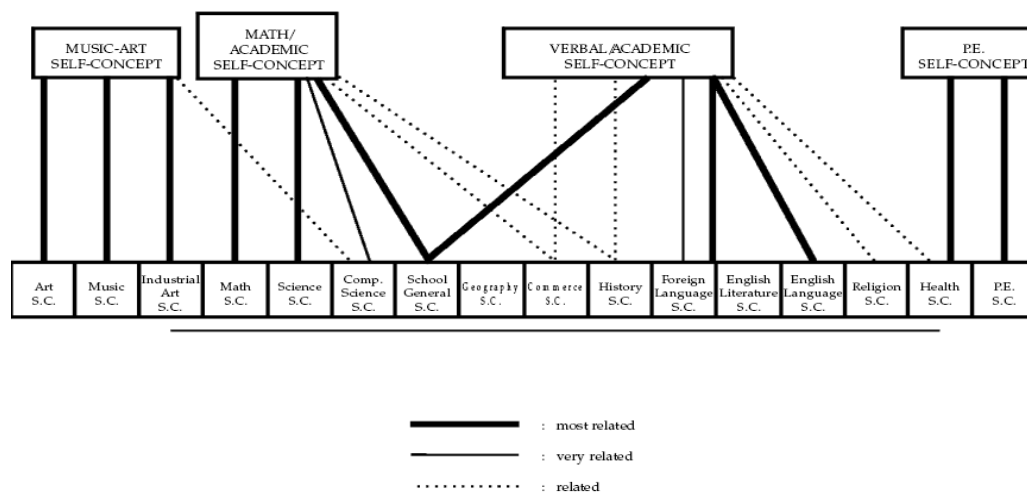
It is possible to make a distinction of self-concept in being academic or nonacademic (Koumi, Meadows, 1997). Furthermore, academic self-concept consists

of self-concepts in math, language, and physics; similarly nonacademic self-concept has physical, social, emotional aspects (Koumi, Meadows, 1997). They also cite Marsh et al.'s (1988) research in which it is stated that self-concept is distinguishable in Math/Academic and Verbal/Academic parts which are also the main factors to construct school general self-concept. According to this distinction by Marsh et al. (1988, p.378) maths, physical science, biological science and economics/business self-concepts are related to Math/Academic self-concept whereas geography, history, foreign languages, and English self-concepts are found to be correlated with Verbal/Academic self-concept (cited in Koumi, Meadows, 1997).

Shavelson et al. (1976) suggest that the structure of self-concept implies a hierarchy in which the lower levels are occupied by specific self-concepts and upper levels demonstrate more general self-concepts (cited in Koumi, Meadow, 1997). The academic self-concept can also be broken into specific subjects whereas nonacademic self-concept consists of social and physical self-concepts which can also be broken into further specific areas (cited in Marsh & Hau, 2004).

Figure 1.

The Marsh (1990a) model of Academic Self-Concept (cited in 1997 I. Koumi & S. Meadows, p. 166).



In the Figure above, a multi-model of self-concepts is shown in relation to school subjects. Verbal /academic self-concept is shown to be highly related to foreign language self-concept. In addition, Verbal/ academic self-concept and Math/ academic self-concept directly influence school general self-concept.

2. 7. 5. Students' perceptions of social self-concept:

Pre-adolescence has been acknowledged as a significant period in human development and within this period individuals spend considerable time and energy to form social relationships and keeping them on the purpose of developing their social identities (Landazabal, 2002, p.3). Chang et al. (2003) also emphasize that social relationships are valued in adolescence period rather than childhood. Laursen (1996); Steinberg and Silverberg (1986) note that the importance of family decreases as the importance of peer relations increase in the early adolescence period and this situation points to the fact that adolescents seek and value social interaction and friendships as an affective necessity. (cited in Chang et al., 2003, p.183). Chang (2003, p.183) relates social self-concept to life satisfaction and as middle school children spend more time with their friends rather than their families, these social interactions become their primary source of happiness and determine the joy they take out of life. Schools offer a social environment with multiple choices for students. Although learning is rather a personal process of each learner, in the classroom environment learners attend to the learning task with many peers. In this respect, peer acceptance is a key concept of developing one's social self-concept (Flook et al., 2005). Thus, the classroom environment is also a place of social interaction which contributes or prevents learning. How students benefit from the social structure of the classroom and how they perceive themselves as a member of this community are essential issues to account for students' perceptions of educational environment.

Social environment plays a key role in one's developing self-concept in relation to his/her personal experiences (Yan, Haihui, 2005). In the study of Yan and Haihui (2005), they studied self-concept of gifted and non-gifted adolescents in

relation to social environment. They found out that “the improved social environment has a positive effect on the general self-concept of non-gifted adolescents” (p.229).

2. 7. 6. Students’ perceptions of academic self-concept

The relationship between academic self-concept and academic achievement has been the focus of considerable body of research. The casual ordering of academic self-concept and academic achievement has been acknowledged to be a crucial issue within academic self-concept research (Guay et al., 2003). In this concept, it is widely believed that change in academic self-concept usually results in a subsequent change in academic achievement.

However, whether prior academic self-concept determines academic achievement or vice versa has been long debated and evidently three models have been constructed to highlight this relationship (Marsh et al., 2004). According to the self-enhancement model, prior self-concept determines academic achievement whereas skill development model suggests that academic achievement leads to construction of academic self-concept (Guay, 2004). Marsh et al. (2002, p. 752) argue for a reciprocal effects model in which both academic achievement or academic self-concept may have initiative roles in determining subsequent change of each. In their study they found support for the cross-cultural generalizability of the reciprocal effects model, but yet, they state that the effect of academic self-concept on subsequent achievement is obviously stronger than the effect of prior achievement on subsequent self-concept.

The age-sensitive aspect of academic self-concept has also been investigated. Age factor affects the way individuals perceive themselves academically (Guay et al., 2003). Marsh (1989, 1990a) suggests that young children happen to have very positive self-concepts that are rather independent of external factors such as skills, accomplishments, achievement, self-concepts implied by others; but as children grow

up, their self-concepts become more highly consistent with external factors and specific domains of self-concept are established in which the individual perceives himself/herself strong in one domain but weak in another (cited in Guay et al, 2003).

Academic self-concept is a multidimensional concept and also lends itself to internal and external comparisons which is known as internal/external frame of reference model of self-concept development suggested by Byrne and Marsh (1986) (cited in McCoach, Siegle, 2003, p.61). According to this model, students make external comparisons comparing their performances to their peers and they also tend to make comparisons internally by considering their own prior performances. This model also suggests that achievement in one domain boosts the self-concept in that domain; however it also lends itself to negative inferences relating to other domains (cited in McCoach, Siegle, 2003, p.62).

2. 8. Conclusion

This chapter presented relevant literature on MI Theory and educational environment. MI Theory opposes the notion of single or general intelligence and suggests that each person has eight intelligences in varying proportions. These intelligences are verbal/linguistic intelligence, logical/mathematical intelligence, spatial intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalistic intelligence. In order to decide whether ability is actually a separate intelligence, Gardner (1983) has set up criteria by collecting data from different disciplines.

MI Theory has been widely used at different levels of education, but there has been little attempt to connect the theory to foreign language learning. Drawing on MI Theory, it is possible to conclude that each intelligence has different needs in foreign language classroom in terms of educational environment. For instance, bodily/kinesthetic intelligence requires tactile or kinesthetic activities, therefore a person who excels in this intelligence best learns a foreign language through drama,

role-play or manipulating flash cards, playing board games, whereas a person who has high verbal/linguistic intelligence thinks in words and learns best by narrating, puzzles, and word games.

Lesson planning in the framework of MI Theory seems to be promising for accommodating each intelligence in the classroom and constructing a deep learning. Gardner (1999a,b) suggests teachers to cover the topics in a three-step lesson plan: (1) entry points attract the learner in various ways, (2) making analogies help the learner to activate his prior knowledge and come up with metaphors, (3) approaching the core provides opportunities for learners to represent their knowledge in multiple ways. Besides lesson planning, another responsibility of teachers is to set up the scene and provide necessary materials for instruction. Obviously, learning environment constructs a crucial element of learning and needs to be designed accordingly. Recently, there have been many attempts to find out students' perceptions of educational environment. In this study, five aspects of educational environment were studied: (1) students' perceptions of learning, (2) students' perceptions of teacher, (3) students' perceptions of classroom atmosphere, (4) students' perceptions of social self-concept, (5) students' perceptions of academic self-concept.

CHAPTER 3

METHODOLOGY

3. 1. Introduction

This chapter presents the information about the participants, instruments, and the procedures used to collect data, and the methods used for data analysis.

3. 2. The participants of the study

The data for this study were collected through questionnaires and exit slips (a question to answer at the end of each week) responded by a purpose sampling group which is constructed with the participation of 102 students studying at 7th grade in a primary school. 51 students studied the topic “used to, expressing past habits” through MI techniques as the experiment group; 51 students studied the same topic through more traditional activities as the control group. Since the focus of this study is to investigate students' perceptions of educational environment in an EFL classroom where techniques of MI Theory are implemented, 102 students were asked to complete the questionnaires before and after the experiment. The ages of the participants vary between 12 and 14. The course book which has been offered by the Ministry of National Education at the beginning of the school year is “Easy English” which covers the syllabus for 7th grade students. Thus, all participants of this study have been taught English by the same teacher and through the same course book.

3. 3. Data collection

The data for this study were collected by Dundee Ready Education Environment Measure (DREEM), a questionnaire that consists of fifty Likert scale type items which investigated students' perception of educational environment.

Moreover, at the end of each week, students were asked to reflect on their one-week experience and write how they have felt in the English lessons. During the procedure, the researcher observed the students, and this unstructured observation of the researcher was also used as a means of data collection.

3. 4. Instruments

In this study, Dundee Ready Education Environment Measure (DREEM) was used to investigate the students' perceptions of educational environment. DREEM was developed at the University of Dundee's Center for Medical Education by McAleer et al. in 1997. Since then it has been successfully used in perceived educational environment research in medical contexts and proved to be useful at both resident and program level; generalizability and dependability coefficients were calculated as 0.95 and 0.67, and Cronbach's alpha was measured to be 0.93 (de Oliveira Filho et al., 2005). DREEM was slightly tailored by the researcher in accordance with the level and educational context of the participants and also translated into Turkish by the researcher and piloted in Muğla University with the participation of 16 ELT students and proved to be valid ($r = 0,845$). The reliability of the instrument was also checked and proved to be reliable (alpha reliability = 0,5272; equal-length Spearman-Brown = 0,5770). The instrument consists of fifty items designed as Likert scale type questions. The questionnaires were distributed by the researcher and collected back on the same day which allowed the researcher to achieve a hundred percent response rate. Another reason for this was that as the focus of the research students' perceptions of educational environment it was hoped that they could respond to the questionnaire more accurately in their natural setting.

Each participant was also asked to complete an exit slip in order to reflect on his/her English lessons and write their feelings at the end of each week during the procedure. The purpose of this was to obtain more detailed information about how they have felt themselves in English lesson through their own expressions.

3. 4. 1. Questionnaire

The questionnaire was made up of two parts (See Appendix A). Part A aimed to have some background information of the participants such as their gender, class, their last term English grade, place of accommodation.

In part B, fifty Likert type scale questions were asked in order to find out students' perceptions of educational environment. The participants responded to the items by indicating whether they strongly agreed, agreed, undecided, disagreed or strongly disagreed.

The questionnaires of the pre-and-post tests were distributed to the participants by the researcher. Sufficient time was given and collected back after each participant has completed. Before the pre-test questionnaires were administered the participants were told to reflect on their English learning experience since the beginning of the school year whereas while completing post-test questionnaires they were told to only comment on their recent five- weeks experience. The reason for collecting them on the same day was to get a more accurate picture of students' perceptions of the educational environment in their natural setting.

The participants were not asked to write their names on the questionnaires; instead a number was given to each participant. The reason for this is to assure the participants' privacy of their responses, and evidently get a clearer and a more accurate picture of their perceptions as much as possible.

The questionnaire was organized in five subscales (7 or 12 items for each) assessing five areas of students' perceptions of educational environment. Q1, Q7, Q13, Q16, Q20, Q21, Q24, Q25, Q38, Q44, Q47, Q48 aimed to investigate students' perceptions of learning. Q2, Q6, Q8, Q9, Q18, Q29, Q32, Q37, Q39, Q40, Q49 aimed to find out students' perceptions of teacher. Q11, Q12, Q17, Q23, Q30, Q33, Q34, Q35, Q36, Q42, Q43, Q50 investigated students' perceptions of classroom

atmosphere. Q3, Q4, Q14, Q15, Q19, Q28, Q46 were aimed to find out students' perceptions of social self-concept whereas Q5, Q10, Q22, Q26, Q27, Q31, Q41, Q45 investigated students' perceptions of academic self-concept (See Appendix 1).

3. 4. 2. Students' Exit Slips

All participants were asked to reflect on the English lessons and write their feelings and opinions at the end of each week. These responses were analyzed in relation to research questions by the researcher.

3. 5. Procedure

The instrument used in this study (DREEM) is originally in English language. Instead of creating a questionnaire which could cause problems in terms of validity and reliability, the researcher applied DREEM which is extensively used in perceived educational environment research and proved to be valid and reliable. The instrument was translated into Turkish language by the researcher to enable all participants to understand the items properly. It was hoped that responses in the native language could also increase the validity of the data. In order to overcome any errors caused by the translation process, the questionnaire was tried out in a pilot study in Muğla University. The questionnaire in English language was given to 16 ELT students and collected back. After that the same questionnaire in Turkish language was administered to the same students and proved to be valid in terms of translation. ($r = 0,845$). The reason why ELT students have been chosen is that they are advanced in English language and able to notice any difference caused by translation process.

The researcher delivered the pre-test questionnaire at the end of April. After that techniques stemming from MI Theory were used to teach the topic 'used to, expressing past habits' for five weeks. The topic 'used to' was selected from the 7th

grade English curriculum due to the fact that it has not yet been studied by the participants.

After the topic was selected, the researcher developed related activities for the procedure. It was crucial to develop appropriate techniques and provide necessary materials that reflect the principles of MI Theory. Drawing on relevant research all activities were developed by the researcher. Lesson plans for the procedure were based on Gardner's (1999a, 1999b) suggestions on teaching for a deep learning. In this study, experiment group studied the topic 'used to, expressing past habits' through MI based activities while control group studied the same topic through more traditional activities.

First, the participants in experiment group were grouped in a way that each group consists of four or five students and the seating arrangement of the classroom was shifted from the traditional row design to a group-work design. The purpose of this seating plan is that it gives opportunity for a quality student interaction which is valued as an intelligence type in MI Theory. Another reason is that it lends itself to a comfortable practice of intelligence centers in which students study in work-groups both individually or collaboratively and rotate to another intelligence center.

The researcher grouped the students according to her observations since she has been teaching to the participants for 2 years. Therefore in grouping process, students' achievements and friendships were considered to be important. After grouping, the participants in experiment group were assigned to an intelligence center. Since the classroom in this study is not large enough to accommodate eight intelligence centers, the researcher decided to create five centers and address musical and verbal/linguistic intelligence as a whole-class activity, involve interpersonal intelligence through study-groups where they guide and help each other to accomplish the given tasks. The intelligence centers were nature center for naturalist intelligence, math center for logical/mathematical intelligence, eye center for visual/spatial center, I center for intra-personal intelligence, and body center for

bodily/kinesthetic center. In each center, students were provided with a bulletin board on which necessary materials were attached and they were told to bring anything they need. In the centers they were asked to accomplish two tasks.

1. Linguistic intelligence: The procedure started with a reading session as a whole class-activity. The reading text was about dinosaurs and was written by the researcher. It was hoped that this topic would be interesting for the students especially for the ones with highly developed naturalist intelligence. Before the text was given to students, some pictures of dinosaurs were demonstrated to draw students' attention and provide a preparation for the topic to be taught. Then some questions related to the topic were asked before the text was given. The questions were : 1. Are there dinosaurs now? 2. When did they die out? 3. How big were they? 4. How did they use to live?

Then, students read the text to find answers to the questions. Meanwhile, the new words were illustrated by the researcher. After that, students read the text in-groups, and the researcher posed the same questions about the text to check students' understanding.

2. Musical intelligence: The participants listened to a selection of animal and nature sounds and were asked to choose the one that went well with the dinosaur text. As a second musical activity, they learnt a popular pop song in English, "Don't Speak", that told a story of two people who used to have a happy life in the past. The researcher chose this song because it provided a fine context for student debate using the target structure as a follow-up activity. After this activity, intelligence centers were activated and the participants started to rotate as a group and accomplished the tasks.

3. Visual-spatial intelligence: Eye Center: In this center, first students were asked to illustrate the new words in the dinosaur text. Then, they were asked to visualize the major ideas and then draw the picture of the whole text. In this center, students

provided with necessary materials such as color pencils, highlighters, different kind of pictures to inspire them as well as some verbs, nouns, adjectives in English illustrated with pictures as a peripheral aid.

4. Naturalist Center: Nature Center: In nature center, the participants tried hard to find logical stories about the mysterious extinction of dinosaurs. They wrote their ideas and also illustrated them. Next, they were asked to prepare a brochure that presented animals that used to live in the past. In this center, students were provided with a map of world on which various species of animals were distributed according to their hometowns along with their features, there were also many environment and nature magazines in English and Turkish language.

5. Logical/mathematical intelligence: Maths Center: First, the logical aspects of this intelligence were addressed. The participants were introduced a set of rules about 'used to' and were asked to decide whether these rules were true referring to the dinosaur text. For mathematical domain, they were asked to solve simple story problems written with the target structure and create more.

6. Intra-personal intelligence: I Center: In this center, first the participants were given some pictures to aid them telling what they used to do, what they used to like and what they used to hate in their childhood. After that, they compared the things they used to like in the past with the things they enjoy now.

7. Bodily-kinesthetic intelligence: Body Center: In this center, the participants played a board game with a dice. The board consisted of squares with questions about their childhood memories. Each participant answered all his/her questions and moved his/her piece towards the finish. The one who first answered all the questions accurately won the game. Second, each participant mimed what he/she used to do in the past by using only his/her body. The others tried to guess and wrote a sentence about the presenter. The one who wrote a true sentence got a point.

8. Interpersonal intelligence: This intelligence was addressed by assigning each participant a personal role to facilitate and organize the activities done in the intelligence centers. As the groups rotate, the roles changed on the purpose of giving the opportunity to each participant handle a different role each time. The roles are as follows:

1. Facilitator made certain that everybody in the group understood the instructions and tasks (adapted from Johnson et al., 2002, p. 33).
2. Problem solver dealt with any problem that emerges during the study time and encouraged the other group members to speak in English (adapted from Johnson et al., 2002, p. 33).
3. Accuracy coach controlled the accuracy of each task accomplished and gave feedback to group members (adapted from Johnson et al., 2002, p. 33).
4. Controller made certain that everybody behaved friendly, gentle, and helpful in the group and gave a yellow card for rude and aggressive behaviors and a pink one for desired behaviors.
5. Emotion detective observed the group members on task to note down their feelings from their efforts, facial expressions while accomplishing the tasks (adapted from Ghosn, 2001).

In each center students were also asked to write what they have learnt from the activities done in that center and whether they have enjoyed them on a small card and put these cards into the envelope allocated for each center. After all groups rotated the intelligence centers, students were asked to reflect on their past experiences and made a connection between the new concept and their prior knowledge through a metaphor either verbally and visually. These metaphors were shared with the whole class.

Finally, students were asked to undertake a language project in which they could practice the new topic through many intelligences. Students were told that the aim of the project is to learn more about the local place, to compare life styles of yesterday and today, to have an insight about how things change in time, and to express these in the target language. They were also told to compare the life styles in

terms of music and dance preferences, and environmental issues such as local animals and plants. Students were asked to complete a form that would guide them in their study. (adapted from Campbell et al., 1999, p. 287, (See Appendix I). The first part of the form would be completed before they started the project and involved items that allowed students to think critically on the aim and planning of the project, any possible problems and sources of help. The second part would be completed after the project and dealt with students' feelings, satisfaction, and ideas about their work. This activity also aimed to address intrapersonal intelligence since it allows for self-reflection.

The activities studied in control group differed from those studied in experiment group in terms of the skills and materials they required. In control group, the procedure started with the same introduction text on dinosaurs. The meanings of the new words were presented and studied after that, the text was translated into Turkish language and comprehension questions were asked. Then, the exercises on the textbook were done by the students. They made sentences about their first day of school using the structure. Next, students observed two pictures of the same place taken at different times on the textbook to catch the changes, and made sentences about them. They were also asked to write a paragraph about their hometown that compared its past and present along with pictures.

Table 9

Schematic Representations of the Procedures Followed in the Study

Procedures in experiment group	Procedures in control group
1. Pre test	1. Pre test

2. Starting MI based activities, step one: Using intelligences as entry points i. Linguistic intelligence: Reading a passage, presenting the vocabulary with pictures, answering comprehensive questions ii. Musical intelligence: Matching the text with a piece of music, learning a song iii. Eye Center: Drawing pictures of the new words and the reading passage iv. Nature Center: answering the open-ended question on dinosaurs' extinction, making a brochure of animals that became extinct. v. Maths Center: Using inductive reasoning to learn rules of the structure, solving and creating story problems vi. I Center: Telling childhood habits using pictures, comparing their habits of past and present vii. Body Center: Playing a board game, miming childhood memories viii. Interpersonal intelligence: Giving feedback about the works done, taking roles for a quality group work 2. Step two: Analogies i. Creating metaphors by transforming the central theme of the topic into an idea of an object they already know 3. Step three: Approaching the core of the topic with a "Language Project"	2. Activities, i. Reading a passage ii. Presenting the vocabulary with their meanings, iii. Rewriting the new vocabulary, iv. Translating the passage, v. Answering comprehension questions vi. Writing the grammatical rules of the topic vii. Doing related exercises on the textbook 1. Writing a list of ten things they used to do/didn't use to do at the first year of school 2. Comparing two pictures from the textbook that are taken at different times 3. Writing a paragraph about their hometown comparing its past and present along with pictures.
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i.Kinesthetic intelligence: performing local dance shows, presenting the project ii.Naturalistic intelligence: searching for animals and plants important to the comparison. iii.Interpersonal intelligence : guiding each other and giving feedback, iv .Intrapersonal intelligence: Making a plan of the giving ideas about the change by reflecting on the development of hometown, v.Musical intelligence: playing instruments of yesterday and today, vi.Linguistic intelligence: writing a text comparing past and present and commenting on the changing life styles, vii.Visual-spatial intelligence : preparing cite maps, prepare brochures and posters with original photos	
3. Post test	3. Post test

3. 6. Data analysis

The data collected through pre-and-post test questionnaires were analyzed using Statistical Packages for Social Sciences (SPSS 11). Independent t sample test was used to compare the mean of both groups and determine whether there was a

significant difference between students' perceptions of educational environment at the end of the procedure.

The student exit slips completed at the end of each week by the participants were analyzed by categorization; the researcher grouped the common expressions according to their relevance to the following research questions:

1. What are students' perceptions of learning?
2. What are students' perceptions of teacher?
3. What are students' perceptions of academic self concept?
4. What are students' perceptions of social self concept?
5. What are students' perceptions of classroom atmosphere in an EFL classroom where techniques of MI Theory are used ?

The researcher analyzed the data obtained from the questionnaire via SPSS procedures and student exit slips by categorization technique and interpreted the results.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4. 1. Introduction

The purpose of this study was to find out students' perceptions of educational environment in an EFL classroom where MI Theory was implemented. 102 students studying English as a foreign language at 7th grade in a primary school participated the study and completed pre-test and post-tests and wrote their feelings and opinions on the exit slips at the end of each week within the five weeks experience.

The results based on the data collected from pre-test and post-tests and exit slips will be presented and discussed under the headings of students' perceptions of learning, students' perceptions of teacher, students' perceptions of classroom atmosphere, students' perceptions of social self-concept and students' perceptions of academic self-concept.

4. 2. Data Analysis

DREEM questionnaire consisted of 50 Likert type questions. Through t-test analysis the mean values for experiment and control groups were computed and compared. Students exit slips were also analyzed and commented in relation to research questions and some samples are presented along with the results and discussion.

4. 2. 1. Students' perceptions of learning

Students' t-test statistics was used to find out a significant difference between students' perceptions of learning in experiment group and control group in pre and post-tests.

Table 10

Pre-test results indicating mean, standard deviation and t values of students' perceptions of learning.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	49.17	5.55	1.351	0.180
Control	51	47.47	7.11		

According to pre-test results, the mean value for experiment group was 49.17 and the mean value for control group was 47.47. T-analysis was computed as 1.351 which means that there was not a significant difference between the mean values of experiment group and control group. ($t = 1.351$, $P > 0.180$).

Table 11

Post-test results indicating mean, standard deviation and t values of students' perceptions of learning.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	49.86	9.20	1.260	0.211
Control	51	47.84	6.80		

As the table indicates, the mean value of experiment group was 49.86 while the mean value of control group was 47.84. There was not a significant difference between the means of experiment group and control group in terms of their perceptions of learning ($t = 1.260$, $P > 0.211$).

Some samples of student exit slips highlight the points which are crucial in terms of students' perceptions of learning through their own expressions. Some of the exit slips belonging to the experiment group are presented below:

Geçen hafta kitapta çalışmayı hiç sevmemiştim. Yaptığım iş hem heyecanlı hemde araştırma oluyordu için bu yaptığımız işi çok sevdim.

"I didn't like studying from the textbook last week. I liked the way we studied this week because it was exciting and there was a chance to research".

Ben kendimi çok iyi hissettim. Yaptığımız şeyler çok güzel ve öğreticiydi. Herde grup olarak çalışmayı da kavramış olduk. Ve diğer derlere göre daha zevkli geçti.

"I felt very well. The studies we did were very beautiful and beneficial. Besides, we have learnt how to study in groups. And it was more fun comparing to other lessons".

Çok güzel geçti. Derste hiç sıkılmadım. Uygulamalı ders harika oluyor. Ne birde insan arkadaşlarıyla olunca daha güzel oluyor. Böyle İngilizce öğrenmek çok harika bir şey!! Hep böyle olsa keste.

"The lesson was very good. I didn't get bored. This kind of lesson in which we practice is wonderful. And when we are with friends we enjoy more. Learning English in this way is great!! I hope we always learn in this way".

Based on the students' comments, it can be concluded that students in the experiment group noticed a difference in the way they learn and practice the language and enjoyed the new system; therefore they expressed their positive feelings towards English lessons.

Derlerde İngilizce soru sörsek daha güzel ve eğlenceli geçer. Bu hafta derslerden sıkıldım. Dersler daha zevkli geçebildi.

“If we sing songs in the lesson, we enjoy more. I got bored in the lesson this week. It could be more enjoyable”.

Bence ders daha eğlenceli bir hale getirilebilir. Mesela sınıfta en güzel şarkı kuran (işlenen konuyla ilgili) seçilebilir. Farklı yöntemden yarışmalar yapılabilir.

“I think it is possible to make the lesson more enjoyable. For example, we can select the student who makes the best sentence or organize competitions on different topics”.

Bu haftaki İngilizce dersi her haftaki gibi zevkliydi. Zaten ben bu hafta yaptığımız Workbook daha çok eğlendirdi. Bir öğrenci İngilizce dersini sevmezse zaten on o ders zevkli gelmez. Ben İngilizce dersini ve İngilizce öğretmeni sevdiğim için İngilizce dersi bana çok zevkli geliyor.

“The English lesson this week was enjoyable as it was the other weeks. The workbook study this week was more enjoyable. If a student doesn't love English lessons, simply s/he won't enjoy it. As I love English lessons and the English teacher, I enjoy the lesson very much”.

Ben bu hafta kendimi iyi hissettim. Ders işleyiş yöntemlerimiz derse olan ilgimi artırdı. Derse bunun bana çok faydası olduğunu gördüm. Çünkü eve gittiğimde verilen ödevimi kolaylıkla anladım. Bu yüzden ödevimi yaparken hiç canım sıkılmadı ve sabucak yaptım. Bu da beni çok mutlu etti. Sınıfta ders işlerken resimleri anlatmak çok güzeldi.

“I felt myself very well this week. The way we studied made me more interested in

the lesson. I noticed that this is very effective for the lesson. Because when I got house, I understood my homework easily and therefore I didn't get bored while accomplishing it. This made me happy. It was very beautiful to tell about the pictures in the lesson".

The comments above belong to some students from the control group. As seen from their expressions, some students ask for more enjoyable activities and state that they get bored; some students love the lesson and the teacher and already pleased with the way they learn English.

4. 2. 2 Students' perceptions of teacher

Through t-test statistics the mean scores of pre-test and post-test results of experiment and control group were compared.

Table 12

Pre-test results indicating mean, standard deviation and t values of students' perceptions of teacher.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	47.29	4.28	-1.461	0.147
Control	51	48.74	5.64		

In the pre-test, the mean score of experiment group was found to be 47.29 while the mean score of control group was 48.74; this result indicates that there wasn't a significant difference between the way students in both groups perceive the teacher ($t = -1.461$, $P > 0.147$).

Table 13

Post-test results indicating mean, standard deviation and t values of students' perceptions of teacher.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	47.96	7.33	-0.836	0.405
Control	51	49.31	8.93		

The table presents that the mean value of experiment group was 47.96, and the mean value of control group was 49.31. T-analysis of the post-test was computed as -0.836. Referring to Table 12 the mean value of experiment group in the pre-test was 47.29 which implies a slight change in their perceptions of teacher but statistically these values did not indicate a significant difference between the students' perceptions of teacher in experiment and control groups ($t = -0.836$, $P > 0.405$).

The remarks of some of the students in the control group are presented below:

Ben çok eğlendim. Ayrıca "use to" geçmiş zamanlarla ders yapmak çok güzeldi. Açıkçası ders yaparken kendime güvenip ders yaptım. Hiç sıkılmadım. Bazen sıkıldığım da oldu. Ama hemen düzeldi. Öğretmenimiz dersleri çok güzel ve zeekli anlattı. Her zaman böyle bir ders ortamında olmak isterim.

"I had a good time. Besides, it was fun to study "used to". To put it more clearly, I was self-confident while studying. I didn't get bored. Sometimes I got bored but just for a short time. Our teacher lectured very beautifully. I always want to be in such an atmosphere".

Bu hafta isledigimiz ingilizce dersinde kendimi çok iyi hissettim. Eskiden ingilizce dersini anlamazdım. Öğretmene söyleyemezdim utanırdım. Öğretmene say yaprak bana diye öğretmene söyleyemezdim. Ama 6. sınıftan beri ingilizce dersini çok iyi anlamaya başladım.

“This week I felt very well in English lesson. I didn’t much understand English lesson before. I couldn’t tell the teacher because I was ashamed and afraid of the teacher. But since 6th grade I have no difficulty in understanding English lesson”.

As the samples indicate, students in the control group hold a positive attitude towards the teacher.

Sample student exit slips of the experiment group is as follows:

Ben ingilizce dersini önceden fazla sevmiyordum. Ama şimdi çok eğlenceli oluyor. İnşallah daha da güzel olur derslerimiz. Diğer derslerde kimse katılmıyordu. Ama bu organizyon çok iyi olmuş. Herkes katılıyor. Herkesin iyi geçiyor ingilizce. İngilizce öğretmenimiz çok iyi. İyi ve güzel anlatıyor.

“I didn’t like English lesson very much before. But now it is amusing. I hope it becomes even more amusing. Nobody participated to the other lessons. But this organization is very good. Everybody takes part. Everybody has a good time. Our English teacher is very good and lectures well”.

Bu hafta ingilizce dersinde kendimi çok aktif hissettim. Spor köşesinde çok eğlenceli bir oyun oynadık. Bu da çok eğlenceliydi. Ayrıca öğretmen bize müzik dinletip, bizim albümümüz, öğretmenimiz ve araştırmamız çok iyi bir aktiviteydi. Geçen haftadan daha iyi bir etkinlik yaptık bu hafta.

“I felt myself very active in English lesson. We played a very enjoyable game in sports center. It was fun. Besides, the teacher let us listen to a song, and this was a very good activity for us to understand, learn and investigate. We did a better activity this week”.

These samples indicate that the students in the experiment group have noticed the difference in the activities that were designed by the teacher and they think that the new system is more effective.

4. 2. 3. Students’ perceptions of classroom atmosphere

Through t-test statistics the mean values of experiment and control group were computed and compared to detect any significant difference in terms of students’ perceptions of classroom atmosphere.

Table 14

Pre-test results indicating mean, standard deviation and t values of students’ perceptions of classroom atmosphere.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	45.82	5.15	-1.484	0.141
Control	51	47.58	6.75		

In Table 14, while the mean for experiment group is 45.82, the mean for the control group is 47.58. These results indicate that the experiment group and control group are similar in terms of the way they perceive the classroom atmosphere at the beginning of the study. ($t = -1.484$, $P > 0.141$).

Table 15

Post-test results indicating mean, standard deviation and t values of students' perceptions of classroom atmosphere.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	45.94	7.74	-0.700	0.486
Control	51	47.27	11.18		

When looked at the post-test results, the mean value for experiment group is 45.94 while the mean value for control group is 47.27. These results indicate that there was not a significant difference between the perceptions of students both in treatment group and control group ($t = -0.700$, $P > 0.486$).

Comparing the mean scores of experiment group in Table 14 and Table 15, there is a very slight increase in students' perceptions of classroom atmosphere in experiment group. Some sample students exit slips belonging to control group are presented below.

Ben başka derslerde dersle o kadar konsantre olamıyorum ama İngilizce dersinde dersle çok iyi konsantre oluyorum. İngilizce dersini çok beğendiğim için bu derste ve diğer ödevleri unutmadım ve vaktinde yaptım.

"I cannot focus on the lesson in other courses but I can concentrate very well in English course. As I love the lesson very much I do not forget the homework and submit on time".

Bu haftaki İngilizce dersinin konusu kolay mıydı yoksa zor müydü anlamadım. Ama zevkliydi. Bazı anlamadığım yerler olmuştu. Ama bu derste yanı sıra bugün biraz daha özet yapınca daha iyi anladım. İngilizce dersinde öğretmenimiz mi zevkli anlatıyor için kendim derisi sevdiğim için mi biliyorum. Nedense İngilizce dersine çok iyi konsantre olabiliyorum.

"I cannot decide whether the topic in English lesson this week was easy or difficult. But it was enjoyable. There was some issues I couldn't understand. But after a few examples, I could understand better today. I can concentrate on the English lesson very well, maybe it is because I enjoy the lesson or the teacher makes it enjoyable".

Bu hafta İngilizce dersi çok güzel geçti diyemem. Çünkü bu hafta kendimi derse veremedim. Umarım haftaya İngilizce dersini iyi geçerim. Bu hafta sanki kendimi hiç birşey yapmamış gibi hissettim. Ama haftaya daha iyi çalışmaya söz verdim.

"This week I cannot say that English lesson was enjoyable because I could not focus this week. I hope it will be more fun next week. I felt that I did nothing this week. But I am determined to study better next week".

Diğer haftalardan pek farklı değildi. Tek fark benim derse karşı ilgisizliğimdi. Kendimi ön plâna çıkarmak için hiç aklıma harca vermediğim farkındayım. Ama kendimi hazır hissetmem bunları düzeltmek için yeterlidir.

"It wasn't pretty much different from the other weeks. The only difference was my lack of interest towards the lesson. I know that I cannot put effort in coming forward in the lesson. But I only need to feel ready to get over this".

When we look at the students' expressions in control group, we may conclude that students like the English lessons and can sometimes concentrate on the lesson; even one student states that she cannot concentrate on any lesson but English. But it is also possible to mention a reluctancy among students to take part which may have a negative impact on overall classroom atmosphere.

Bu hafta İngilizce dersi çok güzeldi çünkü grup olarak ayrıldık. Sımdaki dersi daha iyi anlıyorum. Önceden çok sıkılıyordum, çünkü derse kendimi veremiyordum. Ama sımdaki İngilizce dersini çok seviyorum.

“This week English lesson was very good because we were assigned in groups. Now I understand the lesson better. I had been bored before because I couldn’t concentrate but now I love the lesson a lot”.

Daha önceki derslere göre daha eğlenceliydi. Dersle ilgim daha çok arttı. Grup çalışması zevkli oluyor yapılan görevler çok eğlenceli. Kendimi diğer İngilizce derslerine göre daha mutlu hissettim. Bu çalışmada daha çok hoşuma gitti.

“ It was more fun when compared to the other lessons. I am much more interested in the lesson now. Group work and the tasks are very enjoyable. I felt myself happier comparing to the other English lessons. I favor this implementation more”.

Bu hafta yapılan etkinlikler bizim gruplarımızı sağladı. Ders daha akıcı geçti. Ders sırasında herkesin fikirlerine saygı duyuldu, grup içinde. Dersle sadece bir konu ile sınırlı kalmadı ve her grup farklı çalışmalar yaptı. Diğer derslere göre daha fazla yabancı kelime öğrendik.

“This week we formed groups to accomplish the activities. The lesson was more fluent. During the lesson each idea was welcomed with respect within the groups. The lesson was not constrained to one topic, each group performed a variety of activities. Comparing to other lessons we have learnt more new words”.

Bu hafta işlediğimiz İngilizce dersinde kendini nasıl hissettin?

Bu hafta işlediğimiz İng. dersinde kendimi, diğer derslere oranla daha iyi hissettim. Daha önceki İng. derslerini aşıkçası fazla sevmezdim, ama şimdi her İng. dersini sabırsızlıkla bekliyorum. Şimdi dersler daha eğlenceli geliyor ve bu uygulamadan çok memnunuz.

“I felt myself better in this lesson when compared to other English lessons. To speak the truth, I didn’t like English lessons before but now I am looking forward to English lessons because it is more fun now and I am very pleased with this implementation”.

Based on the comments of students in experiment group, we can deduce that they enjoy and concentrate on the lesson more compared to the students in the control group.

4. 2. 4 Students perceptions of social self-concept

Through t-test statistics, the mean values of experiment group and control group were computed.

Table 16

Pre-test results indicating mean, standard deviation and t values of students’ perceptions of social self-concept.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	26.43	3.34	-0.264	0.792
Control	51	26.61	3.39		

As the Table 16 indicates, the mean score for experiment group is 26.43 while the mean score of control group is 26.61. These results put forward that there is not a significant difference between the perceptions of students in experiment group and control group in terms of the way they perceive themselves socially in the midstream of learning a foreign language ($t = -0.264$ $P > 0.792$).

Table 17

Post-test results indicating mean, standard deviation and t values of students' perceptions of social self-concept.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	26.31	3.30	-0.545	0.587
Control	51	26.96	7.80		

Table 17 indicates that the mean score of experiment group is 26.31 while the mean score of control group is 26.96 which means that there is not a significant difference between students' perceptions of social self-concept in experiment group and control group
($t = -0.545$, $P > 0.587$).

Some samples of student exit slips belonging to the experiment group is as follows:

Bu hafta çok güzel geçti.Yeni kelimeler öğrendim.
Güldük.Beraber eşyalarımızı kullanma ve o duyguyu hissettim.
Beraber düşünüp beraber yapmanın çok yararlı ve çok iyi olduğunu öğrendim.

"This week it was very good. I have learnt new words. We laughed. I felt the good feeling of sharing things with friends. I have learnt that planning and doing something together is very beneficial and feels very good".

Bu haftaki işlediğimiz İngilizce dersinde kendimi çok mutlu hissettim. Çünkü birbirimizle yardımlaşıyoruz. Sıkılmadım. Kendimde bir canlanma hissi oldu. Diğer derslerde böyle değildi. Önceki derslerde arkadaşlarımız bazen karga ederdi. Ama şimdi karga yapılmıyor. Böylece dersler çok zevkli.

"I felt very happy in English lesson this week. Because we help each other. I didn't get bored.I had a feeling of refreshment. It was not like that in the other lessons.

Before this, my friends sometimes had arguments with each other. But now there is no argument. Therefore, lessons are very enjoyable”.

Bu haftaki İngilizce dersinde kendimi çok iyi hissettim. Bu küme çalışmalarında arkadaşlıklar ön plana çıktı. Arkadaşlarımızla arkadaşlıklarımız daha da güçlendi. Her kümede ders yapmak çalışma yapmak çok güzel ve çok eğlenceli.

“This week in English lesson I felt myself very good. In this group work activities the friendships have been very important. Our friendships were nurtured. It is very beautiful and enjoyable to study in each center”.

As the samples indicate, students in experiment group have enjoyed working together, even they state that this system contributed to their friendships and there has been a decrease in arguments among students.

Some samples exit slips belonging to the students in the control group are presented below:

Ben bu hafta İngilizce dersinde kendimi iyi hissettim. Yaptığımız çalışmalar güzeldi. Ama hep sınıfta yaptık. Hiç küme çalışması yapmadık. Bence küme çalışması yapseydik veya ders ile ilgili bir oyun oynasaydık eğer daha iyi olabilirdi. Çünkü bu hafta bazı arkadaşlarımız derse katılmadı. Bence ders ile ilgili olarak herşey güzeldi. Teşekkür ederim.

“I felt good in English lesson this week. The activities we did were good. But we did them as a whole class activity. We didn’t study in groups. I think if we studied in groups or played a game relevant with the topic, it could be better. Because this week some of our friends didn’t participate in the lesson. I think everything about the lesson was good. Thank you”.

derslerde arkadaşlarımın derse pek katılmamasından dolayı ben de pek katılmadım. Bu yüzden sıkıldığım oldu.

“I did not participate in the lesson because my friends did not take part and it made me bored”.

The students in the control group stated that they felt good in the lesson but yet they asked for group work activities for a change.

4. 2. 5 Students' perceptions of academic self-concept

Through t-test statistics the mean values of experiment group and control group were computed.

Table 18

Pre-test results indicating mean, standard deviation and t values of students' perceptions of academic self-concept.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	32.08	4.10	1.180	0.241
Control	51	30.94	5.52		

According to Table 18, the mean value of experiment group is 32.08 while the mean value for control group is 30.94 in pre-test. These results do not indicate any significant difference between the students' perceptions of academic self-concept in experiment and control groups ($t = 1.180$, $P > 0.241$).

After five weeks of MI experience, the mean values indicating students' perceptions of academic self-concept were computed again and the results are

presented below:

Table 19

Post-test results indicating mean, standard deviation and t values of students' perceptions of academic self-concept.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	36.00	14.17	2.215	0.029
Control	51	31.23	5.92		

According to the Table 19, the mean value for experiment group in post-test was 36.00 while it was 32.08 according to pre-test results as indicated in Table 18. The mean value for control group was computed as 31.23 in post-test. The comparison of the mean values of experiment group and control group indicate a significant change in perceived academic self-concept ($t = 2.215$, $P < 0.029$).

Apparently, students' perceptions of academic self-concept in experiment group have grown to a larger scale which was indicated between 25-32 and as "confident" (McAleer et. al., 2003) in DREEM test. This change may stem from the nature of activities that were designed in the framework of MI Theory.

The sample exit slips of students in experiment group are presented below:

Bu hafta İngilizce dersi çok güzel geçti.
Eski günlerimi hatırladım. Öğünleri tekrar ettim.
İngilizcem iyice olmaya başladı. Yakında İngilizce öğretmeni olabilirim.

"This week English lesson was very good. I have remembered the old days. My English skills have started to become better. I can be an English language teacher soon".

Kendimi çok rahat hissettim. Öbür derslerden daha güzeldi. İngilizceyi yavaş yavaş öğreniyorum. Benzer çok yararlı olacak bir şekilde İngilizceyi öğretecek. İngilizceyi de iyi hep böyle öğretilim.

"I felt myself very comfortable. It was more beautiful than the other lessons. I am progressing slowly. I think it will be very effective and my English skills will be better. This is better, I hope we always learn it in this way".

Bu hafta derslerde kendimi çok ama çok iyi hissettim. Çünkü, her künenin konusu çok güzel ve kolaydı. İngilizceyi iyi olmaya başladı.

This week I felt myself pretty good. Because the tasks in each center was quite good and easy. My English skills have started to become better".

Bu hafta İngilizce dersinde, çok keyifli bir aktivite yaptık. Bunda beceri ve yeteneğimizi ortaya çıkardı.

"This week we did a very enjoyable activity in English lesson. And this has let us to discover our talents and skills".

These comments made by students in experiment group support the results of the post-test. Students usually wrote about their progress in English and quality of activities that discover their talents. It is striking that even one student mentioned that she could be an English language teacher soon.

Some samples of students exit slips of students in the control group are given below:

Ben bu hafta hem iyiydi hemde kötüydü-İngilizce dersini seviyorum ama fazla yeteneğim yok bu yüzden başaramıyorum.
Sıfıfta ders izlerken kendimi iyi hissediyorum ama yazılıda başaramıyorum

“This week it was both good and bad. I love English lessons but I am not very talented, therefore I cannot succeed. I feel good studying in the classroom but I cannot succeed in the exams”.

İngilizce dersinde kendimi hissettim. Bu hafta iyiydi. Bazen sıkılıyorum. Derste hta parmak kaldırıyorum. Çokta yanlış söyleceğim diye korkuyorum. Bu korku sizden değil. Bence bu hafta daha güzel zevkli ve eğlenceli geçti.

“I felt good in English lesson. It was good this week. Sometimes I get bored. I do not want to ask for permission to speak in the fear of responding wrongly. This fear does not stem from you. I think this week it was better and more enjoyable”.

ben gelecekte İngilizce dersinde gördüğümüz herşeyin birer gelecekte yararlı olacağını bildiğim için sıkılsamda mutlu oluyorum. İngilizce dersini ve öğretmeninizi çok ama çok seviyorum.

“I feel happy even at the times I get bored because I know that English lesson will be very useful in the future. I love the lesson and the teacher very much”.

In exit slips belonging to control group, although most students stated that they love the lesson and think that learning English would be very useful in the future, some students commented to have no talent in learning English or implied that they have low self-confidence in English lesson.

Table 20

Pre-test results indicating the total mean, standard deviation and t values of students' preceptions of educational environment.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	198.63	16.87	-0.286	0.776
Control	51	199.80	24.07		

The total results of pre-test show that the total mean of experiment group is 198.63 while the total mean of control group is 199.80 which means that there is not a significant difference in students' perception of overall educational environment ($t = -0.286$ $P > 0.776$).

Table 21

Post-test results indicating the total mean, standard deviation and t values of students' perceptions of educational environment.

Groups	N	Mean	Std. Deviation	t	Significance
Experiment	51	206.07	23.99	0.689	0.492
Control	51	202.62	26.52		

According to Table 21, the total mean of experiment group is 206.07 while the total mean of control group is 202.62 in post-test which means there is not a significant difference in students' perceptions of overall educational environment in experiment and control groups ($t = 0.689$, $P > 0.492$).

Some interesting samples of student exit slips belonging to the experiment group are presented below to reveal students' general feelings about the MI based learning environment:

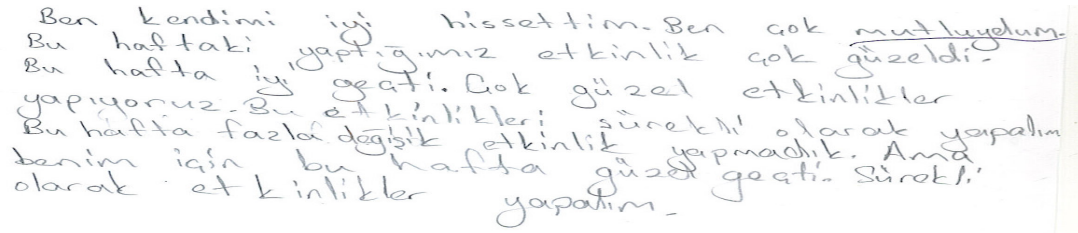
Bu ingilizce dersindeyken diğer ing. derslerine oranla kendimi daha heyecanlı hissettim. Böyle bir ders işlemek daha eğlenceli oluyor. Böyle gerçek bir amaçım olduğuna inanıyorum.

"I felt more excited in this English lesson when compared to the other English lessons. Studying in this way is more enjoyable because I believe that I have a real purpose".

Bu haftaki ing. dersinde benzetmeler yaptık ve buda benim hayal dünyamı geliştiriyor. Benim için çok daha önce (İdönem) dersler dürgün geçiyordu. Ama artık çok daha güzel ve heyecanlı.

“This week in English lesson we studied metaphors and it nurtures my imagination. For me English lessons were rather boring (1st semester); but now it’s more fun and excited”.

It is interesting that one student feels to have a real purpose and another student thinks that the activities nurture his imagination.



Ben kendimi iyi hissettim. Ben çok mutluyum.
 Bu haftaki yaptığımız etkinlik çok güzeldi.
 Bu hafta iyi geçti. Çok güzel etkinlikler
 yapıyoruz. Bu etkinlikleri sürekli olarak yapalım.
 Bu hafta fazla değişik etkinlik yapmadık. Ama
 benim için bu hafta güzel geçti. Sürekli
 olarak etkinlikler yapalım.

“I felt good and I was very happy. The activity we did this week was very good. This week it was good. We are having very beautiful activities and I hope we always have these kinds of beautiful activities. This week we didn’t do something very different. But still it was good for me. I want to do activities all the time”.

This sample belongs to a student in control group. Looking at the comment above we can conclude that although this student seems to like the activities, she also slightly complains the lack of variety in English lessons.

In general, it is observable that students in experiment group notice and appreciate the effort of introducing a variety of activities to comfort a diversity of students in the classroom.

4. 3. Results and Discussion

The first research question was “ what are the students’ perceptions of learning in an EFL classroom where MI Theory is implemented?”. According to pre-test results, there was not a significant difference in students’ perceptions of learning between experiment group and control group. According to DREEM test, the

highest score of students' perception of learning is between 37-48 (McAleer et. al., 2003). The mean of experiment and control group in pre-test indicate that all participants already perceived learning English among the highest scale of DREEM test. Similar to the results of pre-test, the post-test results show that there is not a significant difference between the students' perceptions of learning. But, an examination of Table 10 and 11 shows that the mean value of experiment group in post-test was higher than the mean value as computed in pre-test whereas the mean of control group did not increase as the control group did. Although this increase is not meaningful in terms of t statistics but still this may indicate that after five weeks experience of MI techniques, students in the experiment group may come to perceive the language learning process slightly different than the control group did.

In the exit slips belonging to the experiment group, it is possible to say that students favor the MI based activities and showed a positive attitude. In most of the exit slips, they usually told that they enjoyed the new system more and they especially mentioned the term "excitement" in common. The students in control group also express their positive feelings towards the lesson. Even one student has clearly stated that she loves the teacher and the lesson and this situation makes learning English more enjoyable. On the other hand, they also suggest some activities that could make the lesson more enjoyable. Especially they asked for playing games, singing songs or doing projects in common.

The second research question was "what are the students' perceptions of teacher in an EFL classroom where MI Theory is implemented?". The result of pre-test indicates that there was not a significant difference between the students' perceptions of teacher in experiment group and control groups. On the other hand, when we look at the exit slips of students in the experiment group and control group, it is clear that, they commonly reported to have a positive relationship with their teacher and this fact may have interfered with the way they perceive the teacher during the teaching process. This situation may account for the similar results of pre-test and post-tests of experiment and control group. In both groups, the students rated the teacher among the highest scale. The highest scale in DREEM test is between 34

and 44 (McAleer et. al., 2003). As seen from the Table 13, the mean of experiment group is 47.96 and the mean for control group is 49.31. Therefore, we may conclude that students have already strongly accepted in the pre-test that the teacher has the necessary skills to organize the learning and teaching activities.

The third research question was “ what are the students’ perceptions of classroom atmosphere in an EFL classroom where MI Theory is implemented?”. The pre-test results show that there is not a significant difference in the way students in experiment and control group perceive classroom atmosphere. It is surprising that according to post-test results, after five weeks of MI experience there is not a significant change in their perceptions relating to classroom atmosphere. The comparison of mean scores belonging to experiment group in pre-test and post-test offers a very slight increase. One reason for this may stem from students’ very positive responses in pre-test. In DREEM test, the ideal responses for classroom atmosphere perception are indicated between 37 and 48 (MacAleer et. al., 2003). Observing the mean scores of experiment group in pre-test shows that, students already perceive the overall classroom atmosphere as a place which provides a good feeling.

The students in experiment group often told that they enjoyed the activities because the activities engage them to the lesson more, especially they mentioned working in groups, respecting each other’s ideas, and full participation of students. The students in the control group also expressed that they can concentrate on the lesson. On the other hand, they sometimes complain that they get bored and they become reluctant in participating the lesson.

The fourth research question was “what are the students’ perceptions of social self-concept in an EFL classroom where MI Theory is implemented?”. The pre-test results show that there was not a significant difference between experiment group and control group in terms of social self-concept. The pre-test results show

that students in experiment group and control group already perceived themselves “very good socially” according to DREEM test guide (McAleer et. al., 2003).

When we look at the post-test results, the results do not point to a significant change between the students’ perceptions of social self-concept in experiment group and control group. In other words, the mean values indicate that students’ perceptions of social self-concept were again among the highest scale of DREEM test. Although there is not a significant difference in results of t-test statistics, the student exit slips in experiment group reveal that the students have enjoyed working together and frequently comment on friendships even as a refreshing factor. They frequently mentioned sharing, helping each other and thinking together. It is widely known that friendships are important to students; even in some significant periods of childhood development, friendships dominate over family relations (Landazabal, 2002; Chang et. al., 2003). Flook et. al. (2005) suggest that if children feel that they are accepted by their peers, they may come to view themselves more positively in the learning environment and also they become more eager to participate cooperative learning activities. In this respect, in the experiment group’s comments, it is frequently seen that students give importance to friendships and they are very pleased that this need of them was addressed through this new implementation. MI Theory is not a theory which often emphasizes group work; but it is with this theory that social relationships have been valued within an intelligence domain, as interpersonal intelligence.

On the other hand, when we examine the exit slips belonging to students in control group, it is usually observed that they want to involve in activities which will let them socialize, collaborate and provide full participation. Even one student complains that some students didn’t participate in the lesson and suggests inserting group work activities or games that would provide full participation. In the educational environment students are also expected to form relationships with their peers. When students cannot get involved and socially contribute to the learning environment, they may feel isolated, rejected, anxious and sad which substantially

take away the eagerness and motivation to focus on school subjects (Flook et. al., 2005).

The fifth research question was “what are students’ perception academic self-concept in an EFL classroom where MI Theory is implemented?”. The pre-test results show that there is not a significant difference between students’ perceptions of academic self-concept in experiment and control group. But the post-test results point to a significant change between experiment and control group in terms of perceived academic self-concept. In other words, students in experiment group perceived themselves academically more positive after five weeks of MI experience comparing to students in control group learning the topic through more traditional activities in the textbook.

The comments made by students in the experiment group support the results of the t-test statistics. Many students believe that they do much better in English and subsequently they perceive themselves academically successful. This belief may have roots in the MI based learning environment. Addressing each intelligence with entry points, creating metaphors which promote the retention of knowledge and finally undertaking projects that comprise the practice of all intelligences may have led students to master the topic and feel like an expert. An MI approach to education enables students to discover the topic through a rich and differentiated set of representations which ‘convey to students what it is like to be an expert’ (Gardner, 1999a, p. 178). Besides, Gardner (1999a) suggests teachers to teach the topics in greater depth and prefer depth to breadth in terms of curriculum, in this way students can store full knowledge about the topic and learn ways to transfer it into other realms of curriculum. Therefore it may be concluded that discovering topics by relying on multiple intelligences may boost students’ perceptions of academic self-concept. It has been suggested that, there is a stronger link between academic achievement and academic self-concept rather than that of social or physical self-concept (Marsh & Hau, 2004). Furthermore, academic self-concept is also suggested as a strong determinant of life satisfaction of both adolescents and children (Chang, 2003, p.187).

The total pre-test and post-test results show that students in both groups perceived the general educational environment as “excellent” as indicated in DREEM test (McAleer et. al., 2003). One reason for the identical results of experiment group and control group in post-test may stem from the fact that some dimensions of foreign language teaching methodology overlap with MI Theory. For instance, Suggestopedia primarily emphasized the role of music in language learning whereas Total Physical Response directed attention to the importance of involving the language learner first physically by invoking the right brain hemisphere which would later provide mental engagement in relation to left brain hemisphere which may be in fact associated with the activities suggested to address kinesthetic intelligence. Another example may be the contribution of cooperative learning techniques to language learning. Beside learning the language, through these techniques language learners have also given and received feedback, practiced leadership, learnt the necessary skills for a quality interaction. The raising awareness about the total energy formed by all learners in a classroom may have prepared the necessary framework for MI techniques to address interpersonal intelligence.

Basing on the similar pre-test and post-test results of students in experiment and control groups, another conclusion that may be drawn from the study is that the way students perceive the teacher and the relationship between the teacher and the students may have an effect on students’ perceptions of educational environment.

Some students in experiment group commented that they felt themselves more active and they practiced more. In this concept, according to study of Lau et. al (1998), in relation to the multidimensional aspect of self-concept, there occurs skill specific listening, speaking, reading and writing self-concepts within global English self-concept. In this framework, language students may perceive themselves more passive or active in terms of the roles they take in language learning process. Therefore, it may be suggested that MI based activities may have led students to take more active roles which eventually increased their academic self-perceptions. It is emphasized that improving students’ achievements without fostering their self-beliefs in their academic abilities, the achievement gains will be short-lived (Marsh

et. al., 2002). Therefore we can conclude that techniques stemming from MI Theory may be capable of fostering students' perceptions of academic self-concept which has a subsequent effect on other desirable educational outcomes.

Another premise of MI Theory that is relevant to this study is that each person has many intelligences of equal value and each deserving an equal chance to come alive. Given (2002) states that students who have equal capacities can end up with a higher performance or turn out to be a hopeless student. Thus, reflecting on the needs of each intelligence in the educational environment and addressing them in a way that nurtures each intelligence to a maximum level of competence is essential.

4. 4. Conclusion

In this chapter, the data from the pre-test and post-test results of experiment group and control group were presented. The results were compared and discussed under the heading of each related research question. Some samples of students exit slips in experiment and control groups were also presented in order to highlight the students' responses to the implementation of MI Theory based techniques and for the comparison of these responses to the students' responses in control group.

CHAPTER 5

CONCLUSION

5. 1. Introduction

In this chapter, a brief summary of the study has been provided, and then the implications of the study are discussed. Finally, the suggestions for further research have been presented.

5. 2. Summary of the Study

This study investigated the students' perceptions of educational environment in an EFL classroom where MI Theory is implemented. A purpose sampling group was constructed and studied the same topic through different techniques as experiment group and control group. Lesson plans were designed in the framework of MI Theory based on Gardner's (1999a, b) suggestions. The study aimed at investigating students' perceptions relating to educational environment while learning English as a foreign language through activities stemming from MI Theory.

MI Theory is a theory about human potential, and it brings a new definition to the notion of intelligence and a broader perspective to being intelligent. Since MI Theory has been proposed, educators have favored the theory and adapted it into different fields of education as it promises to address a wide range of intellectual needs than ever. This premise of MI Theory was one of the reasons to conduct this study.

Another premise of MI Theory that led the researcher to focus on the theory is that within the framework of MI Theory, students are allowed to respond through a rich set of representations using their multiple intelligences. When students are

asked to write a composition as a respond to a piece of literature they have read, some may prefer an unconventional way to reflect their understandings such as drawing or dancing an interpretation of literature which would in fact engage them in more or less the same developmental processes as in writing; furthermore this would entail other important processes that would not be available in writing (Smagorinsky, 1995, p.19-27). Thus, these varied opportunities that lead students to learn, respond and represent in multiple ways seem to promise multiple learning environments. How would the students' perceptions of educational environment be affected through such an approach? This question led the researcher relate MI Theory to the notion of educational environment perception.

Another reason for this study was to contribute to the literature on implementation of MI Theory in EFL classes basing on the fact that although this theory has been extensively studied in Maths or Science classes, there is a big gap in designing activities and lesson plans in EFL field. Furthermore, it was thought that revealing students' perceptions of educational environment in an MI Theory based classroom would be very beneficial especially considering the recent curriculum changes in Turkey. Foreign language learning methodology has also undergone a reform period, and this study could highlight some critical issues from the perspective of students who are primarily and directly affected by such innovations.

The participants of the study were 102 7th grade students in a primary school. After taking the pre test, students in experiment group were exposed to activities drawn from MI Theory for five weeks. Students in control group studied the same topic through more traditional activities suggested in the textbook for 7th grade. While these activities in control group mostly focused on verbal and linguistic intelligences, the activities in experiment group were designed to invoke multiple intelligences of students. Then, post test was administered to all participants.

DREEM educational environment questionnaire was used for pre and post test. The results were calculated through t-test analysis. The mean values of both

groups were computed through t-test analysis in order to find out any significant difference between the students' perceptions of educational environment in relation to research questions.

The research questions of this study were:

1. What are the students' perceptions of learning?
2. What are the students' perceptions of teacher?
3. What are the students' perceptions of classroom atmosphere?
4. What are the students' perceptions of social self-concept?
5. What are the students' perceptions of academic self-concept in an EFL classroom where MI Theory is implemented?

5. 3. Implications of the Study

There are many implications of this study that are related to teacher roles, materials used in the classroom, curriculum development, designing activities and lesson plans as well as the quality of textbooks.

Using techniques stemming from MI Theory suggests teachers to take new roles in organizing teaching and learning events. In order to address students' multiple intelligences, teachers should first learn the theory; for instance, in-service training can guide teachers on the issues of designing activities and lesson plans in the framework of MI Theory.

Secondly, while planning curriculum, it should be considered that, enough time is given for each topic for students to discover it through their many intelligences and come up with metaphors and undertake projects to practice their understandings.

The textbooks should be designed in a way that accomodates all intelligences. Although language learning requires primarily verbal/linguistic

intelligence, the other seven intelligences can be used as bridges leading to this intelligence.

Furthermore, teachers should employ various materials in accordance with the needs of each intelligence in the classroom. By the help of materials, it would be easier to invoke or discover an untouched intelligence and nurture it.

5. 4. Suggestions for further research

This study investigated the students' perceptions of educational environment in an EFL classroom where techniques stemming from MI Theory are implemented. The participants of the study were 102 students studying at 7th grade. Further research can be done with participants studying at different levels of English or in different parts of Turkey in order to understand students' perceptions of educational environment as well as to design activities in the framework of MI Theory in accordance with their age and level. In this study, students were exposed to MI Theory techniques for five weeks; a further longitudinal study can be conducted to collect data to highlight the connection of some variables such as success or motivation to MI Theory.

Another research that could follow this study can be on classroom management problems that could be solved in the learning environment that comes with MI Theory. In the effort of addressing each student's intellectual and social needs, whether this theory is capable of preventing some behaviour problems or proposing some suggestions to classroom management is worthwhile to study in EFL field or other fields as well.

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APPENDIX A

EĞİTİM ORTAMI ÖLÇME ANKETİ

Aşağıda dersi nasıl algıladığınız ile ilgili ifadeler verilmiştir. Lütfen bu ifadelerin karşısındaki TAMAMEN KATILIYORUM, KATILIYORUM, KARARSIZIM, KATILMIYORUM, HİÇ KATILMIYORUM seçeneklerinden kendinize uygun olanı işaretleyiniz.

	Tamamen Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Hiç Katılmıyorum
1.Sınıfta derse katılım için cesaretlendirilirim.					
2.Öğretmen bilgilidir.					
3.Öğrenciler strese girdiklerinde iyi bir destek hizmeti var.					
4.Dersten hoşlanmam için kendimi çok zorlamam gerek.					
5.Daha önce kullandığım öğrenme stratejilerini bu sene de kullanıyorum.					
6. Öğretmen öğrencilerle öğrenci olur					
7. Ders beni canlandırır.					
8. Öğretmen öğrencilerle alay eder.					
9. Öğretmen otoriterdir.					
10. Bu sene sınıf geçmede yeterliyim.					
11. Sınıfta pratik yaparken rahatlatıcı bir ortam var.					
12. Ders zaman açısından iyi planlanır.					
13. Ders öğrenci merkezlidir.					
16. Ders becerilerimi geliştirmeme yardım eder.					
17. Bu derste kopya çekilmesi					

problem yaratıyor.					
18. Öğretmenin öğrencilerle iletişimi iyi.					
19.Sosyal yaşamım iyi.					
20. Ders amacına uygun olarak tasarlanmıştır.					
21. Gelecekteki mesleğim için iyi hazırlandığımı hissediyorum.					
22..Ders kendime güvenimin artmasına yardım eder.					
23. Derste rahatlatıcı bir ortam var.					
24. Ders zamanı iyi kullanılır.					
25. Öğretim gerçeklere dayalıdır.					
26. Geçen seneki çalışmalarım bu sene için iyi bir temel oluşturdu.					
27. İhtiyaç duyduğum her şeyi hatırlayabilirim.					
28. Nadiren kendimi yalnız hissederim.					
29. Öğretmen geribildirim vermede iyi.					
30. Kişiler arası ilişkilerimi geliştirebilmem için fırsatlar var.					
31. Öğrenme yolları konusunda öncekinden daha çok beceriye sahibim.					

32. Öğretmen yapıcı eleştiriler yapıyor.					
33. Sınıfı sosyal ortam olarak huzurlu hissedirim.					
34. Sınıf çalışmalarında sınıf ortamı huzurludur.					
35. Buradaki deneyimim hayal kırıcı.					
36. Çok iyi konsantre olabiliyorum.					

37. Öğretmen açık ve anlaşılır örnekler verir.					
38. Dersin amaçlarını çok iyi biliyorum.					
39. Öğretmen sınıfa kızar.					
40. Öğretmen derse iyi hazırlanmış gelir.					
41. Problem çözme becerilerim burada iyi geliyor.					
42. Dersten aldığım zevk, dersin sıkıntılarından daha fazla.					
43. Sınıf atmosferi beni motive eder.					
44. Ders beni aktif bir öğrenci olmam için cesaretlendirir.					
45. Öğrendiklerimin çoğunu gelecekte kullanabilirim.					
46. Kaldığım yer iyi.					
47. Uzun süreli öğrenme kısa süreli öğrenmeye göre daha etkilidir.					
48. Ders aşırı derecede öğretmen merkezlidir.					
49. İstedikimde soru sorabilirim.					
50. Öğrenciler öğretmeni sinirlendirir.					

APPENDIX B

ACTIVITY FOR VERBAL/LINGUISTIC INTELLIGENCE

DINOSAURS

Dinosaur means terrible lizard. Dinosaurs were large reptiles that used to live on earth 230-665 million years ago. Not all dinosaurs were huge. Some of them were smaller than a chicken. Their length changed between 91 cm and 27 m. The first dinosaurs were small and over millions of years they grew to enormous sizes. Dinosaurs did not use to eat all creatures. Some of them ate plants. Plant eating dinosaurs were the largest. The meat eaters were the smaller. The first remains of dinosaurs were found in Sussex, England in 1822. The first dinosaurs died out 65 million years ago. They ruled the world 140 millions years. How did dinosaurs use to live? Most of them used to migrate great distances and they traveled in herds. Many species used to build nests.

Did all dinosaurs use to come from the same family? NO. There were two kind of dinosaurs :

1. Lizard-hipped: These dinosaurs resembled the reptiles still exist.
2. Bird-hipped: These dinosaurs resembled a bird.

A huge, long-tailed, long-necked
, armored, plant-eating dinosaur.
Mongolia.



A meat-eating dinosaur found in



A huge, spine-backed meat-eater.



The biggest meat-eating dinosaur.



APPENDIX C

“EYE CENTER”

ACTIVITY NAME : DRAWING PICTURES.

1.Draw the pictures of the new words.

2.Draw the picture of the text.

APPENDIX D

BOOKS AND MATHEMATICS CENTER **ACTIVITY NAME: PROBLEMS****A. TRUE OR FALSE? SOME RULES ARE FALSE. LOOK AT THE DINOSAUR TEXT AND FIND THE FALSE RULES.****"USED TO"**

RULES.....KURALLAR

1. **"Used to"** expresses something happened regularly in the past but no longer happens.

1. **"Used to"** geçmişte düzenli olarak olan ama artık yapılmayan işleri ifade eder.

EXAMPLE(ÖRNEK): 1. I **used to** play tennis a lot but I don't play very often now. Diane **used to** travel a lot. These days she doesn't go away so often.

2. We also use **"used to"** for something that was true but is not true any more.

2. Aynı zamanda **"Used to"** yapısını eskiden doğru olan ama artık doğru olmayan şeyler için kullanırız.

EXAMPLE(ÖRNEK): This building now is a furniture shop. It **used to** be a cinema. Janet **used to** have very long hair when she was a child.

3. In the question form **"used to"** remains the same. 3. Soru sorarken **Used to** " aynı şekilde kalır.

EXAMPLE: Did you **used to** ate a lot of sweets when you were a child?

4. After **"used to"** the verb is in the second form. 4. **"used to"** dan sonra gelen fiil ikinci haldedir.

EXAMPLE: We **used to** lived in a small village but now we live in London.

5. In the negative form **"used to"** remains the same. 5. Olumsuz halinde **"used to"** aynı kalır.

EXAMPLE: My father didn't **used to** like my friend , Ali , but now he likes him.

6. Sometimes we can use "used to" for things we still do.

6. Bazen **"used to"** yapısını halen yapmakta olduğumuz şeyler için de kullanırız.

EXAMPLE : I still **used to** sleep at 10.00

7. **"Used to"** also means to use something.

7. **"Used to"** aynı zamanda kullanmak anlamına gelmektedir.

EXAMPLE: My mother used to 2 eggs for omlette yesterday.

STORY PROBLEMS

1. There used to be 15 eggs in the fridge. My mother made omlette with five eggs yesterday, and my brother ate 2 eggs for breakfast this morning. How many eggs are there in the fridge now?

2. 5 years ago we used to live on (998-742) Metinler Street . Our door number was 455+122-250. Our post number used to be 80296 / 2. What was our adress?.....
.....

3. When I was 12 years old we used to have 18 neighbours in the apartment. 8 of them moved to another apartment. 2 of them died last year. And 4 of them moved to another city. How many neighbours do we have now?.....

4.My father has changed his business a lot.When I was 8 years old he used to be a waiter.He worked 2 years at a restaurant then he quitted.After that he started to work at a cafe.He used to play the guitar there.He worked only 3 years at the cafe.He didn't work for a while.3 years later he started to work at a bookstore.This is his first year at the bookstore. How old am I?.....

B. WRITE TWO MORE PROBLEMS.

APPENDIX E

NATURE CENTER

1. ACTIVITY NAME : WHAT HAPPENED TO DINOSAURS?

Why did dinosaurs die out?

Write your ideas:

Find pictures:

2. ACTIVITY NAME : ANIMALS BROCHURE

Which animals used to live on Earth? For example dinosaurs. Find some other animals and write about their lives. For example,

*Where did they use to live? *How did they use to live? *What did they use to eat?

APPENDIX F

BODY CENTER ACTIVITY NAME : MY CHILDHOOD

1. Tell your friends what you used to do in your childhood with actions , gestures.
2. Play the game.



APPENDIX G

I CENTER

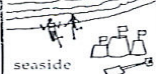
1.ACTIVITY NAME : TELL YOUR CHILDHOOD!

Look at the pictures and tell your childhood.

Example: I used to crawl when I was 1.**2.ACTIVITY NAME: PAST AND PRESENT**

Compare past and present. EXAMPLE:

I used to watch cartoons on TV but I don't watch cartoons anymore.I watch films now.

	1991.....1992.....1998.....2000..... 2003.....	2005.....
	PAST	PRESENT
READ		
WEAR		
GO TO		
LIKE		
BE GOOD AT	↑ 	
BE BAD AT	↓ 	
LISTEN TO		
.....		

APPENDIX H

AD-SOYAD:

SINIF:

BU HAFTA İŞLEDİĞİMİZ İNGİLİZCE DERSİNDE KENDİNİ NASIL HİSSETTİN?

APPENDIX I
PROJECT GUIDE

PROJECT GUIDE

ADI-SOYADI:

TARİH:

BU PROJEDEKİ AMACINI BELİRLE:

BU AMACA ULAŞMAK İÇİN İHTİYAÇ DUYDUĞUN BECERİLER:

BU AMACI GERÇEKLEŞTİREBİLECEĞİMİ DÜŞÜNÜYORUM
ÇÜNKÜ.....

KARŞILAŞACAĞIM MUHTEMEL GÜÇLÜKLER.....

.....

YARDIM ALACAĞIM KİŞİLER VE KAYNAKLAR.....

.....

BU KISMI PROJE BİTTİKTEN SONRA DOLDUR

AMACIMA ULAŞTIM VEYA ULAŞAMADIM ÇÜNKÜ.....

.....

BU DENEYİMDEN ÖĞRENDİĞİM ŞEYLER.....

.....

BU PROJE HAKKINDA HİSSETTİKLERİM.....

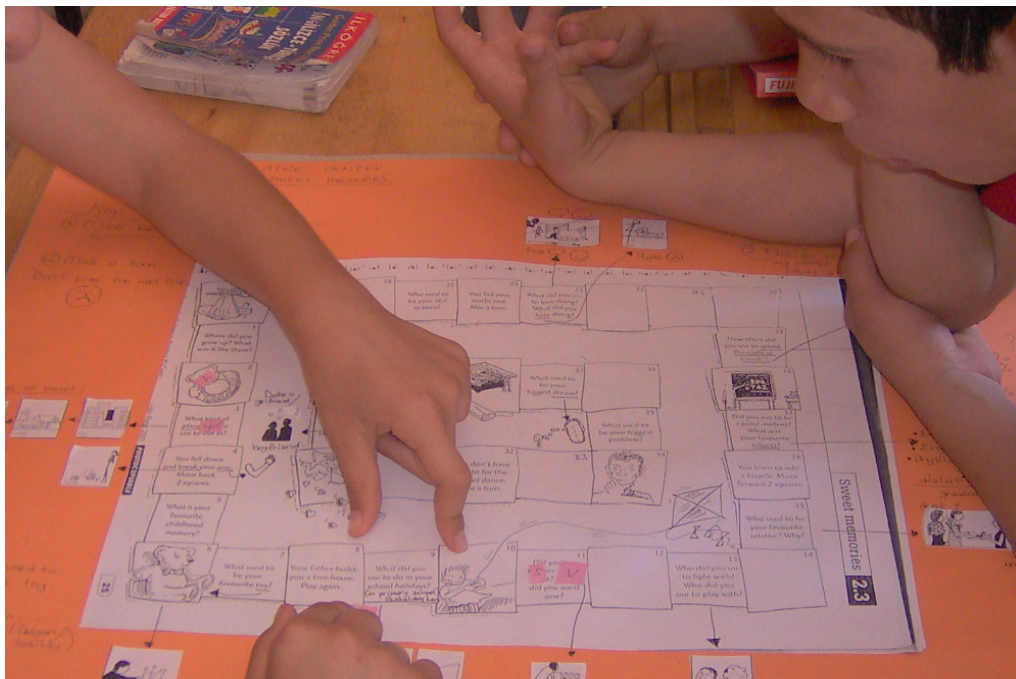
.....

.....

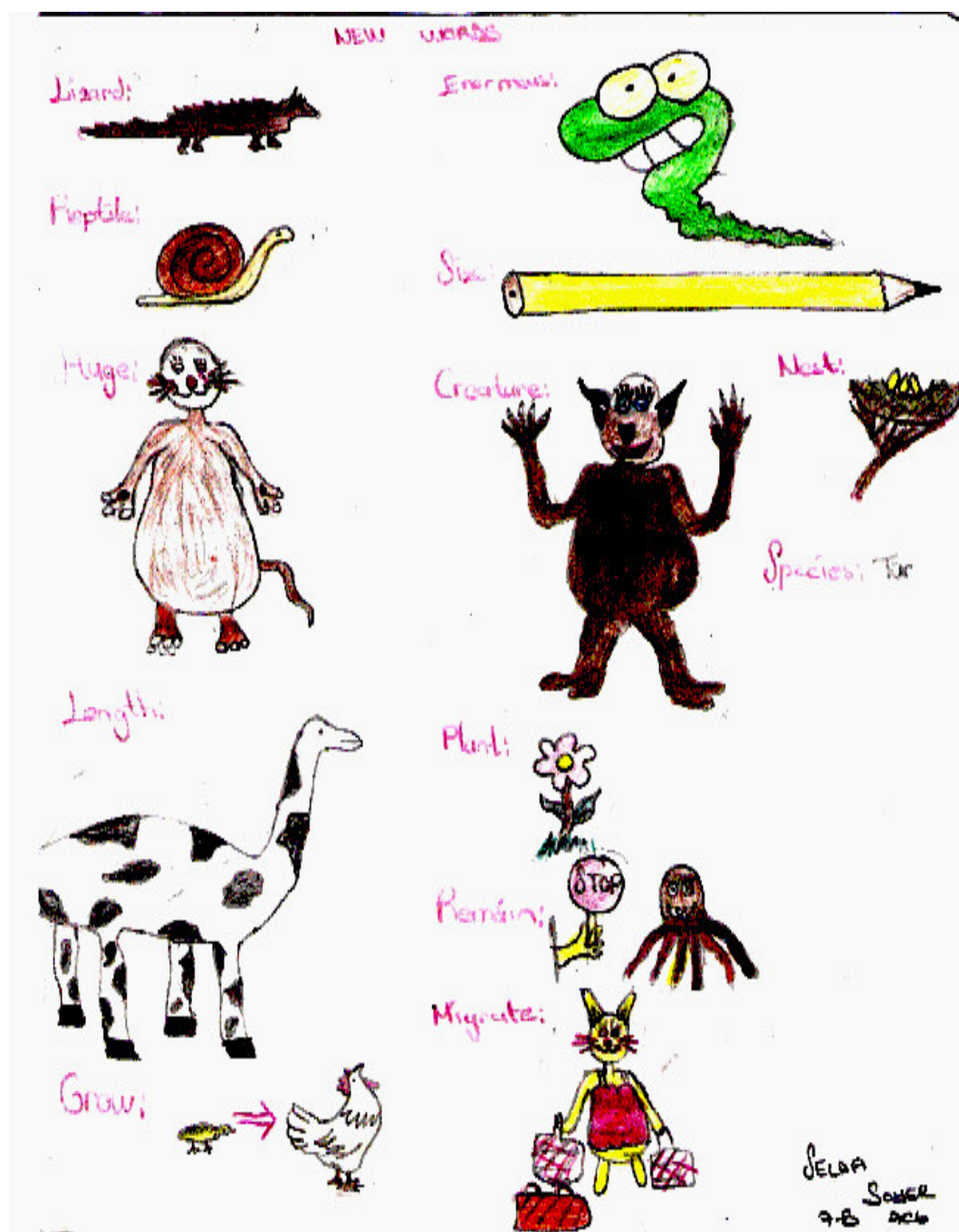
APPENDIX J

SOME PHOTOS OF STUDENTS STUDYING IN INTELLIGENCE CENTERS









Demircan
kocak
7/8

NATURE CENTER

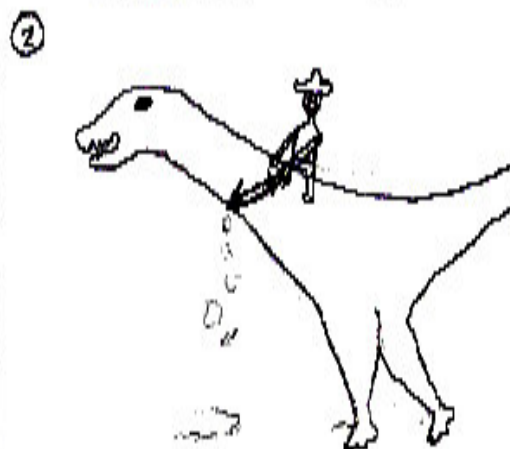
1. ACTIVITY NAME : WHAT HAPPENED TO DINOSAURS?

Why did dinosaurs die out?

Write your ideas:

- ① The World is very big a meteor hit.
- ② The dinosaurs is hunt

Find pictures:



2. ACTIVITY NAME : ANIMALS BROCHURE

Which animals used to live on Earth? For example dinosaurs. Find some other animals and write about their lives. For example,

*Where did they use to live? *How did they use to live? *What did they use to eat?

Pachyrocata and Homotherium

Homotherium that used to live on earth 3 million and 5 million years ago. Homotherium eat the meat.

Nuri AYDIN

7-B 47

I CENTER

1. ACTIVITY NAME: TELL YOUR CHILDHOOD!

Look at the pictures and tell your childhood.

Example: I used to crawl when I was 1.

- I used to cry. I was 3.
 I used to spoiled I was 11.
 I used to very played the football I was 12.
 I used to very little food eat I was 8
 I used to played the tea I was 7.
 I used to very speak I was 10.
 I used to look the cartoons I was 8.
 I used to doesn't swim I was 8.
 I used to doesn't english know I was 10.

2. ACTIVITY NAME: PAST AND PRESENT

Compare past and present. EXAMPLE:

I used to watch cartoons on TV but I don't watch cartoons anymore. I watch films now.

1991.....1992.....1998.....2000.... 2003.....2005

READ



WEAR



GO TO



LIKE



BE GOOD AT



BE BAD AT



LISTEN TO



.....

PAST I didn't used to read but I read now.
 I didn't used to wear but I wear now.
 I didn't used to go to sea but go to sea now.
 I didn't used to like ice-cream in the magnum but I like ice-cream in the magnum now.
 I didn't used to listen to the music but listen to the music now.
 I didn't used to social lesson but I like social lesson now.
 I didn't used to picture lesson but I like picture lesson now.

PERSONAL INFORMATION

Name, Surname : Erinç Oran
Place of Birth : Gediz / Kütahya
Date of Birth : 17.10.1977
Marital Status : Single

ACADEMIC BACKGROUND

High School : 1987- 1995 Salihli Sekine Evren Anatolian High School
University : 1995-1999 Atatürk University
Foreign Language : English

OCCUPATION

1999-2006 : English Language Teacher