T. C.
SELÇUK ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANA BİLİM DALI
İNGİLİZCE ÖĞRETMENLİĞİ BİLİM DALI

ACHIEVING PROGRESS IN WRITING PERFORMANCE OF SELCUK UNIVERSITY PREPARATORY CLASSES DEPENDING ON MULTIPLE INTELLIGENCE THEORY

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ABSTRACT

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This study aims to investigate the effect of multiple intelligences theory on students' comparison and contrast paragraph writing performance. This was a quantitative quasi-experimental study, in which a pre-test, post-test control group design was used. Both experimental and control groups analyzed the same materials. The treatment for the experimental group was achieved via the implementation of multiple intelligences activities during the analysis of the comparison and contrast paragraphs. Both groups needed to write comparison and contrast paragraphs before and after the instruction. The paragraphs written before the instruction were graded as pre-tests and those written at the end of the instruction as post-tests. The comparison of the post-test scores of the two groups demonstrated that those students whose multiple intelligences were activated wrote better comparison and contrast paragraphs.

Keywords: Multiple intelligences, comparison and contrast, paragraph writing.

ÖZET

ÇOKLU ZEKA TEORİSİNİN SELÇUK ÜNİVERSİTESİ HAZIRLIK OKULU ÖĞRENCİLERİNİN YAZMA PERFORMANSINA ETKİSİ

DOĞAN, Cemile
Yüksek Lisans İngiliz Dili Eğitimi
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Bu tez çoklu zeka teorisinin öğrencilerin karşılaştırma paragrafı yazma performansına etkisini incelemeyi amaçlamaktadır. Bu nicel ve yarı-deneysel çalışmada, pre-test , post-test kontrol grup modeli kullanılmıştır. Hem deney hem de kontrol grupları aynı materyali analiz etmişlerdir. Deneysel grup karşılaştırma paragrafı yazma materyalini çoklu zeka aktiviteleri aracılığıyla incelemiştir. Her iki gruba da çalışma öncesi ve çalışma sonrası karşılaştırma paragrafı yazdırılmıştır. Çalışma öncesi yazdırılan paragraflar test öncesi , çalışma sonrası yazdırılan paragraflar ise test sonrası olarak değerlendirilmeye tabi tutulmuştur. İki grubun test öncesi ve test sonrası sonuçlarının karşılaştırılması sonucunda çoklu zekası harekete geçirilen öğrencilerin daha iyi karşılaştırma paragrafı yazdığı ortaya çıkmıştır.

Anahtar Kelime: Çoklu Zeka, Paragraf yazımı

To the memory of my grandmother Cemile YILMAZ

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CHAPTER 1

INTRODUCTION

1.0 Presentation

This chapter begins with background of the study. Then, it goes on with some information on education at Selçuk University, School of Foreign Languages (SOFL). The purpose and hypotheses of the study follow the problem statement. The next part is the definition of terms. The final part is devoted to the limitations of the study.

1.1 Background of the Study

As language teaching and learning is a life-long process, there have been numerous alterations in the field. These changes are a result of the dynamic energies within the structure of the languages itself.

Along with the various interpretations in order to handle the problem of language teaching, studies have been carried out to give meanings to theoretical findings. In every attempt to find the most appropriate way to teach the language, there has been the tendency towards breaking from what is old. Previous approaches were either totally ignored or solely some positive aspects of them were taken into consideration again. In this way, visible changes have taken place in the area of education.

One of the outstanding changes is the new approach to human intelligence. Traditionally, the human intelligence was regarded as a fixed, never changing biological concept. People thought it could be put into mathematical categories and we could make assessments out of those numerical results such as calling someone as 'unintelligent, brilliant, etc...' However, The Theory of Multiple Intelligences, proposed by Howard Gardner, brought new dimensions to the concept of intelligence.

The Multiple Intelligences Theory suggests that people are a composite body of different types of intelligences that one or more of them can be dominant over others. These intelligence types were called 'abilities' in the past. Gardner, nevertheless, accepted them as intelligences and put them into eight categories all of which are independent from one another. His theory, in which 'a pluralistic view of mind' is put forward, suggests different ways of cognition. (1993, p:6) In the same way, Thomas Armstrong, in his book, *In Their Own Way*, emphasizes the importance of being aware of the wide range of strengths and weaknesses in different intelligences and praising individual learning styles. (1987)

Howard Gardner's book *Frames of Mind*, presents his Theory of Multiple Intelligences. (1983) His theory reinforces his cross-cultural view of human cognition and the intelligences are influenced by the culture into which one is born. A brief description of Gardner's eight intelligences is as follows:

1. **Linguistic Intelligence**: The capacity to think in words and to use language to express complex meanings effectively whether orally or written.

2. **Logical-Mathematical Intelligence:** The capacity to calculate, quantify, consider hypotheses and carry out mathematical operations.

3. **Visual-Spatial Intelligence:** The capacity to think in three-dimensional ways and to perceive external and internal imagery , to recreate , transform and modify images.

4. **Bodily-Kinesthetic Intelligence:** Expertise in using one's whole body to express ideas and feelings and facility in using one's hands to produce things.

5. **Musical Intelligence:** The sensitivity to pitch, melody, rhythm and tone and the capacity to transform and express musical forms.

6. **Interpersonal Intelligence:** The capacity to understand and interact with others

7. **Intrapersonal Intelligence:** The capacity to construct an accurate perception of oneself and to use such knowledge in designing one's life.

8. **Naturalist Intelligence:** Observing patterns in nature, identifying and categorizing objects and understanding natural and human-made systems.

Gardner's eight intelligences are an enrichment of human life by developing many kinds of intelligence to the greatest extend. When people have opportunities to learn through their strengths, many changes in cognition, emotion, social and physical life will appear. Therefore, the theory has been put into practice in teaching and learning platform.

Considering the field of English Language Teaching, the multiple intelligences theory is of great help in teaching the four skills: listening, speaking, reading and writing. Since writing is a crucial part of teaching a language in which student production can be analyzed, teaching of paragraph writing was chosen as the area where the study was carried out.

1.2 Education at Selçuk University, School of Foreign Languages (SOFL)

Selçuk University, located in Konya, is one of the most crowded universities in Turkey. The medium of instruction is Turkish. The Preparatory School (SOFL) is obligatory for some of the departments mainly for Faculty of Economics and Administrative Sciences, Faculty of Engineering, Faculty of Medicine and Vocational School of Social Sciences and optional for some of the departments such as Faculty of Communication and Faculty of Technical Education. Therefore, the students of the so-called departments have to take the Proficiency Exam, prepared by SOFL, at the beginning of the instruction. On the condition that they can not pass the exam, they have to take another Proficiency Exam in the following semester. Those students who get 70 and higher pass the test and carry on education in their departments. Those who get the score between 49 and 70 repeat the preparatory program at the weekends while going on with their studies in their departments. Those who fail the class because of unattendance can not study in their departments but have to take the preparatory program for one more year and obtain the right to take the Proficiency Exam at the end of the program.

The instruction at SOFL is divided into three groups according to skills: main course (teaching of basic grammar structures), listening and speaking, and reading and writing.

There are 25 hours of teaching a week 9 hours of which is devoted to main course, 8 hours for listening and speaking, and the remaining 8 hours for reading and writing. There is a course book followed in main course and listening and speaking classes. In reading and writing classes; nevertheless, two course books prepared by the instructors of SOFL are used to carry out the instruction. Reading and writing instructors divide their eight hours into two: four hours for reading and four hours for writing. *Scribe* and *Writing More Efficiently*, the course books prepared by the instructors of SOFL, aim to improve the following skills:

1. reading and analyzing paragraphs
2. identifying the parts of a paragraph
3. writing topic sentences
4. writing supporting sentences
5. writing conclusions
6. summarizing
7. writing CV and job application letters
8. writing formal and informal letters
9. writing narrative, descriptive, comparison and contrast, argumentative and cause and effect paragraphs
10. analyzing essays
11. writing thesis statements
12. planning essays
13. writing essays
14. revising essays.

1.3 The Problem

The problem which necessitated this study originated from the method of teaching employed by the SOFL, which neglected the education based on the theory of Multiple Intelligences. As the theory emphasizes giving value to the strength of the students, the study aimed to investigate whether the application of the theory of Multiple Intelligences in writing classrooms would add to students' learning comparison and contrast paragraph writing. Hence, this study seeks the answer to the following research question:

Is there an influence of activities that activate Multiple Intelligences on students' comparison and contrast paragraph writing performance?

1.4 Purpose

The purpose of this study is to find out whether the writing performance of the preparatory school students could be developed via an instruction which stimulates their multiple intelligences. Namely, this study seeks to find out whether the instruction and revision of comparison and contrast paragraph writing through MI stimulating activities result in a better performance in SOFL students' comparison and contrast paragraph writing compared to an instruction without making use of MI stimulating activities.

1.5 Hypotheses

The following hypotheses are tested:

1. Activities that activate MIs of students have a positive effect on their comparison and contrast paragraph writing.

2. There is no effect of activities that stimulate MIs on developing students' comparison and contrast paragraph writing.

1.6 Significance

The above given aim of the study appears to prove the thesis, the study may have a contribution toward the writing course offered at SOFL and it may lead to research on other skills that are used in main course and listening and speaking courses. The instructional goals may be achieved more easily by making use of the theory of MI in the program of SOFL.

1.7 Definition of Terms

In the previously mentioned hypotheses MIs stand for multiple intelligences put forward by Howard Gardner (1993). Throughout the instructional stage, the students' MIs are stimulated through different activities.

1.8 Limitations of the Study

The first limitation of the study was the number of the students in both experimental and the control groups. Because the number of the students in each classes was restricted to twenty four, the number of subjects involved in the study was 50. The data obtained from a larger group of students would have more reliable results.

The second limitation was the educational backgrounds of the groups. Although the students were from the same faculties , that is to say, they were the students of the Faculty of Economics and Administrative Sciences, Faculty of Engineering and Faculty of Technical Education, and their proficiency averages more or less the same, there were some inequalities in their educational backgrounds concerning the courses they had in high school.

The final limitation of the study was that the instructor was the scorer of both the pre and post tests. In order to avoid being subjective the paragraphs were scored twice. A one-month period intervened between each scoring session and some other instructors were asked to view the papers. Although that reduced the amount of subjectivity, it did not totally eliminate it.

CHAPTER 2

LITERATURE REVIEW

2.0 Presentation

This chapter starts with a variety of definitions of intelligence. The background of MI theory is followed by the factors influencing the development of MIs. Afterwards, the implications of the theory in the field of education are discussed. The application of the theory in ELT classes and planning lessons according to MIs comprise the next part. The final component of this chapter is the use of MIs in the writing classes.

2.1 A Variety of Definitions on Intelligence

Finding a definition of "human intelligence" has always been one of the major interests of many educators. Some controversial debates over the nature and assessment of intelligence have been put forward. Some defined it as "smartness", "giftedness" or simply "ability to carry on in daily life".

According to Cyril Burt, the word intelligence was revived by Herbert Spencer and Francis Galton in the mid nineteenth century as a scientific term meaning 'innate, general cognitive capacity': 'innate' carried the meaning inherited, and not acquired later in life by means of experience, and 'general cognitive' was used to mean an unemotional ability that was applicable to numerous kinds of circumstances. (Synderman, 1988: p.51) These circumstances vary according to different branches of studies. For instance, educators define intelligence as the ability to learn, biologists define it as the ability to adapt oneself to the nature, psychologists take it as the ability to reach solutions and according to computer scientists intelligence is the ability to process information.

Stenberg, on the other hand, defines intelligence as the cognitive ability that is necessary while making preferences among environmental elements. Namely, what

makes a human being intelligent varies according to the environment he belongs to. (Erkuş, 1998:31)

Turkish Language Institution (TDK) proposes another definition: Intelligence is the ability to comprehend and perceive things. (TDK 1992:1667) In other words, the possible answers given to the question 'What makes an individual intelligent?' include a wide array of agreed-upon referents such as the ability to solve problems, use logic and think creatively.

The search of finding a satisfying answer to the question 'What is intelligence?' gained less popularity than the very first attempt to differentiate students according to the possibility whether they will be successful or not. It was made by a French psychologist, Alfred Binet, and a group of his friends. (Gardner, 1999a) Their studies resulted in intelligence tests which became famous in many countries especially in the USA. 'During World War I, the US Army provided the trial ground for the use of group tests of intelligence. Standardized testing of many kinds was about to become a routine tool of the educator for sorting and classifying students and assigning them to the kinds of programs in which it was thought they could perform best.'(Resnick, 1976:p.1) As a result, the **IQ (Intelligence Quotient) Test** has been agreed upon as the standard definition of intelligence that has been synonymous with a score until quite recently. The general public has adopted the theory that intelligence is what an intelligence test measures. So people have been categorised into two groups as: (1) intelligent, (2) unintelligent according to results of the IQ tests. The IQ score of a student can be a measure for his success. However, no conclusions can be drawn about the factors affecting his success by the help of the IQ tests since they are designed to measure only verbal and logical mathematical skills of an individual.

2.2 Changing Conceptions of Intelligence: MI Theory

Although there are some people -parallel to Iqists- still for the idea that intelligence is a kind of inborn, general mental intelligence and there is nothing an individual can do to change this, there have been many changes in the concept of intelligence.

The Intelligence Test has been a practical technological invention whereas the basis of it has been unclear. There is still very little consensus on what the test measured, even the psychologists who were actively involved in developing and promoting the use of the intelligence and various differential aptitude tests. (Resnick, 1976, p: 2) The so-called tests do not give any other information about the individuals. To illustrate, commenting on individual's other productive skills or his/her ethics.

The idea of valuing individual competence stemmed from different perspectives on intelligence put forward by psychologists and educators of the modern world. 'For instance, modern psychology defines the term intelligence in two ways. The first way is to use intelligence to refer to intelligent acts, such as designing a machine or composing a piece of music. The second way is to use intelligence to refer to mental processes. (E.g. analyzing, synthesizing information) that stimulate intelligent acts. At one extreme, there is the proposal that each intelligent act is associated with a unique mental process. The other extreme proposes that a single mental ability underlies all intelligent achievements (Kail and Pellegrina, 1985) According to the given views above, for example, Mozart was born with a specific talent to write music which is an intelligent act and he was born with this talent. On the other hand, there is the other extreme that he was in the right place at the right time to develop mental processes needed to write music. That is to say, another person could have written his pieces, too. Neither extreme view is inviting.

Howard Gardner, a Harvard University psychologist, proposed a pluralized way of understanding the intellect which is a challenge to the traditional views of intelligence. He developed the "Theory of Multiple Intelligences" which says, in effect, that intelligence should not be measured as an absolute figure in the way that height, weight or blood pressure are. 'It's not how smart you are but how you are smart' says Gardner and continues 'as human beings, we all have a repertoire of skills for solving different kinds of problems. And he defines intelligence this way: "An intelligence is an ability to solve a problem or fashion a product which is valued in one or more cultural settings." (Gardner, 1999a, p: 25). Gardner revealed his theory in his ground-breaking book "*Frames of Mind*" in which he outlined seven distinct intelligences. He subsequently added an eighth. Many educators, researchers, students and parents have long rejected multiple-choice testing as a measure of intelligence. Multiple intelligence theory has served as a rallying point for a

reconsideration of the traditional educational practice of the last century which is outlined in the table below:

Table 1. A Summary Outlining the Difference between Traditional Intelligence and MI Theory

Traditional Intelligence	Multiple Intelligence Theory
♦Intelligence can be measured by short-answer tests **e.g.** Stanford-Binet Intelligence Quotient Wechsler Intelligence Scale for Children (WISCIV) Woodcock Johnson test of Cognitive Ability Scholastic Aptitude Test	♦Assessment of an individual's multiple intelligences can foster learning and problem-solving styles. Short answer tests are not used because they do not measure disciplinary mastery or deep understanding. They only measure rote memorization skills and one's ability to do well on short answer tests. Some states of America have developed tests that value process over the final answer, such as **PAM** (Performance Assessment in Math) and **PAL** (Performance Assessment in Language)
♦People are born with a fixed amount of intelligence.	♦Human beings have all of the intelligences, but each person has a unique combination or profile.
♦Intelligence level does not change over a lifetime.	♦We can all improve each of the intelligences, though some people will improve more readily in one intelligence area than in others.
♦Intelligence consists of ability in logic and language	♦There are many more types of intelligence which reflect different ways of interacting with the world
♦In traditional practice, teachers teach the same material to everyone.	♦MI pedagogy implies that teachers teach and assess differently based on individual intellectual strengths and weaknesses.
♦Teachers teach a topic or "subject."	♦Teachers structure learning activities around an issue or question and connect subjects. Teachers develop strategies that allow students to demonstrate multiple ways of understanding and value their individual differences.

2.2.1 The Rationale Behind Calling Them 'Intelligences'

As Howard Gardner states in his words 'Inasmuch as new ideas are typically misunderstood, it is well to be on the lookout for possible misapplications of the approach I describe'(Gardner, 1999b, p:188) his theory has been criticized from different aspects. The most important criticism was his calling them intelligences but not skills, fields, learning

styles or talents. He calls them 'intelligences' on purpose owing to the fact that it would not take people's attention if he called them fields, learning styles etc... He further comments on the idea that intelligence is a concept that is very different from a domain or a field as they have different descriptions. He (1983) describes that intelligence is a bio-physiological potential; domain is a discipline practiced in the society; and field is the set of instructions that determine which products within a domain are of merit. Furthermore, some critics think that the intelligences lack precision of a real science and they wonder if the number of intelligences will continue to increase.

Although reaching the same conclusion by other theorists may not be guaranteed, Gardner provides some psychometric findings to give support to his theory some of which are overviewed in Kornhaber and Wake's book (1996)

The strongest evidence comes from the studies of the once normal people who become brain damaged through trauma. These people may exhibit isolated strengths and deficits. For instance, a patient may have unimpaired speech but can not find their way home. This supports his notion of separate intelligences governing language and spatial thinking.

Another support comes from the existence of special populations, i.e. prodigies and savants. Prodigies are the extreme high achievers at a young age whereas savants are individuals of low intelligence. To illustrate, savants do not interact with other people but may be able to calculate prime numbers. On the other hand, prodigies may play a musical instrument by ear but can be unexceptional and classified as retarded in other areas. This also indicates that intelligences are separable abilities.

He also suggests that each intelligence has its own distinctive developmental history and a definable set of end state performance. For example, spoken language develops rapidly to great competence in all normal people. However, little progress in higher mathematics can be observed without formal schooling.

MI is called a theory since Gardner has used experimental psychology and cognitive psychology and has done research on the development of human cognitive potentials in both normal and gifted children. He is involved in the studies of the breakdown of the intelligence capacities because of brain damage at the Boston University, School of Medicine and Veteran's Administration Medical Centre of Boston. From his

investigations, a testable, scientific-based MI theory emerged which carries the features of having a biological origin, being universal to human species, cultural valuing of the skill, having identifiable neurological base and being capable of symbolic representation.

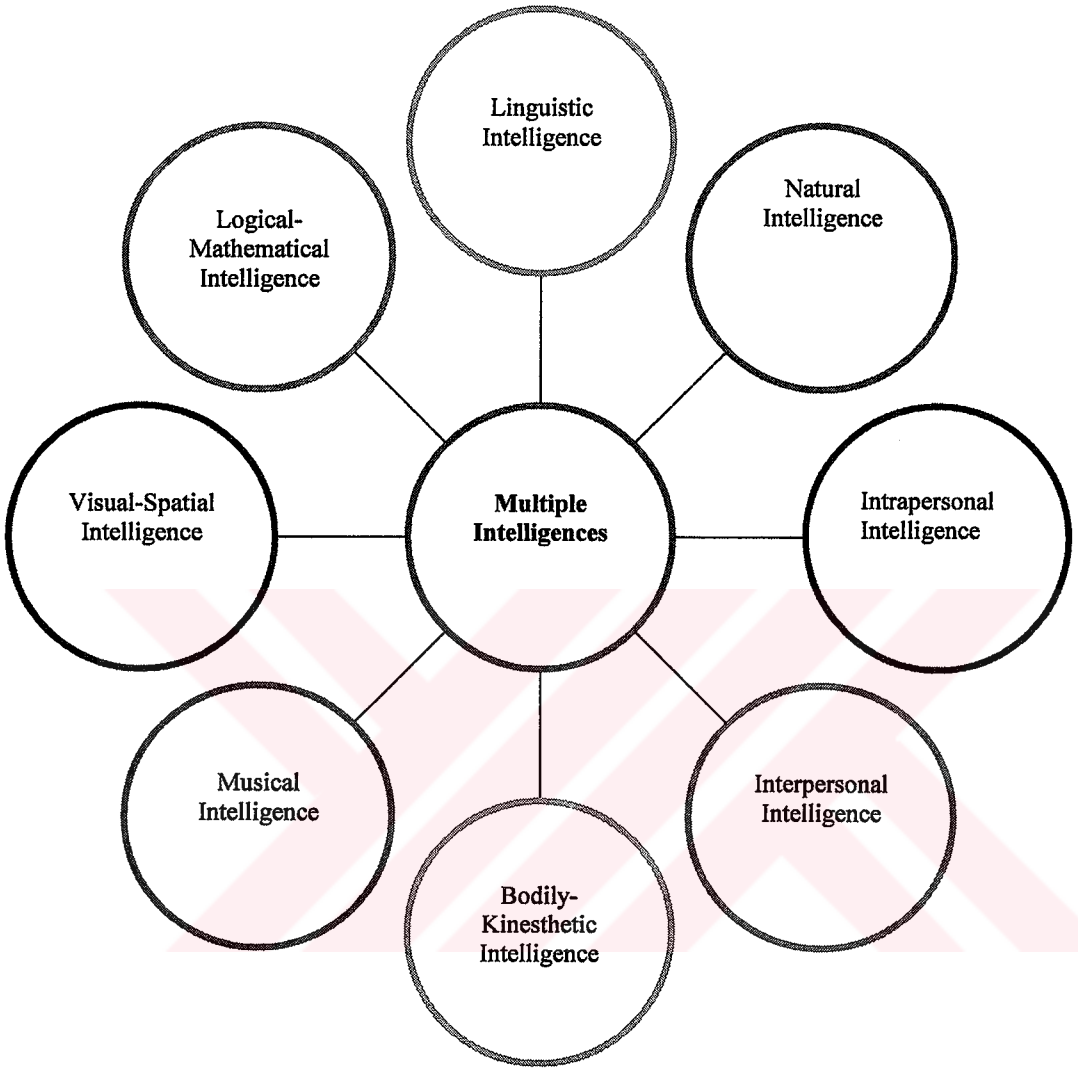
2.2.2 A Brief Summary of the MI Theory

Howard Gardner has broken from the common tradition of intelligence theory which focuses on two fundamental assumptions: that cognition is unitary and that individuals have a single, quantifiable intelligence. Gardner proposed eight different intelligences based on skills found in a modern technological society. We possess varying amounts of the eight intelligences and use them in highly personal ways. Gardner's research proposes a wider range of human intelligences than previously believed, and offers a pragmatic definition of intelligence. Instead of "smartness" in terms of a score on a standardised test, he defines intelligence as:

- the ability to solve problems that one encounters in real life
- the ability to generate new problems to solve
- the ability to make something or offer a service that is valued in one's culture.

In his book, *Frames of Mind*, (1983) he presented his Theory of Multiple Intelligences that reinforces his cross-cultural perspective of human cognition. The intelligences are influenced by the culture in which one is born. They are tools for creating, learning and problem solving that all human beings can use.

Table 2. The Eight Intelligences



The table below summarizes the MI theory. It explains the core components of each intelligence, where they are located in the brain, end-states of the intelligences and developmental factors.

Table 3. Summary of MI

Intelligence	Core Components	High-End States	Neurological Systems	Developmental Factors
Linguistic	Sensitivity to sounds, structure, meanings and functions of words	Writer	Left temporal and frontal lobes	'Explodes' in early childhood; remains robust until old age
Logical-Mathematical	Capacity to discern, logical or numerical patterns; ability to handle long chains of reasoning	Scientist, mathematician	Left parietal lobes, right hemisphere	Peaks in adolescence and early adulthood; higher than math insights decline after 40
Spatial	Capacity to perceive the visual-spatial world	Artist, architect	Posterior regions of right hemisphere	Topological thinking in early childhood, artistic eye stays robust into old age
Bodily-Kinaesthetic	Ability to control one's movements and to handle objects skilfully	Athlete, dancer, sculptor	Cerebellum, basal ganglia, motor cortex	Varies depending on component (strength, flexibility, etc...) or domain (baseball, mime, etc.)
Musical	Ability to produce and appreciate rhythm, pitch	Composer, performer	Right temporal lobe	Earliest intelligence to develop
Interpersonal	Capacity to respond appropriately to moods, temperaments, motivations, and desires of other people	Counsellor, political leader	Frontal lobes, temporal lobe, limbic system	Attachment/Bonding during first 3 years critical
Intrapersonal	Access to one's own inner life	Psychotherapist, religious leader	Frontal lobes, parietal lobes, limbic system	Formation of boundary between self and other during first 3 years critical

(Armstrong, 1994, p:6-8)

The eight intelligences are identified by Gardner (Campbell, 1996, p: 16) as Verbal/Linguistic Intelligence, Logical/Mathematical Intelligence, Visual/Spatial Intelligence, Bodily/Kinaesthetic Intelligence, Musical/Rhythmic Intelligence, Interpersonal Intelligence, Intrapersonal Intelligence and Naturalist Intelligence. The general characteristics associated with each of these intelligences are described below.

2.2.2.1. Verbal-Linguistic Intelligence

It is composed of the ability to think in words and to use the language to express and appreciate complex meanings. Verbal-linguistic smarts listen and respond to the sound, rhythm, colour and the variety of the spoken words. They learn through listening, reading, writing and discussing. They are good at paraphrasing, interpreting or explaining and remembering what has been read. They write effectively, understand and apply grammar rules, spelling and punctuation. Below is the list of what verbal linguistic smarts can do successfully (Lazear, 2000:31)

a. Comprehending the order and the organization of the words in a sentence,

b. Explaining, teaching and learning,

c. Playing with the words (e.g. stories that have surprising endings, puzzles, jokes, ironic texts)

d. Persuading and motivating others

e. Doing meta-linguistic analysis (e.g. Sometimes it is hard to understand what is meant by the sender in daily conversations. Verbal–Linguistic smarts can easily deduce the message by clever questions

2.2.2.2. Logical-Mathematical Intelligence

It is the type of intelligence that calculates, quantifies, considers propositions and hypotheses, and carries out complex mathematical operations. People of this type can handle long chains of reasoning and recognise patterns and orders in the world. A person with well-developed Logical-Mathematical Intelligence outlines and organises graphics. According to Lazear (2000) this intelligence deals not only with numbers but also logic which is usually ignored. These people can recognize abstract structures such as spirals,

triangles etc... In order to develop these skills students can be provided with manipulative for experimentation with numbers and simple machines or computer programs to help children think about cause and effect. They express interest in careers such as Accounting, Computer Technology, Law, Engineering and Chemistry.

2.2.2.3 Bodily/Kinaesthetic Intelligence

Gardner claims that considering body movements totally isolated from intelligence is a great mistake of the current century. Athletes, dancers, choreographers, actors, surgeons and craftspeople exhibit high degrees of bodily/kinaesthetic intelligence. Bodily-kinaesthetic smarts explore the environment and objects through touch and movement. They are good at one or more sports activities. They like running, jumping and doing similar physical movements and they demonstrate skill in acting, sewing, carving etc... They have the ability to perform perfectly through mind and body integration. This sort of students can be provided opportunities for physical challenges during various stages of the lesson.

2.2.2.4 Visual-Spatial Intelligence:

It is the ability to perceive the visual world accurately and to recreate, transform or modify aspects of the world based on one's perceptions. They best learn by the accompaniment of colours, lines, and pictures and they

a. recognize faces, details and scenes,

b. navigate themselves and objects effectively through space, such as finding way in a forest without a trail, or moving a car through traffic or paddling a canoe on a river,

c. decode graphs, charts, maps and diagrams, enjoy doodling, drawing, painting, sculpting, or reproducing objects in visible forms, construct three-dimensional products, such as origami objects, houses or containers,

d. are capable of mentally changing the form of an object- such as folding a piece of paper into a complex shape and visualise its new form, or mentally move objects in space to determine how they interact with other objects.

Encouraging students to vary the arrangements of materials in space, such as creating charts, diagrams or bulletin boards may help them to improve their visual-spatial intelligence.

2.2.2.5 Musical Intelligence

It is the sensitivity to pitch, melody and tone. Those demonstrating this intelligence include composers, conductors, musicians, critics, instrument makers as well as sensitive listeners. They listen and respond with interest to a variety of sounds including the human voice, environmental sounds, and music, and organises such sounds into meaningful patterns. They enjoy music and seek out opportunities to hear music or environmental sounds in the learning environment. They are interested in careers involving music such as being a singer, instrumentalist, sound engineer, producer, critic, instrument maker, music teacher or conductor. They can easily recognise and discuss different musical styles, genres, and cultural variations and can respond to music by following the tempo. Campbell proposes that (Campbell, Campbell and Dickinson, 1996, p:133) there is a strong connection between music and the emotions, thus, music in the classroom can help create a positive emotional environment conducive to learning. It can also be used to heighten the suspense, sadness, tragedy and joy of stories from great literature and history.

2.2.2.6 Interpersonal Intelligence

It is the ability to notice and make distinctions among other people. It is evident in teachers, social workers, actors, therapists, salesmen or politicians. They have communicative and collaborative skills. It is likely that a person with well-developed interpersonal intelligence:

a. interacts with others easily,

b. forms and maintains social relationships,

c. can easily affect the opinions or actions of others,

d. is like a natural born leader among a group of people,

e. create synergy.

Teachers can help students develop their interpersonal skills through activities that involve them in solving problems together with their colleagues.

2.2.2.7. Intrapersonal Intelligence

It is the ability to perceive oneself and use this knowledge in planning and directing one's life. This kind of people can make assessments of themselves objectively and make correct decisions. Successful theologians, psychologists and philosophers are the examples of this category. They

a. can easily express their feelings and thoughts,

b. work independently,

c. are curious about the questions related to meaning and purpose of life,

d. try hard for self-actualisation,

e. establish and live by an ethical value system,

f. take lessons from their experiences,

g. have a high degree of self-esteem,

h. have respect for themselves and the others

Intrapersonal smarts continuously ask questions to themselves like 'Who am I? How can I achieve this?, What am I doing for my personal development?', etc...

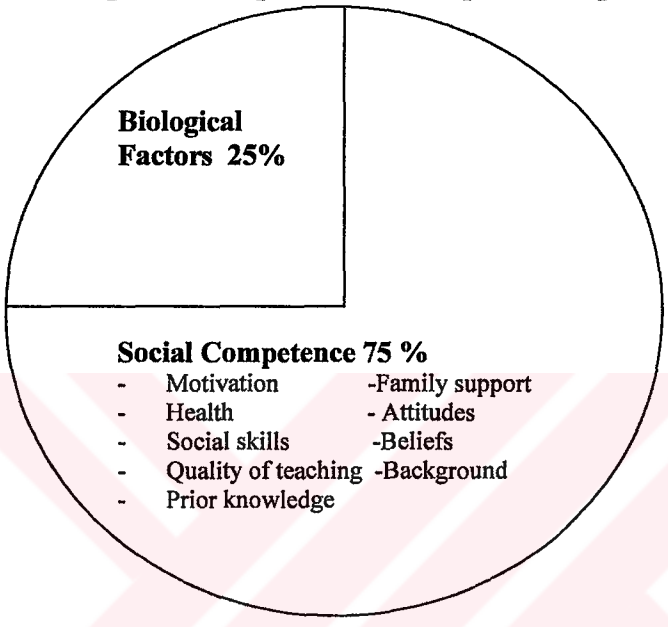
2.2.2.8. Naturalist Intelligence

It is made up of observing patterns in nature, classifying objects, and comprehending natural and human-made systems. Farmers, botanist, biologists, geologists and archaeologists are the examples to this category. They have a desire to interact with the natural world and explore natural environments with enthusiasm. They can categorise objects according to their characteristics and are interested in 'biology, forestry, botany, chemistry, or ecology. They can use tools such as microscopes, binoculars, telescopes and computers. They try to follow changes and evolutions in the nature. Students' naturalist intelligence can be improved by drawing their attention to the world outside the classroom.

2.2.3 Factors Influencing the Development of Intelligences

One of the most important principles that Multiple Intelligences theory favours is that every individual has the ability to improve his intelligence. Factors affecting the development of intelligences in both positive and negative ways can be seen from in the graph below.

Factors Contributing to Development of Multiple Intelligences



Adapted from Borich, 2000, p: 45

As it can be seen clearly in the pie-graph, there are various factors contributing to the development of Multiple Intelligences. Biological factors refer to one's hereditary characteristics and factors affecting the bodily development throughout pre, while, and post pregnancy. For instance, the baby of a drug-addicted mother will naturally be affected badly during the above periods. Therefore, biological development may be hindered at the very beginning of an individual's life.

Social Competence, which has the highest rate of influence, is another factor in the development of Multiple Intelligences. Social competence is made up of many parts all of which are interrelated with each other. Various examples can be provided for these categories;

For instance, if someone is brought up in a village, he will have more chance to develop his naturalistic intelligence when compared to someone living in a cosmopolitan city centre.

Families may force their children to choose jobs according to their own tastes. Occupational choices of families usually base on financial worries. In a country like Turkey where there is economical inconsistency, families try to direct their school children's energy mostly into lessons which will bring them money and status in the future.

A child may have to work due to financial position of his family and this will influence his school life, his motivation etc... Probably, he will have to give up his school life and not have the chance to improve most of his intelligences.

Unexpected experiences can change someone's life. A student with bodily-kinaesthetic intelligence may be very successful in different activities such as sports, various branches of art or has the possibility to become a skilful operator. Nevertheless, an unfortunate accident will obstruct his progress.

When some pioneering characters in the history of humankind are investigated, it will be found out that some very simple experiences have outstanding influences on their studies or performances. For example, Albert Einstein was given a magnetic compass as a present at the age of five. This present caused him to search the mysteries of the universe around us and set about a life full of discoveries.

Social or personal beliefs play an important role on the development of intelligences. If improvement of some of the intelligences such as musical, kinaesthetic, natural etc. are considered 'evil work' or against religion or against the society's conventions, the child will not have the chance to reveal what is given to him. The case may be just the opposite. The life of gypsies all over the world is a case in point. A gypsy is born into a musical family, meets different musical instruments, hears music all the time, or at least has the chance to be appreciated by everyone around him if he chooses music as his career. This would not be the case for another child with a very different family background in most parts of the world. In some societies, he would be looked down on.

The quality of education is another major factor. Education is a long-term, complex process which should be taken seriously. Children with poor or no education are likely to fail in life. On the contrary, children who are given consistent, qualitative education will have the opportunity to improve his given treasures and be successful in the end.

All the examples above are a reflection of numerous factors affecting the individual development of Multiple Intelligences. If an individual is given the opportunity to make use of his capacity, he can go beyond what is expected from him. Thus, it is no good to describe someone as being 'unwise, unintelligent, etc.' without taking all these factors into consideration.

2.3 The Inevitable Need for Multiple Intelligences Theory in the Field of Education

Any observer in any classroom can notice that students vary in their experiences, socio-economic status, cultural background, and language and learning styles. As teachers continue to work closely with their students, they will be very soon aware of the differences in students' interests and abilities. As Gardner states "a student's intelligence expresses itself in several distinct capacities; linguistic, logical, spatial, bodily/kinaesthetic, musical, interpersonal, natural and intrapersonal."(MacDonald & Healy, 1999) In terms of smartness, these translate roughly into word-smart, logic and number smart, picture-smart, music-smart, interaction-smart, and self-smart. These smartness types call teachers for helping students learn by giving those opportunities to use all their intelligences rather focusing only on one or two of them like mathematical and verbal intelligences.

Some students are likely to be better and more inclined to learn through listening and talking with teacher and classmates. They enjoy teacher presentations and student discussions in small or large groups. Some have preference for learning by seeing and looking at words in a book, at images on a screen, at visual materials while others like hands-on experience, any kind of physical performance. Therefore, teachers should bear in mind that they have a responsibility not simply to follow only their own teaching preferences but to use various approaches so as to make their students use of their intelligences. Engaging students actively in the learning process will be possible if the

teacher adapts subject matter to the individual differences. In his book of "*Effective Teaching Methods*" Gary D. Borich points out two important reasons for being aware of individual differences among students;

1. You can help your students use their own learning methods to derive meaning from what you are teaching. In this way, the application of your methods will be easier.

2. Understanding individual differences will provide perspective parents, counsellors, and other teachers. When counselling students and talking with parents about the achievement and behaviour of your learners, you will be able to convey some of the reasons for what you are describing. (Borich, 2000, p: 40)

The two reasons above show that the more classroom activities are personalised, the more relevant learning occurs. To cater for differences in students' responses to learning, teachers should develop strategies for multiple tasks to take place in the classroom.

2.3.1 Teaching Language to Adults and MI

The theory of MIs seems to harbour numerous educational implications that are worth considering while teaching languages. Rather than functioning as a prescribed teaching method, curriculum, or technique, MI theory provides a way of understanding intelligence, which teachers can use as a guide for developing classroom activities that address multiple ways of learning and knowing (Christison, 1999).Teaching strategies informed by MI theory can transfer some control from teacher to learners by giving students choices in the ways they will learn and demonstrate their learning. By focusing on problem-solving activities that draw on multiple intelligences, these teaching strategies encourage learners to build on existing strengths and knowledge to learn new content and skills (Kallenbach, 1999). It may also mean learners who have had little success in traditional classrooms where only linguistic and mathematics skills are valued may experience more success when other intelligences are tapped. Teachers may adapt the language teaching activities to meet the learner needs in their classes. They can make use of the following three strategies to apply MI theory in language education:

1. Develop a better understanding and appreciation of students' own strengths and learning preferences

The first step to the implication of the theory of multiple intelligences is to find out what our student profile is like. Though it is a demanding task to do and can be done in various ways, it provides us with valuable information. (Appendix A) MIs theory suggests that every human being has more than one type of intelligence and it is teachers' duty to reveal the hidden treasures of their students. After making students fill in the questionnaire, teachers may choose to let the students decide whether or not to score it themselves. Other activities, such as dialog journals, bulletin boards, and small group conversations also offer adult learners opportunities to reflect their own strengths. The ideas and information that come from these activities can inform the teacher about learner needs assessment and goal-setting processes. An understanding of MI theory broadens teachers' awareness of their students' knowledge and skills and enables them to look at each student from the perspective of strengths and potential. Bearing in mind that 'not every aspect of multiple intelligences can be used with equal effectiveness for every pedagogical goal' as Gardner states, (1999b, p: 188) on a given topic or skill teachers can brainstorm with learners a list of activities to practice. To illustrate, teachers and students can study on 'writing formal and informal letters' by the implementation of various activities. In this way, each learner can acquire language skills by employing individual strengths or preferences.

2. Provide a greater variety of ways for students to learn and to demonstrate their learning

Identification of personal strengths can give students a successful experience that builds their confidence as learners. As learners and teachers work together, intelligences can emerge naturally through partner interviews, preference grids (I can..., I like to...), and needs assessments. However, some teachers have encountered at least initial resistance to this process of describing intelligences among students whose cultural or educational backgrounds emphasize more traditional modes of teaching and learning. (Costanzo & Paxton, 1999, p: 26) In this case, teachers may choose to focus learners' attention on the language they are practicing through these activities rather than on the theory. With an MI

curriculum, students become aware that different people have different strengths and that each person has a substantive contribution to make (Kallenbach, 1999). This fits in well with project-based learning where students in a group can divide tasks based on individual strengths. For example, one learner might feel confident about planning, another might prefer to do the writing, and a third might feel able to present the project to the whole class.

3. Develop lesson plans that address the full range of learner needs

While an MI-informed writing lesson may have the following three typical stages:

Preparing to write ⟹ **Drafting** ⟹ **Revising**

Some changes can be done in practice. Learners can then complete a project, individually or in groups. The teacher can offer a choice of projects, such as descriptive writing, map drawing, illustration, creation of a dialogue or skit, making a timeline, song writing, and retelling. The objective is not to teach to specific intelligences or to correlate intelligences with specific activities, but rather to allow learners to employ their preferred ways of processing and communicating new information (Coustan & Rocka, 1999). By using this type of lesson plans, teachers get their students become more engaged in the lesson and enthusiastic about writing.

To sum up, students are likely to become more engaged in learning as they use learning modes that match their intelligence strengths. In addition, students' regular reflection on their learning broadens their definitions of effective and acceptable teaching and learning practices.

2.3.2 Application of the Theory in Today's Schools

> The school we envision commits itself to fostering students' deep understanding in several core disciplines. It encourages students' use of that knowledge to solve the problems and complete the tasks that they may confront in the wider community. At the same time, the school seeks to encourage the unique blend of intelligences in each of its students, assessing their development regularly in intelligence-fair ways.
>
> (Gardner, 1993b, p: 75)

MI theory not only aims to increase the academic success of the students, but also to reveal and improve students' potentials. Therefore, the implications of the theory should extend far beyond the classroom limits. Students should be exposed to programs that give rise to their intelligences during typical school days. Such programs will provide educators with a remedy that minimize one-sidedness in teaching. This does not mean that teachers will never have the opportunity to transmit their knowledge without use of the blackboard. The use of blackboard may be a vital component of some of the lessons while presenting and revising the subject. What is meant here is the use of various activities through the stages of the lessons instead of allocating the whole class time for just one type of activity.

MI theory has also changed the way educators approach teaching and several schools have been reorganized around the theory. Although it is applied in a variety of ways, they all attempt to help children develop and learn. As a result of all these efforts, perhaps the most influential and drastic reformations in education may take place sometime in the future.

2.4 ELT and MI

Language teachers have always been in search of different approaches and methods of teaching to find the best way to teach a language. Hence, it is not surprising to come across MI based traces in language teaching methods that have been put forward so far.

In Total Physical Response, for example, the main focus of language teaching is the coordination of speech and action. In this method, the use of bodily-kinaesthetic intelligence is largely seen. Besides, intrapersonal intelligence of students are highly tapped since students of TPR are motivated to monitor and evaluate their own progress.

The Silent Way is a method of ELT that puts an emphasis on presenting items visually. The teachings of sounds are also introduced by means of teacher's physical movements and students are expected to utter the sounds according to those mimicry and gestures. As a result, this method touches the students' bodily-kinaesthetic, visual-spatial, intrapersonal, interpersonal and musical intelligence.

In Communicative Language Teaching method, students are the main determiners of the language acquisition, which could be regarded as the active users of interpersonal and intrapersonal intelligences of the MI theory.

Another language teaching method, Communicative Approach, basically takes language as a means of communication and stresses communicative teaching practices such as group and pair work activities. Those activities appeal to students' interpersonal intelligence.

Suggestopedia is one of the methods that assert games, music, bodily exercises to help students gain self-esteem and spontaneity. It offers a wide array of coloured visuals, musical background and comfortable seats. Musical intelligence is highlighted through the use of music in the background, and the varying tone and rhythm of the teacher while presenting the material.

2.4.1 Application of MI Theory in ELT Classes

Language teachers are expected to keep themselves current by following the latest and the most creative ideas introduced to the world of ELT. The MI theory is like a gateway between the teachers and the innovative teaching techniques and strategies.

The following are the descriptions of five of the many multiple intelligences curricular formats currently being used: multiple intelligence-based lesson designs, interdisciplinary curriculum, student projects, assessments, and apprenticeships. All are guided by students' talents, strengths, and interests.

In the book of 'Teaching and Learning Through Multiple Intelligences', (Campbell & Dickinson ,1996) there are a few instructional formats being used in the implementation of the theory:

1. Lesson Designs

Usually teachers like using the multiple intelligences as introducing points to lesson content. Before beginning to plan lessons, teachers should identify the intelligences that seem most appropriate for communicating the content. The "instructional menus" showed below offer some ideas for expanding pedagogical repertoires. (Campbell & Dickinson, 1996, p: 265)

Table 4. Instructional Menus

Multiple Intelligences Menus
Linguistic Menu Use storytelling to explain ___ Conduct a debate on ___ Write a poem, myth, legend, short play, or news article about ___ Create a talk show radio program about ___ Conduct an interview of __ on __ Give a presentation on____ Use technology to write___ Invent slogans for___ Write a letter to ___ about___ **Logical-Mathematical Menu** Translate a ___ into a mathematical formula Make up syllogisms to demonstrate ___ Make up analogies to explain ___ Describe the patterns or symmetry in ___ Create story problems for ___ Invent a strategy game that___ Use a Venn Diagram to explain___ Design a code for___ Categorize facts about___ Others of your choice ___ **Bodily-Kinaesthetic Menu** Create a movement or sequence of movements to explain ___ Make task or puzzle cards for ___ Build or construct a ___ Plan and attend a field trip that will ___ Bring hands-on materials to demonstrate ___ Role play or simulate___ Design a product for___ **Visual Menu** Create a slide show, videotape, or photo album of ___ Create a piece of art that demonstrates ___ Invent a board or card game to demonstrate ___

Illustrate, draw, paint, sketch, or sculpt ___
Create advertisements for___
Use overhead projector to teach___
Colour code the process of___

Musical Menu
Give a presentation with appropriate musical accompaniment on ___
Sing a rap or song that explains ___
Indicate the rhythmical patterns in ___
Explain how the music of a song is similar to ___
Make an instrument and use it to demonstrate ___
Present a short class musical on___

Interpersonal Menu
Conduct a meeting to address ___
Intentionally use ___ social skills to learn about ___
Participate in a service project to ___
Teach someone about ___
Practice giving and receiving feedback on ___
Use technology to interact with___
Act out diverse perspectives on___
Participate in a group to___
Collaboratively plan rules or procedures to___
Give and receive feedback on___
Address a local or global problem by___

Intrapersonal Menu
Describe qualities you possess that will help you complete ___
Set and pursue a goal to ___
Describe one of your personal values about ___
Write a journal entry on ___
Assess your own work in ___
Describe how you feel about___
Explain the reason to study on___

Naturalist Menu
Create observation notebooks of ___
Describe changes in the local or global environment ___
Care for pets, wildlife, gardens, or parks ___
Use binoculars, telescopes, microscopes, or magnifiers to ___
Draw or photograph natural objects ___
Collect and categorize data___
Keep a journal of observations about___
Specify the characteristics about___

By using the menus above teachers may ask their students prepare their homework according to menu they favour and encourage them to use their favourite homework strategies. While doing this, teachers should use instructional methods that are appropriate for the content.

2. Student Projects

Some teachers use the theory of multiple intelligences to promote self-directed learning. They try to prepare their students for their adult lives by teaching them how to start and manage complex projects. Students learn to move on the path to undertake the responsibilities of preparing a project. They learn questioning, reaching sources and setting time limits along with teachers' guidance. Projects such as these will be of great help in developing students' presentation skills.

3. Assessment

In order to demonstrate what the students have learned from their projects and other coursework, students should be asked to do more than fill in the blanks and supply short answers to specific questions. They should be able to use their higher-order thinking skills, generalize what they learn, provide examples, connect the content to their personal experiences, and apply their knowledge to new situations.

When appropriate, students may even select the way they will demonstrate what they have learned. The teacher specifies criteria for quality work, knowledge, and skills, but leaves students free to use flow charts, role plays, original songs, or other approaches.

4. Apprenticeships

Gardner suggests that each student would participate in three apprenticeships: one in an art form or craft, one in an academic area, and a third in a physical discipline such as dance or sports. Through such apprenticeships, students are learning something frequently lost in today's fast-paced society: that one gains mastery of a valued skill gradually, with effort and discipline over time. Once students achieve competence in the disciplines they are studying, they experiment with their own approaches and creative extensions. (Gardner, 1983). Apprenticeship programs may be offered as part of the regular school curriculum or as extracurricular enrichment opportunities.

To conclude, the MI does not demand an overhaul of a curriculum; it merely provides a framework for enhancing instruction and a language to describe one's effort which is parallel to the rationale while teaching English. Unlike most educational reforms, it is not prescriptive. Its broad view of human abilities does not dictate how and what to teach. Rather, it gives teachers a complex mental model from which to construct curriculum and improve themselves as educators.

2.4.2 Lesson Planning According to MI

MI theory appreciates individual differences by its nature. The schools, which adapted MI theory, would be required to reorganise entire school curriculum, because intelligences work together complexly (Armstrong, 1994). Intelligences cannot be stretched in a subject; rather they need to be brought out across the subjects. Therefore, it is necessary that each subject should be examined from holistic point of view and be designed to explore students' potential of any intelligence and elicit it. Like intelligence itself, the adaptations exhibit infinite variety.

The language classroom should be designed to explore and elicit students' intelligences. So as to be successful in doing this, teachers should provide a variety of activities which can activate different kinds of intelligences in general. By doing so, each student can excise different kinds of intelligences and at the same time the achievement among students who have different strengths in intelligences will be better-balanced.

Practically, reflecting MI into classroom means to alter the classroom practice to meet students learning styles, which are the pragmatic manifestations of intelligences operating in natural learning contexts (Armstrong, 1994)

There is never a preferred model of multiple intelligence-based lesson design. Teachers are expected to design an instructional framework that suits their teaching style considering the needs of the students. The more realistic expectations are set, the more successful outcomes are to be reached. It is vital to bear in mind that multiple intelligences provide an effective framework. Nevertheless, trying to teach the content through eight modes of intelligences in one lesson is a utopian ideal. What is important in

multiple intelligences instruction is that the tools of instruction are appropriate for the content. This is not to say, however; that a teacher should consistently avoid an intelligence because it is 'out of his comfort zone' Instead teaming with a colleague can enhance the learning options of both students and teachers. (Campbell, Champbell & Dickinson, 1996:267) As long as teachers adjust their teaching patterns to meet the learning needs of the students, they will be able to evoke the educational aspirations both for themselves and their students.

The objectives of an MI lesson can be set by asking several lesson planning questions. (Saban, 2001, p: 66)

Table 5. MI Lesson Planning

OBJECTIVE:

Intelligence	**Planning Questions**
Verbal-Linguistic	How can I make use of speech and written texts?
Logical-Mathematical	How can I integrate numbers, calculations, logic, categorizations and critical thinking into the lesson?
Visual-Spatial	How can I use visual materials, colours, pictures, figures, diagrams and mind maps or metaphors?
Musical	How can I use music, rhythm, melody and sounds in the environment to enhance student learning?
Bodily-Kinaesthetic	How can I develop learning facilities that focus on body movements and skills?
Interpersonal	How can I help students share, work together and learn from each others' experiences?
Intrapersonal	What can I do to find options that activate individual emotions and memories?
Natural	How can I integrate the nature, environmental consciousness into the lesson?

After deciding on the objective, the questions above will help lesson designers to plan their lessons with the appropriate MI stimulating activities in it. The activities can be chosen from the MI Instructional Menus. **(Table 4)**

Planning a lesson according to the similar formats above will be very useful for teachers to analyse the flow of their lessons.

Table 6. Lesson Planning with the Multiple Intelligences

Lesson Title...

Time...

Objectives...

Anticipated learner outcome(s)...

Materials to be used...

Activities:

a. Linguistic:
b. Visual/Spatial:
c. Mathematical/Logical:
d. Musical:
e. Intrapersonal:
f. Bodily/Kinaesthetic:
g. Interpersonal:
h. Naturalist:

Lesson Sequence...

Assessment Procedures...

2.5 Writing Defined

'People learn to speak their first language at home without systematic instruction, but many of us had to be taught in school how to write the same language' As it can be induced from the Raimes' statement (1983, p:4) that writing is not just a natural extension of learning to speak, read or listen a language. Therefore, students do not pick up writing but are taught to be writers. Teaching students how to write, in a way, is to make them learn how to use the other sub-skills of the language, i.e., vocabulary, grammatical structures, idioms, etc... The close relationship between writing and thinking in many ways to produce the best makes writing an inevitable and valuable component of any language class.

Producing a successful piece of writing needs competence in a variety of connected spheres. What the writers have to deal with while writing are seen in the following titles (Raimes, 1983, p: 6)

- **Grammar:** Rules of verbs, agreement, articles, pronouns, etc...
- **Syntax:** Sentence structure, boundaries, stylistic choices, etc...
- **Content:** Relevance, clarity, originality, logic, etc...
- **The Writer's Process:** Getting ideas, getting started, writing drafts,etc...
- **Audience:** The readers
- **Mechanics:** Handwriting, spelling, punctuation, etc...
- **Organization:** Paragraphs, topic and support, cohesion and unity
- **Word Choice:** Vocabulary, idiom, tone
- **Purpose:** The reason for writing

As there is no definite answer to the question of how to teach writing in the best way, different approaches have been developed to the teaching of writing to convey the ideas clearly, fluently and effectively in the written form.

2.5.1 MI in the Writing Classes

Teaching academic writing is largely teaching a way of writing rather than writing on a decided topic. Hence, students usually consider writing classes as a boring set of rules that have to be covered in pre, while and post writing stages. In order to turn this too much challenging experience into a smooth-flowing plan, teachers can make a successful connection between MI and writing.

Writing as a skill is the ultimate level of transferring linguistic capabilities into written form. It is directly related to verbal-linguistic intelligence since the so-called intelligence includes the expression of all combinations of verbal forms in the most appropriate way.

Organizational framework for the expression of ideas has to be mastered to become smart academic writers. Here, logical-mathematical intelligence plays a vital role in

planning and forming what is intended to write. Determining the logic of the story, ordering it in certain terms such as chronological or importance are one of the most necessary components of the process.

The other intelligences that have to be tapped during the writing process the intrapersonal and the interpersonal intelligences. Writing can be described as a social (interpersonal intelligence tapping) act owing to the audience for which the writing is written and its being shared by people for various purposes. Self-exploration and revealing personal experiences are reflected in written forms such as journals, diaries. They are powerful means of developing one's intrapersonal intelligence.

Writings are descriptions of mental pictures which form the basis for the whole writing process. Organizational outlining of the thoughts carries the intention of creating the same mental images on the readers' minds. This feature of writing process can be tapped through both logical-mathematical and visual-spatial intelligences.

Grow (2000) claims that many more intelligences are tapped through writing process, the most difficult of which to relate, however, is the musical intelligence. The rhythmic qualities of the words can be associated with music which is named as 'the music of writing' by many writers.

The writers who aim to influence their readers can relate their writing to bodily-kinaesthetic intelligence by means of physical or emotional movement verbs. This feature of writing displays itself in the advertising arena apparently. The receivers of the messages in the commercials are reported to have changes in their pulse rates, blood pressures and skin response, adds Grow.

The subjects of this research were exposured to different multiple intelligence stimulating activities during the study, drawing a parallel to the points mentioned above.

CHAPTER 3

METHOD

3.0 Presentation

This chapter begins with the design of the study part in which the weekly plan of the implementation is given in stages. The following part presents information about the subjects of the study. Data collection procedures are given in the final part.

3.1 Design of the Study

The instruction in both experimental and control groups lasted four weeks. The first two weeks of the instruction were devoted to paragraph analysis. During the following two weeks, comparison and contrast paragraph was the main focus.

Table 7. A brief summary of the lesson design in the experimental and control groups.

Weeks	Topics	Control Group	Experimental Group
1	Analysis of the parts of a paragraph: Topic Sentence, Supporting Sentences and Conclusion	Reading the rules of writing a successful paragraph from the book and discussing the details	Reading the rules of writing a successful paragraph from the book and analyzing extra photocopied examples
2	Analysis of topic sentences, supporting sentences and conclusion in sample paragraphs	Individual reading and class discussion	Linguistic, logical-mathematical, visual-spatial, bodily-kinaesthetic, interpersonal, intrapersonal activities
3	Analysis of sample comparison and contrast paragraphs	Silent reading and follow-up discussion	Linguistic, logical-mathematical, visual-spatial, bodily-kinaesthetic, interpersonal, intrapersonal activities
4	Comparison and contrast paragraph writing and checking	Checking was done by the teacher soon after students' writing their paragraphs	Spatial, bodily-kinaesthetic and interpersonal activities

3.2 Subjects

The study took place at Selcuk University School of Foreign Languages during the spring term of the 2003-2004 academic years. Selcuk University students take the proficiency exam at the beginning of each academic year. Their score on this exam determines whether they need to take the preparatory classes for one year offered by SOFL. After the proficiency exam, students have to the placement exam which forms the basis for the selection of the students according to their level of English.

The instruction is carried on in three basic categories by different instructors: listening-speaking, reading-writing and main course (teaching of basic grammar structures). The instructors were assigned to teach two morning classes and one evening class during this

particular term. Since the study required two classes- one experimental group and one control group- two morning classes were selected for the study. Each class had almost the same placement test average, which is why; they were called as Class 37 and 38, following one another according to test results. Therefore, they were chosen as the subjects of the study.

In addition to the similar English levels of the experimental and control groups, the number of the students in both groups is the same, which is 20. Namely, the sample size in those classes is 40. All subjects are taking the preparatory year for the first time.

There were 2 girls and 18 boys in the experimental group, whereas there were 8 girls and 12 boys in the control group. Students' writing background varied according to their high school programs. Some studied writing only in Turkish. Students in both groups had a negative attitude toward writing classes.

Of the instructor's three classes, two of them- Class 37 and 38 – were selected as the control group and experimental group. The selection was based on the students' scores on the placement exam. The comparison revealed that the two groups had equal English levels and that these groups could be the subjects of the study.

3.3 Data Collection Procedures

Data collection procedures are categorized into three parts: before the study, during the study and after the study. In before the study part how two groups were selected as experimental and control groups is explained. In the second part, the instruction of the study is introduced. It gives detailed information on the instruction in both control and experimental groups week by week. The final part, after the study, is the scoring of the paragraphs and data analysis.

3.3.1 Before The Study

Of the instructor's three classes, two of them- Class 37 and 38 – were selected as the control group and experimental group. The selection was based on the students' scores on the placement exam. The comparison revealed that the two groups had equal English levels and that these groups could be the subjects of the study.

3.3.2 During the Study

This part of the study includes the instruction. It starts with the analysis of the parts of a paragraph; the topic sentence, the supporting sentences and the conclusion. During the instruction of this part, both groups were presented with the same teaching material. In addition to the course book, several photocopied materials were distributed and Power point presentations were displayed to experimental group students while analyzing the parts of a paragraph.

After the analysis of parts of a paragraph and some exercises on it, the experimental and control groups began to analyze comparison and contrast paragraphs. Nevertheless, the way the subject was handled showed differences. In the experimental group, the students' MIs were stimulated through different activities while no MI activities were used in the control group. The students of the control group simply read the instructions, did the exercises and wrote their comparison and contrast paragraphs individually as it was outlined in their course book.

3.3.2.1 Weeks 1 and 2

Both of the groups analyzed the parts of a paragraph. They studied the stages of writing a successful paragraph. They began with the topic sentence. They did some exercises on improving given topic sentences, supporting the topic sentences and writing conclusions. At the end of the second week, the parts of a paragraph were revised through a PowerPoint presentation in the experimental group. In the control group, however, the students were not presented with such a material.

3.3.2.2 Week 3

Both the experimental and the control groups started to analyze comparison and contrast paragraphs. The sample paragraph was titled 'Mohandas Gandhi and Martin Luther King' .In the control group, the students were asked to analyze the parts of the paragraph and answer the questions about the organization individually. In the experimental group, nonetheless, the students first brainstormed about the need to compare and contrast , what can be the subjects of comparison and contrast in real life and why along with the PowerPoint presentation. This activity aimed to activate students' intrapersonal intelligence via encouraging them to reveal what they already know on the subject. Students' interpersonal intelligences, visual-spatial intelligences and musical-rhythmic intelligences were also activated through the presentation.

The next activity was designed to make students group the similarities and differences of the two subjects in a comparison and contrast paragraph. The control group students were asked to underline the sentences that give the similarities between two subjects and to circle the sentences that emphasize the differences of the subjects. The students in the experimental group were made to fill in the comparison and contrast chart which was displayed as a PowerPoint presentation. To do this, students were first distributed the lines of the sample paragraph. Then, in groups of five, they were asked to put them into correct order. Next, they grouped the similarities and differences in the comparison and contrast chart. This activity was designed to stimulate students' logical-mathematical intelligence and interpersonal intelligences.

Following this, students studied the language of comparison and contrast. The cue words of comparison and contrast were introduced. The control group studied the connectors on the text only and did fill in the blanks and paraphrasing exercises individually. This study was designed as a pair and group work activity for the experimental group. They found out some symbols characterizing similarities and differences and some sounds to refer to the similarity and difference in pairs while exploiting the sample sentences using the connectors. These activities aimed to tap students' musical, interpersonal, logical – mathematical and bodily -kinaesthetic intelligences.

Finally, the students in both groups did the fill in the blanks and paraphrasing exercises.

3.3.2.3 Week 4

a. Control Group

This week was devoted to comparison and contrast paragraph writing for both groups. The instructor introduced the topic which was about the body languages of Turkish people and Americans. They were given the title and the topic sentence, too. The instructor asked the students to think of as many gestures and mimicry as they can bring back to their memories from American films and the Turkish society. Then, they were allowed to use their dictionaries to put that body language into sentence form by using the connectors of comparison and contrast. The instructor walked around the class and checked student mistakes on their papers. Some of the students were called on to read their paragraphs out loud. Finally, they were assigned to write a comparison and contrast paragraph on a free topic. Some possible topics to write about were suggested by the instructor.

b. Experimental Group

The experimental group, on the other hand, studied the same stage of the subject through MI activities. The topic was again 'Body Languages of Turkish people and Americans'. Before students were presented the PowerPoint demonstration, they were asked to brainstorm on the daily gestures and mimicry of Turkish people, act them out and tell the class in which context they were used. Then, the students were provided with some very popular illustrations of American body language one by one. The instructor gave the necessary wording right after gesturing and making use of facial expressions together with the class. They made a comparison and contrast between them. After that, students were asked to match the illustrations with the correct wording. This activity aimed to stimulate students' bodily – kinaesthetic intelligences, visual- spatial intelligences, interpersonal intelligences, intrapersonal intelligences and verbal-linguistic intelligences.

The following stage of the study was making students write in a freer manner. To make their job easier, they were provided with the comparison and contrast charts and asked to fill in the chart to spot the similarities and differences between two body languages in written form. This aimed to tap students' intrapersonal and logical-mathematical

intelligences. They were provided with sufficient writing time and at the end of the time limit were given a checklist to revise their work until they felt satisfied with what they wrote.

Table 8. Self-checklist for the Paragraph

S	Sentence Structure (grammatically correct sentences)
W	Word Usage you have used the correct words avoid slang words avoid contractions in formal writing
A	Agreement subject-verb agreement verb tenses consistent active-passive consistent
P	Punctuation
S	Spelling and Capitalization

They continued the cycle of editing after getting the checklist for some time. Finally, students were asked to exchange their papers with the one sitting next, and comment and grade each others' work depending on the Proof-reading Checklist distributed.

Table 9. Peer checklist for the Paragraph
Paragraph Checklist
Date:
Writer:
Title:

Rating Scale – 1 to 5 - 1. very weak 2. weak 3. Ok 4. very good 5. excellent

	Criteria	**Comments**
1	**Opening catches the reader's interest**	
2	**Topic states the main idea**	
3	**Features and the subjects are discussed in the same order**	
4	**The flow of the ideas is logical**	
5	**Specific examples are used to support the ideas**	
6	**Wording and ideas are fresh and interesting**	
7	**Compare and contrast transitions are used successfully**	
8	**Grammar**	
9	**Spelling**	
10	**Punctuation**	

The students graded each other's work and gave oral feedback to their peers. Taking the peer checklist into consideration, the students made some changes on their paragraphs before giving them to the instructor. Finally, a few papers were chosen randomly by the instructor and read by the authors out loud.

After the peer editing session, the students were divided into two groups and each group was assigned to watch a Turkish and an American film which were on at the cinemas that weekend and bring some examples of body languages to the class to present to their classmates. This provided vocabulary revision and students caught different examples of gestures and mimicry from the same films.

In the following session, students were put into groups of five. This time, they were asked to write the lyrics of a rap-song that includes examples from what they studied. They were free to use extra mimicry or gestures in their rap show. Their group presentations were very fruitful since they made use of almost all the intelligences. Even some shy students who did not like to display themselves in front of the audience participated in the show while the lyrics were sung.

3.3.3 After the Study

After the study, papers of the both experimental and the control groups were collected and scored. The papers of the experimental group were examined to see whether students improved their paragraph writing skills with the help of MIs activities.

3.3.3.1 Scoring of the Paragraphs

The checklist for evaluating the papers of the students was a holistic one, which was adapted from Heaton (1990) (Appendix B) through this checklist, the student essays were graded out of 100. Both pre-tests and post-tests were graded according to their content, organization, vocabulary, language use and mechanics. 20 points were devoted to each category. Three weeks later, the same procedure was repeated for the reliability of the scores.

Table 10. Pre-test Scores of the Control Group

Content	Organization	Vocabulary	Lang.use	Mechanics	Total
10	10	5	5	10	40
10	15	10	10	15	60
15	15	15	15	15	75
10	15	10	5	15	55
15	15	15	15	20	80
15	10	15	15	15	70
10	10	10	10	10	50
15	10	15	15	15	70
15	15	20	15	20	85
20	15	15	20	10	80
15	15	5	10	10	55
10	15	15	10	20	70
15	5	15	20	20	75
15	10	10	5	15	55
15	10	10	10	10	55
20	15	15	15	20	85
10	15	10	10	15	60
10	10	10	10	20	60
15	10	10	10	20	65
15	5	10	5	5	40
13,75	**12**	**12**	**11,5**	**15**	**64,25**

(The last row shows an average for each column)

Table 11. Post-test Scores of the Control Group

Content	Organization	Vocabulary	Lang.use	Mechanics	Total
15	10	5	10	15	55
15	15	15	15	15	75
15	15	15	15	15	75
15	15	15	10	15	70
20	15	15	20	15	85
15	15	20	15	15	80
10	15	10	15	15	65
20	15	15	15	15	80
20	15	20	15	20	90
15	15	20	15	15	80
15	15	10	10	15	65
15	15	15	15	15	75
15	10	15	20	20	80
15	15	10	10	15	65
15	15	15	10	15	70
15	20	20	15	15	85
15	10	10	10	10	55
15	10	15	10	20	70
15	15	10	15	20	75
15	10	10	10	5	50
15,5	**14**	**14**	**13,5**	**15,25**	**72,25**

(The last row shows an average for each column)

Table 12. Pre-test Scores of the Experimental Group

Content	Organization	Vocabulary	Lang.use	Mechanics	Total
20	10	15	10	5	60
15	15	15	15	10	70
20	20	20	15	20	95
15	15	20	15	10	75
20	20	15	10	15	80
15	15	15	10	15	70
10	15	5	5	5	40
10	15	10	10	10	55
5	10	5	5	10	35
15	20	10	10	15	70
15	20	15	10	15	75
15	10	10	5	10	50
10	15	10	5	10	50
15	15	10	10	10	60
15	20	15	15	15	80
10	20	10	10	15	65
15	15	10	10	15	65
15	15	15	15	15	75
15	15	10	10	5	55
20	15	15	15	15	80
14,5	**15,75**	**12,5**	**10,5**	**12**	**65,25**

(The last row shows an average for each column)

Table 13. Post-test Scores of the Experimental Group

Content	Organization	Vocabulary	Lang.use	Mechanics	Total
20	20	15	15	20	90
20	20	20	15	20	95
20	20	20	20	20	100
20	20	15	15	15	85
20	20	15	10	20	85
20	20	10	15	15	80
10	15	15	10	15	65
15	15	15	15	15	75
15	15	15	15	15	75
20	15	15	10	15	75
20	15	15	15	20	85
20	15	15	15	15	75
15	20	15	10	15	75
20	20	10	15	15	80
20	20	20	15	20	95
20	20	15	10	15	80
20	20	10	15	15	80
15	20	15	10	15	75
20	20	15	15	15	85
20	20	15	15	20	90
18,5	**18,5**	**15**	**13,75**	**16,75**	**82,25**

(The last row shows an average for each column)

3.3.3.2 Data Analysis

The difference between the control and experimental groups in terms of their pre - test and post-test scores were calculated by using separate independent samples t-tests. In the following chapter, the pre-test and post-test scores received from both groups will be demonstrated , analyzed and interpreted.

CHAPTER 4

RESULTS

4.0 Presentation

This chapter is made up of the analyses of students' paragraphs and interpretations of the results.

4.1 Analysis of Student Paragraphs

Below this heading, the comparison of the paragraphs of experimental and control groups is given. Firstly, the pre-test scores and then the post-test scores of both groups are compared.

4.1.1 Comparison of Pre-test Scores

A mean score was calculated for each groups' pre-test scores. The difference between the mean pre-test scores that were received from both control and experimental groups were compared by employing independent samples t-tests. The following table 16 compares the mean pre-test scores of the two groups. The mean pre-test scores of the control group is 64, 25 out of 100; the mean pre-test scores of the experimental group is 65, 25. When these two scores are compared through an independent samples t-test as shown in Table 16, the difference does not appear significant at a confidence level of .0.5. This means that the mean score of two groups are highly close. In other words, there is no significant difference between the pre-test scores of experimental and control groups.

Table 14. Independent Samples t-test Results for Experimental and Control Group's Mean Scores

Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
TOTAL	C. gr	20	65,2500	14,82130	3,31414
	E. gr	20	64,2500	13,50195	3,01913

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TOTAL	Equal variances assumed	,041	,842	,223	38	,825	1,0000	4,48316	-8,07567	0,07567
	Equal variances not assumed			,223	37,674	,825	1,0000	4,48316	-8,07825	0,07825

4.1.2 Comparison of Post-test Scores

After the instruction, the post-test scores of the two groups were compared. A mean score was calculated for each groups post-test scores. The difference between the mean post-test scores that were received from both control and experimental groups were compared by using independent samples t-tests. The table below compares the mean post-test scores of the two groups. The mean post-test scores of the control group is 72, 25 out of 100; the mean post-test scores of the experimental group is 82,25 out of 100. When these two scores are compared through an independent samples t-test as shown in Table 17, the difference appears significant at a confidence level of .05. That is to say, the mean post-test scores of the two groups are significantly different.

Table 15. Independent Samples t-test Results for Experimental and Control Group's Post-test Mean Scores

Group Statistics

	Groups	N	Mean	Std Deviation	Std Error Mean
TOTAL	E. Gr.	20	82,2500	8,65645	1,93564
	C. Gr.	20	72,2500	10,69616	2,39173

Independent Samples Test

	Levene's Test for quality of Variance		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TOTAL Equal varianc assumed	,780	,383	3,250	38	,002	10,0000	3,07687	3,77121	6,22879
Equal varianc not assumed			3,250	36,417	,002	10,0000	3,07687	3,76231	6,23769

4.1.3 Comparison of Pre-test and Post-test Scores of the Experimental Group

The mean scores of pre-test and post-test of the experimental group were figured out. The difference between the mean pre-test scores and the mean post-test scores were compared by independent samples t-test. The mean pre-test scores is 65,25 while the mean post-test scores is 82,25 out of 100. It was seen that there is a considerable increase in the scores after the instruction as it is shown in the Table16 below.

Table 16 Independent samples t-test results for the comparison of experimental group's pre-test and post-test scores

Group Statistics

	TEST	N	Mean	Std. Deviation	Std. Error Mean
TOTAL	pretest	20	65,2500	14,82130	3,31414
	posttest	20	82,2500	8,65645	1,93564

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TOTAL Equal variances assumed	4,650	,037	-4,429	38	,000	-17,0000	3,83800	-24,76963	-9,23037
Equal variances not assumed			-4,429	30,611	,000	-17,0000	3,83800	-24,83169	-9,16831

4.1.4 Comparison of Pre-test and Post-test Scores of the Control Group

The mean score of pre-test and post-test of the control group were compared. The difference between the mean pre-test scores and the mean post-test scores were compared by independent samples t-test. The mean pre-test scores is 64,25 while the mean post-test scores is 72,25 out of 100. There was an increase; however, it was not as remarkable as the increase in the score of the experimental group.

Table 17. Independent samples t-test results for the comparison of control group's pre-test and post-test scores

Group Statistics

	TEST	N	Mean	Std. Deviation	Std. Error Mean
TOTAL	pretest	20	64,2500	13,50195	3,01913
	posttest	20	72,2500	10,69616	2,39173

Independent Samples Test

	Levene's Test for quality of Variance		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	ig. (2-tailed	Mean Difference	Std. Error Difference	Lower	Upper
TOTAI Equal varianc assumed	1,707	,199	-2,077	38	,045	-8,0000	3,85169	5,79734	-,20266
Equal varianc not assumed			-2,077	36,109	,045	-8,0000	3,85169	5,81077	-,18923

4.2 Interpretation of the Results

The comparison of the mean scores of pre-tests of both experimental and control groups demonstrated that they had almost the same proficiency levels. Each student was asked to write a comparison and contrast paragraph on a topic before the instruction. Those paragraphs were graded according to holistic criteria, which had five components; content, organization, vocabulary, language use and mechanics. Comparison of these scores showed that the groups were similar concerning their English paragraph writing levels.

The post-test paragraph scores calculated after the instruction showed significant differences. The students in the experimental group showed better performance than the students in the control group. Each paragraph was graded through the same criteria. The comparison of these scores pointed out that students who studied comparison and contrast paragraph through MI stimulating activities were more successful than those who studied comparison and contrast paragraph writing through traditional methods.

The results of the study show that the use of MI activities in the analysis of comparison and contrast paragraphs has a positive effect on the students' paragraph writing performance.

Thus, the null hypothesis stated in Chapter 1, was rejected. Namely, it has been statistically proven that there is a significant difference between the paragraphs of the students who studied comparison and contrast paragraph writing just by reading the sample paragraphs from the course book and analyzing them individually by answering the follow-up questions and doing the exercises and those who studied paragraph writing using MI activities.

This chapter has focused on the analysis of students' paragraphs and interpretations of the results. The pre-test and the post-tests of both the experimental and control groups were graded according to holistic criteria. The comparison of pre-test scores has shown that the experimental group and the control group had similar English proficiency levels. The comparison of the post-test scores has shown that the experimental group improved their comparison and contrast paragraph writing more than the control group did. To sum up, with the use of MI activities in the various stages of the comparison and contrast paragraphs writing lessons, the experimental group wrote better paragraphs than the control group did.

CHAPTER 5

CONCLUSIONS AND FURTHER IMPLICATIONS

5.0 Presentation

This chapter presents the summary of the study and implications for practice and further research.

5.1 Summary of the Study

In this study, we aimed to practice the MI stimulating activities through comparison and contrast paragraph writing classes. The aim of the study was to see if such activities when incorporated into writing classes would help them become better comparison and contrast paragraph writers. The rationale behind this study, therefore, was the necessity of training students to become more efficient writers while considering the individual competences.

So as to meet the aim stated above, two groups were selected as the experimental and control groups. Both groups were similar with respect to their level of English. Throughout the instruction, the writing course book and some extra photocopied materials were used in the control group. In the experimental group, however, mainly data show PowerPoint presentations were used to appeal students' MIs. That is to say, the same subject was handled in totally different ways.

The results of the study show that Selcuk University, School of Foreign Languages students appear to have a better performance through MI stimulating instruction. The use of MI activities in the writing classes enhanced their writing skills. MI activities in a writing class considerably increases student success in writing comparison and contrast paragraphs in terms of organization, content, vocabulary, language use and mechanics. Student paragraphs had a better layout, the content and vocabulary became richer, the transitions of comparison and contrast were used in a more appropriate way and mechanics

of English was paid more attention to during the editing stage. In brief, the implementation of MI activities in a writing class improves students' writing in many dimensions.

This study was based on the theory of Multiple Intelligences put forward by Howard Gardner (1983) and enriched by Multiple Intelligences applying activities, and a composite of teaching techniques suggested by Thomas Armstrong (1994) and Linda Campbell (1996).

Gardner put his theory in words as follows: (1993a, p:188)

It is of the utmost importance that we recognize and nurture all of the varied human intelligences, and all of the combinations of intelligences. We are all so different largely because we all have different combinations of intelligences. If we recognize this, I think we will have at least a better chance of dealing appropriately with the many problems we face in the world.

It can be inferred that the multiple intelligences approach is crucial to EFL/ESL teachers as it encourages teachers to regard intellectual ability more broadly and create individualized learning environments. During the implementation stage of the study, student intelligences were stimulated and this resulted in better performance in writing paragraphs.

Another point is that, multiple intelligences can be tapped effectively through writing classes. The study implies that the MIs should be the part of writing.

It can also be implied from the study that students become more interested in the lessons since they discover their potentials through MI activities. Therefore, they become more effective learners.

5.2 Implications for Practice in the Field of ELT and Wider Context

The results of the study reveal that tapping various intelligences of the students brings success. It can be implied that the use of MI should not only be used in writing classes but also in teaching listening and speaking, reading, vocabulary and grammar.

It can be moved to a wider context that MIs can be used in other branches of study. Saban (2001), in his book *Çoklu Zeka Teorisi ve Eğitim*, supports Gardner's theory of multiple intelligences and further comments that every student is regarded as intelligent individuals and teachers should help students discover their competence to survive in the educational environment. In order to make students explore their inner potential, teachers should be aware of their own intelligences. In this way, both teachers and learners can make use of their potentials in the utmost level.

Mary Poplin (1984) comments that all domains of education such as art, music, dance, athletics, computer programming, should never be neglected and be emphasized and utilized as much as mathematics or language is valued.

5.3 Implications for Further Research

One of the implications of this study is, the results of a larger-scale study will be more reliable due to the smallness of the sample size in the study.

What is more, the use of MI in class should start from the beginning of one's education and must be applied during all kinds of lessons, not only in English classes. Students are able to recognize and develop their personal strengths through use of MI activating practices. Namely, since this theory includes all phases of human life from birth to death, it should be the part of all educational programs.

As a conclusion, before helping students with their MIs, teachers should be trained with the necessary techniques to apply MI stimulating activities in the classes. Faculties should train student teachers for this purpose and it should be continued with in-service training programs at the institutions.

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APPENDIX A

HUMAN INTELLIGENCE HUNT IN THE CLASSROOM

Directions: Rank each statement as 0, 1 or 2. Write (0) in the blank if the statement is not true to you. Write (2) if you strongly agree with the statement. A score of (1) places you somewhere in between. Compare your scores in different intelligences. Find out what your highest and lowest scores are.

♦ **Verbal/Linguistic Intelligence**

----**1.** I like to write class papers or articles.

----**2.** Almost everyday, I read something not related to my work or to my studies.

----**3.** I often listen to the radio or to cassette tapes of lectures, books and the like.

----**4.** I always read the billboards on the sides of the road.

----**5.** I enjoy doing crossword puzzles.

----**6.** I use illustrations, charts, posters, and quotations frequently to add other information facets to papers I write.

----**7.** If I hear a song or a commercial jingle a few times, I can remember the words.

----**8.** I am a good letter writer.

----**9.** I encourage others to spend time reading and writing.

---**10.** People often ask me about the meaning of a word .

♦ **Musical /Rhythmic Intelligence**

----**1.** I have a very expressive voice which I vary in intensity, pitch and emphasis, when in front of a class or other groups.

----**2.** Often I incorporate music and chants into my presentations or conversations.

----**3.** I can tell if someone is singing off-key.

----**4.** I enjoy listening to music a lot and know the melodies of many songs.

----**5.** I play a musical instrument.

----**6.** If I hear a new song once or twice , I usually can remember the tune.

----**7.** I often find myself singing and accompanying a piece of music.

----**8.** Listening to music I like changes my mood easily.

----**9.** I have no difficulty in identifying or following a beat or rhythm.

---**10.** I can say that life would be meaningless if music were not in it.

♦**Logical/Mathematical Intelligence**

----**1.** I feel more comfortable believing an answer is correct when it has been measured, calculated or demonstrated in some way.

----**2.** I can calculate numbers easily without using a calculator.

----**3.** I like playing card games like gin rummy, bridge etc...

----**4.** I have always liked maths.

----**5.** I believe that most things have a logical and rational explanation.

----**6.** I like challenging games.

----**7.** I am interested in new developments in science.

----**8.** I like to measure things exactly rather than to approximate or estimate.

----**9.** I use problem solving activities when studying.

---**10.** I like my classes to be consistent with my teachers informing us what to expect in terms of rules and routines, assignments and other expectations.

♦**Visual /Spatial Intelligence**

----**1.** I pay attention to the colours I wear as well as those colours worn by others.

----**2.** When on holiday, I like to take many photographs.

----**3.** I like to videos, over-head projector and other visuals in making my class presentations.

----**4.** It is easy for me to find my way around unfamiliar cites.

----**5.** I like to draw.

----**6.** I like to read articles containing many charts and illustrations.

----**7.** I am fond of textbooks with illustrations, graphs, charts and pictures.

----**8.** I like doing puzzles and mazes.

----**9.** I am good at geometry.

---**10.** When I enter a classroom, I notice the seating arrangement is suitable for the learning process.

♦**Bodily/Kineasthetic Intelligence**

----**1.** I like to go on rides at parks or other activity centres.

----**2.** I like dancing.

----**3.** I have participated in more than one kind of sports.

----**4.** I like doing things that involve working with my hands.

----**5.** I find it most helpful to practice a new skill by making use of a physical activity rather than simply to read about it or to watch a video demonstration.

----**6.** Often I get my best ideas while jogging, walking or doing other things.

----**7.** I like to take part in many forms of outdoor activities.

----**8.** I find it boring to sit quietly for a long time.

----**9.** I like activities which require us to move around , be mobile in the classroom.

---**10.** Most of my hobbies involve some form of physical activity.

♦**Intrapersonal Intelligence**

----**1.** I regularly spend time quietly in reflective thinking and meditating.

----**2.** I consider myself to be independent in my thoughts and actions.

----**3.** I keep a personal journal and note down my thoughts.

----**4.** I prefer to generate my own methods and procedures in studying or mastering new materials rather than using the material directly from a book.

----**5.** I frequently create new activities and materials to supplement my studies.

----**6.** When hurt or disappointed, I bounce back quickly.

----**7.** I can articulate main values that govern my life and describe the types of activities in which I regularly participate in a consistent and reflective manner.

----**8.** I have hobbies that I enjoy doing on my own.

----**9.** I choose activities which permit me to work alone or independently.

---**10.** I give myself time to think about the thing that I am planning to do.

♦**Interpersonal Intelligence**

----**1.** I prefer going to a party or be involved in group activities rather than spending the evening home alone.

----**2.** When confronted with a problem, I like to discuss this with my friends and benefit from their perceptions and experiences.

----**3.** People often call me to help with their personal problems as they know that I will listen to them attentively.

----**4.** I am involved in some form of social activity several times a week.

----**5.** I like to entertain friends and give parties.

----**6.** I think that I have leadership qualities and frequently assume leadership roles and related positions.

----**7.** I have more than one close friend and like to meet and be with new people.

----**8.** I love teaching or showing how to do things and assisting people.

----**9.** I feel comfortable in a crowd or at a gathering where there are many people that I don't know.

---**10.** I like listening to the ideas of other people and link them with my ideas.

♦**Naturalist Intelligence**

----**1.** I like observing various forms found in nature and how these exist and interact in their environmental settings.

----**2.** I like to study and understand growth and developmental patterns of various species of life.

----**3.** I like camping and be within the nature.

----**4.** I believe that all natural phenomena can be studied and explained.

----**5.** I like biology, zoology and etc... courses.

----**6.** I like having pets and growing vegetables and flowers.

----**7.** I support the efforts of ecologists in their struggle to preserve our environment and life forms.

----**8.** I enjoy identifying and classifying various forms of plants, minerals and animals.

----**9.** I believe that environmental knowledge helps us to survive.

---**10.** I like to collect and classify rocks and other forms of non-living things found in nature.

-Scoring

Directions: Count the number of items which you assigned a rating of 2. Record this number in the proper categories. Those areas of intelligence in which you identified the highest number represent those forms of multiple intelligence most characteristic of you.

Source: Adapted from Campbell et al.(1999), Hunter, E.(1999), Christison, M. (2000)

♦Verbal/Linguistic Intelligence Number of Items	**♦Musical/Rhythmic Intelligence Number of Items**	**♦LogicalMathematical Intelligence Number of Items** .....
♦Visual/Spatial Intelligence Number of Items	**♦Bodily/Kinesthetic Intelligence Number of Items**	**♦Intrapersonal Intelligence Number of Items** .....
♦Interpersonal Intelligence Number of Items	**♦Naturalist Intelligence Number of Items**	

APPENDIX B

The following rating scale is the result of considerable and careful research conducted in the scoring of compositions in the United States. Only a summary of the scale is shown here and it must be remembered that in its original form slightly fuller notes are given after each item.

Content

EXCELLENT TO VERY GOOD: Knowledgeable - substantive .

GOOD TO AVERAGE: Some knowledge of subject – adequate range.

FAIR TO POOR: Limited knowledge of subject - little substance.

VERY POOR: Does not show knowledge of subject- non- substantive.

Organization

EXCELLENT TO VERY GOOD: Fluent expression - ideas clearly stated.

GOOD TO AVERAGE: Somewhat choppy - loosely organized but main ideas stand out.

FAIR TO POOR: Non-fluent - ideas confused or disconnected.

VERY POOR: Does not communicate - no organization.

Vocabulary

EXCELLENT TO VERY GOOD: sophisticated range – effective word/idiom choice usage.

GOOD TO AVERAGE: adequate range - occasional errors of word/idiom form, choice usage but meaning not obscured.

FAIR TO POOR: limited range - frequent errors of word/idiom form, choice, usage.

VERY POOR: essentially translation - little knowledge of English vocabulary.

Language use

EXCELLENT TO VERY GOOD: effective complex constructions .

GOOD TO AVERAGE: effective but simple constructions.

FAIR TO POOR: major problems in simple/complex constructions.

VERY POOR: virtually no mastery of sentence construction rules.

Mechanics

EXCELLENT TO VERY GOOD: demonstrates mastery of conventions.

GOOD TO AVERAGE: occasional errors of spelling, punctuation .

FAIR TO POOR: frequent errors of spelling punctuation, capitalization.

VERY POOR: no mastery of conventions - dominated by errors of spelling, punctuation, capitalization, paragraphing.