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VOCABULARY TEACHING TO THE SECOND YEAR CADETS IN THE
ARMY ACADEMY TO IMPROVE LISTENING AND READING SKILLS
WITHIN THE FRAMEWORK OF “MULTIPLE INTELLIGENCES
THEORY”

DOCTORAL THESIS

By

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Dedicated to my Beloved

Mother, Remziye

who raised me up in a “military discipline” and
made the realization of my goals possible

and My Husband, Oktay

who has supported and encouraged me always
with his patience and love.

Eđitim Bilimleri Enstitüsü M¼d¼rl¼đ¼'ne

Esin ÜNAL ERDİR'e ait (VOCABULARY TEACHING TO THE SECOND YEAR CADETS IN THE ARMY ACADEMY TO IMPROVE LISTENING AND READING SKILLS WITHIN THE FRAMEWORK OF "MULTIPLE INTELLIGENCES THEORY" IN TURKEY) adlı alıřma j¼rimiz tarafından İngilizce Öğretmenliđi Bilim dalında DOKTORA TEZİ olarak kabul edilmiřtir.

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ÖZET

KARA HARP OKULU İKİNCİ SINIF ÖĞRENCİLERİNE “ ÇOKLU ZEKA KURAMI ÇERÇEVESİNDE OKUMA VE DİNLEME BECERİLERİNİ GELİŞTİRMELERİ İÇİN SÖZCÜK ÖĞRETİLMESİ.

Bu çalışmanın amacı, okuma ve dinleme becerilerinin artırılması için yapılan kelime öğretiminde “Çoklu Zeka Kuramı” kullanımının yararlı olacağını göstermektir.

Çalışmanın hipotezi, okuma ve dinleme konularında yararlanılması için “Çoklu Zeka Kuramı Teorisi” ile öğretilen kelimelerdeki başarı oranının geleneksel yöntemlerle kelime öğretilen öğrencilerden daha yüksek olacaktır.

Hipotezin doğruluğunun ispatlanması, aşağıda verilen süreçlerden geçilerek gerçekleştirilmiştir:

- A. Deney grubundaki öğrencilerde kullanılmak üzere materyal geliştirilmesi, ders planı hazırlanması, ve öğretme safhasında atılacak adımların belirlenmesi.
- B. Homojen iki grup olduğunu göstermek amacıyla bu çalışmanın gerçekleştirilmesi için gerekli zeka testlerinin (IQ, Multiple Intelligences Tests) düzenlenmesi, ön ve son testlerin hazırlanması.
- C. Her iki grubun mevcut ders başarı düzeyinin saptanması amacıyla uygulama yapılmadan önce birinci ara sınav sonuçlarının alınması.,
- D. İkinci sınıfa devam etmekte olan Harbiyelileri kapsayan 52 kişilik denek ve kontrol grubunun oluşturulması . İngilizceyi yabancı dil olarak öğrenmekte olan bu öğrenciler ikinci sınıfta askeri terminoloji ile ilk defa karşılaştıkları için bu sınıf tercih edilmiştir. Uygulama grubundakiler gibi homojen olan 25 kişilik kontrol grubu geleneksel yöntemlerle devam ederken, uygulama grubundaki 27 öğrenciye Çoklu Zeka Kavramının önerdiği kelime öğretim yöntemleri uygulanmıştır. 2003-2004 akademik yılında uygulamalar 4 ay sürmüş, iki grup arasındaki başarı durumu izlenmiştir.

Arařtırma sonuçları okuma ve dinleme becerilerinin geliştirilmesi için kelime öđretiminde “Çoklu Zeka Kavramı”nın “Geleneksel Kelime Öđretimi” metodundan daha başarılı olduğunu göstermiştir. Bu nedenle okuma ve dinleme becerilerinin geliştirilmesinde “çoklu zeka kavramı” yoluyla kelime öđretiminin ders kitapları ve öđretim metodları seçiminde temel alınması önerilebilir.

ABSTRACT

VOCABULARY TEACHING TO THE SECOND YEAR CADETS IN THE ARMY ACADEMY TO IMPROVE LISTENING AND READING SKILLS WITHIN THE FRAMEWORK OF “MULTIPLE INTELLIGENCES THEORY” IN TURKEY

The aim of this study is to state the benefits of Multiple Intelligences Theory in terms of vocabulary teaching to improve reading and listening skills.

The hypothesis of this study is that the success rate of the vocabulary teaching by Multiple Intelligences Theory to improve reading and listening skills would be higher than the ones taught by traditional method.

The validity of the hypothesis is proved through the steps given below:

A. Material development, the preparation of a lesson plan and deciding teaching steps for the cadets in the experiment group.

B. Arranging intelligences tests (IQ, Multiple Intelligences Tests) in order to form two homogenous groups. Preparing pre and post tests to test the success rate.

C. Getting the results of the first English exam in order to find the success rate of both groups before the experiment.

D. Establishing control and experiment groups consisting of 52 cadets who attend the second class. As the ESL students who attend the second classes first experienced military terminology in the second year, this period is preferred. While homogenous control group, formed of 25 cadets, were going on learning in the traditional methods, 27 cadets in the experiment group were given vocabulary teaching methods provided by Multiple Intelligences Theory. The applications made in the 2002-2003 academic year, lasted for four months, and the success rate between two groups were observed

The results of the research have proved that in vocabulary teaching to develop receptive skills, MI (Multiple Intelligences) method is more successful than the traditional methods. As a result, in order to develop receptive skills, teaching vocabulary through Multiple Intelligences method would be advisable in choosing course books and materials.

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CHAPTER I

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

1.1.1 The Traditional View

The traditional intelligence view can be traced to French psychologist Alfred Binet. In the early 1900s, the French Ministry of Education requested Binet and his colleague Theodore Simon to develop a test that identify students at risk for school failure. The test which was developed by Binet and Simon was effective for that purpose. However, it was soon used as the basis for the psychometric measurement of individuals' general capabilities or intelligence. Since that time, intelligence tests have been heavily weighted toward the types of highly predictive abilities. Binet measured verbal memory, verbal reasoning, numerical reasoning, and appreciation of logical sequences in his test. And intelligence tests have defined how we define intelligence.

1.1.2 A New View

Gardner began to question the traditional view of intelligence in his own work in "Neuropsychology and Development". In the 70's and 80's Gardner studied the nature of human cognitive capacities. In his studies, Gardner focused on understanding the pattern of abilities of stroke victims who suffer from impaired language and other kinds of cognitive and emotional injury at the Boston University, Aphasia Research center. At the same time, in order to understand the development of cognitive abilities, Gardner worked with ordinary and gifted children at Project Zero. Gardner (1999) observed something different and noted:

The daily opportunity to work with children and with brain-damaged adults impressed me with one brute fact of human nature: People have a wide range of capacities. A person's strenght in one area of performance simply does not predict any comparable strenghts in other areas.

Intelligence is the biological potential to process information in certain ways that can be activated in a cultural setting to solve problems or make products that are value in a culture.

Input is another important factor for the human intelligence. A person who has never seen an object like a table can not be regarded as “He is not smart”. When appropriate input is given to the people, output and intelligence rate increase.

Gardner’s recently refined definition suggests that intelligence represents potential that will or will not be brought to bear depending on the values, available opportunities, as well as personal decisions made by individuals, of a particular culture (Gardner,1999:34).

Gardner’s definition located intelligence in what people can do and the products they create in the real world, in contrast to the implied intelligence enumerated through a test. It suggests a qualitative expression, a description, of an individual’s collection of intelligences rather than a quantitative expression of a unitary ability.

Gardner’s “new view” of intelligence gave rise to a list of eight criteria used to identify these basic biological faculties. That is, rather than relying primarily on the results of psychometric instruments, Gardner laid out eight criteria that require different kinds of evidence from brain research, human development, evolution, and cross-cultural comparisons before candidate abilities could be considered an “intelligence”. With varying amounts and quality of research on the different candidate abilities, Gardner and his colleagues asked whether an ability met the set of criteria “reasonably well”. If it did, it was designated an intelligence. If the ability did not meet the criteria reasonably well, then it might be set aside, or recast and re-investigated against the criteria.

Gardner initially identified seven intelligences that satisfactorily fulfilled the criteria. An eighth intelligence, naturalist, has seen been added. A ninth, existential ability, is currently under consideration (Gardner, 1999).

1.2 STATEMENT OF THE PROBLEM

Teachers have long noticed that IQ scores failed to measure and reflect all of the abilities of students. Why were people who were good at math and science considered smart while those who were good athletes, artists, or musicians simply talented? Perhaps teachers did not recognize students' various talents fairly. First of all, many adult learners with reading, writing, speaking and listening difficulties do not consider themselves intelligent. Yet using Gardner's definition (Champell, 1999), many are using their skills and abilities to do something useful in society. These people are often very skilled as carpenters, mechanics, designers, musicians, or athletes. When teachers share the idea of Multiple Intelligences and help learner see which ones she excels in, she can begin to recognize her own intelligence. Recognizing the intelligences that we rely on not only increases self-esteem, it also helps us focus on our teaching strategies. This dissertation covers the theoretical framework of teaching vocabulary to adults in the Army Academy, integrating receptive skills-reading and listening through MI Theory.

1.3 PURPOSE AND THE PROCEDURES OF THE STUDY

The purpose of this study is to define human intelligences, examine how they are used in language learning through Multiple Intelligences Theory. Another purpose of this study is to supply different types of activities in order to improve vocabulary knowledge on the part of the cadets. These activities will address their intelligence types. In other words, receptive skills- reading and listening- will be evaluated within the framework of MI theory on the bases of vocabulary learning.

In compliance with this purpose, the following procedures will be followed:

a. Review of Related Literature

The related literature will be reviewed in different aspects: Learning, What Intelligence is, the Theory of Multiple Intelligences, the Nature of Vocabulary Teaching and Learning, the Reflection of MI on Vocabulary Teaching and Learning.

b. Experimentation

The hypothesis to be tested is that students taught vocabulary by MI theory would acquire better receptive skills than those taught the same vocabulary and texts by the traditional approach. In order to test this hypothesis an experiment will be conducted in the following steps:

The data collection devices will be applied to the learners who are both adults and attending the Army Academy during the academic year. The groups will be homogenous and divided into two groups: Experimental Group and Control Group. Standard intelligence test (IQ) will be given to form homogenous groups. Pre-tests and post-tests will be administered to the groups and the results will be evaluated.

1.4. Method

In this study, first, some theorethical knowledge will be surveyed. This study will be carried out in the Army Academy. The theory of Multiple Intelligences (MI), learning and development, vocabulary teaching through MI Theory to improve reading and listening will be discussed. The subjects will be selected on voluntary. Two groups will be formed of second year students, composed of 25 subjects who will study both English and Military Text together. As second year is the first time they study military English, they have difficulty in learning military terminology. A standard intelligence test (IQ) and Multiple Intelligence test (MI) will be administered to the cadets who are in their second year in the army academy to form homogenous groups. The results will be evaluated and interpreted by using statistical methods. The results will be presented in charts and graphs. Control and Experiment Groups will be given pre-post tests. After the data gathering, and evaluation, interpretation, the results will be recorded. Then, after data evaluation, interpretation, some activities and a suggested lesson plan will be prepared.

1.5 Definition of Terms

COGNITIVE LEARNING: is a kind of learning style, in which a learner tries to learn something and may prefer different solutions to learning problems like grammatical rules or explanations, etc... (Longman,1992)

COMPONENTIAL SUBTHEORY: According to Stenberg (1985), componential subtheory describes the cognitive structures and processes that together produce intelligent behavior. ,

EMOTIONAL LEARNING: The core of emotional learning is to remove the negative emotions which interfere with our natural intelligence and creativity.

INTELLIGENCE: According to Gardner (Campbell, 1999), intelligence is the ability to solve problems that one encounters in real life.

INTELLIGENCE QUOTIENT (IQ): Standard intelligence test which is considered to measure mathematical and social abilities.

LEARNING: Learning, as described in the dictionaries, is the knowledge gained through reading and study (Longman, 1997:806).

SOCIAL LEARNING: The core of social learning is to remove the negative emotions which interfere with our natural intelligence and creativity like emotional learning.

1.6 Assumptions

This study will assume the following points:

1. The data collection device/s are valid and reliable
2. The results of the data collection are valid and reliable.
3. The sample adult group which will be randomly selected will represent the whole group.

CHAPTER 2

REVIEW OF LITERATURE

2.0 Introduction

This chapter explains Learning, Social and Emotional Learning, Cognitive Learning and Learning Strategies, the Explanation of Intelligences, Current Conceptions of Intelligence, Learning and Intellectual Abilities, Multiple Intelligences, Multiple Intelligences Theory, Intelligence Classification, the Nature of Vocabulary Teaching, and the Reflection of MI on Vocabulary Teaching and Learning.

2.1. Learning

Learning, as described in the dictionaries, is the knowledge gained through reading and study (Longman, 1997:806). In this chapter, learning will be explained in two main groups: Social and Emotional Learning, and Cognitive Learning and Learning Strategies.

2.1.1 Social and Emotional Learning

The core of social and emotional learning is to remove the negative emotions which interfere with our natural intelligence and creativity. Social and emotional learning is a term which is related to an educational tradition that began 3000 years ago.

Social and emotional competencies worth promoting. This essential dimension of learning can not be ignored. Social learning has always been an integral facet of educating the young. The first records of formal schooling show that the purpose of education in ancient India, Egypt, and Greece was to teach students about their culture and its habits (Nash,1968; Padel, 1992). In other words, how to manage social relations has been a continuous educational goal from the very start. Three thousand years ago, terribly discriminatory lessons were taught. For example, only upper-class men were educated, and they were taught to adhere to a class and/or caste system driven by slavery (e.g, Nash,1968).

“Emotional learning” was also an integral and honored goal of education from the beginning of formal education. “Knowledge of self” was an organizing principle of Indian and Greek education from its inception (Snell, 1982). For example, twenty-five hundred years ago, the words ***Know thyself*** were carved on the wall of the Oracle Apollo at Delphi, which to the Greeks was the center of the world. Educated men class lived by this phrase. The Delphic precept foreshadows what Gardner, Goleman, and others now call “emotional intelligence” and “emotional learning” (Gardner, 1983; Goleman, 1995; Salovey & Mayer, 1990).

The notion of childhood and who we are as social, emotioanal/psychological, spiritual, and intellectual beings and of how we learn to “ know ourselves” has evolved quite dramatically over the centuries, particularly in West (Nash,1968) For example, it is well known that medieval art until the 12th century did not represent childhood at all. For most of history, children older than 7 or 8 were treated as little adults. During the last century, social and emotional competencies have come to be increasingly recognized, studied, and appreciated. Two overlapping traditions have contributed to this growing appreciation:

Educational activities and perspectives that seek to promote the development of these capacities are;

A psychoeducationally informed perspective that has focused on which factors interfere with social and emotional development and therefore require particular psychoeducational interventions or even psychological or psychiatric treatment.

The progressive educational movement; the civil rights and the women rights movements promote social and emotional development.

The notion of understanding the “ whole child” , including social and emotional functioning, was proposed and implemented in classrooms during the early part of the century by John Dewey, Felix Adler, and Maria Montessori Anna Freud (who was first a teacher), Rudolf Steiner, and many others in Europe and the United States. These pioners made educational curricula more relevant to the child’s social and emotional experience. Progressive educators think that the attention to *all* facets of

the child should be paid. This includes to discover where each child's particular strengths and weaknesses lie, what the child's interests are, and which helpful (or unhelpful) coping strategies he or she has developed. In many ways, these ideas have become principles that most teachers and schools have accepted. To what extent teachers have actually acted on these principles varies greatly. For example, there is a tremendous range in how much training and support educators are given here. And, even when there are training and support, large class size often precludes effective, child-centered practice.

In the 1960s, the notion that "emotional abilities can and should be cultivated in the classroom" gained educational and popular attention as a part of the affective education movement. At the same time, there were other, in some ways overlapping, social upheavals that powerfully furthered the nation's awareness of the fundamental importance of emotional and social life. The civil rights movement and the women's rights movement were among them. In a variety of ways, these movements led, indeed galvanized, generations of students and professionals alike to learn more about psychosocial development, human diversity, and the humane (and inhumane) ways.

Many mental health professionals who work with the young have long been acutely aware of how social and emotional experience profoundly affect and even determine children's ability to learn and develop (Aichhorn, 1925/1935; Freud, 1930/1974). These professionals have differed in their approach to and/or their timing of intervention. Traditionally, early childhood mental health professionals, many of whom were originally teachers, have been primarily attuned to children who are or may be presenting with problems that "derail" development and/or effective treatments. However, Anna Freud and subsequent generations of psychoanalytically informed child therapists were primarily invested in anticipating possible problems and establishing preventive measures (Edgumbe, 1975; Furman, 1987; Greenspan, 1993; Olden, 1953). In recent decades, various branches of psychology and psychiatry have aligned themselves with school systems, working collaboratively with teachers, parents, and administrators to promote social competencies (Consortium on the School-Based Promotion of Social Competence, 1994; Durlak, 1995; Dryfoos,

1990; Boggiano & Pittman, 1992). Their work remains rooted in what went before, of course, and thus overlaps, to varying degrees, with early traditions.

In the last two decades, schools have been involved in a series of programs designed to promote social competencies and to prevent social, emotional, and health problems. They are offering students character education; delinquency prevention; health, drug, and sex education; violence prevention and lessons in family life; morality and multicultural values, to name a few such programs. The intent of this effort is to intervene in a manner that will both enhance specific skills (e.g., conflict resolution, cooperative learning, peer counseling) and prevent problems in the future. Importantly, building on these efforts as well as the seminal work of Gardner (1983) about multiple forms of intelligence, Emotional Intelligence (Goleman, 1995) was a catalyzing force in furthering recognition and appreciation about the fundamental importance of SEL.

Recognizing, understanding, and learning from our own experience has many powerful implications: It furthers our capacity to experientially convey the process of genuine discovery. It also has essential value to the children with whom we work. Social and emotional learning for educators enhances our capacity to emphasize with and work more effectively with colleagues.

In most schools today, there is little or no time set aside for self-reflection. Teachers teach students that learning is a lifelong process. Yet, when it comes to ourselves and the ways that are reacted to students' responses that are elicited in the classroom everyday, it is not practiced what is preached. One student's ridicule of another student and one student's insistence that she is "dumb" affects us. These reactions, whatever they are, determine our attitudes in and out of our classrooms.

When we know ourselves, it makes a difference. It provides the teacher with tools to learn. How the past influence the present as well as how experiences and feelings about human diversity helpfully affect the educational work are also provided. Other educator-centered SEL experiences may occur in groups or in more individualized, collaborative discussions. For example, educators may talk with a colleague and/or a consulting mental health professional to "unpack" what they are

experiencing with a given student or class, what personal “buttons” these situations are touching, and how they can use these experiences both to learn about themselves and to be more educatively effective.

The teacher’s performance is based on the past experiences as well as on the conscious and unrecognized facets of his current life. When connected with and care about a student, (X), a link that is determined by a multitude of factors is made: who the student is, who we are, and what the nature of this particular pair or grouping is. Clearly, self-knowledge makes a difference; it provides educators not only with the tools to learn but also with a foundation for all they do with students. The question should be how to find the time and the community to promote this kind of learning-without which our empathic and educative capacities can scarcely grow.

There is a growing awareness of the importance of creating an environment in which teachers can reflect on their own professional development and their role in enhancing the social-emotional skills of students (e.g., Charney, 1992; Edgcumbe, 1975; Olden, 1953; Wentzel, 1997). This has been an important part of the progressive educational tradition. To the extent that educators are invested in understanding students’ social and emotional lives, it is essential that they participate in the process themselves (Adalbjarnardottir & Selman, in press).

As a conclusion, social and emotional competence provides the essential foundation for how children learn- indeed, for how they learn to learn. It is known that virtually all forms of learning take place within the context of a relationship and that learning won’t happen unless a child feels safe- safe enough to listen to the self and others, to be curious, to ask questions, to express what he or she knows and does not know. Educators may differ on how they seek to establish that basic sense of security, but, once there, it has a profound effect on how students feel about themselves and the learning process itself.

2.1.2 Cognitive Learning and Learning Strategies

Perhaps the most important aspect of the situation is the kind of learning that is to be facilitated. Knowing about the kinds of learning helps us to do a better job of teaching them. The most basic distinction is Benjamin Bloom's (1985) three domains:

Cognitive learning (thoughts), such as teaching someone to add fractions
 Affective learning (feelings, values), such as teaching someone to avoid smoking
 Physical or motor learning (actions), such as teaching someone to touch type (touching type)

The major levels of cognitive learning can be classified as **memorizing, understanding, and applying**. Most content can be learned at any of these three levels of learning. For example, you can memorize a definition of performance-based assessment as indicated by being able to restate it, you can understand what performance-based assessment is by being able to relate it to relevant prior knowledge, and you can learn to use performance –based assessment in your training. Too often educators teach at the wrong level or test at the wrong level (inconsistent with our goals).

Memorization. This is rote learning. It entails learners encoding facts or information in the form of an association between a stimulus and a response, such as a name, date, event, place, or symbol. For example, these are facts: Columbus discovered America in 1492, $\pi = 3.1417$, $2+4: 6$. The behavior that indicates that this kind of learning has occurred is stating (or “regurgitating”), usually verbatim.

Understanding. This is meaningful learning. It entails learners relating a new idea to relevant prior knowledge, such as understanding what a revolutionary war is. The behaviors that indicate that this kind of learning has occurred include comparing and contrasting, making analogies, making inferences, elaborating, and analyzing (as to part and/or kinds), among others.

Application. This is learning to generalize new situations, or transfer learning. It entails learners identifying critical commonalities across situations, such as predicting the effects of price increases. The behavior that indicates that this kind of learning has occurred is successfully applying (the critical commonalities) to diversity of previously unencountered situations.

Memorization, though sometimes very important, is greatly overused in most training settings. Understanding is very important, but it is relatively complex, and has not received much attention by instructional theorists until very recently. Application is important and has received much attention by instructional theorists. It therefore provides a good place for us to begin.

According to Skehan (1989), learning strategies are conscious and unconscious mental steps and behaviors which aid in learning, storing information and the retention of learning. There are 13 cognitive learning strategies, as follows:

Repetition. Imitation of the sounds either silently or aloud.

Resourcing. Using other materials: books, media, etc.

Direct Physical Response. Associating words to body language or mime.

Translation. Translation to mother tongue.

Grouping. Using own system to reorder or classify the material to be learned.

Note-taking. Taking notes or writing down ideas.

Imagery. Drawing pictures or using pictures or images in the mind.

Auditory. Associating the words with other sounds, words, phrases.

Keyword Recalling. Words by associating them to other words, sounds or keywords.

Contextualization. Using the words in sentences.

Elaboration. Relating the new information to existing ideas/concepts

Transfer. Using other learning techniques learned beforehand.

Clarification. Asking a teacher's repetition, answer to a question or further explanation.

With cognitive learning strategies, learners are discovering how and why they learn. Sometimes these strategies are called thinking strategies. These strategies are cognitively started by the learner to help the learner acquire knowledge (self-regulated learning). Learning strategies in the past, have not normally been taught, but have often been discovered by good learners, therefore, increasing the gap between the good students and poor students. Ragan and Smith (1999) have identified two main cognitive learning strategies: *Cognitive domain strategies and Affective domain strategies*:

Cognitive Domain strategies_ Selecting information to attend to, promoting the encoding and storage of information, and enhancing retrieval.

Organization- deals with grouping information and sorting it for later retrieval.

Elaborating_ associating new information with information already learned.

Rehearsing _ Recalling items or knowledge that is not otherwise easily structured or elaborated

Comprehensive monitoring strategies_ mentally thinking about whether or not comprehension has taken place.

Affective Domain Strategies_ (support strategies)_ Skills that are self-motivating that affect the student's active engagement in the learning process.

Divergent Thinking Strategies_ Thinking strategies are those thought processes that will eventually lead learners to becoming problem solvers or problem finders. There are many varieties of thinking strategies that enable learners to take the step to solving problems or situations.

Cognitive Requirements of Cognitive Strategy Learning_ Steps of applying a cognitive strategy:

Analyze the learning task requirements.

Analyze the ability to complete the task

Select the appropriate strategy.

Apply the strategy selected

Evaluate the strategy's effectiveness

If required, revise.

2.2. What is Intelligence?

In this world, everybody has a different capacity, different approaches to handle problems, and different or the same reactions to different situations. It can be stated that intelligence is the concept that makes people different from each other in different situations. Therefore, it would be better to define the meaning of intelligence.

According to Putnam (2003), the people know without scientific dissention that the universe has order and humans are learning to understand this order. Humans have wonderful intelligence. This genetically determined intelligence gives us the ability to make use of knowledge. Humans must learn knowledge about their environment in order to learn how to use their intelligence. The people are capable of discovering and discerning knowledge, and then make intelligent decisions about the meaning of this knowledge.

Humans are born ignorant of almost all of knowledge. The knowledge they are born with is called instinct, which means the person has both the intelligence and knowledge necessary to perform some act without previously having become aware of it. For instance, a new born baby is genetically programmed with the intelligence and knowledge necessary to learn to identify its parents' faces. What the baby must acquire by observation are the differences in detail distinguishing one face from another. The genetic intellectual ingredient is that the baby's mind already knows where to find the details and what to make of them.

"...Most educators and many psychologists think intelligence tests measure - or ought to measure - something like the innate capacity or potential of the learner. This has always been a popular belief among both professionals and laymen. It is a personal theory that is staunchly held and, like other personal theories, is not easily altered by disconfirming evidence." (Lohman, 1993, p. 14)

What is our current understanding of the concept of intelligence ?

2.2.1 Current Conceptions of Intelligence

To begin with, it can be stated that Intelligence has been defined and studied under a number of different rubrics, among them individual differences, cognitive abilities, and aptitudes. Probably the most influential developments in our recent understanding of these concepts have come from educational and psychological researchers who are associated with cognitive psychology. Three of those individuals, Robert Sternberg, Howard Gardner, and John Horn serve as a representative sample of researchers who have made significant gains in our current conceptions of intelligence. In the following paragraphs each one's conceptualization of intellectual abilities will be explained.

Robert Sternberg's (1985) theory of intelligence contains three subtheories, one about context, one about experience, and one about the cognitive components of information processing. The contextual subtheory attempts to specify what would be considered "intelligent" in a given culture or context. According to Sternberg, culturally intelligent behavior involves either adapting to one's present environment, selecting a more optimal environment, or reshaping one's current environment. The experiential sub theory claims that the expression of any intelligent behavior will be a function of the amount of experience one has with the particular class of tasks being tested.

According to Sternberg, intelligence is best demonstrated when the task is relatively novel or unfamiliar. The componential subtheory describes the cognitive structures and processes that together produce intelligent behavior. Sternberg proposes three general types of processes: metacomponents (which control and monitor processing), performance components (processes that execute plans), and knowledge acquisition components (which encode and assemble new knowledge). As a whole, the triarchic theory claims different aspects or kinds of intelligence (e.g., academic, practical).

One of the most popular recent views of intelligence, at least among practitioners, has come from Gardner (e.g., Gardner & Hatch, 1989). He proposes a theory of multiple intelligences in which he claims there are seven relatively independent intelligences. Those intelligences are logical-mathematical, linguistic, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. Additionally,

Gardner recognizes that one's experiences will influence the degree to which each of the intelligences can be expressed. Thus, rather than characterizing an individual's intelligence by a single test score, Gardner argues for determining the profile of one's intelligences, taking into account culturally valued activities that can be expressed in a familiar context. Accordingly, this view suggests the need for new forms of assessment. Gardner and his colleagues have been working on versions of new, more authentic assessment tools for the past 8 years.

Along with his advisor, Raymond B. Cattell, John Horn has developed a theory of intelligence that specifies two broad factors, fluid abilities and crystallized abilities, along with numerous specific factors that support the general ones. Fluid intelligence represents one's ability to reason and solve problems in novel or unfamiliar situations. Crystallized intelligence, on the other hand, indicates the extent to which an individual has attained the knowledge of a culture. According to Horn (1989), the Gf - Gc theory can also be thought of as a theory of multiple intelligences because of the relative independence of fluid and crystallized abilities (characterized by distinctly separate patterns of covariation). Horn also argues that the expressions of these abilities "... are outcroppings of distinct influences operating through development, brain function, genetic determination, and the adjustments, adaptations, and achievements of school and work." (Horn, 1989: 76)

In my opinion, every learner has different intelligences and learning styles. Exposing them to a standard IQ test would not be fair. The teacher should observe their intelligence types by tests and test their abilities and talents through MI theory. Everybody has the capacity to develop his intelligences to a reasonably high level of performance when the teacher gives encouragement and instruction to the learner.

2.2.2. Learning and Intellectual Abilities

An important development in our understanding of intelligence is that at least some aspects of our intellectual abilities depend heavily on our past experiences. This acknowledgement should be clear in the three theories summarized above. Each of these theories recognizes the inseparability of experience from intellectual ability. This position stands in stark contrast to the one that holds that intelligence

tests measure - or ought to measure - one's innate capacity. Admitting that experience influences one's performance on an intelligence test severely undermines the innate capacity notion unless one adopts the weaker position that intelligence is a measure of one's innate capacity to learn. In either case, the logical position to assume is that any theory that attempts to explain individual differences in intellectual abilities must include a learning subtheory as part of it.

A recent volume edited by Ackerman, Sternberg, and Glaser (1989) presents several current approaches that integrate information processing theories of learning with theories of individual differences in abilities. Two widely acknowledged views have come from Ackerman (e.g., 1993) and Lohman (1989; 1993). In the next two paragraphs, I will briefly summarize these researchers' views.

Phillip Ackerman (1993) has adapted aspects of John R. Anderson's (1983) theory of cognitive skill acquisition and coupled it with a theory of intellectual abilities proposed by Marshalek, Lohman, and Snow (1983). The integration has produced a hybrid theory which claims that as learning occurs, intellectual differences are reduced for tasks that have a consistent problem-solving structure. In contrast, intellectual differences become magnified for tasks that have variable (novel) problem-solving structures. In other words, with practice peoples' intellectual abilities will be either similar or different, depending on the nature of the mental processes required to solve different types of problems.

David Lohman (1989; 1993) has coupled information processing theories of learning (e.g., Anderson, 1983) with the Gf - Gc theory (e.g., Horn, 1989) in order to characterize the relation between learning and intelligence. It has been known for some time that crystallized intelligence was the product of the acquisition of knowledge (i.e., experience). However, recently Lohman (1993) has argued persuasively that fluid intelligence (i.e., the ability to reason in novel situations) may also be amenable to learning. In fact, he espouses that schools would benefit from direct instruction and testing of fluid abilities.

I assume that the best learning occurs when pre-knowledge is added to present knowledge. It can not be denied the importance of reasoning and experience in learning and intellectual abilities. As a conclusion, the best learning occurs when the learner combines the history of the knowledge with reasoning and experience.

2.3 The Theory of Multiple Intelligences

Multiple intelligences is a psychological theory about the mind. It criticizes the notion that there's a single intelligence which we are born with, which can not be changed, and which psychologists can measure. Multiple Intelligences theory is based on a lot of scientific research in fields ranging from psychology to anthropology to biology. It is not based upon test correlations, which most other intelligence theories are based on.

In this theory, the claim is that there are at least eight different human intelligences. Most intelligence tests look at language or logic or both – those are just two of the intelligences. The other six are musical, spatial, bodily/kinesthetic, interpersonal, intrapersonal, and naturalist.

In his Multiple Intelligences theory, Howard Gardner(1983) makes two claims. The first claim is that all human beings have all of these intelligences. It is part of our species definition. His second claim is that both because of our genetics and our environment, no two people have exactly the same profile of intelligences, not even identical twins, because their experiences are different.

Therefore, this is the point where the educators shift from science to education. If the people all have different kinds of minds, they have a choice. Educators can either ignore those differences and teach everybody the same stuff in the same way and assess everybody in the same way. Or it can be said that people learn in different kinds of ways, and they have different intellectual strengths and weaknesses. The educators should take into account the way how they teach and assess.

Gardner is careful to explain that intelligence should not be limited to the ones he has identified. He believes that the seven, however, provide a far more accurate picture of human capacities than do previous unitary theories. Contrary to the small range of abilities that many standard IQ tests measure, Gardner's theory offers an expanded image of what it means to be human. He also notes that each intelligence contains several sub-intelligences. For example there are sub-intelligences within the domain of music that include playing music, singing, writing musical scores, conducting, critiquing, and appreciating music, as well as the ability to perceive and execute tonality, harmony, rhythm - or what some people would call "the fundamentals of music". Each of the six other intelligences also encompass numerous "fundamental" components.

According to Gardner (1983), another aspect of the multiple intelligences is that they may be conceptualized in three broad categories. Three of the seven, spatial, logical-mathematical, and bodily-kinesthetic, may be viewed as **"object-related"** forms of intelligence. These capacities are controlled and shaped by the objects with which individuals encounter and interact in their environments. On the other hand, the **"object-free"** intelligences, consisting of verbal-linguistic and musical, are not shaped by the physical world but are dependent upon language and musical systems (auditory systems). The third category consists of the **"person-related"** intelligences with the inter- and intra-personal intelligences reflecting a powerful set of counterbalances.

In 1996, Gardner began to detail an eighth intelligence which focused on a sensitivity to the environment. This intelligence has been labeled the **"Naturalist"** intelligence. In a 1998 article for Scientific American, Gardner has suggested another **"Existential"** intelligence" that is described as "Capturing and pondering the fundamental questions of existence (spiritual leaders such as the Dalai Lama, and philosophical thinkers such as Jean Paul Sartre and Soren Kierkegaard are examples). Gardner also suggests a ninth intelligence which focuses on the **olfactory/gustatory** perceptual realm of smell and taste. There is some research indicating that the "haptic sensory system," which focuses mostly on the hands--- the fingertips contain one of the highest densities of tactile receptors--- might also be another intelligence which can be called the **"TOUCH"**.

2.3.1. Eight Distinct Criteria for MI

According to Gardner (1983:62) an intelligence has eight distinct criteria:

Potential isolation by brain damage:

If a person loses a particular capacity of his brain because of a damage to a particular area of his brain, it can be observed that the capacity is independent from other human capacities – a key criterion for an intelligence.

The existence of idiot savants, prodigies, and other exceptional individuals:

If an individual's other capacities are average or impaired, a strong capacity appears. However, a particular intellectual skill may be absent in a competent person. So, such cases support the idea that the capacity in question is indeed independent of other capacities, and so is a good candidate for the label "intelligence".

An identifiable core operation or set of operations:

Sensitivity to the tone of music is a core operation of musical intelligence; the ability to imitate the movements of a dancer is a core operation of bodily-kinesthetic intelligence.

A distinctive developmental history, along with a definable set of expert "end state" performances:

In order to qualify as intelligences, a particular ability must have an identifiable series of stages which normal or gifted individuals progress through as they develop into greater levels of skills.

An evolutionary history and plausibility:

According to Gardner (1983: 26), the roots of our current intelligences reach back millions of years in the history of the species. The more clearly one identifies the evolution of a particular ability, the more reasonable it becomes to consider that ability is an intelligence.

Support from experimental psychological tasks:

Experimental studies help us to establish the relative autonomy of particular capacities, particularly experiments that show how a particular skill does or does not transfer across contexts.

Support from psychometric findings:

According to Gardner(1983), standard tests seem to measure the same ability correlate with one another, they lend support to the idea that a particular ability is discrete and independent from other abilities, making it a better candidate for an intelligence.

Development of a relevant symbol system:

Gardner (1983:26) points out that a human intelligence may well develop without such a symbol system, but still suggests that a natural gravitation toward embodiment in a symbolic system may be a key feature of an intelligence. For example, mathematical intelligence is supported by the mathematical symbols, etc...

In one of his interviews with Extra (1999), Gardner explained the shorthand version of his theory of multiple intelligences. He stated that it is a psychological theory about the mind which is a critique of the notion that there is a single intelligence one is born with, which can not be changed and which psychologists can measure. He also stated that it is not based on test correlations, which most other intelligence theories are based on.

In one of his interviews with Checkly (1997), Gardner explained the experiences which led him to the study of human intelligence. The most important result of his studies was actually learning about brain damage and what could happen to people when they had strokes. A certain part of the brain gets injured when a person has a stroke. That injury can explain you what that part of the brain does.

2.3.2. Types of Multiple Intelligences

A brief description of Gardner's seven intelligences is detailed below. Two tables are provided for each of the 11 intelligences.

2.3.2.1 Object-Free Intelligences

2.3.2.1.1 Verbal/Linguistic Intelligence [V/L] consists of the ability to think in words and to use language to express and appreciate complex meanings. Authors, poets, journalists, speakers, and newscasters exhibit high degrees of linguistic intelligence. According to Gardner (1983:75), verbal-linguistic intelligence is the capacity to use language, your native language, and perhaps other languages, to express what is in your mind and to understand other people. V/L deals with abilities in the complex acquisition, formation and processing of language. Symbolic thinking, creating conceptual verbal patterns and abstract reasoning are under this category.

People who have Verbal-Linguistic intelligence think in words and are considered as “word smart”. Such people like playing with the words, reading, making up stories, telling jokes, etc... Rather than pictures, they think in words and they learn best by saying, hearing and seeing words, talking, writing and reading.

As their intelligence lends itself to traditional teaching, students who have Verbal/Linguistic intelligence have always been successful in a traditional classroom.

“Classrooms in every subject matter area, at every grade level, must be language –rich environments in which students frequently speak, discuss, and explain. Interest in learning grows when students feel secure enough to ask questions and debate viewpoints. Self-confidence grows when students learn to defend their position in discussions and debates. They understand their lessons more deeply when they have opportunities to discuss or teach others what they have learned.” (Campbell and et.al., 1996:3)

Writers, orators, poets, journalists, essayists, administrators, salespersons, counselors, lawyers, professors teachers, politicians are the good examples of Verbal/Linguistic learners.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE V/L INTELLIGENCE

Reading	Poetry
Vocabulary	Verbal Debate
Formal Speech	Impromptu Speaking
Journal/Diary Keeping	Humor/Jokes
Creative Writing	Storytelling

2.3.2.1.2 Musical Intelligence

According to Gardner (1993:102), musical intelligence is the capacity to think in music, to be able to hear patterns, recognize them, remember them, and perhaps manipulate them. People who have a strong musical intelligence do not just remember music easily and they cannot get it out of their minds. Musical intelligence obviously deals with the ability to create or interpret music.

Champbell and et.al. (1996:133) state that music is undoubtedly one of the oldest art forms, utilizing the human voice and body as natural instruments and means of self-expression. It is an art which was born with us. We hear our mother's heartbeat for nine months before we are born. So, we are all inherently musical and can develop this capacity in ourselves and in others. Learners who have musical intelligence may need music while they are studying. They usually hum, sing, tap out tunes rhythmically, or whistle.

According to Gardner (1993:17), a brief consideration of the evidence suggests that musical skill, which may fail the traditional IQ test, can pass other tests which measure this type of intelligence. For example, certain parts of the brain play important roles in perception and production of music. These areas are characteristically located in the right hemisphere. But musical skill is not clearly localized, or located in a specifiable area, as language.

People who have musical intelligence are called “music smart” and they think in sounds, sing, hum, whistle to themselves, they respond to music immediately. They like singing, listening to music and skilled at mimicking sounds, language accents, and others’ speech patterns.

In short, Musical Intelligence [M] is evident in individuals who possess a sensitivity to pitch, melody, rhythm, and tone. Those demonstrating this intelligence include composers, conductors, musicians, critics, instrument makers, as well as sensitive listeners. The learners primarily uses the **Auditory** mode of perception.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE MUSICAL INTELLIGENCE

Rhythmic Patterns	Environmental Sounds
Vocal Sounds/Tones	Instrumental Sounds
Musical Composition/Creation	Singing
Percussion Vibrations	Tonal Patterns
Humming/whistling	Music Performance

2.3.2.2 Object-Related Intelligences

2.3.2.2.1 Logical- Matemactical Intelligence

Logical-mathematical intelligence can be described as the pattern-seeking intelligence. Everybody starts doing maths very early in his development. The very first development of this intelligence is our manipulation of and play with different concrete objects in the real physical world. It is associated with scientific reasoning. This intelligence type easily recognizes logical patterns, makes connections and matters symbols and concepts.

Gardner (1983:131) states that people with highly developed logical-mathematical intelligence understand the underlying principles of some kind of a casual system, the way a scientist or a logician does; or manipulate numbers, quantities, and operations, the way a mathematician does. This intelligence type is

the most popularly understood cognitive faculty. This intelligence is the human's ability to mentally process logical problems and equations, the type most often found on multiple choice standardized tests. Logical-mathematical intelligence often does not require verbal articulation. People who have logical-mathematical intelligence are referred as number smart. They are good at experiments, solving problems, and thinking.

In short, we can state that Logical/mathematical intelligence [L/M] makes it possible to calculate, quantify, consider propositions and hypotheses, and carry out complex mathematical operations. Scientists, mathematicians, accountants, engineers, and computer programmers all demonstrate strong logical-mathematical intelligence.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT L/M INTELLIGENCE

Abstract Symbols/Formulas	Deciphering Codes
Outlining	Forcing Relationships
Graphic Organizers	Syllogisms
Number Sequences	Problem Solving
Calculation	Pattern Games

2.3.2.2.2 Visual/Spatial Intelligence

Visual/Spatial intelligence [V/S] can be considered as the first language of human brain. First of all, the brain thinks in images and pictures before it has words to attach them. This intelligence type deals with everything we can see around: concrete and abstract images, and the entire spectrum of color and texture, specific patterns and designs.

“Visual-spatial thinking underlies moving figures in a chess game, organizing one's schedule for a day, moving furniture within a room, or reading maps in a trip. Not all visually-capable learners exhibit the same skills. Some may be talented in

painting, others at building three-dimensional models, and still others at critiquing fine art.” (Champbell and et.al., 1996:97).

According to Gardner (1983:174), V/S intelligence refers to the ability to represent the spatial world internally in your mind; the way a sailor or airplane pilot navigates the large spatial world, or the way a chess player or sculptor represents a more confined spatial world. This intelligence type can also be used in science or in the art.

In short, Visual/Spatial Intelligence [V/S] instills the capacity to think in two and three-dimensional ways as do sailors, pilots, sculptors, painters, and architects. It enables one to perceive an external internal imagery, to recreate, transform, or modify images to navigate oneself and objects through space, and to produce or decode graphic information. Primarily **visual** mode of perception.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE VISUAL/SPATIAL INTELLIGENCE

Guided Imagery	Drawing/cartooning
Active Imagination	Mind-Mapping
Color Schemes	Pretending
Patterns/Designs	Sculpture
Painting	Pictures

2.3.2.2.3 Bodily/Kinesthetic Intelligence

Bodily/kinesthetic intelligence [B/K] enables one to manipulate objects and fine-tune physical skills. This intelligence deals with the movement that is possible in and through the body. It is evident in athletes, dancers, surgeons, and craftspeople. In Western societies, physical skills are not as highly valued as cognitive ones, and yet elsewhere the ability to use one's body is a necessity for survival as well as an important feature of many prestigious roles. Primarily use of **Kinesthetic/Tactile** mode of perception includes touch, softness, slipperiness, twisting, jumping. This intelligence would also interact with other intelligences such as a musical or theatrical performance. As in a violinists fine motor finger manipulations in playing their instrument.

Gardner states that (1983:208) bodily-kinesthetic intelligence is the capacity to use your whole body or parts of your body, your hand, foot, to solve a problem, make something, or put on some kind of a production.

People who have this kind of intelligence are called “body smart”. They have good body control and coordination. Such people are good at dancing, skating, running, and building things.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE BODILY/KINESTHETIC INTELLIGENCE

Folk/Creative Dance	Role Playing
Physical Gestures	Martial Arts
Drama	Body Language
Physical Exercise	Inventing
Mime	Sports

2.3.2.3 Personal Related Intelligences

2.3.2.3.1 Inter-Personal Intelligence

Inter-Personal Intelligence [IE] is the capacity to understand and interact effectively with others. It is evident in successful teachers, social workers, actors, or politicians. Just as Western culture has recently begun to recognize the connection between mind and body, so too has it come to value the importance of proficiency in interpersonal behavior. Modes of perception are diverse including visual auditory tactile and even smell/taste. Howard Gardner's (1995) book, *Leading Minds*, is an analysis of many great leaders, and is an information-rich text for the study of the inter-personal intelligence.

According to Champbell and et.al. (1996:160), interpersonal intelligence enables us to understand and communicate with others, noting differences in moods, temperaments, motivations, and skills. Interpersonal intelligence includes the ability

to assume various roles within groups such as leaders or group members and to form and maintain relationships.

Gardner (1983:237) thinks that interpersonal intelligence is seen in how we notice distinction among others; in particular, contrasts in their moods, temperaments motivations and intentions. Interpersonal intelligence lets us affect others by understanding them. Without this type of intelligence we lose the ability to exist socially.

Children who have interpersonal intelligence can arbitrate differences between people or groups. They can easily pick up on the vibrations, the feeling of others and are highly empathetic. Interpersonal learner can easily pick up on the vibrations, the feeling of others. These learners, who are people oriented and outgoing, enjoy cooperative learning experiences and learn best in cooperative settings. Such learners are usually talkative and like being social in a traditional setting.

Interpersonal learners are called “people smart”. In order to understand how they think and feel; interpersonal people try to put themselves in the shoes of other people. Such learners use both non-verbal (body language) and verbal language (speaking) and very sensitive to other people’s ideas. We can observe this intelligence when the learners thrive on a small-group work or when they convince their teachers to give extra time to complete the assignment.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE INTER-PERSONAL INTELLIGENCE

Giving Feedback	Receiving Feedback
Intuiting Others' Feelings	Sensing Others' Motives
Cooperative Learning Strategies	Person-to-Person Communication
Empathy Practices	Division of Labor
Collaboration Skills	Group Projects

2.3.2.3.2 Intra-Personal Intelligence

It can be stated that Intra-personal intelligence [IA] refers to the ability to construct an accurate perception of oneself and to use such knowledge in planning and directing one's life. Some individuals with strong intra-personal intelligence specialize as theologians, psychologists, philosophers, mediators.

According to Gardner (1983: 239), intrapersonal intelligence refers to having an understanding of yourself, of knowing who you are, what you can do, how you react to events, which things to avoid. Such people tend to know what they can do. They also want to know where to go when they need help.

Chambell and et. al (1996) state that at the heart of our inner world, we have strengths that we rely on to understand ourselves and other people, to imagine, plan, and solve problems. It is difficult to have a productive life without these inner resources. If a person has a strong intrapersonal intelligence, he has a strong self-esteem, self enhancement and a strong character to solve internal problems.

According to Chambell and et.al. (1996:195), intrapersonal intelligence includes our thoughts and feelings. The more we can bring them into consciousness, the better we can relate our inner world to the outer world of experience. In short, we can conclude that intrapersonal intelligence is the ability to gain access to understand one's inner feelings, dreams and ideas.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE INTRA-PERSONAL INTELLIGENCE

Silent Reflection Methods	Mindfulness Practices
Metacognition Techniques	Higher-Order Reasoning
Thinking Strategies	Complex Guided Imagery
Emotional Processing	"Centering" Practices
Focusing/Concentration Skills	"Know Thyself" Procedures

2.3.2.4 Naturalist And Gustatory / Olfactory Intelligence

Two New Intelligences were introduced in 1986. One, of them focused on ones' sensitivity to the environment and has been entitled the **NATURALIST** intelligence. The other one is introduced as the **GUSTATORY / OLFACTORY INTELLIGENCE**.

The Naturalist Intelligence [N] designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of natural world (clouds, rock configurations). This ability was clearly of value in our evolutionary past as hunters gatherers, and farmers; it continues to be central in such roles as botanist or chef.

Gardner added the naturalistic intelligence to his list in 1996. He thought that Naturalist Intelligence is a separate intelligence as we need to survive as human beings. A person should know which animal to hunt and the ways to run away from them. Gardner also thinks that animals have this type of intelligence to survive. Neurologic studies also show that naturalist intelligence exist in the certain parts of the brain.

Darwin is the most famous naturalist as he saw the nature of the living things and because his ability to identify and classify mammals, birds, insects, fish etc. His studies and observations resulted in his theory of evolution, which can be called the best major contribution of the nineteenth century.

As a conclusion we can state that Naturalistic Intelligence has to do with observing, understanding and organizing patterns in the natural environment including sensitivity to seasonal and even daily changes. A naturalist is someone who shows expertise in the recognition and classification of plants and animals. This could be anyone from a molecular biologist to a traditional medicine man using herbal remedies [Gardner, 1997].

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE NATURALIST INTELLIGENCE

Observing nature in general	Sensitivity to animal behaviors
Gardening and growth cycles	Noticing changes in the environment
Training animals	Maintaining zoos
Oceanographers	Geologists
Meteorologists	Astronomers

Gardner's second addition to his intelligences theory is **Gustatory/Olfactory Intelligence [G/O]**. This intelligence has to do with sensitivity to chemicals, especially those chemicals associated with tasting and smelling. Linda Baratoshuk's (1994) research into this area testifies to the diversity and variance of individual abilities in this sensory modality. Piet Vroon's et. al. (1997) recent book, Smell: The Secret Seducer, is another example of research into the olfactory domain. These individuals can blend a pallet of tastes and create fine cuisine, identify odors, and blend fine wines and liqueurs.

People who have an acute sensitivity for smells and tastes might be chefs, perfumers, vintners . The ability to perceive the "fundamentals of taste/smell might be: perceptions of sweetness, saltiness, acidity, scent, aroma's, the blending of herbs and spices. The research of Richard Porter (1998) also indicates the primal importance of this sensory modality in the interpersonal area of mother/infant bonding.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE GUSTATORY / OLFACTORY INTELLIGENCE

Great Chefs	Vintner's
Perfumer	

2.3.2.5. Touch Intelligence

Touch intelligence (the haptic sensory system) can be described as the peoples' ability to perceive and know the world through the sense of touch. This might include understanding the dimensions of "texture, hardness, temperature, weight, global and exact shape and volume of OBJECTS. Thus this would be an "OBJECT RELATED" intelligence. It might be utilized as a necessary asset in the musical and spatial intelligences in that a performer or creator who uses their fingers, as in a violinist or open-hole flutist would rely heavily upon this sensory modality.

SOME ACTIVITIES/BEHAVIORS THAT REFLECT THE TOUCH INTELLIGENCE

LATERAL MOTION... (rubbing the fingers across a surface provides information about an objects texture	PRESSURE... pressing down on an object provides information about its hardness .
STATIC CONTACT... Holding the fingers in one spot provides information about an object's temperature .	UNSUPPORTED HOLDING... Holding an object out away from a support provides information about its weight .
ENCLOSURE... Wrapping the hand around an object provides information about its global shape and volume .	CONTOUR FOLLOWING... Moving the fingers about the perimeter of an object provides information about an object's exact shape

2.3.2.6 Existential Intelligence

Gardner (1999) has suggested existential intelligence, which deals with people who are able to capture and ponder the fundamental questions of existence. This would probably fall in the "Personal Intelligences," and most likely the "intra-personal" intelligence.

2.4 The Nature of Vocabulary Teaching and Learning

Despite the fact that the advanced learners can generally communicate well and learn the basic structures of the language, they need to broaden their vocabulary to express themselves more appropriately and clearly in a wide range of situations.

In the Army Academy, the students might have a receptive knowledge of a wider range of vocabulary, which means they can recognize the item and recognize its meaning. Nevertheless, their productive use of a wide range of vocabulary is normally limited, and this is one of the areas that need greater attention. At this stage, in the second classes, military terminology and vocabulary are also added into their English lesson plans. The expectation of educators from learners at this point is to understand the meaning of words, use them properly, take into account factors such as oral/written use of language, degree of formality and style.

Traditionally, the vocabulary teaching above elementary levels was mostly incidental, limited to presenting new items as they appeared in reading or sometimes listening texts. This indirect teaching of vocabulary items assumes that vocabulary expansion will happen through the practice of other language skills, which has been proved not enough to ensure vocabulary expansion.

Nowadays, it is widely accepted that vocabulary teaching should be part of the syllabus, and taught in a well-planned regular basis. Some authors, led by Lewis (1993) argue that vocabulary should be at the center of language teaching.

According to Gairns and Redman (1986), there are several aspects of lexis that need to be taken into account when teaching vocabulary:

Boundaries between conceptual meaning: knowing not only what lexis refers to, but also where the boundaries are that separate it from words of related meaning (*e.g. cup, mug, bowl*).

Polisemy : distinguishing between the various meaning of a single word form with several but closely related meanings (head: of a person, of a pin, of an organisation)

Homonymy: distinguishing between the various meanings of a single word form which has several meanings which are NOT closely related (e.g. a file: used to put papers in or a tool).

Homophony: understanding words that have the same pronunciation but different spellings and meanings (e.g. flour, flower)

Synonymy: distinguishing between the different shades of meaning that synonymous words have (e.g. extend, increase, expand).

Affective meaning: distinguishing between attitudinal and emotional factors (denotation and connotation), which depend on the speaker's attitude or the situation. Socio-cultural associations of lexical items is another important factor.

Style, register, dialect: Being able to distinguish between different levels of formality, the effect of different contexts and topics, as well as differences in geographical variation.

Translation: awareness of certain differences and similarities between the native and the foreign language (e.g. false cognates).

Chunks of language: multi-word verbs, idioms, strong and weak collocations, lexical phrases.

Grammar of vocabulary: learning the rules that enable students to build up different forms of the word or even different words from that word (e.g. sleep, slept, sleeping; able, unable, disability).

Pronunciation: ability to recognize and reproduce items in speech..

Before starting to explain vocabulary teaching through MI theory, it is better to mention three main vocabulary teaching approaches: **incidental learning, explicit instruction, and independent strategy development.**

According to **incidental learning of vocabulary**, teachers provide opportunities for extensive reading and listening. **Explicit instruction** involves choosing the words learners need to know, presenting words for the first time, elaborating word knowledge, and developing fluency with known words. The last approach, **independent strategy development**, involves practicing guessing from context and training learners to use dictionaries.

Despite the fact that these principles and approaches have a great role to play in vocabulary instruction, the learner's proficiency level and learning situation should be considered when deciding the relative emphasis to be placed on each approach. In general, it is believed that emphasizing explicit instruction is probably best for beginning and intermediate students who have limited vocabularies. On the other hand, extensive reading and listening might receive more attention for more proficient intermediate and advanced students. Because of its vital importance and benefits, dictionary training should begin early in the curriculum (Hunt & Beglar, 1998)

According to Read (1988), a word is defined as including the base form and its inflections and derivatives. Since the meaning of these different forms of the word are closely related, it is assumed that little extra effort is needed to learn them. This belief may be true, but, according to Schmitt and Meara (1997), some Japanese students' recent study showed that they did not know most of the inflections and derivative suffixes for English verbs. They also suggested that these forms should be taught. The goals of vocabulary teaching must be more than simply covering a certain number of words on a word list.

2.4.1 Incidental Learning

According to Nagy, Herman, & Anderson (1985), in the long run, most words in both first and second languages are probably learned incidentally, through extensive reading and listening. The recent studies of Day, Omura, & Hiramatsu, (1991) ; Hulstijn, Hollander & Greidanus, (1996); Knight, (1994); and Zimmerman, (1997) have confirmed that incidental L2 vocabulary learning occurs through reading.

According to Elley (1989), despite the fact that most research focuses on reading, extensive listening can also increase vocabulary learning. Nagy, Herman, & Anderson (1985) concluded that (for native speakers of English) learning vocabulary from context is a gradual process, estimating that, given a single exposure to an unfamiliar word, there was about a 10% chance of learning its meaning from context. Likewise, L2 learners can be expected to require many exposures to a word in context before understanding its meaning.

The incidental learning of vocabulary through extensive reading can benefit language curriculums and learners at all levels (Woodinsky and Nation, 1988). According to Coady (1997b), the role of graded (i.e., simplified) readers is to build up the students' vocabulary and structures until they can graduate to more authentic materials. Low proficiency learners can benefit from graded readers because they will be repeatedly exposed to high frequency vocabulary. As many students may never have done extensive reading for pleasure, it may be initially useful to devote some class time to Sustained Silent Reading (SSR) (Pilgreen and Krashen, 1993). Once students develop the ability to read in a sustained fashion, then most of the reading should be done outside of class.

2.4.2 Explicit Instruction

Knowing approximately 3,000 high frequency and general academic words is significant because this amount covers a high percentage of the words on an average page. The 2,000 high frequency words in West's (1953) *General Service List* cover 87% of an average non-academic text (Nation, 1990) and 80% of an average academic text (P. Nation, personal communication, September 18, 1997). The 800 general academic words from Xue and Nation's (1984) *University Word List* account for about 8% of an academic text. For second language learners entering university, Laufer (1992) found that knowing a minimum of about 3,000 words was required for effective reading at the university level, whereas knowing 5,000 words indicated likely academic success.

The incidental learning of vocabulary may eventually account for a majority of advanced learners' vocabulary; however, **intentional learning** through instruction also significantly contributes to vocabulary development (Nation, 1990; Paribakht & Wesche, 1996; Zimmerman, 1997). Explicit instruction is particularly essential for beginning students whose lack of vocabulary limits their reading ability. Coady (1997b: 229) calls this the beginner's paradox. He wonders how beginners can "learn enough words to learn vocabulary through extensive reading when they do not know enough words to read well". His solution is to have students supplement their extensive reading with study of the 3,000 most frequent words until the words' form

and meaning become automatically recognized (i.e., "sight vocabulary"). The first stage in teaching these 3,000 words commonly begins with word-pairs in which an L2 word is matched with an L1 translation.

Translation has a necessary and useful role for L2 learning, but it can hinder learners' progress if it is used to the exclusion of L2-based techniques. Prince (1996) found that both "advanced" and "weaker" learners could recall more newly learned words using L1 translations than using L2 context. However, "weaker" learners were less able to transfer knowledge learned from translation into an L2 context. According to Prince, weaker learners require more time when using an L2 context as they have less developed L2 networks and are slower to use syntactic information. To discourage the learners from over-relying on translation, he advises that teachers talk with them about their expectations of language learning and "the pitfalls of low-effort strategies like translation" (p. 489). Furthermore, translation needs to be followed up with other L2-based exercises and learning strategies.

Vocabulary lists can be an effective way to quickly learn word-pair translations (Nation, 1990). However, it is more effective to use vocabulary cards, because learners can control the order in which they study the words (Atkinson, 1972). Also, additional information can easily be added to the cards. When teaching unfamiliar vocabulary, teachers need to consider the following:

Learners need to do more than just see the form (Channell, 1988). They need to hear the pronunciation and practice saying the word aloud as well (Ellis & Beaton, 1993; Fay and Cutler, 1977; Siebert, 1927). The syllable structure and stress pattern of the word are important because they are two ways in which words are stored in memory (Fay and Cutler, 1977).

Start by learning semantically unrelated words. Also avoid learning words with similar forms (Nation, 1990) and closely related meanings (Higa, 1963; Tinkham, 1993) at the same time. For example, because affect and effect have similar forms, simultaneously studying them is likely to cause confusion. Also, bilingual vocabulary books often simply list words in alphabetical order, increasing the chances of confusing words that start with the same syllable. Likewise, words with similar,

opposite, or closely associated (e.g., types of fruit, family members) meanings may interfere with one another if they are studied at the same time.

It is more effective to study words regularly over several short sessions than to study them for one or two longer sessions. As most forgetting occurs immediately after initial exposure to the word (Pimsleur, 1967), repetition and review should take place almost immediately after studying a word for the first time.

Study 5-7 words at a time, dividing larger numbers of words into smaller groups. As learners review these 5-7 cards, they will more quickly get repeated exposure to the words than when larger groups (20-30) are studied.

Use activities like the keyword technique to promote deeper mental processing and better retention (Craik and Lockhart, 1972). Associating a visual image with a word helps learners remember the word.

A wide variety of L2 information can be added to the cards for further elaboration. Newly met words can be consciously associated with other L2 words that the learner already knows (Prince, 1996), and this word can be added to the card. Also, sentence examples, part of speech, definitions, and keyword images can be added (see Schmitt & Schmitt, 1995).

Prince (1996) states that simply knowing translations for L2 words does not "guarantee that they will be successfully accessed for use in an L2 context" (p. 488), because knowing a word means knowing more than just its translated meaning or its L2 synonyms. Drawing upon Richards' (1976) list, Nation (1994) identifies various aspects of word knowledge such as knowing related grammatical patterns, affixes, common lexical sets, typical associations, how to use the word receptively and productively, etc. *Receptive knowledge* means being able to recognize one of the aspects of knowledge through reading and listening, and *productive knowledge* means being able to use it in speaking and writing. Teachers should be selective when deciding which words deserve deeper receptive and/or productive practice as well as which types of knowledge will be most useful for their students.

Elaboration involves expanding the connections between what the learners already know and new information. One way to do this is to choose L2 words from the surrounding context and to explain their connections to the recently learned word (Prince, 1996). In addition to presenting this new information, teachers should create opportunities to meet these useful, recently learned words in new contexts that provide new collocations and associations (Nation, 1994). Exercises that can deepen students' knowledge of words include: sorting lists of words and deciding upon the categories; making semantic maps with lists either provided by the teacher or generated by the learners; generating derivatives, inflections, synonyms and antonyms of a word; making trees that show the relationships between superordinates, coordinates, and specific examples; identifying or generating associated words; combining phrases from several columns; matching parts of collocations using two columns; completing collocations as a cloze activity; and playing collocation crossword puzzles or bingo (Lewis, 1993; McCarthy & O'Dell, 1994; Nation, 1994; Redman & Ellis, 1990).

The purpose of fluency building activities is to recycle already known words in familiar grammatical and organizational patterns so that students can focus on recognizing or using words without hesitation. As Nation (1994: 208) points out, developing fluency "overlaps most of all with developing the skills of listening, speaking, reading, and writing" , so giving learners many opportunities to practice these skills is essential.

Fluency partly depends on developing sight vocabulary through extensive reading and studying high frequency vocabulary. Fluency exercises include timed and paced readings. In timed readings, learners may try to increase their speed by sliding a 3x5 card or a piece of paper down the page to increase their speed while attempting to comprehend about 80% of a passage. Also, learners need to be given practice in looking at groups of words rather than each individual word when reading.

Teachers can ask learners to practice timed reading on passages that have already been read. In paced readings the teacher determines the time and pushes the learners to read faster. One type of paced reading is the "reading sprint" in which learners read their pleasure reading book for 5 minutes and count the number of pages they have read. Then they try to read the same number of pages while the

time they have to read decreases from 5 minutes to 4 to 3 to 2 minutes for each sprint. Finally, they read for 5 minutes again at a relaxed pace and count the number of pages they have finished (Mikulecky & Jeffries, 1996).

2.4.3 Independent Strategy Development

In general, guessing from context is a complex and often difficult strategy to carry out successfully. To guess successfully from context learners need to know about 19 out of every 20 words (95%) of a text, which requires knowing the 3,000 most common words (Liu & Nation, 1985; Nation, 1990). However, even if one knows these words, Kelly (1990:203) concludes that "unless the context is very constrained, which is a relatively rare occurrence, or unless there is a relationship with a known word identifiable on the basis of form and supported by context, there is little chance of guessing the correct meaning". He also asserts that, because guessing from context fails to direct attention to word form and meaning, relatively little learning occurs.

Although this strategy often may not result in gaining a full understanding of word meaning and form, guessing from context may still contribute to vocabulary learning. What is learned and what is not learned will partly depend on text difficulty and the learners' level. In particular, more proficient learners using texts that are not overly difficult can be expected to use this strategy more effectively than low proficiency learners. It should be kept in mind that learning vocabulary also includes learning about collocations, associations, and related grammatical patterns as well as meaning. Therefore, when regularly practiced, this strategy may contribute to deeper word knowledge for advanced learners as long as they pay attention to the word and its context.

However, given the continuing debate about the effectiveness of guessing from context, teachers and learners should experiment with this strategy and compare it to dictionary training. Guessing from context is initially time consuming and is more likely to work for more proficient learners. A procedure for guessing from context begins with deciding whether the word is important enough (e.g., is part of an important idea and/or is repeated often) to warrant going through the following steps.

This decision is itself a skill that requires practice and experience. Teachers can assist learners by marking words which learners should try to infer before using other sources as well as by providing glosses (Hulstijn, Hollander, & Greidanus, 1996). Once learners decide that a word is worth guessing, they might follow a five-step procedure like that of Nation and Coady (1988- 104,105):

1. Determine the part of speech of the unknown word.
2. Look at the immediate context and simplify it if necessary.
3. Look at the wider context. (This entails examining the clause with the unknown word and its relationship to the surrounding clauses and sentences.)
4. Guess the meaning of the unknown word.
5. Check that the guess is correct.
- 6.

In step 5, the guess needs to be the same part of speech as the unknown word. Moreover, the learner should try to see if the unknown word can be analyzed into parts (unlock becomes un + lock) and to check if the meaning of the parts matches the meaning of the unknown word. Finally, the guess should be tried out in the context to see whether it makes sense, and a dictionary may be consulted to confirm the guess. In the case of a wrong or partially correct guess, it is important for learners to reanalyze how the "correct" answer is more appropriate in the context.

Liu and Nation (1985) suggest practicing this strategy as a class rather than as individual work, and Williams (1986) advises that it be demonstrated on an Over Head Projector or a chalkboard by circling the unknown word and drawing arrows from other words that give clues to its meaning.

Bilingual dictionaries have been found to result in vocabulary learning (Knight, 1994; Luppescu & Day, 1993). Hulstijn, Hollander, and Greidanus (1996) showed that, compared to incidental learning, repeated exposure to words combined with marginal glosses or bilingual dictionary use lead to increased learning for advanced learners. Luppescu and Day's (1993) study on Japanese students reports that

bilingual dictionaries did result in vocabulary learning unless the unfamiliar word had numerous entries, in which case the dictionaries may have confused learners.

Finally, a bilingual dictionary may be much more likely to help lower proficiency learners in reading comprehension because their lack of vocabulary can be a significant factor in their inability to read (Knight, 1994).

Bilingualized dictionaries may have some advantages over traditional bilingual or monolingual dictionaries. Bilingualized dictionaries essentially do the job of both a bilingual and a monolingual dictionary. Whereas bilingual dictionaries usually provide just an L1 synonym, bilingualized dictionaries include L2 definitions, L2 sentence examples, as well as L1 synonyms. Bilingualized dictionaries were found to result in better comprehension of new words than either bilingual or monolingual dictionaries (Laufer & Hader, 1997). A further advantage is that they can be used by all levels of learners: advanced students can concentrate on the English part of the entry, and beginners can use the translation.

Electronic dictionaries with multimedia annotations offer a further option for teachers and learners. Chun and Plass' (1996) study of American university students learning German found that unfamiliar words were most efficiently learned when both pictures and text were available for students. This was more effective than text alone or combining text and video, possibly because learners can control the length of time spent viewing the pictures. Hulstijn, Hollander, and Greidanus (1996) suggest that, as computerized entries are easier to use than traditional dictionaries, students will be more likely to use them.

Finally, training in the use of dictionaries is essential. Unfortunately, in most classrooms, very little time is provided for training in dictionary use (Graves, 1987; Summers, 1988). In addition to learning the symbols and what information a dictionary can and cannot offer, learners may need extra practice for words with many entries. Furthermore, learners need to be taught to use all the information in an entry before making conclusions about the meaning of a word (Laufer & Hader, 1997). The learners' attention should also be directed toward the value of good sentence examples which provide collocational, grammatical, and pragmatic

information about words. Finally, teachers should emphasize the importance of checking a word's original context carefully and comparing this to the entry chosen because context determines which sense of a word is being used.

As a conclusion, learning vocabulary through incidental, intentional, and independent approaches requires teachers to plan a wide variety of activities and exercises. The amount of emphasis that teachers and programs decide to place on any given activity will depend on the learners' level and the educational goals of the teacher and the program. In general, it makes most sense to emphasize the direct teaching of vocabulary for learners who still need to learn the first 3,000 most common words. As learners' vocabulary expands in size and depth, then extensive reading and independent strategies may be increasingly emphasized. Extensive reading and listening, translation, elaboration, and fluency activities, guessing from context, and using dictionaries all have a role to play in systematically developing the learners' vocabulary knowledge.

2.5 The Reflection of Multiple Intelligences on Vocabulary Teaching

The most traditional vehicle for vocabulary study is a text-in particular, a reading passage. The main reason for reading the text may not be to study the vocabulary in it, but at some point the teacher will inevitably have to deal with lexical problems (Celce-Murcia, 1992:304).

In increasing their vocabularies, students need to be trained to become independent learners as each of them has different types of intelligences. Teaching vocabulary through reading is only good for some intelligences types such as Verbal-linguistic intelligence, or intrapersonal intelligences. In order to solve this problem, MI theory or in other words selecting activity types according to the intelligence types of students should be applied to vocabulary teaching.

In the following paragraphs, some brief explanations of intelligence types and suggested vocabulary teaching activities for each of them will be given.

The ***Verbal-Linguistic Intelligence*** (word smart) is related to the use of language and words including anything associated to complex thought possibilities

such as reading, writing, abstract reasoning and symbolic speaking. The verbal-linguistic learner typically listens carefully and enjoys speaking in public, reading, spelling correctly, writing, has a good memory for names and dates, and has a strong vocabulary. This intelligence includes the ability to manipulate the syntax or structure of language and phonology or sounds of language.

The vocabulary activities for this type of learner can be described as listening and tape exercises (listen and find the missing word) , lectures , vocabulary activities (fill in the blanks activities or find the word from the description), word games, word memory devices, working with metaphors and similes, summarize in your own words, situations and dialogs, grammar skills, oral presentations/reports, group discussions, debates, story telling, reading—literature, newspapers and magazines, writing activities, journal writing, word-processing programs and on-line communication. Some games for vocabulary development are puzzles; Pictionary; Concentration; Memory; I Spy; Password; Scrabble. Examples of games that develop sentence structure and verb development are Battleship; Classroom Board Races; Gossip; Debate; Board Games—Monopoly; Guess Who?, etc.

The ***Logical-Mathematical Intelligence*** (logic smart) is related to scientific reasoning and thinking skills that are dominated by inductive reasoning techniques such as finding patterns, identifying abstract concepts, searching for relationships and connections, classifying, categorizing, sequencing and outlining. The logical-mathematical learner typically solves problems with logic, calculates math problems quickly, and prefers to see things categorized in a logical sense of order. This intelligence includes sensitivity to logical patterns and relationships, statements and propositions, functions, and other abstractions.

The vocabulary activities for this type of learner can be described as Word order activities; classifying and categorizing; sequencing information; prioritizing and making lists; outlining; word puzzles; grammar relationships and drills; number activities; logic games and activities; problem-solving activities; developing patterns and pattern games; creating functional situations; hypothesizing; critical thinking activities; gap activities; cause and effect activities; computer games; activities involving; develop equations to describe phenomena; utilize statistics to develop

arguments; examine demographic data deductive/inductive reasoning and cultural comparisons and contrasts using the new vocabulary.

The ***Visual-Spatial Intelligence*** (picture smart) is related to the ability to visualize an image or idea and to create mental pictures. Color plays an important role in this intelligence. The visual-spatial learner typically enjoys drawing, painting, sculpting, working jigsaw puzzles and mazes, using maps, and prefers videos and pictures to words. Most importantly, this intelligence involves sensitivity to color, line, shape, form, space, and the relationships between these elements.

The vocabulary activities for this type of learner can be described as Craft and art projects; draw/color or illustrate concepts/things/ideas; design a logo that communicates a concept; webbing and mind mapping; graphic organizers; creative visualization and response drawing; color clues; visual presentations (video, slide, photography); creating video/slide projects (computer); creating models, construct or build models; improve a product; graphs and diagrams; reading/creating maps and interpreting directions.

The ***Bodily-Kinesthetic Intelligence*** (body smart) relies on learning by doing—moving and manipulating objects, bodily movements, competitive and collaborative sports and movement games, drama and role-playing, inventing or building a model or design. The bodily-kinesthetic learner typically enjoys physical activity such as through drama, gesturing, dance, and hands-on learning activities. This intelligence includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed. Any activity that relies on TPR /TPRS strengthens the bodily-kinesthetic intelligence.

The vocabulary activities for this type of learner can be described as manipulatives and flashcards; aerobic alphabet; dance and sing a song ; using self to act out an event or thing; field trips; team construction projects; scavenger hunts; cooperative or competitive games like classroom board races and the fly swatter game.

The ***Musical-Rhythmic Intelligence*** (music smart) is related to a keen sensitivity to music, sounds, tonal patterns, or the human voice. The musical-rhythmic learner easily beats out rhythms, enjoys singing and playing musical instruments and frequently listens to music while studying. This intelligence includes sensitivity to rhythm, pitch, melody, or tone of a musical piece.

The vocabulary activities for this type of learner can be described as creating songs; creating rhythms to practice grammar and new words; writing lyrics to illustrate a concept; linking historical periods to music of the period; creating music for drama related activities; singing; linking familiar tunes with concepts; creating songs or jingles to summarize concepts or ideas; playing music in the classroom to stimulate appreciation; developing a score for a video or audio presentation.

The ***Interpersonal Intelligence*** (people smart) is related to person to person contact and relationships found in pairing, grouping, and cooperative team work. The interpersonal learner has the ability to verbally as well as non verbally interact with people or groups of people and takes leadership roles. This intelligence involves having the ability to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people.

The vocabulary activities for this type of learner can be described as paired word activities; board games; interactive software programs; surveys and polls; letter writing/pen pals; leadership development; collaborative activities such as team problem solving with the new words; jigsaw expert teams; group mind mapping and webbing; group brainstorming; peer teaching; group note taking exercises; developing an interview schedule with an individual to learn a specific concept; tape an interview with a significant mentor; simulations; peer teaching; and class or group writing projects.

The ***Intrapersonal Intelligence*** (self) refers to the understanding and acknowledgement of oneself—regarding feelings, emotions, thinking, self-reflection and metacognitive skills. The intrapersonal learner typically sets personal goals, prefers to work alone and has a clear sense of direction in life. This intelligence

includes having an accurate picture of one's strengths and limitations; awareness of inner moods, intentions, motivations and desires.

The vocabulary activities for this type of learner can be described as Independent vocabulary study and individual instruction (one on one activities); monitoring of own skills; developing a complete set of personal goals; developing a family history; mapping places using the new words in the environment where they feel comfortable, most creative and happiest; personalized authentic assessment; exploring personal interests; researching and online activities; as well as writing activities such as keeping a diary; journaling; learning logs; essays; and personal reflection.

The ***Naturalist Intelligence*** (environment smart) refers to the ability to recognize and classify plants—all variety of flora and fauna, rocks and minerals, and animals. This intelligence also focuses on the ability to recognize cultural artifacts like cars or sneakers and the environment around oneself. The naturalist learner is typically good at recognizing and classifying artifacts.

The vocabulary activities for this type of learner can be described as describing the nature using the vocabulary items; identifying and categorizing one's surroundings; hands-on learning; and obviously taking nature walks or field trips.

The following table is adapted from *Succeeding with Multiple Intelligences*, by the New City School Faculty (1996.). It describes how to identify and encourage the use of MI in schools, and summarizes the suggested activity types :

Table 1. Identifying and Encouraging the Use of Multiple Intelligences in Schools

Intelligence	Students who like to do these activities are often exhibiting their strongest intelligences	To help students develop a particular intelligence, teachers can

linguistic	write stories and essays; tell jokes, stories, puns; use an expanded vocabulary; play word games; use words to create images	encourage the use of outrageous words and palindromes; involve students in debates and making oral presentations; show how poetry can convey emotion
logical-mathematical	work with numbers, figure things out, analyze situations; see how things work; exhibit precision in problem solving; work in situations with clear answers	use Venn diagrams to compare and contrast; use graphs, tables, and time lines; have students demonstrate using concrete objects; ask students to show sequences
musical	listen to and play music; match feelings to music and rhythm; sing and hum; create and replicate tunes	rewrite song lyrics to teach a concept; encourage students to add music to plays; create musical mnemonics; teach history and geography through the music of the period and place
bodily-kinesthetic	play sports and be physically active; engage in risk taking with their bodies; dance, act, and mime; engage in crafts and play with mechanical objects	provide tactile and movement activities; offer role-playing and acting opportunities; allow students to move while working; use sewing, model making and other activities that require fine motor skills
Spatial/visual	doodle, paint or draw; create three-	draw maps and mazes; lead visualization activities; teach

	dimensional representations; look at and create maps and diagrams; take things apart and put them back together	mind mapping; provide opportunities to show understanding through drawing; have students design buildings, clothing, scenery to depict an event or period
naturalist	spend time outdoors; collect plants, rocks, animals; listen to outdoor sounds; notice relationships in nature; classify flora and fauna	use outdoors as a classroom; have plants and animals in the classroom for which students are responsible; conduct hands-on experiments; create a nature area on the playground
interpersonal	enjoy many friends; lead, share, mediate; build consensus; help others with their problems; be an effective team member	use cooperative learning; assign group projects; give students opportunities for peer teaching; brainstorm solutions; create situations in which students observe and give feedback to others
intrapersonal	reflect; control own feelings and moods; pursue personal interests and set individual agendas; learn through observing and listening; use metacognitive skills	allow students to work at their own pace; create quiet areas within the room or allow students to go outside to work alone; help students set and monitor personal goals; provide opportunities for students to give and receive feedback; involve students in writing journals

As a conclusion, there is no recipe for vocabulary teaching in Multiple Intelligences theory. Teachers can select the suggested activity types according to the intelligence types of their students. These suggested activities and lessons will be given in Chapter four.

CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter deals with the analysis of the data collected and the interpretation of the data results. The population and the sample of the study will be given in the first part. How the data is collected and to whom the inventory is given, validity and the reliability of the test will be mentioned in the second part. The last part is about the data analysis and the interpretation of the collected data for group A and B.

3.1 Subjects

3.1.1 The Population of the Study.

The population of the study consists of section 48 and 23, the second grade cadets of the army academy in Turkey, for the academic year 2002-2003. The total number of this population is 52. The cadets are between 20 and 21 years old.

It is assumed that cadets have the same opportunities for learning English. Their English syllabus and the number of periods Per week for English lesson are the same. They have the same teacher who holds an M.A. in English and diploma in TEFL.

3.1.2 The Sample of the Study

The sample of the study consisted of 52 second grade students learning English for Military purposes at the Army Academy. Two sections (classes) were randomly chosen. Twenty three cadets in section 23 were experimental group and 25 cadets in section 48 were control group.

As all the cadets live in the same dorm and shared the same conditions, it is assumed that the students in these two sections came from the same socio-economic environment.

The second grade was chosen, because, by that year the cadets have had sufficient experience and education to develop four skills in English. The second year is the time when they start to learn Military English.

3.2 Data Collection

The researcher has collected a standard IQ test and Multiple Intelligences test for the cadets (see Appendix A). The standard IQ test, which is written in Turkish, consists of 100 questions. The cadets are expected to answer the questions in 60 minutes. Multiple Intelligences test, which is written in English consists of 49 questions. These questions are ticked “ always true of me”, “ often true of me”, “ sometimes true of me”, and “ rarely or never true of me”. The cadets have to tick all the statements. (See Appendix B). Another questionnaire was given to the cadets to find out their needs in improving vocabulary knowledge to read effectively in the English language. This questionnaire consists of four sections, written both in English and Turkish. The cadets are expected either number one to the most important or fill in the blanks.

3.2.1 The Validity of the Test

Validity is the term which is related to the extent to which a test measures what is intended to measure. The researcher has tried to examine the face validity of the test by discussing the tests with her colleagues in the Army Academy. All teachers have seen the tests and all agreed that the tests are relevant for the cadets as they are all standard tests accepted in the world. Some of them wanted to have a MI test to find out what their intelligence types are.

3.2.2 The Reliability of the Tests

Reliability shows how consistent the scores of a certain test are. In other words, it shows how far they are from arbitrary fluctuations. A reliable test is a test which can measure consistently.

The researcher has followed the following procedures to maintain a reasonable reliability degree. First, the researcher has studied thoroughly the intelligence theories identified by Alfred Binet and Theodore Simon, and MI theory by Howard Gardner. Second, the researcher has analyzed eight intelligences types and standard IQ test. First, IQ test was given to both sections in October 2002 to assure they have similar IQ levels. After the evaluation of IQ test, a standard MI test was given to both groups.

3.3. Procedure

The researcher herself has analyzed the test results of the cadets. In the first term, after getting the IQ and MI results, the lessons were taught in the same way to both control and experiment group. In doing so, it was believed that the final exam results would be the similar as they have the similar IQ levels and

teaching strategy. The experiment group's success rate was 55.32, and the control group's was 54.71 after the first final exam. In the second term, the experiment group, section 23, was given different MI exercises according to their intelligences types. Exercise types were chosen for the linguistic, mathematical and visual learners as the number of such learners were higher than the other types. In the second term, after the final exam, success rate of experiment group was 66.7 and the control group's rate was 58.7.

3.4 Data Analysis and Interpretation for Group A and Group B.

Data gathered from the cadets has been analyzed by using statistical methods. First, a standard IQ test consisting of 50 questions were given to 52 cadets of two different sections (25 from section 48, 27 from section 23) randomly selected in the Army Academy and the inventories given to the second year cadets of both groups were analyzed.

This was done by counting the correct answers of the questions one by one for each cadet. Secondly, the results of IQ levels were shown in lists. Then, the researcher has given a MI test of 49 questions to both groups. Thirdly, the results of MI test were analyzed one by one for each cadet and were shown in graphs and lists. Finally, the results of the first and the second term final scores were interpreted separately.

TABLE 2 summarizes the IQ scores and MI types of Experiment Group.

Table 2. The Experiment Group's IQ Scores and MI Types.

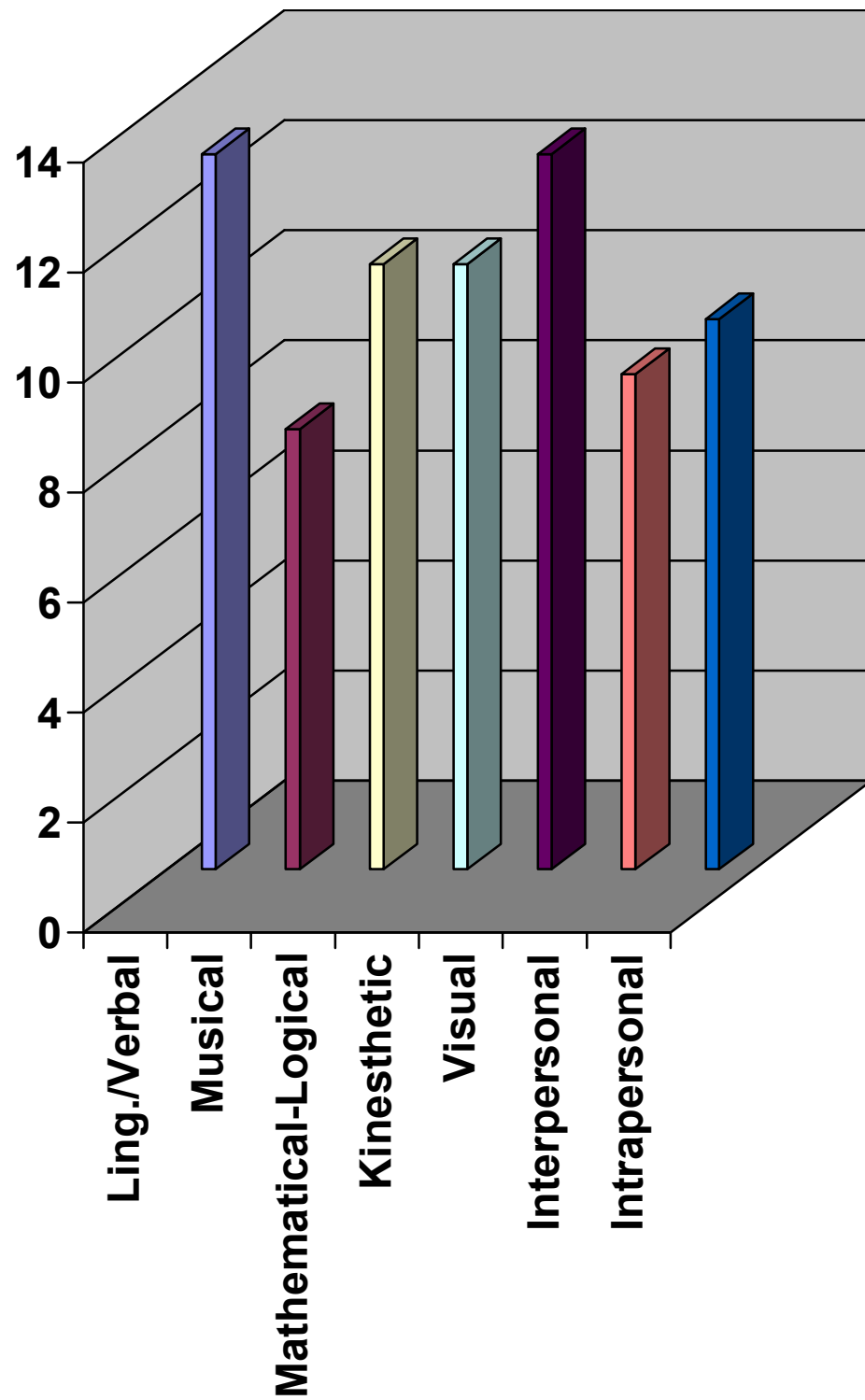
S.NO	SNF	TB	BL	KS	APLT	ADI	SOYADI	IQ	MI
1	2	1	6	23	5100	GÖKHAN	KUM	125	Ling./Intrapersonal
2	2	1	6	23	5101	HALIM	DAL	122	Math/Interpersonal
3	2	1	6	23	5102	MURAT	AVSAR	134	Mus. /Kinesthetic
4	2	1	6	23	5103	ERHAN	KORAL	122	Kinesthetic/Intraper
5	2	1	6	23	5104	AYDIN	DÜZGÜN	130	Visual /Kinesthetic
6	2	1	6	23	5105	MUSTAFA	SANDALLIK		Math./Interpersonal
7	2	1	6	23	5106	R. EVREN	AKKOR	129	
8	2	1	6	23	5107	SERDAR	TAS	125	Musical/kinesthetic
9	2	1	6	23	5108	C. CELIL	KARAMAN	122	Visual/Linguistic
10	2	1	6	23	5110	EMIR	HELIÇ	122	Math/Interpersonal
11	2	1	6	23	5111	AKIN	SAHIN	129	Visual/Linguistic
12	2	1	6	23	5112	HAKAN	ÖRDEK	129	Intrapersonal/Ling.
13	2	1	6	23	5113	MEHMET	SAYBAK	119	Visual/Kinesthetic
14	2	1	6	23	5114	METIN	YILDIRIM	113	Math/Visual
15	2	1	6	23	5115	TOLGA	BALKAN	129	Visual/Musical
16	2	1	6	23	5116	EMRAH	IBIS		Intrapersonal/Visual
17	2	1	6	23	5117	FATİH	UÇAR	127	Math/Interpersonal
18	2	1	6	23	5118	SÜLEYMAN	TÜRKYILMAZ	111	Kinesthetic/Musical
19	2	1	6	23	5119	CAN	KÜÇÜKMURAT		Math/Intrapersonal
20	2	1	6	23	5120	BURHAN	ÇOLAK	131	Math/Visual
21	2	1	6	23	5121	ABDULKADIR	KOÇYIGIT	122	Kinesthetic/Math.
22	2	1	6	23	5122	SERDAR	TEKİN	126	Visual/Musical
23	2	1	6	23	5123	CANER	ÇAKIR	122	Math./ Linguistic
24	2	1	6	23	5130	MEHMET	UYSAL	125	Visual/Intrapersonal
25	2	1	6	23	5131	HACI	GÜNESLİ	121	Visual/Interpersonal
26	2	1	2	07A	6073	İNANÇ	MARIM	131	Math./Visual
27	2	1	2	07A	6074	ÇAĞLAR	ÇERÇİNLİ	131	

Table 3 summarizes the IQ scores and MI types of Control Group.

Table 3 The Control Group's IQ scores and MI types

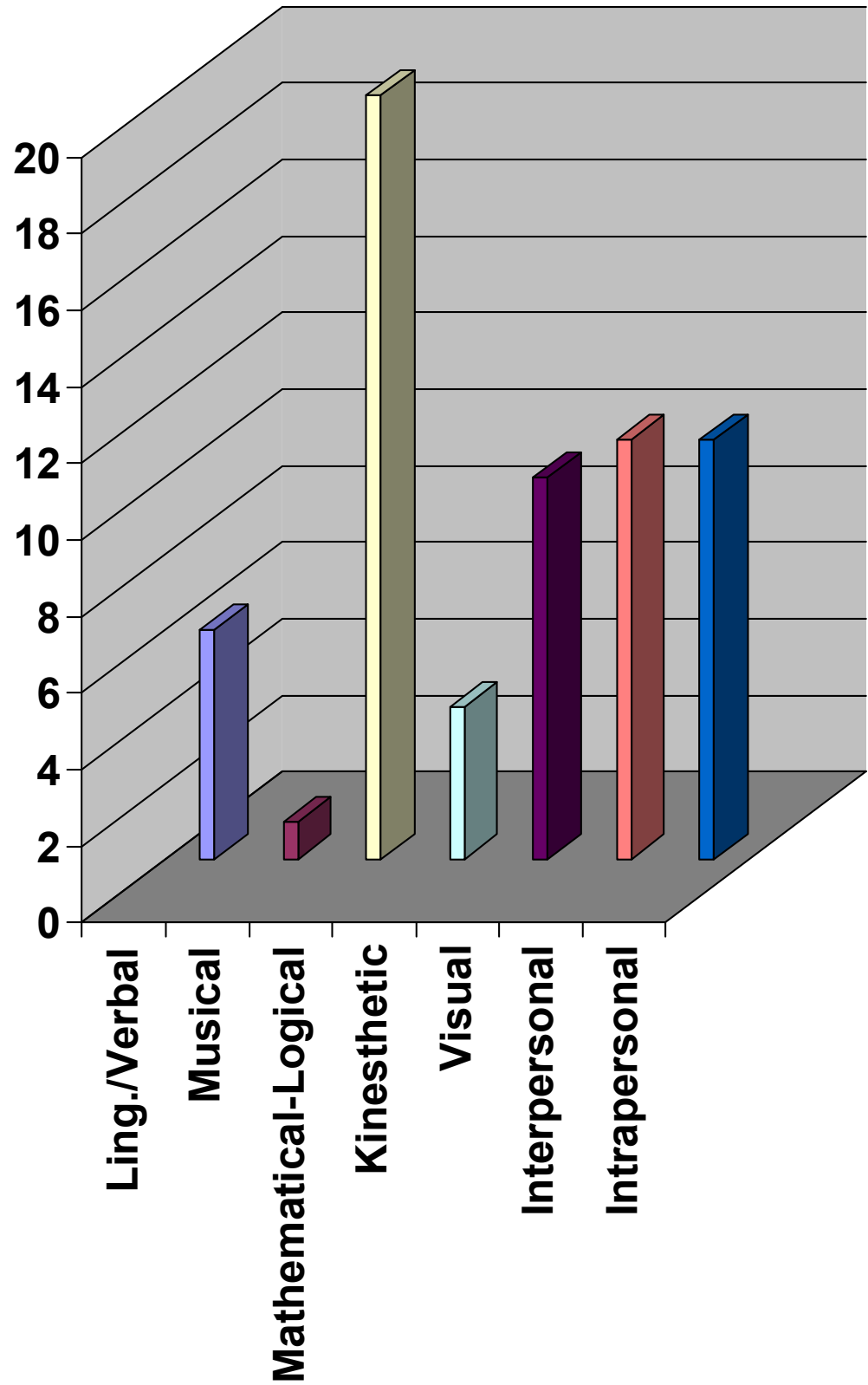
S.NO	SNF	TB	BL	KS	APLT	ADI	SOYADI	IQ	MI
1	2	2	12	48	5351	HÜSEYİN	ÖZDIKER	121	Math./Intraper
2	2	2	12	48	5353	MESUT	AKSOY	123	Math./Intraper
3	2	2	12	48	5354	FIKRI	DILSİZ	125	Math./Interper
4	2	2	12	48	5355	HALIS	DOĞAN	127	Interp./Intrap
5	2	2	12	48	5356	İ. EMRAH	KESER	127	Visual/Math.
6	2	2	12	48	5357	HİLAL	ALTUNTAG	126	Visual/Math.
7	2	2	12	48	5358	M.AKİF	ASLAN	133	Visual/Math.
8	2	2	12	48	5359	DİNÇER	DİNÇ	131	Music./Intrap
9	2	2	12	48	5360	HAKAN	YAY	122	Math./kinest.
10	2	2	12	48	5362	GÖKHAN	GÜNEY	123	Math./Interp.
11	2	2	12	48	5364	ONUR	ARI	126	Visual/Math.
12	2	2	12	48	5365	FATİH	BOYRAZ	126	Visual/Math.
13	2	2	12	48	5366	SAYGIN	GENÇAY	129	Math./Interp.
14	2	2	12	48	5367	EGEMEN	AY	117	Math./Visual
15	2	2	12	48	5368	MEHMET	BATURAY	121	Visual/Interp.
16	2	2	12	48	5369	SERKAN	GÖKBERBER		Math./Kines.
17	2	2	12	48	5370	COSKUN	ERMEHAN		Intrap./Math
18	2	2	12	48	5371	ERGIN	ÜNSALAN	129	Kines./Intrap.
19	2	2	12	48	5372	NEVZAT	DURMAZ	129	Math./Visual
20	2	2	12	48	5374	MUSTAFA	CEYLAN	124	Intrap./Math
21	2	2	12	48	5375	NECDET	BASAĞÇIOĞLU	130	Math/Visual
22	2	2	12	48	5376	HALİL	KARALTI	129	Math/Linguis.
23	2	2	12	48	5377	SAHİN	AKKAYA	122	Math./Intrap.
24	2	2	12	48	5378	YÜKSEL	TURGUT	119	Visual/Interp.
25	2	2	12	48	5383	HÜSEYİN	ÇİNGİ	126	Ling./Math.

TABLE 4 Experiment Group's Multiple Intelligences Graph.



The first graph is about the Multiple Intelligences types of experiment group. As it can be clearly seen in the graph, the first (Linguistic-Verbal), and the fifth (Visual-Spatial) intelligences are the two leading figures. Musical and Interpersonal Intelligences figures are the lowest ones. As the students' verbal-linguistic intelligences are the leading one, it can be stated that the cadets could do better in English, history, social sciences when it is compared with math and science. However, in this section there is a slight difference between their mathematical (11) and verbal (13) intelligences. So, they are successful in mathematics as well as English. In their speech, the cadets include references to things that they have read or heard before. They have a good vocabulary and they can express their ideas or feelings on paper very well. The graph about kinesthetic intelligence of experiment group shows that the same number of cadets have kinesthetic and Logical- mathematical intelligence type (11) which shows that the cadets mostly use many gestures or body language when talking with someone as they are young and full of energy. The fifth graph is about visual intelligence and the experiment group has this type of intelligence as one of the leading ones. This intelligence type reveals that cadets like movies, and other visual aids and presentations. The cadets like colorful materials. By looking at the graph about Musical intelligence, it can be stated that only some of the cadets (8) have this intelligence type. These 8 cadets like listening to music while reading or learning something new. The graph about interpersonal intelligence makes it clear that cadets like to exchange ideas and learn something new from their friends. For the experiment group, there is no big gap between interpersonal (9) and intrapersonal (10) intelligences. Most of them feel comfortable when they are alone. And they like to read and study alone as well as working with a colleague. It can be stated that despite the two leading ones, there is a homogenous distribution of intelligences types in Experiment Group.

TABLE 5 Control Group's Multiple Intelligences Graph.



The second graph is about the Multiple Intelligences types of control group. As it can be clearly seen in the graph, the third (Logical-Mathematical 20), the fifth (Visual-Spatial-14) and the sixth (interpersonal-14) intelligences are the three leading figures. Musical and kinesthetic Intelligences figures are the lowest ones. As the students' Logical-Mathematical intelligences are the leading one, it can be stated that the cadets believe that everything has an explanation. The cadets ask questions about how things happen and they want to see cause-effect relationship. So, they are successful in mathematics as well as English. In their speech, the cadets include references to things that they have seen or heard before. They can express their ideas or feelings on paper very well in a well organized cause- effect style. The graph about kinesthetic intelligence of experiment group shows that a few number of cadets (4) have kinesthetic intelligence type which shows that these cadets mostly use many gestures or body language when talking with someone. The fifth graph is about visual intelligence and the experiment group has this type of intelligence as one of the leading ones. This intelligence type reveals that cadets like movies, and other visual aids and presentations. The cadets like colorful materials. By looking at the graph about Musical intelligence, it can be stated that almost no cadet (1) has this intelligence type. This cadet likes listening to music while reading or learning something new. The graph about interpersonal intelligence makes it clear that cadets like to exchange ideas and learn something new from their friends. They like to study with their friends. For the control group, there is no big gap between intelligences except musical and kinesthetic ones. Most of them feel comfortable when they are alone or with their friends. And they like to read and study alone as well as working with a colleague. It can be stated that despite the two intelligences (kinesthetic and musical) there is a homogenous distribution of intelligences types in control group.

When the two graphs are compared, it can be stated that Visual- Spatial intelligences and Verbal- Linguistic intelligences are almost the same in the control and experiment group. The experiment group is not good at mathematics as much as control group. Although the cadets in control group state that they like listening to music, only one of them has musical intelligence while the experiment group has 8.

In the questionnaire, which was prepared to find out the needs of cadets in improving vocabulary knowledge to improve their reading in English Language, the following results were gathered:

Most of the cadets' ages were between 19-20 and they started learning English 5 or 6 years ago. 30 of them considered themselves as an intermediate level, 20 of them thought that they have upper intermediate level and 10 of them found themselves as advanced learners.

In the questionnaire, the cadets were asked why they want to learn English, and almost all of them chose the first item, which was to understand lectures in their special field of study in English. The second reason to learn English was to take KPDS examinations or write reports. The third reason was to have a chance to be sent abroad. The fourth reason was to read related literature in their discipline. To know people from other backgrounds or cultures and to communicate with foreigners who do not speak Turkish were among the last reasons.

The cadets were asked which language skills they consider necessary. 35 of the cadets found speaking as the most important one. 12 of them found reading and 10 of them found listening while three of them considered writing important.

In the questionnaire, most of the cadets found the meaning of technical or military vocabulary difficult. Some of the cadets found the content of reading materials difficult in general. 5 of the cadets thought that sentence structure and other grammatical forms are difficult.

The cadets were asked whether they have difficulty in reading and understanding English materials in their course book or not, and almost all of them found them difficult to read and understand textbooks. When the reasons were asked, they chose the statements as “ We are not taught specific vocabulary related to the military subject”, “ We are not taught vocabulary very well”, “ We are not trained to read effectively to recognize main ideas”, etc... The cadets also found it difficult to apply word formation techniques to get the meaning of unknown words and knowing special vocabulary items which are unique to the subject of the course. They found military texts difficult as they have too many unknown military words and the complex structure of the sentences.

When the cadets were asked which strategy they use to get the meaning of unknown vocabulary, they stated that they try to find contextual clues in the text, use word formation techniques, dictionary, word memorization, synonyms, antonyms, prefixes and suffixes, and finally ask their friends.

Table 6 2002-2003 First Final Exam Results of the Second Class Cadets

SECTION	GRADE	SUCCESS %
3	53.45	28.00
7	50.98	29.63
11	54.41	45.83
15	52.90	39.29
19	53.64	50.00
23	55.32	65.52
28	57.00	57.14
32	57.02	38.71
36	56.06	43.33
40	55.98	30.00
44	56.51	43.75
48	54.71	25.00
53	53.17	32.14
57	53.95	40.63
61	54.65	35.48
65	54.08	31.25
69	54.05	46.67
73	54.19	33.33
78	53.99	40.74
82	52.86	20.00
86	52.60	23.33
90	53.68	25.00
94	54.50	51.85
98	55.22	60.00
19A	55.15	44.00
7A	53.55	47.83
82A	54.74	30.00

Table 7 2003-2004 Second Final Exam Results of the Second Class Cadets

SECTION	GRADE	SUCCESS %
3	55.45	45.00
7	60.18	53.67
11	56.41	52.83
15	58.90	50.29
19	51.64	48.00
23	66.70	66.52
28	55.00	58.14
32	61.02	52.71
36	56.08	53.23
40	57.68	51.15
44	64.51	56.75
48	58.70	55.25
53	55.17	57.14
57	51.66	47.83
61	58.55	54.64
65	60.08	59.25
69	59.05	60.67
73	56.19	43.53
78	58.99	53.58
82	57.68	35.45
86	54.80	45.33
90	62.68	56.89
94	59.60	61.58
98	63.23	60.00
19A	52.15	48.00
7A	59.55	57.38
82A	61.74	54.15

After the first and second final exam, the results, which are stated above in table 6 and 7 were gathered from control and experiment group. There was a slight difference between the results of the first final exam among two groups. In the second term, after the final exam, the Experiment Group was far more successful than the Control Group.

CHAPTER 4

VOCABULARY ACTIVITIES AND A SUGGESTED SAMPLE UNIT PLAN RELATED TO RECEPTIVE SKILLS IN

MI

4.0 Introduction

In this chapter, varied activities applied to Linguistic-Verbal Intelligence, Visual-Spatial intelligence, Kinesthetic intelligence, and intrapersonal intelligences types are presented. In the experiment group, as it is stated in the previous chapter, the cadets' intelligences types focused on these four intelligences. Therefore, the researcher chose these dominant intelligences types and prepared activities to promote their reading skills through vocabulary teaching. Before starting to explain the MI activities prepared for the experiment group, it would be advisable to give the reading passage- D-Day here.

D-Day

- (1) Four things gave the Allies the notion that they could successfully assault this all-but-impregnable position. First, Allied intelligence said that the fortifications and trenches were manned by the 716th Infantry Division, a low quality unit made up of Poles and Russians with poor morale. At Omaha, intelligence reckoned that there was only one battalion of about 800 troops to man the defences.
- (2) Second, the B-17s assigned to the air bombardment would hit the beach with everything they had, destroying or at least neutralizing the bunkers and creating craters on the beach and bluff that would be usable as foxholes for the infantry. Third, the naval bombardment, culminating with LCT (R)s' rockets, would finish off anything left alive and moving after the B-17s finished. The infantry from the 29th and 1st divisions going into Omaha were told that their problems would begin when they got to the top of the bluff and started to move inland toward their D-Day objectives

- (3) The fourth cause for confidence that the job would be done was that 40,000 men with 3,500 motorized vehicles were scheduled to land at Omaha on D-Day.
- (4) In the event, none of the above worked. The intelligence was wrong; instead of the contemptible 716th Division, the quite-capable 252nd Division was in place. Instead of one German battalion to cover the beach, there were three. The cloud over and late arrival caused by the B-17s to delay their release until they were as much as five kilometers inland; not a single bomb fell on the beach or bluff. The naval bombardment was too brief and generally inaccurate, and in any case it concentrated on the big fortifications above the bluff. Finally, most of the rockets fell short, most of them landing in the surf, killing thousands of fish but no Germans.
- (5) Captain Walker, on an LCI, recalled that just before H-Hour, “ I took a look forward the shore and my heart took a dive. I couldn’t believe how peaceful, how untouched, and how tranquil the scene was. The terrain was green. All buildings and houses were intact. The church steeples were proudly and defiantly standing in place. “ Where,” I yelled to no one in particular, “ is the damned Air Corps?”
- (6) F Company, 116th, supposed to come in at Dog Red, landed near its target, astride the boundary between Dog Red and Easy Green. But G Company, supposed to be to the right of F at Dog White, drifted far left, so the two companies came in together, directly opposite the heavy fortifications at Les Moulins. There was a kilometer or so gap to each side of the intermixed companies, which allowed the German defenders to concentrate their fire.
- (7) For the men of F and G Companies, the 200 meters or more journey from the Higgins boats to the shingle was the longest and most hazardous trip they had ever experienced, or ever would. The Lieutenant commanding the assault team on Sgt. Harry Bare’s boat was killed as the trump went down. “ As ranking noncom,” Bare related, “ I tried to get my men off the boat and make it somehow to get under the seawall.

We waded to the sand and threw ourselves down and the men were frozen, unable to move. My radioman had his head blown off three yards from me. The beach was covered with bodies, men with no legs, no arms- God it was awful.”

(8) When Bare finally made it to the seawall, dodging and duckling behind beach obstacles to get there, “ I tried to get them organized. There were only six out of my boat alive. I was soaking wet, shivering, but trying like hell to keep control. I could feel the cold fingers of fear grip me.”

(9) On the boat coming in, Pvt. John Robertson of F Company was throwing up over the side. His sergeant yelled at him to get his head down. Robertson replied, “ I’m dying of seasickness, it won’t make much difference..”

(10) The coxwain hit a sandbar and shouted that he was unloading and getting the hell out of there. The ramp went down and “ our guys started jumping out in water up to their necks.” Robertson was toward the rear of the boat. He saw his leader Lieutenant Hilscher, get killed by an exploding shell. Then the flame-thower got blown up. Robertson jumped out. Despite his sixty pounds of ammunition and other equipment, he managed to struggle his way inland, to where the water was about a foot deep. “I just lay there wondering what I was going to do.

(11) “It wasn’t long when I made a quick decision. Behind me, coming at me, was a Sherman tank with pontoons wrapped around it. I had two choices; get run over by the tank or run through the machine-gun fire and shelling. How I made it, I’ll never know. But I got to the shingle and tried to survive..”

(12) When Sgt. Warner Hamlett of F Company made it to the shore, he found that the weight of wet clothes, sand, and equipment made it difficult to run. He could hear men shouting, “Get off the beach!” and realized “ our only chance was to get off as quickly as possible, because there we were sitting ducks.” He stumbled forward and saw a hole and jumped in. He landed on top of Pvt. O.T.Grimes.

(13) A shell exploded within ten meters of Hamlett and blew his rifle from his hands while sending his helmet flying off his head. Crawling on his elbows

and knees, he retrieved his rifle and helmet, then waited to regain his strength “and to see if my legs would support my weight.” They did. By short leaps and advances, using obstacles for protection, he worked his way toward the shingle. While he was resting behind an obstacle, Private Gillingham, a young soldier, fell beside me, white with fear. He seemed to be begging for help with his eyes. “I said, “Gillingham, let’s stay separated, “ cause the Germans will fire at two quicker than they will at one” He remained silent as I jumped and ran forward again.”

(14) A shell burst between them. “It took Gillingham’s chin off, including the bone, except for a small piece of flesh. He tried to hold his chin in place as he ran toward the shingle. He made it and Bill Hawkes and I gave him his morphine shot. We stayed with him for approximately thirty minutes until he died. The entire time he remained conscious and aware that he was dying.”

(15) From the beach, to the GI’s, that shingle looked like the most desirable place in the world to be at that moment. But when they reached it, they found concertina wire covering it, no way to get across without blowing the wire, nothing on the other side but more death and misery. And although they were now protected from machine-gun and rifle fire coming down from the German trenches on the bluff, they were exposed to mortar fire. The few who made it had no organization, little or no leadership (Lieutenant Wise of F Company, one of the few officers to make it to the wall, was trying to force a gap in the concertina when he was hit by a bullet in the forehead and killed), only a handful weapons. They could but huddle and hope for follow-up waves to bring in Bangalore torpedoes to blow the wire.

4.1 Verbal- Linguistic Intelligence Activities Related to Multiple Intelligences

As Champbell and Dickson stated (1999), Verbal- Linguistic intelligence is deeply rooted in our feelings of competence and self-confidence. Teachers can provide strong models by playing with words sharing their favorite works, engaging in discussions with enthusiasm, providing field trips to local theatrical productions, and telling stories. Storytelling is an entertaining and powerful form of linguistic communication, and teaches students about the rhythm, pitch, and nuances of language. The following activities are given to promote the existing verbal-linguistic level of cadets in the experiment group. In other words, the purpose of these exercises here is to promote their military vocabulary knowledge to understand military texts better.

Activity 1

Level: Upper Intermediate/Advanced

Skills involved: Listening

Army Academy's native speaker made a speech about D-Day. The researcher asked her students to identify the speaker's purpose, main points, and central themes.

Activity 2

Level: Upper Intermediate /Advanced

Skills involved: Reading, writing

The researcher asked the cadets to read the article "D-Day", try to guess the meanings of the unknown words and solve the puzzle given below:

Right to left:

1. Almost impossible to capture- to walk unsteadily
3. Standard unit of money in JAPAN.
4. with one leg on each side of something – a hole in the ground that soldiers use to fire
6. A big mouse

7. try to know
 8. to walk through water that is not deep- the last part of something-to shake because of being cold or frightened
 10. a kind of wire-to keep something covered with liquid

Top down

1. not broken, damaged or spoiled
 5. to find something and bring it back
 6. to move quickly in order to avoid being shot by someone
 7. a frequency adverb- a group of soldiers working as a whole.
 8. past form of lead
 9. a very steep cliff
 10. Abbreviation of Lieutenant
 13. a cox
 15 to shout
 17. shelter for soldiers
 19. boats that are fastened together to support a floating bridge.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	I	M	P ₇	R	E	G	N	A	B ₁₀	L	E		S	T	U	M ₆	B	L	E
2	N			E			E		L	T ₄							U		
3	T			T			V		U				C ₁		Y	E	N		P
4	A	S	T	R	I ₉	D	E		F	O	X	H	O	L	E		K		O
5	C			I		O ₂	R		F				X		L ₁₁		E ₁₂		N
6	T			E		D		L					W		L		R	A	T
7				V		G	U	E	S	S			A						O
8	W	A	D	E		E	N ₃	D			S	H	I	V	E ₅	R			O
9							I						N						N
10	C	O	N	C	E	R	T ₈	I	N	A				S	O	A	K		

C O N T E M P T I B L E is the key word.

To support the puzzle activity, report and letter writing assignments were given to the cadets assuming that they were the soldiers of allied forces or F Company.

Activity 3

Level: Upper Intermediate /Advanced

Skills involved: Speaking

The researcher asked her cadets to talk about the film “Saving Private Ryne”, which they had watched before and find the similarities between the film and the text. Then, assuming that they are the soldiers of F or G Company, they talked about their experiences in D-Day. ,

Activity 4

Level: Intermediate / Upper intermediate

Skills involved: Reading, writing, speaking

A list of scrambled words are written on the blackboard, The students are challenged to unscramble the words. The first team to unscramble the whole list and use them in a meaningful sentence wins. The scrambled words are familiar to the students as they have read them in the text. For example:

ONTICCERAN	TRDESAI	LESTBUM	LEFXOOH
(concertina)	(astride)	(stumble)	(foxhole)

4.2 Visual Intelligence Activities Related to Multiple Intelligences

Before starting the lesson, the researcher displayed the first 20 minutes of the film “Saving Private Ryne”. The first part of the film was about landing at Omaha beach. The film explained the terrible situation of the American soldiers who landed the beach on the very first day.

Activity 1

Level: Upper Intermediate /Advanced

Skills involved: Reading, writing, speaking

The cadets are given an empty map. The researcher asks them to read the text and put signs on the map for the locations of the Companies and the allied forces. Then find the attack route of the allied and enemy forces. Finally, the cadets compared and contrasted their maps and signs with their friends.

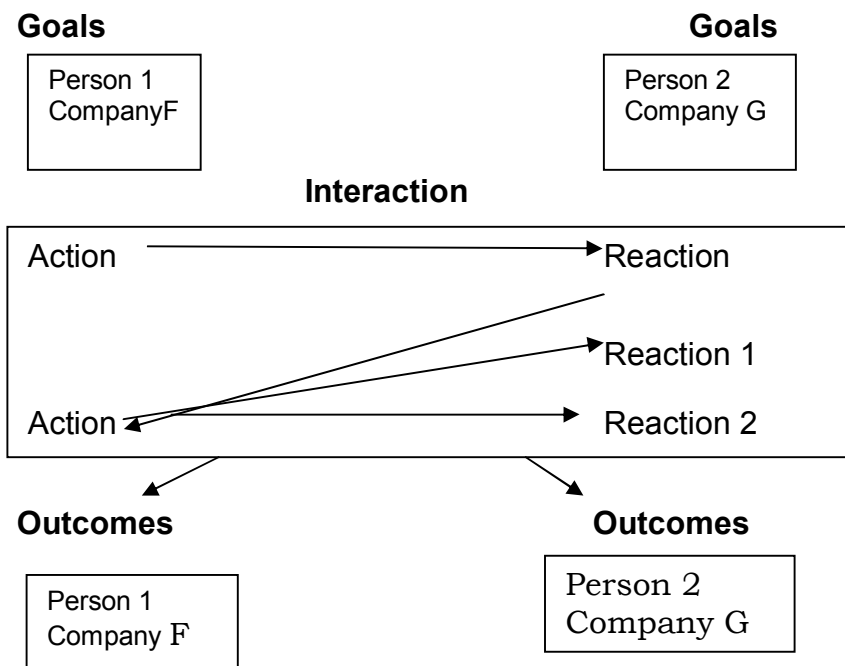
MAP AND DRAWINGS

Activity 2

Level: Upper Intermediate /Advanced

Skills involved: Reading, writing

Visually talented students enjoy visual charts, concept mapping, mindmapping and create symbols or images to illustrate their concepts. Depending on this information, the researcher asked her students to read the passage “D-Day” once and fill in the frame.



(adapted from Campbell & Dickinson 1999:105)

4.3 Kinesthetic Intelligence Activities Related to Multiple Intelligences

. As Champell and Dickinson stated (1999), both kinesthetic and tactile individuals learn through “doing” and through multi-sensory experiences. This type of intelligence includes the ability to unite body and mind to perfect physical performance. Unfortunately, learning becomes increasingly internalized and less externalized as students move into higher grade levels. Since there are fewer opportunities for active, participatory learning, many students become less motivated when taught through passive and abstract learning processes. So, at this moment, Multi-media technology and some computer simulations enable students to experience events seldom encountered in everyday life. Multi-media

technology includes actual physical activity as information is gathered from databanks, books and photographs.

Activity 1

Level: Upper Intermediate /Advanced

Skills involved: **Reading, writing, speaking, Listening**

The cadets are asked to read the passage “D-Day” carefully and prepare some flash cards as Dog Red, Dog White, B-17 (Plane), F and G companies, etc.. , place them in their right places in the sand pool- an actual sand pool where the military attacks are discussed and displayed-when necessary. Then, the cadets are asked to perform a formal theatre or role play dividing themselves into groups as if they were at the Omaha beach.

Activity 2

Level: Intermediate , Upper Intermediate

Skills involved: Reading, writing, speaking, Listening

Divide the whole class into two groups, Ask each group to prepare some cards on which the sentences including new vocabulary items are written. Then, ask them to cut the sentences into two halves, and give each member of the other group a different card and ask them to read their cards to their classmates rather than show them. When the members of the first team have found the correct missing part, or their partners, ask them to write their sentences on the board and let other group check the sentences.

Activity 3

Level: Upper Intermediate/ Advance

Skills involved: Reading, writing, Listening, speaking

In the simulation room, the researcher asks her students to find database for the operation “D-Day”. The cadets get the necessary information from data bank, listen to the necessary information given by the master (computer) and set the

scene, talk to each other when necessary and play the game according to the information given by the master.

4.4 Intrapersonal Intelligence Activities Related to Multiple Intelligences

Intrapersonal intelligence includes our thoughts and feelings. Such learners like every type of activity requiring individual work and independent study. Because working alone gives them self-confidence. As Champell and Dickinson (1999) stated, individual student learning or personal growth plans, developed collaboratively by student and teacher, encourage the development of intrapersonal intelligence. They can be facilitated through computer programs that make possible on-going modifications or revisions as well as recording of accomplishments in the form of electronic or multimedia portfolios of student work. Intelligent tutoring systems are very different from earlier models of computer-assisted learning in that they offer students choices in how to learn in any topic, keep track of the students' preferred ways of learning, and eventually offer information in forms that make it possible for students to learn through their strengths as well as to exercise and improve less well-developed skills. Depending on the information given above, the researcher asked her students to go to computer room and find "D-Day" passage in the web page then do the following activities and send them to her mail box :

Activity 1

Level: Upper Intermediate /Advanced

Skills involved: Reading, writing,

Supposing that you are Sgt. Warner Hamlett of F Company, write a journal entry on D-Day.

Activity 2

Level: Upper Intermediate /Advanced

Skills involved: writing,

Supposing that you are Bill Hawkes, write a letter to your friend and describe how you feel about D-Day. Then, send your letter to your instructor 's mailbox

Activity 3

Level: Upper Intermediate /Advanced

Skills involved: speaking

Supposing that you are Bill Hawkes, describe how you feel about D-Day.

4.5 A Suggested Sample Unit Plan Related to Receptive Skills in MI

A unit –D-Day (pp.1-3) is chosen from a military textbook, Selected Texts in English Class II, to implement the theory of Multiple Intelligences in English Language Teaching. Then, the activities mentioned above are applied in the classroom. A suggested lesson plan adapted from Campbell & Dickinson (1996) is given below:

LESSON/UNIT PLANNING WITH THE MULTIPLE INTELLIGENCES

LESSON/ UNIT TITLE:

LESSON/UNIT OBJECTIVE(S) :

ANTICIPATED LEARNER OUTCOME(S):

CLASSROOM RESOURCES OR MATERIALS:

LEARNING ACTIVITIES:

LINGUISTIC	MATHEMATICAL-LOGICAL
VISUAL-SPATIAL	BODILY-KINESTHETIC
MUSICAL	INTERPERSONAL
INTRAPERSONAL	NATURALIST

LESSON/UNIT SEQUENCE:.....

.....

ASSESSMENT PROCEDURES :.....

.....

SAMPLE ONE: LESSON/UNIT PLANNING WITH THE MULTIPLE INTELLIGENCES

LESSON/ UNIT TITLE: D-Day

LESSON/UNIT OBJECTIVE(S) : For students to learn the process of war through four modes.

ANTICIPATED LEARNER OUTCOME(S): Students will be able to explain the military words and process of a military attack verbally-linguistically, visually, kinesthetically, intrapersonally.

CLASSROOM RESOURCES OR MATERIALS: The film called “Saving Private Rhyne” , charts, flags, multimedia and simulations rooms, textbook, sand pool.

LEARNING ACTIVITIES:

VERBAL-LINGUISTIC: Read textbook section describing landing at Omaha Beach and appropriate vocabulary.	VISUAL-SPATIAL Watch the first 20 minutes of the film “Saving Private Ryne” which describes the D-Day.
KINESTHETIC: Prepare colourful flags of the allied and the enemy forces then role play the “characters” involved in the attack and place flags in the sand pool.	INTRAPERSONAL: Assuming that you take part in the attack, write a letter using new military vocabulary items that reflect your experiences.

LESSON/UNIT SEQUENCE: 1. Verbal-Linguistic activity, 2. Visual-Spatial activity, 3. Kinesthetic activity, 4. Intrapersonal activity.

ASSESSMENT PROCEDURES: 1. Assess flow charts 2. Ask students to evaluate one another’s role plays.

As a conclusion, in this chapter, some MI activities are applied to cadets’ dominant intelligences types- Linguistic-Verbal Intelligence, Visual-Spatial Intelligence, Kinesthetic Intelligence, and Intrapersonal Intelligences. These activities are prepared to promote their reading and listening skills through vocabulary teaching. A suggested unit plan is given in the end of the chapter. Only four dominant intelligences types of the cadets are mentioned in the plan.

CHAPTER 5

CONCLUSION

The purpose of this study was to investigate the effectiveness of Multiple Intelligences Theory and the traditional vocabulary teaching methods in teaching vocabulary to improve receptive skills- reading and listening- in the second class cadets of the Military Academy. The hypothesis of this study was that the students taught vocabulary through MI theory would score significantly higher in the final tests than those students taught the same texts by the traditional vocabulary teaching methods.

Gardner put forward the theory of Multiple Intelligences. According to this theory, every person has at least eight different intelligences in varying degrees. These intelligences are verbal-linguistic intelligence, logical-mathematical intelligence, bodily-kinesthetic intelligence, visual-spatial intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence.

Multiple Intelligences theory claims that all these eight intelligences are needed to function productively in the society, in the real life. For this reason, as teachers, we should think of all intelligences as equally important. Traditional education systems places a strong emphasis on the Verbal-Linguistic intelligences and Logical-Mathematical intelligences. Therefore, there is a big contrast between these two educational systems. The theory of MI claims that all students may not be verbally or mathematically gifted but they can be talented in music, spatial relations, or interpersonal knowledge. Therefore, the teachers should understand and teach to a broader range of skills. In short, the theory provides a theoretical knowledge to understand different abilities and talents of students.

As all the students have different talents and abilities, the teachers should recognize these differences in their classrooms. The teachers should identify the activities which they use in their lessons and select them according to the intelligence types of their students. When the teacher knows how students learn, this

will allow her to properly assess the students' progress. Multiple Intelligences test of the students will allow teacher to make more informed decisions on what to teach and how to give information.

Taking into account that the importance of the multiple intelligences theory, a case study has been carried out in the Army Academy in order to find out the multiple intelligences types of the second class cadets. The purpose of this study was to prove that vocabulary teaching methods through MI theory would be more successful than traditional vocabulary teaching methods to improve receptive skills. Therefore, an inventory has been used.

The researcher has decided to arrange intelligences tests (IQ, Multiple Intelligences Tests) in order to form two homogenous groups. The standard IQ test, written in Turkish, consisted of 50 questions. The cadets were supposed to answer the questions in 30 minutes. Multiple Intelligences test, which is written in Turkish consisted of 49 questions. These questions are ticked by "always true of me", "often true of me", "sometimes true of me", and "rarely or never true of me". The cadets ticked all the statements. The researcher has given another questionnaire to the cadets to find out their needs in improving vocabulary knowledge to read effectively in the English language. This questionnaire consists of four sections, written both in English and Turkish. The cadets are expected either number one to the most important or fill in the blanks.

In the questionnaire, the cadets were asked why they want to learn English, and almost all of them chose the first item- understanding lectures in their special field of study in English. The second reason to learn English was to take KPDS examinations or write reports. The third reason was to have a chance to be sent abroad. The fourth reason was to read related literature in their discipline. To know people from other backgrounds or cultures and to communicate with foreigners who do not speak Turkish were among the last reasons.

The cadets were asked which language skills they consider necessary. 35 of the cadets found speaking as the most important one. 12 of them found reading and 10 of them found listening while three of them considered writing important.

In the questionnaire, most of the cadets found the meaning of technical or military vocabulary difficult. Some of the cadets found the content of reading materials difficult in general. 5 of the cadets thought that sentence structure and other grammatical forms are difficult.

The cadets were asked whether they have difficulty in reading and understanding English materials in their course book or not, and almost all of them found them difficult to read and understand textbooks. When the reasons were asked, they chose the statements as “ We are not taught specific vocabulary related to the military subject”, “ We are not taught vocabulary very well”, “ We are not trained to read effectively to recognize main ideas”, etc... The cadets also found it difficult to apply word formation techniques to get the meaning of unknown words and knowing special vocabulary items which are unique to the subject of the course. As the military texts have too many unknown military words and the complex structure of the sentences, the cadets found them difficult.

The researcher asked the cadets which strategy they use to get the meaning of unknown vocabulary. They stated that they try to find contextual clues in the text, use word formation techniques, dictionary, word memorization, synonyms, antonyms, prefixes and suffixes, and finally ask their friends

Data which is gathered from the cadets has been analyzed by using statistical methods. First, a standard IQ test consisting of 50 questions were given to 52 cadets of two different sections (classes) (25 from section 48, 27 from section 23) randomly selected in the Army Academy and the inventories given to the second year cadets of both groups were analyzed. This was done by counting the correct answers of the questions one by one for each cadet. Secondly, the results of IQ levels were shown in lists. Then, the researcher has given a MI test of 49 questions to both groups. Thirdly, the results of MI test were analyzed one by one for each cadet and were shown in graphs and lists. Finally, the results of the first and the second term final scores were interpreted separately.

The researcher has analyzed the test results of the cadets. After getting the IQ and MI results, the lessons were taught in the same way to both control and experiment group in the first term. In doing so, the researcher believed that the final exam results would be the similar as they have the similar IQ levels and teaching strategy. After the first final exam, the experiment group's success rate was 55.32, and the control group's was 54.71.

In the second term, the researcher started to develop material, prepare lesson plan and decide teaching steps for the students in the experiment group consisting of 22 cadets who attend the second class. This period is preferred as the ESL students who attend the second classes first experienced military terminology in the second year. A unit called "D_Day" is chosen from "Military Text- Advanced" to present how to make use of the suggested activities in the classroom. The experiment group, section 23, was given different MI exercises according to their intelligences types. Exercise types were chosen for the linguistic, mathematical and visual learners as the number of such learners were higher than the other types. In the second term, after the final exam, success rate of experiment group was 66.7 and the control group's rate was 58. As the Academy Administration didn't give permission for the exhibition of pre-tests, post-tests and final exam questions, the researcher couldn't attach them in Appendix section.

The applications made in the 2003-2004 academic year lasted for four months, and the success rate between two groups were observed. The results of the research have proved that in vocabulary teaching to develop receptive skills, MI (Multiple Intelligences) method is far more successful than the traditional methods. As a result, in order to develop receptive skills, teaching vocabulary through Multiple Intelligences method would be advisable in choosing course books and materials.

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APPENDICES

APPENDIX A

IQ TEST

SÖZEL TEST A

İlk olarak, başlangıç saatini not edin. 50 soruyu yarım saat içinde tamamlamalısınız.

SA= Sözel Test A

Karşılaştırmalar 1

Her karşılaştırmada dört terim yer almaktadır. Birinci terim ile ikinci terim arasındaki ilişki, üçüncü terim ile dördüncü terim arasında da bulunmaktadır. Parantez içindeki dört sözcükten ikisinin altını çizerek karşılaştırmaları tamamlayın.

Örnek: yüksek ile alçak arasındaki ilişki (gökyüzü, yeryüzü, ağaç, bitki) arasında vardır.

SA 1. oturan ile sandalye arasındaki ilişki (çay bardağı, çay tabağı, tabak, bacak) arasında vardır.

SA 2. İğne ile iplik arasındaki ilişki (pamuk, dikmek, lider, takipçi) arasında vardır.

SA 3. İyi ile beter arasındaki ilişki (sevinç, seçim, kötü, keder) arasında vardır.

SA 4. Zemin ile destek arasındaki ilişki (pencere, cam, manzara, tuğla) arasında vardır.

SA 5. Peçe ile perde arasındaki ilişki (gözler, görme, pencere, işitme) arasında vardır.

Benzerlikler

Her satırda birbirine en yakın anlamı taşıyan iki sözcüğün altını çizin.

Örnek: kilim, marley, zemin, halı (kilim ile halı birbirine yakın anlam taşımaktadırlar.

SA 6 üzgün, süzgün, sinirli, hüzünlü

SA 7 sefa, sefalet, keyif, sefaret

SA 8 mümin, seçkin, güzide, seçmece

SA 9 öykü, roman, cilt, hikaye
SA 10. Ses, yankı, seda, feda

Anlama

Aşağıdaki tamamlanmamış metni okuyun. Boş bırakılan yerler, aşağıdaki sözcük listesinden yararlanılarak doldurulabilir. Her boşluğa, o boşluk için en uygun sözcüğün şikkını yazın. Hiç bir sözcük bir kereden fazla kullanılmamalıdır. Bazı sözcüklere hiç ihtiyaç olmayacaktır.

SA 11-20. Başarılı bir yazar () devam etse de, etmese de. () ününün () tehlikesiyle karşı karşıyadır. () eski bir çalışmasına () olduğu gibi (), () bir ürünle () bellekli kitlelere yeniden hatırlatmazsa, () ilgisini ve geçmişte sunduğu hizmetin () kaybetmesi kaçınılmaz olur.

(A) hiçbir, (B) ününü, (C) azalması, (Ç) halkın, (D) hatırasını, (E) eşit derecede, (F) yeni, (G) eğer, (h) zayıf, (I) gerçekdışı, (İ) borçlu, (N) eski, (O) karşı.

Farklı Anlamlılar

Aşağıdaki sözcük gruplarında, anlamları diğer sözcüklerin anlamlarından farklı olan iki sözcüğün altını çizin.

Örnek: martı, güvercin, kürek, bel, kartal

SA 21 köpekbalığı, yunus, istavrit, balina, kefal

SA 22. Çuha, kağıt, pamuk, kumaş, demir

SA 23. Kılıç, ok, hançer, mermi, sopa

SA 24 esmer, kısa, ürkek, zeki, şişman

SA 25 koku, korku, ses, sıcaklık, aşk

Bağlantılar

Parantez içinde boş bırakılan yerlere, bir anlamı soldaki sözcükle, başka bir anlamı da sağdaki sözcükle aynı sözcüğü yazın. Parantez içinde boş bırakılmış yer sayısı, eksik harf sayısına eşittir.

Örnek: yürek (K a l P) sahte

SA 26 azarlamak (Ç - - - - - K)

SA 27 kafa (B – Ş) temel

SA 28 girişken (A - - K) saldırı

SA 29 ince (Z - - - F) yetersiz

SA 30 sinirli (K - - - - N) sıcak

Karşıt anlamlılar

Aşağıdaki satırlarda birbirine karşıt anlamlı iki sözcüğün altınıçizin.

Örnek: ağır, iri, hafif

- SA 31 hakaret, inkar, destek, yalan, Kabul
- SA 32 gizem, saklamak, hazine, görmek, göstermek
- SA 33 boşboğaz, alçak gönüllü, basit, kolay, ketum
- SA 34 bozmak, sevindirmek, eğlenmek, düzeltmek, hoşlanmak
- SA 35 öncelik, ilkel, birincil, ilke, uygar

Ara terimler

Aşağıdaki her satırda, alttaki üç terim, üstteki üç terime karşılık gelir. Alt satırda eksik bırakılmış üç terimi bulun.

Örnek: birinci (ikinci) üçüncü : bir (iki) üç.

- SA 36 geçmiş (şimdi) gelecek : geldi: (G - - - - -) gelecek
- SA 37 tam (eksik) boş : daima (B - - - -) asla
- SA 38 bolluk (kıtlık)açlık : çok (Y - - - - -) hiç
- SA 39 koşmak (yürümek) durmak: anlık (G - - - - -) kalıcı
- SA 40 toy (ergin) bunak : ham (O - - - -) çürük.

Benzer ya da karşıt anlamlılar

Aşağıdaki her satırda hemen hemen eş ya da karşıt anlamlı olan iki sözcüğü bulup altınıçizin.

Örnekler: 1. kilim, marley, halı
2. nefret, sevgi, etkileme

- SA 41 değişken, hareketli, soğukkanlı, suskun, durgun
- SA 42 itiraz etmek, caydırmak, karşı çıkmak, ertelemek, karşılamak
- SA 43 direnç, çözüm, karar, itaat, düşünce
- SA 44 gerçek, gerekçe, zaten, benzer, nitekim
- SA 45 topografya, tepe, plaka, plato, çukur

Karşılaştırmalar II

Parantez içine, son harfini gördüğünüz sözcüğü yazarak karşılaştırmayı tamamlayınız.

Örnek: Yüksek ile alçak arasındaki ilişki, gökyüzü ile (Y e r y ü z Ü)
Arasında vardır.

SA 46 Kibirli ile alçak gönüllü arasındaki ilişki, cömert ile (C - - - İ) arasında vardır.

SA 47 Cesur ile korkusuz arasındaki ilişki, gözüpek ile (- - - İT) arasında vardır.

SA 48 Satmak ile almak arasındaki ilişki, gelir ile (- - - - R) arasında vardır.

SA 49 Nadir ile yaygın arasındaki ilişki, çekingen ile (- - - - - - N) arasında vardır.

SA 50 Kafatası ile beyin arasındaki ilişki, kabuk ile (- - - - Ş) arasında vardır.

SÖZEL TEST A BİTMİŞTİR. DİĞER SAYFADAKİ SAYISAL TESTE

GEÇEBİLİRSİNİZ.



SAYISAL TEST A

İlk olarak, başlangıç ~~saatini~~ not alın.
50 soruyu yarım saat içinde tamamlamalısınız.

SYA = Sayısal Test A

Denklemler

Aşağıdaki denklemlerin her birinde eksik bırakılmış bir sayı var. Bu sayıyı bularak, parantez içindeki boş bırakılmış yere yazın.

Örnek: $2 \times 12 = 6 \times (...)$

SYA 1 $8 \times 7 = 14 \times (...)$

SYA 2 $12 + 8 - 21 = 16 + (...)$

SYA 3 $0.0625 \times 8 = 0.025 \div (...)$

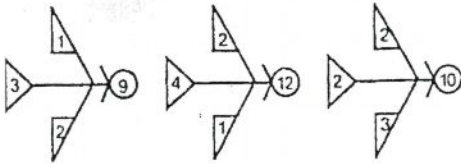
SYA 4 $0.021 \div 0.25 = 0.6 \times 0.7 \times (...)$

SYA 5 $256 \div 64 = 512 \times (...)$

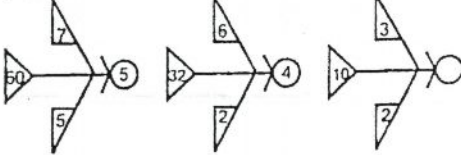
Hedefler

Aşağıdaki her ok kümesinde, okun hedef sayısını, kuyruktaki ve kanatlardaki sayıları kullanarak elde edebilmek için bir kural uygulanmıştır. Örnekteki kurala göre, hedef sayısına ulaşabilmek için kanattaki sayılar toplanmalı ve kuyruktaki sayıyla çarpılmalıdır. Boş bırakılmış hedef dairesine yanıtınızı yazın.

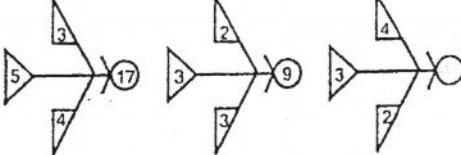
Örnek:



SYA 6



SYA 7



Sayı dizileri I

Aşağıdaki satırlardaki sayılar, birer sayı dizisi oluşturmaktadır. Her satırın sonundaki parantezlerin içine, dizinin sonuna gelmesi gereken sayıyı yazın.

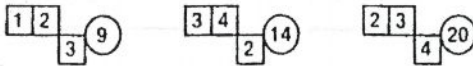
Örnek: 1, 2, 4, (...)

SYA 8 3, 6, 12, 24, (...)
 SYA 9 81, 54, 36, 24, (...)
 SYA 10 2, 3, 5, 9, 17, (...)
 SYA 11 7, 13, 19, 25, (...)
 SYA 12 9, 16, 25, 36, (...)

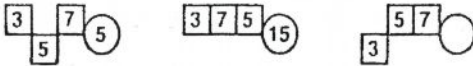
Çift satırlar

Aşağıdaki sayı kümelerinde, dairelerin içindeki sayılara ulaşabilmek için bazı kurallar uygulanmıştır. Bir sayıya hangi kuralın uygulanacağı, o sayının üst satırda ya da alt satırda yer almasına göre belirlenir. Örnekteki sayı kümesinde, dairenin içindeki yanıtı ulaşabilmek için üst satırdaki sayılar toplanmış ve alt satırdaki sayıyla çarpılmıştır. Boş bırakılmış her dairenin içine doğru yanıtı yazın.

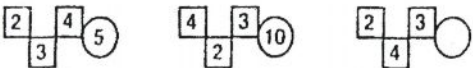
Örnek



SYA 13



SYA 14



Ara terimler

Aşağıdaki satırlarda, soldaki üç sayı arasındaki bağıntı, sağdaki üç sayı arasında da bulunmalıdır. Sağ tarafta eksik bırakılmış ara sayıyı bulun.

Örnek: 2 (6) 3 :: 3 (12) 4

SYA 15 7 (12) 5 :: 8 (...) 3

SYA 16 3 (6) 2 :: 3 (...) 3

SYA 17 36 (14) 64 :: 16 (...) 144

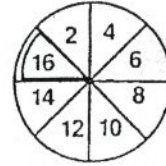
SYA 18 294 (147) 588 :: 504 (...) 168

SYA 19 132 (808) 272 :: 215 (...) 113

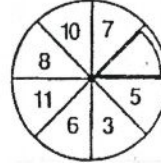
Dilimler I

Aşağıdaki dairelerin dilimlerine çift çift karşılıklı ya da yan yana diziler halinde sayılar yerleştirilmiştir. Boş dilime eksik bırakılmış sayıyı yazın.

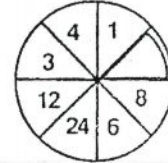
Örnek:



SYA 20



SYA 21



Sayı dizileri II

Aşağıdaki sayı dizilerinde parantez içindeki boş bırakılmış yere gelmesi gereken sayıyı yazın.

SYA 22 53, 47, (...), 35

SYA 23 33, 26, (...), 12

SYA 24 243, 216, (...), 162

SYA 25 65, 33, (...), 9

SYA 26 3, 4, 6, (...), 18

Sihirli Kareler I

Aşağıdaki karelerde, sayılar soldan sağa ve yukarıdan aşağıya belli bir aritmetik kurala göre sıralanmaktadır. Boş kareye gelmesi gereken sayıyı bulunuz.

Örnek:

1	2	3
3	4	5
5	6	7

SYA 27

6	7	13
2	5	7
8	12	

SYA 28

6	2	12
4	5	20
24	10	

Sihirli Kareler II

Boş karelere gelmesi gereken sayıları bulunuz.

SYA 34

1	2	2
2	3	6
2	6	

SYA 35

4	2	2
2	2	1
2	1	

Kareler ve Üçgenler

Aşağıdaki sayı kümelerinde, üçgenlerdeki sayıları elde edebilmek için karelerdeki sayılara belli bir işlem dizisi uygulanmıştır. Aynı satırdaki her parça için aynı işlemler geçerlidir. Ancak, satırdan satıra işlemler farklılık göstermektedir. Örnekte, üçgende sayıya ulaşabilmek için, ilk iki karedeki sayıların toplandığını ve bu toplamdan üçüncü karedeki sayının çıkarıldığını görüyoruz. Her satırdaki boş üçgene eksik bırakılmış sayıyı yerleştirin.

Örnek :

2	2	1	3
---	---	---	---

5	4	1	8
---	---	---	---

1	1	1	1
---	---	---	---

SYA 29

1	2	3	0
---	---	---	---

2	3	4	1
---	---	---	---

4	3	2	
---	---	---	--

SYA 30

2	3	1	5
---	---	---	---

4	3	2	10
---	---	---	----

1	2	1	
---	---	---	--

SYA 31

2	4	3	5
---	---	---	---

1	2	3	4
---	---	---	---

3	4	2	
---	---	---	--

SYA 32

2	3	4	10
---	---	---	----

3	4	2	14
---	---	---	----

1	2	3	
---	---	---	--

SYA 33

6	8	4	12
---	---	---	----

4	3	2	6
---	---	---	---

5	6	10	
---	---	----	--

Kurallar ve Şekiller

Aşağıdaki şekiller, bize o şeklin içindeki sayıya hangi matematik kuralını uygulayacağımızı göstermektedir. Her sayı kümesinde, açıkta bırakılmış sayıyı elde edebilmek için şekillerin içindeki sayılardan yararlanılmıştır. Her satırda eksik bırakılmış sayıyı bulun.

Örnek :

2	3	4	1
---	---	---	---

5	3	6	2
---	---	---	---

10	7	3
----	---	---

SYA 36

1	3	2
---	---	---

3	5	2
---	---	---

1	4
---	---

SYA 37

6	3	3
---	---	---

7	3	4
---	---	---

5	3
---	---

SYA 38

2	6	3
---	---	---

3	15	5
---	----	---

4	3
---	---

SYA 39

60	5	12
----	---	----

20	5	4
----	---	---

5	5
---	---

SYA 40

8	4	2	6
---	---	---	---

3	7	8	4
---	---	---	---

7	6	5
---	---	---

SYA 41

6	4	8	3
---	---	---	---

2	9	3	6
---	---	---	---

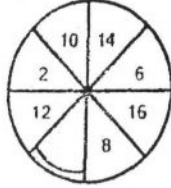
4	3	2
---	---	---

KENDİ KENDİNİZE UYGULA

Dilimler II

Boş dilime eksik bırakılmış sayıyı yazın.

SYA 42



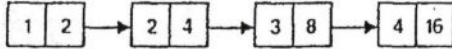
SYA 43



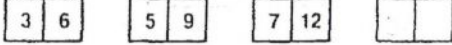
Domino Taşları

Aşağıdaki satırlarda sayılar birer sayı dizisi oluşturmaktadır. En sağda boş bırakılmış domino taşına, sayı dizisinin sonuna gelmesi gereken iki sayıyı yazın. Örnekte, domino taşlarının sol karelerindeki sayılar birer birer artmaktadır. Sağ karelerdeki sayılar ise ikiyle çarpılmaktadır.

Örnek:



SYA 44



SYA 45



SYA 46



SYA 47



SYA 48



SYA 49 Eğer $42 = A \times (A+1)$ ise, A eşittir (....)

SYA 50 Eğer $162 \times 98 = B \times B$ ise, B eşittir (....)

ŞEKİSEL TEST A

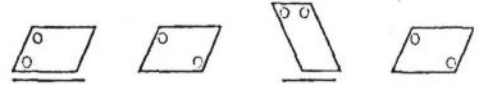
İlk olarak, başlangıç saatini not alın. 50 soruyu yarım saat içinde tamamlamalısınız. Başlamaya hazır olduğunuz zaman, açıklamaları okuyun ve soruları olabildiğince çabuk yanıtlamaya çalışın.

ŞA = Şekilsel Test A

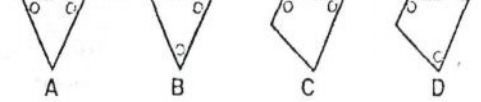
Döndürmece

Aşağıdaki her satırda biri döndürüldüğü zaman aynı olan iki şekil vardır. Bu iki şeklin altını çiziniz.

Örnek:



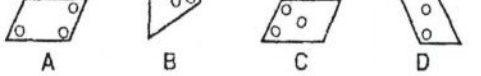
ŞA 1



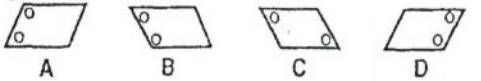
ŞA 2



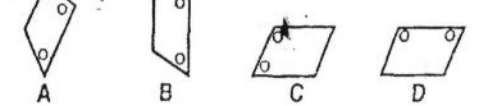
ŞA 3



ŞA 4



ŞA 5



SAYISAL TEST A BİTMİŞTİR.

Yansıtmaca

Aşağıdaki satırda iki şekil birbirinin aynı yansımasıdır. Bu çiftin altını çiziniz.

Örnek:



ŞA 6



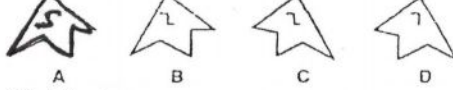
ŞA 7



ŞA 8



ŞA 9



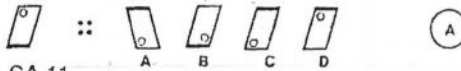
ŞA 10



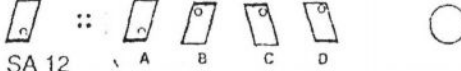
Baş aşağı

Bu kümedeki tüm şekillerin, bir kenarında kalın, siyah bir çizgi ve bir köşesinde bir nokta olan saydam levhalar olduğunu düşünün. Sağdaki şekillerden bir tanesi, soldaki şeklin baş aşağı çevrilmiş halini göstermektedir. Boş daireye bu şeklin şikkini yazınız.

Örnek:



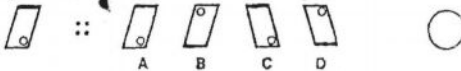
ŞA 11



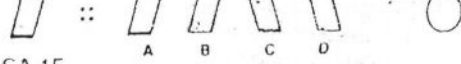
ŞA 12



ŞA 13



ŞA 14



ŞA 15



Döndürmece II

Aşağıdaki her satırda biri döndürüldüğü zaman aynı olan iki şekil vardır. Bu iki şeklin altını çiziniz.

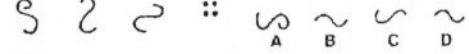
Örnek:



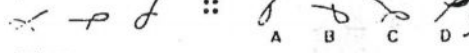
ŞA 16



ŞA 17



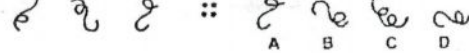
ŞA 18



ŞA 19

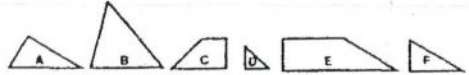


ŞA 20



Yerleştirmece

Aşağıdaki şekiller, bir alt satırdaki siyah şekilleri oluşturmak için kullanılmaktadır. Şekiller ters çevrilebilir. Her siyah şeklin altındaki parantezin içine, bu siyah şekli oluşturmak için kullanılan şekil ya da şekillerin harflerini yazın.



ŞA 22



ŞA 23



ŞA 24



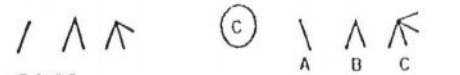
ŞA 25



Şekil dizisi

Soldaki şekiller bir dizi oluşturmaktadır. Sağdaki şekillerin hangisi bu diziyi devam ettirmektedir? Doğru şeklin şikkini dairenin içine yazın.

Örnek:



ŞA 26



ŞA 27



ŞA 28



ŞA 29



ŞA 30



Blok yığınları

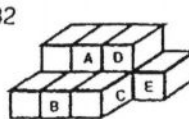
Aşağıdaki şemalarda, aynı boy ve şekilde blok yığınları görülmektedir. Eğer herhangi bir blok desteksiz duruyorsa, bu durum şemada açıkça gösterilmiştir. Bazı bloklar harflendirilmiştir. Her harfli bloğa temas eden blok sayısını bularak, bu sayıyı sağdaki tabloda o harfin karşısına yazın. Blokların yüzleri birbirlerine tam olarak temas etmelidir. Örnekte, A ve B bloklarının her birine üç bloğun temas ettiği görülmektedir.

ŞA 31



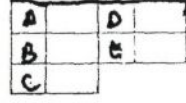
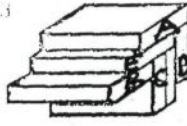
A	3	D	
B	3	E	
C			

ŞA 32

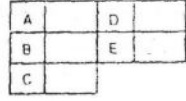
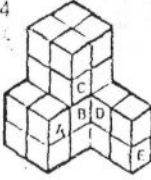


A		D	
B		E	
C			

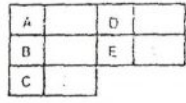
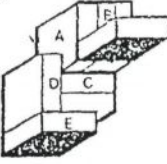
ŞA 33



ŞA 34



ŞA 35



Canlandırma

Aşağıdaki küplerin bazı yüzlerine çeşitli desenler çizilmiştir. Her bir desen küpün ancak tek bir yüzünde bulunabilir. Her küpün iki yüzü boş bırakılmıştır. Aşağıdaki satırlardaki bazı çizimler aynı küpün döndürülmüş halini göstermektedir. Eğer bir küp bir diğerinin aynı olabiliyorsa, aynı küp olduklarını varsayın. Her satırın sonundaki boş dairenin içine, o satırda en az kaç farklı küp bulunduğunu yazın. Örnekte, ikinci ve üçüncü çizimler aynı küpün döndürülmüş halini göstermektedir.

Örnek:



ŞA 36



ŞA 37



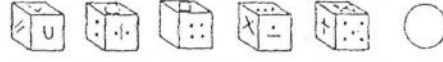
ŞA 38



ŞA 39



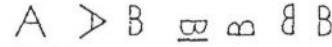
ŞA 40



Karşılaştırmalar

Aşağıdaki her satırda, birinci ve ikinci şekil arasındaki ilişki, üçüncü ve dördüncü şekil arasında da bulunmaktadır. Sağ taraftaki şekiller arasından, dördüncü olması gereken şeklin altını çiziniz.

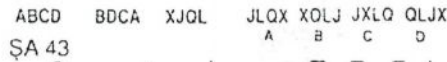
Örnek:



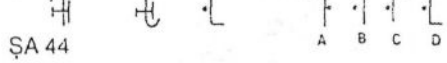
ŞA 41



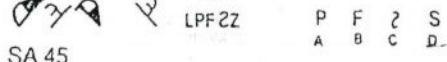
ŞA 42



ŞA 43



ŞA 44



ŞA 45



ŞA 46



ŞA 47



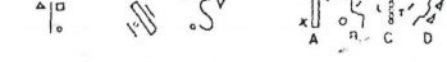
ŞA 48



ŞA 49



ŞA 50



MULTIPLE INTELLIGENCES CHECKLIST FOR ADULTS

	ALWAYS TRUE OF ME (4)	OFTEN TRUE OF ME (3)	SOMETIMES TRUE OF ME (2)	RARELY OR NEVER TRUE OF ME (1)
1. I feel confident about taking risks where controlling how my body moves is important				
2. I write well in that I can find the right words to communicate what I want to say or to create images				
3. I can tell when a musical note is off-key				
4. I prefer to be and work with others more than be myself.				
5. I enjoy using verbal humor, making witty remarks, puns, play-on-words, etc...				
6. I have no trouble reading maps				
7. I can easily do practical mathematical operations in my head.				
8. I like to find the logicalflows in the things other people say or do				
9. I like to go to concerts and musicals				
10. I enjoy playing a musical instrument.				
11. I know a lot about myself in terms of the ways I learn and perform best.				
12. I am a good dancer				
13. I often notice small visual details that others miss.				
14. I try to find the time to be alone and reflect about important life questions				
15. I can confidently visualise what something will look like before I start making or doing it. (renovations, interior design, furniture, patterns)				
16. I have a fairly good sense of direction and navigation and I rarely get lost.				
17. I regularly engage in at least one sport or physical activity.				
18. I have attended personal growth seminars or read books or articles on self-awareness.				
19. I am very sensitive to other people's feelings.				
20. Maths and science were (are) among my favorite subjects at school.				
21. I can easily master most new sporting skills or exercises				
22. I can identify what I want, work out what I have to do to achieve it and then do it				
23. I would describe myself as well-coordinated				

24. I really enjoy doing different kinds of word puzzles and games.				
25. I regularly engage in at least one art or craft activity such as painting, drawing, sculpting.				
26. My conversation is peppered with frequent references to things I have read				
27. I enjoy doing logic and maths puzzles and brain teasers				
28. I like to play strategy games, such as chess and Mastermind.				
29. I tend to sing, hum or whistle a lot during the day.				
30. I like working with my hands at some concrete activity like sewing, weaving, carpentry, or model building.				
31. People have commented that I have a pleasant singing voice				
32. When I am with other people, I tend to be an organizer.				
33. I am an avid reader in both my personal, educational, and professional life whenever I have the time.				
34. I enjoy using grammatically correct sentences and complex vocabulary				
35. I can successfully adjust my behavior so that I get along well with a wide variety of people.				
36. I can recognize familiar songs even if they are differently orchestrated or without words.				
37. I am good at logical thinking of the kind used in debates.				
38. I think a lot about myself and why I am the way I am.				
39. I can work out what other people are like and what motives are behind their behavior.				
40. I can accurately evaluate my own abilities and my strengths and weaknesses.				
41. When faced with an awkward parking spot, I feel confident I can parallel park successfully.				
42. I enjoy the challenge of teaching someone else what I know how to do.				
43. People often come to me for personal advice				
44. English, Social Science and history were (are) easier for me at school more than maths or Science.				

45. I feel more comfortable when something has been measured, categorised, analysed, or quantified.				
46. I like to spend my free time outdoors				
47. I often see clear visual images when I close my eyes.				
48. I have music on all the time I am by myself.				
49. I like to write down and record how I am feeling or things that have happened to me.				

Mc Grath, H. & Noble, T (1999)

IQ TESTİ CEVAP ANAHTARI

SÖZEL

1. çay bardağı, çay tabağı
2. lider, takipçi
3. sevinç, keder
4. pencere, tuğla
5. gözler, pencere

BENZERLİKLER

6. üzgün, hüznü
7. sefa, keyif
8. seçkin, güzide
9. öykü, hikaye
10. ses, seda

ANLAMA

11. J
12. E
13. C
14. G
15. İ
16. B
17. F
18. H
19. Ç
20. D

FARKLI ANLAMLAR

21. yunus, balina
22. çuha, kumaş
23. ok, mermi
24. ürkek, zeki
25. korku, aşk

BAĞLANTILAR

26. ÇIKIŞMAK
27. BAŞ
28. ATAK
29. ZAYIF
30. KIZGIN

KARŞIT ANLAMLILAR

- 31. İNKAR, KABUL
- 32. SAKLAMAK, GÖSTERMEK
- 33. BOŞBOĞAZ, KETUM
- 34. BOZMAK, DÜZELTMEK
- 35. İLKEL, UYGAR

ARA TERİMLER

- 36. GELİYOR
- 37. BAZEN
- 38. YETERSİZ
- 39. GEÇİCİ
- 40. OLGUN

BENZER YA DA KARŞIT ANLAMLI

- 41. hareketli, durgun
- 42. itiraz etmek, karşı çıkmak
- 43. karar, düşünce
- 44. zaten, nitekim
- 45. tepe, çukur

KARŞILAŞTIRMALAR II

- 46. CİMRİ
- 47. YİĞİT
- 48. GİDER
- 49. GİRİŞKEN
- 50. YEMİŞ

SAYISAL TEST A

DENKLEMLER

1. 4
2. -17
3. 0.05
4. 0.2
5. 0.0078125

HEDEFLER

6. 2
7. 11
8. 48
9. 16
10. 33
11. 31
12. 49

ÇİFT SATIRLAR

13. 9
14. 2

ARA TERİMLER

15. 11
16. 9
17. 16
18. 168
19. 656

DİLİMLER I

20. 2
21. 2

SAYI DİZİLERİ II

22. 41
23. 19
24. 189
25. 17
26. 10

SİHİRLİ KARELER I

27. 20
28. 240

KARELER VE ÜÇGENLER

29.5

30.1

31.3

32.5

33.3

SİHİRLİ KARELER II

34.12

35.2

KURALLAR VE ŞEKİLLER

36.5

37.2

38.12

39.1

40.4

41.6

DİLİMLER II

42.4

43.36

44.9-15

45.8-24

46.22-24

47.4690-4687

48.7-343

49.6

50.126

ŞEKİLSEL TEST A

1. a-b

2. a-d

3. b-c

4. a-d

5. b-d

YANSITMACA

6. a-c

7. b-d

8. b-c

9. a-c

10.a-c

BAŞ AŞAĞI

- 11. C
- 12. A
- 13. D
- 14. C
- 15. D

DÖNDÜRMECE II

- 16. A-D
- 17. A-B
- 18. B-D
- 19. A-C
- 20. B-D

YERLEŞTİRMECE

- 21. F
- 22. FD
- 23. AF
- 24. CE
- 25. D

ŞEKİL DİZİSİ

- 26. B
- 27. C
- 28. D
- 29. D
- 30. A

BLOK YİĞİNLARI

- 31. 3-3-3
- 32. 3-2, 3-1, 2
- 33. 2-3, 2-5, 3
- 34. 3-3, 5-2, 4
- 35. 4-4, 4-2, 5

CANLANDIRMA

- 36. 2
- 37. 3
- 38. 2
- 39. 4
- 40. 5

MULTIPLE INTELLIGENCE BELİRLEME ÇİZELGESİ

1
12
17
21
23
30
46

.....
BODILY- KINESTHETIC

7
8
20
27
28
37
45

.....
LOGICAL- MATHEMATICAL

3
9
10
29
31
36
48

.....
MUSICAL

6
13
15
16
25
41
47

.....
VISUAL

4
19
32
35
39
42
43

.....
INTERPERSONAL

11
14
18
22
38
40
49

.....
INTRAPERSONAL (SELF)

2
5
24
26
33
34
44

.....
LINGUISTIC

	SCORE	INTELLIGENCE
1		
2		
3		
4		
5		
6		
7		

KARŞILAŞTIRMALAR

- 41. D
- 42. A
- 43. B
- 44. D
- 45. D
- 46. C
- 47. A
- 48.D
- 49. B
- 50. B

APPENDIX B

ANKETLER

A. ASKERİ ÖĞRENCİLER İÇİN ANKET

Bu anketi amacı, yabancı dildeki kelime öğreniminde ihtiyac duyduğunuz şeyleri bulmaktır. Bu anket, Kara Harp Okulunda okuma ve dinleme yeteneklerini kullanarak Çoklu Zeka metoduyla kelime öğretiminde kullanabileceğimiz uygun bir yol bulmama yardım edeceğinden oldukça önemlidir. Size en uygun gelen seçenekleri serbestçe işaretlemenizi istiyorum.

Yardımlarınız için teşekkür ederim.

Esin ÜNAL

BİRİNCİ BÖLÜM

Aşağıdakilerden birisini işaretleyiniz.

a. sınıfınız :

b. Yaşınız: a. 17-18 b.19-20 c.20 den fazla

c. Kaç yıldır İngilizce öğreniyorsunuz?

a. 5 - 6 yıl b. 6 - 7 yıl c. 7 yıldan fazla

İngilizce geçmişiniz:

Şu andaki İngilizce seviyeniz nedir?

1. orta altı
2. orta
3. orta üstü
4. ileri

3. İngilizceye neden ihtiyacınız var? (Lütfen 1 en önemli olmak üzere önem sırasına koyunuz)

- () Mesleğimle ilgili konferansları anlamak için
- () İngilizce tartışmalara katılmak için
- () KPDS sınavına girmek veya rapor yazmak için
- () Türkçe bilmeyen yabancılarla iletişim kurmak için
- () Yurt dışına gönderilmek için
- () Başka kültürlerle ve tarihe sahip insanları tanımak için
- () Branşım ile ilgili literatürü okumak için.
- () Diğerleri, lütfen belirtin

.....

.....

.....

Hangi dil becerileri sizce en gereklidir? En önemlisi 1 olmak üzere önem sırasına koyunuz.

- () Okuma
- () Dinleme
- () Yazma
- () Konuşma
- () Çeviri
- () Diğerleri, lütfen belirtin

.....

 Aşağıdakilerden hangileri okumada güçlük çekmenize neden oluyor? En önemlisi 1 olmak üzere önem sırasına koyunuz

- () Cümle yapısı
 () Başka gramer yapıları. Örneğin zamanlar, kipler...
 () “Bununla beraber”, “üstelik” gibi teknik kelimelerin anlamları
 () Askeri konularla ilgili materyallerin içeriği
 () Genel okuma parçalarının içeriği
 () Diğerleri, lütfen belirtin
-

İKİNCİ BÖLÜM

VI. Sizce İngilizce ders kitaplarınızı okuyup anlamak için aşağıdaki okuma becerilerinden hangileri *sizin* için en çok gereklidir? Uygun olan rakamı daire içine alınız

	gerekli değil		çok gerekli.	
1. Paragrafın veya metnin ana fikrini, başlık cümlesini bulmak.	1	2	3	4
2. Bütün detaylara önem vermek.	1	2	3	4
3- Metnin yazılış amacını kavramak.	1	2	3	4
4- Genel anafikir için yüzeysel okuma yapmak	1	2	3	4
5- Belirli bilgiler için tarama yapmak.	1	2	3	4
6- Okurken anlamı kestirebilmek.	1	2	3	4
7-Tablo ve grafikleri çizelgeleri anlamak.	1	2	3	4
8- Metinde verilen bilgiyi bir tablo veya şemada göstermek.	1	2	3	4
9- Metinde verilen bir yolu takip etme	1	2	3	4

veya haritada belirli yerleri işaretlemek.

10-Konu hakkında geçmiş bilgileri

kullanarak mantıklı yorumlar yapmak. 1 2 3 4

11- Bölüm başlıklarını, baş ve son cümleleri 1 2 3 4

kullanarak ana fikirleri kavramak ve metnin
kuruluşunu anlamak.

12. Anketleri cevaplara, form doldurmak. 1 2 3 4

13-Ana fikir cümleleri ile ilgili paragrafları eşlemek. 1 2 3 4

14-Benzer iki metni karşılaştırmak. 1 2 3 4

15- Kelime ve gramer bağlaçlarını kullanarak 1 2 3 4
metnin bölümleri arasındaki bağı anlamak

16- Karıştırılmış cümleleri,paragrafları 1 2 3 4
sıraya koymak.)

17- Açıkça ifade edilen bilgileri anlamak. 1 2 3 4

18-Zamirlerle onların temsil ettiği kelimeleri
ilişkilendirmek 1 2 3 4

19- Açıkça ifade edilmeyen bilgileri anlamak. 1 2 3 4

20- Metnin atmosferini belirlemek. Yani 1 2 3 4
eleştiriyor/tasvir ediyor, bilgilendiriyor

21-Bütün bilinmeyen kelimelerin anlamını bulmak. 1 2 3 4

22-Anlamı bilinmeyen kelimeleri kelime 1 2 3 4
türetim tekniklerini kullanarak bulmak.

23-Cümle bağlamı ipuçlarından kelimenin 1 2 3 4
anlamını tahmin etmek.

24-Dersin konusuna mahsus özel kelimeleri 1 2 3 4
bilmek.

25-Okurken not almak. 1 2 3 4

26- Okurken kelimeleri düzgün 1 2 3 4
telaffuz etmek.

27- Metni okuduktan sonra özet çıkarmak. 1 2 3 4

28- Boş bırakılmış bir metni tamamlamak. 1 2 3 4

29- Bir metindeki çelişkileri düzeltmek.	1	2	3	4
30- Bir metinde noktalama işaretlerini anlamak	1	2	3	4
31. Metinde geçen benzetme, hiciv, mecazi kullanım ve kişileştirmeleri bulmak.	1	2	3	4
32- Metni okuduktan sonra kısa raporlar yazmak.	1	2	3	4

ÜÇÜNCÜ BÖLÜM

VII. İngilizce ders kitaplarınızı okurken güçlük çekiyormusunuz? Lütfen cevabınızı daire içine alınız.

() EVET () HAYIR

VIII. Cevabınız evet ise nedenleri nelerdir? önem sırasına en önemlisi 1 olacak şekilde koyunuz.

- () Bize askeri konularla ilgili kelimeler öğretilmedi.
- () Bize genel gramer yeterli derecede öğretilmedi,
- () Bize kelime yeterli derecede öğretilmedi,
- () Verimli şekilde okuma becerisi öğretilmedi. örneğin
anafikri bulma, bağlaçları kullanma ve ima edilen anlamı bulma
- () Cümleler çok karışık ve metinler çok uzun.

IX. Sizce, okuma ve kelime problemini yenmek için askeri metinlerin okutulmasında, okuma-anlama becerilerini. kazandıracak okuma ve kelime öğrenme stratejiler öğretilmelidir?

() EVET () HAYIR

X. Ders kitaplarınızdan başka. İngilizce yazılmış metinleri ne kadar sık okursunuz?

() her zaman () sık sık () bazen () hiç

XI. Aşağıdaki becerilerin hangileri sizin için çok zordur? En zor 4, en kolay 1 olacak şekilde daire içine alınız.

	EN KOLAY		EN ZOR	
1. Paragrafın veya metnin ana fikrini, başlık cümlesini bulmak,)	1	2	3	4
2- Bütün detaylara önem vermek.	1	2	3	4
3- Metnin amacını kavrama.	1	2	3	4
4- Genel anafikir için yüzeysel okuma yapmak.	1	2	3	4
5- Belirli bilgiler için özel okuma yapmak.	1	2	3	4
6- Okurken anlamı kestirebilme.	1	2	3	4
7- Tablo ve grafikleri çizelgeleri anlamak.	1	2	3	4
8- Metinde verilen bilgiyi bir tablo veya şemada gösterme.	1	2	3	4
9- Metinde verilen bir yolu takip etme veya haritada belirli yerleri işaretleme.	1	2	3	4
10-Konu hakkında geçmiş bilgileri kullanarak mantıklı yorumlar yapmak.	1	2	3	4
11-Bölüm başlıklarını baş ve son cümleleri kullanarak ana fikirleri kavramak ve metnin kuruluşunu anlamak	1	2	3	4
12-Anketleri cevaplama, form doldurma.	1	2	3	4
13-Ana fikir cümleleri ile ilgili paragrafları eşlerne.	1	2	3	4
14-Benzer iki metni karşılaştırma.	1	2	3	4
15- Kelime ve gramer bağlaçlarını kullanarak metnin bölümleri arasındaki bağı anlamak.	1	2	3	4
.				
16- Karıştırılmış cümleleri / paragrafları sıraya koyma.	1	2	3	4

17- Açıkça, ifade edilen bilgileri anlamak.	1	2	3	4
18- Zamirlerle onların temsil ettiği kelimeleri ilişkilendirme.	1	2	3	4
19- Açıkça ifade edilmeyen bilgileri anlamak.	1	2	3	4
20- Metnin atmosferini belirleme. Yani eleştiriyor, tasvir ediyor, bilgilendiriyor.	1	2	3	4
21- Bütün bilinmeyen kelimelerin anlamını bulmak.	1	2	3	4
22- Anlamı bilinmeyen kelimeleri kelime türetim tekniklerini kullanarak bulmak.	1	2	3	4
23- Cümle bağlamı ipuçlarından kelimenin anlamını tahmin etmek.	1	2	3	4
24- Dersin konusuna mahsus özel kelimeleri bilmek.	1	2	3	4
25- Okurken not almak.	1	2	3	4
26- Okurken kelimeleri düzgün telaffuz etme.	1	2	3	4
27- Metni okuduktan sonra özet çıkarmak.	1	2	3	4
28- Boş bırakılmış bir metni tamamlama.	1	2	3	4
29- Bir metindeki çelişkileri düzeltme.	1	2	3	4
30- Bir metinde noktalama işaretlerini anlama.	1	2	3	4
31- Metinde geçen benzetme, hiciv mecazi kullanım ve kişileştirmeleri bulmak.	1	2	3	4
32-Metni okuduktan sonra kısa raporlar yazmak.	1	2	3	4

DÖRDÜNCÜBÖLÜM

XII. Sizce, İngilizce öğretmenleriniz aşağıdaki alanlarda yeterli mi?

A) Hem genel hem de askeri İngilizce kelime bilgisine

EVET

HAYIR

B) Genel İngilizce sahip, askeri İngilizceye değil

EVET () HAYIR ()

XIII. İyi İngilizce bilmekle, askerlik konularını iyi bilmek birbiriyle nasıl alakalıdır.Lütfen seçeneğinizi daire içine alın.

a) çok yakından alakalı

b) alakalı

c) biraz alakalı

d) hiç alakalı değil

XIV. Askeri makaleleri, süreli yayınları, el kitaplarını okumada zorluk çekiyor musunuz?)

() Evet () Hayır

XV. Cevabınız evet ise, sebeplerinin ne olduğunu düşünüyorsunuz ?

() Cümlelerin kompleks yapıları.

() Çok fazla askeri kelime .

() Parçadaki bilinmeyen kavramlar

()Diğer, lütfen belirtin.

.....

XVI. İngilizce derslerinde konunuzla ilgili gerekli terimleri ve içeriği öğrendiğinizi düşünüyor musunuz ?

() EVET () HAYIR

XVII. Aşağıdaki okuma türlerini önem sırasına koyunuz.

() Ders kitabı okuma.

() Referans kitabı okuma.

() Elkitapları okuma.

() Makaleler ve tebliğler.

() Grafikler,çizelgeler, tablolar hakkındaki bilgileri okuma.

() Diğer, lütfen belirtin.

.....

XVIII.Bilinmeyen kelimelerin anlamını bulmak için aşağıdakilerin hangisini daha sık kullanıyorsunuz? Lütfen (4) en çok kullanılan olmak üzere sıralayınız.

	ASLA	BAZEN	SIK SIK	DAİMA
- Cümledeki anlamsal ipuçları.	1	2	3	4
-Kelime türetme teknikleri.	1	2	3	4
- Sözlük	1	2	3	4
-Kelime ezberleme.	1	2	3	4
-Eş anlamlıları kullanarak	1	2	3	4
- Resimleştirerek	1	2	3	4
- Şarkılarla	1	2	3	4
- Zıt anlamlı kelimeler	1	2	3	4
-Kelime türleri	1	2	3	4
-Önek ve sonekler	1	2	3	4
- Türkçe'ye giren kelimeler	1	2	3	4
.- Başkalarına sorarak	1	2	3	4

XIX. İngilizce ders kitaplarınız Yabancı Diller Bölümü tarafından mı hazırlanmış ?)

() EVET () HAYIR

XX.Ders kitaplarınızda kullanılan yabancı dil sizin seviyenize uygun mu ?

() EVET () HAYIR

XXI. İngilizce öğretmeniniz diğer kaynaklardan dergiler, referans kitapları gibi örnekler getirir mi?)

() EVET () HAYIR () BAZEN

XXII. İngilizce öğretmenleriniz ne tür ev ödevleri verir. Lütfen en sık olarak (1) i işaretleyiniz.

() Ders kitabını derse gelmeden okumak.

() Bilinmeyen kelimeleri bulmak ve yazmak.

- () Konuyla ilgili jurnallar ve tebliğler okuma.
 () Aynı konu hakkında kısa yazma denemeleri.
 () Metinden özet çıkarma veya metni eleştirme.
 () Evde yapılacak ödevler
 () Diğer,lütfen belirtin.

.....

XXIII. Ben
 dığında daha verimli okuyup anlıyorum.

Öğretmenim.
 dığında

.....

..... ve

..... gibi materyaller

verdiğinde okuduğum parçayı daha iyi anlıyorum.

Esin UNAL
 Tarafından hazırlanmıştır.

APPENDIX B

QUESTIONNAIRES

QUESTIONNAIRE FOR CADETS

This questionnaire aims at finding out your needs in improving vocabulary knowledge to read effectively in the English Language. The questionnaire is of particular importance since it will guide me to suggest an appropriate approach to the reading program at the Military Academy. I would like you to act and feel free to choose the alternative which will appeal to you as the most convenient.

Thank you for your cooperation.

Esin ÜNAL

SECTION ONE

- I. Circle one of the following.
 1. Your class:
 2. Age : a) 17-18 b) 19-20 c) over 20
 3. Years of English study:
 - a) 5 to 6 years
 - b) 6 to 7 years
 - c) more than 7 years
- II. Background of your English language.
 - a. What is your present level of English?
 - a) Low intermediate
 - b) intermediate
 - c) upper intermediate
 - d) advanced
- III. Why do you need English? Put them in order of importance assigning number one to the most important.
 - () To understand lectures in my special field of study in English.
 - () To take part in discussions in English.
 - () To take KPDS examination or write reports.
 - () To communicate with foreigners who don't speak Turkish.

- () To have a chance to be sent abroad.
- () To know people from other backgrounds and cultures
- () To read the related literature in my discipline.
- () Other, please specify

.....

.....

IV. Which language skill(s) do you consider necessary? Put them in order of importance assigning number 1 as the most important).

- () Reading
- () Listening
- () Writing
- () Speaking
- () Translation
- () Other (please. specify)

V. Which of the following cause difficulty for you in reading? Put them in order from (1) most difficult, to (6) least difficult.

- () Sentence structure
- () Other grammatical forms. e.g. tenses, modals
- () The meaning of technical vocabulary e.g. However, furthermore,
- () The content of reading materials in the military issues
- () The content of reading materials in general
- () Other, please specify.

.....

.....

SECTION TWO

VI. In your opinion, which of the following reading skills are necessary to read and comprehend your reading textbooks? Please circle the number that best fits your answer.

NOT	VERY
NECESSARY	NECESSARY

1- Finding the main idea or topic 4 a paragraph or text.	sentence of	1	2	3	
2- Paying attention to every detail.	1	2		3	4
3- Recognizing the purpose of the text.	1	2		3	4
4- Skimming for a general idea	1	2		3	4
5- Scanning for specific information.	1	2		3	4
6- Deducing meaning while reading.	1	2		3	4
7- Comprehending tables, graphs and diagrams in the text.	1	2		3	4
8- Transferring information to a table / or chart	1	2		3	4
9- Tracing a route or marking places on a map	1		2	3	4
10-Making logical inferences by using background information about the text.	1		2	3	4
11- Using chapter headings, topic sentences, summary sentences to select main ideas . and understand the organization of the text.	1		2	3	4
12-Filling in questionnaires and forms.		1	2	3	4
13-Matching statements of the main ideas with the corresponding paragraphs.		1	2	3	4
14-Comparing two similar texts.		1	2	3	4
15-Using lexical and grammatical cohesion devices in order to understand the relations between parts of the text.		1	2	3	4

16-Ordering jumbled sentences, texts.	1	2	3	4
17-Understanding explicitly stated information.	1	2	3	4
18-Relating reference words to the words, objects, people they refer to.	1	2	3	4
19-Understanding information when not stated	1	2	3	4 explicitly
20-Identifying the tone of the text.	1	2	3	4
21-Getting the meaning of all unknown words.	1	2	3	4
22-Appling word formation techniques get the meaning of unknown words.	1	2	3	4 to
23-Using contextual clues for guessing meaning of unknown words .	1	2	3	4 the
24-Knowing special vocabulary items which are unique to the subject of the course.	1	2	3	4
25-Taking notes while reading.	1	2	3	4
26-Pronouncing words clearly while reading.	1	2	3	4
27-Summarizing the text after reading it.	1	2	3	4
28-Completing a text with blanks.	1	2	3	4
29-Correcting false statements in a text.	1	2	3	4
30-Understanding punctuation in a text.	1	2	3	4
31-Recognizing similes, ironies, methaphors and personifications in the text	1	2	3.	4
32-Writing short reports after reading the text.	1	2	3	4

SECTION THREE

VII. Do you think you have difficulties in reading and understanding English materials in your coursebooks? Please circle your answer.

() YES () NO

VIII. If yes, what do you think the reasons are? Please put them in order of importance marking the most important as number 1.

- () We are not taught specific vocabulary related to the military subject.
 () We are not taught general English grammar sufficiently
 () We are not taught vocabulary very well
 () We are not trained to read effectively "e.g. to recognize main ideas, cohesive devices, implied meaning.
 () The reading texts are very long; the sentences are complicated

IX. In order to cope with your reading and vocabulary problem in military texts, do you think that you should be taught different reading and vocabulary learning strategies?

() YES () NO

X. How frequently do you have to read English materials other than your textbooks?

() always () often () sometimes () never

XI. Which of the reading skills are most difficult for you? Circle (4) for the most difficult and (1) for the least difficult.

	LEAST DIFFICULT		MOST DIFFICULT	
1-Finding the main idea or topic sentence of a paragraph or text.	1	2	3	4
2-Paying attention to every detail.	1	2	3	4
3-Recognizing the purpose of the text.	1	2	3	4
4-Skimming for a general idea	1	2	3	4
5-Scanning for specific information	1	2	3	4

6-Deducing meaning while reading.	1	2	3	4 .
7-Comprehending tables graphs and diagrams in the text.	1	2	3	4
8-Transferring information to a table or chart	1	2	3	4
9-Tracing a route or marking places on a map	1	2	3	4
10-Making logical inferences by using background information about the text.	1	2	3	4
11-Using chapter headings / topic sentences summary sentences to select main ideas and understand the organization of the text.	1	2	3	4
12-Filling in questionnaires and forms	1	2	3	4
13-Matching statements of the main ideas with the corresponding paragraphs	1	2	3	4
14-Comparing two similar texts.	1	2	3	4
15-Using lexical and grammatical cohesion devices in order to understand relations between parts of the text.	1	2	3	4 the
16-Ordering jumbled sentences texts.	1	2	3	4
17-Understanding explicitly stated information	1	2	3	4
18-Relating reference words. to the words, objects,people they refer to.	1	2	3	4
19-Understanding information when not	1	2	3	4

explicitly stated

20-Identifying the tone of the text.	1	2	3	4	
21-Getting the meaning of all unknown words.	1	2	3	4	
22-Appling word formation techniques to get the meaning of unknown words.	1	2	3	4	
23-Using contextual clues. for guessing meaning of un known words	1	2	3	4	the
24-Knowing special vocabulary items which are unique to the subject of the course.	1	2	3	4	
25-Taking notes while reading.	1	2	3	4	
26-Pronouncing words clearly while reading.	1	2	3	4	
27-Summarizing the text after reading it	1	2	3	4	
28-Completing a text with blanks.	1	2	3	4	
29-Correcting false statements in a text.	1	2	3	4	
30-Understanding punctuation in a text.	1	2	3	4	
31-Recognizing similes, ironies, metaphors and personifications in the text.	1	2	3	4	
32-Writing short reports after reading the text.	1	2	3	4	

SECTION FOUR .

XII.In your opinion, do your English teachers have a good mastery of the following areas. (Please, circle.)

a) Both English and military terminology?	YES	NO
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b) General English but not military terminology? YES NO

XIII.How is the mastery of general English related to the mastery of military subject-matter.
(Please circle the relevant letter).

They are

- a) very closely related
- b) related
- c) related to a little extent.
- d) not related at all.

XIV.Do you have difficulty in reading and understanding military articles, journals and manuals in English a) Yes b) No

XV. If yes, what do you think the reason(s) is/are? .

- () The complex structure of the sentences in the text.
- () Too many military words
- () Unfamiliar concepts in the passage
- . () Other (Please, specify.)

XVI. Do you think that you are learning the necessary terminology and content related to your subject area? () YES () NO

XVII.Put the following reading types in order of importance marking number 1 as the most important.

- () Reading textbooks
- () Reading reference books.
- () Reading manuals.
- () Articles, papers.
- () Reading information about , graphs, charts, tables.
- () Others, please specify
-

XVIII. How frequently do you employ the following strategies in order to get the meaning of unknown words? Circle (4) for the most frequently used strategy.

	Always	Never	Sometimes	Often
-Contextual clues in the text.	1	2	3	4
Word formation techniques.	1	2	3	4
-Dictionary	1	2	3	4
-Word memorization	1	2	3	4
-Synonyms	1	2	3	4
- Pictures	1	2	3	4
- Songs	1	2	3	4
-Antonyms	1	2	3	4
-Parts of speech	1	2	3	4
-Prefixes and suffixes	1	2	3	4
-Cognates	1	2	3	4
.-Asking others	1	2	3	4

XIX. Are your textbooks specially prepared by FLD ?

() YES () NO

XX. Is the level of language in your textbooks appropriate to your language level ?

() YES () NO

XXI. Does your teacher give handouts in English from other sources? (journals, reference books, papers).

() YES () NO () SOMETIMES

XXII. What kind of homework do your English teachers ask you to do? (please put them in the order of frequency assigning (1) to the most frequent.

() Reading the textbook before coming to the class

() Finding the unknown words and writing them

() Reading journals, papers related to the subject

() Writing short essays on the same topic

() Writing summaries or critiques of the text

() Take home exams.

() Other (Please, specify.)

.....

XXIII. I understand better when I read

.....

I understand better when my teacher gives me some materials like

.....

.....

.....

.....

.....

Prepared by
Esin ÜNAL

