T.C.

GAZİ UNIVERSITY

INSTITUTE OF EDUCATIONAL SCIENCES

DEPARTMENT OF ENGLISH LANGUAGE TEACHING



A CASE STUDY ON CRITICAL THINKING ABILITIES OF TEACHER TRAINEES AT GAZI UNIVERSITY ENGLISH LANGUAGE TEACHING DEPARTMENT

MA THESIS

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SUPERVISOR

Assist. Prof.Dr. İskender Hakkı SARIGÖZ

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Eğitim Bilimleri Enstitüsü Müdürlüğü'ne

KEMAL SİNAN ÖZMEN'e ait **A CASE STUDY ON CRITICAL THINKING ABILITIES OF TEACHER TRAINEES AT GAZI UNIVERSITY, ENGLISH LANGUAGE TEACHING DEPARTMENT** adlı çalışma jürimiz tarafından **İNGİLİZ DİLİ ve EĞİTİMİ** Anabilim Dalında ~~DOKTORA~~ / **YÜKSEK LİSANS TEZİ** olarak kabul edilmiştir.

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ÖZET

GAZİ ÜNİVERSİTESİ, İNGİLİZCE ÖĞRETMENLİĞİ PROGRAMI ÖĞRETMEN ADAYLARININ ELEŞTİREL DÜŞÜNCE BECERİLERİ ÜZERİNE BİR ARAŞTIRMA

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Bu araştırmada Gazi Üniversitesi İngilizce Öğretmenliği Bölümü öğrencilerinin Eleştirel Düşünce becerileri ve eğilimleri ölçülmüştür. Araştırma evrenini oluşturan bu öğretmen adayı grubuna (N=146) bilişsel Eleştirel Düşünce becerilerini ölçen çoktan seçmeli 20 soruluk bir test hazırlanmış, bu testin yanı sıra Eleştirel Düşünce eğilimlerinin ne derecede olduğunu ölçen bir anket dizayn edilmiştir. Bu iki ölçeğin yanısına öğretmen adaylarının Eleştirel Düşüncenin gerek eğitim bağlamında gerekse güncel yaşamdaki yeri ve önemini içeren, araştırma grubunun bu hususlardaki bilgi ve birikimini ölçen bir başka anket uygulanmıştır. Öğretmen adaylarının Eleştirel Düşünce kabiliyetlerini ölçen bu 3 ölçek dışında, İngilizce Öğretmenliği bölümünde Eleştirel Düşünce becerilerinin daha etkin öğretilmesi için neler yapılmalı hususunda fikirlerini paylaşmaları için katılımcılara anketlere ek olarak bir öneriler bölümü sağlanmıştır. Bu ölçeklerden Eleştirel düşünce eğilimlerini ölçen anket ve öneriler anketi İngilizce Öğretmenliği bölümü öğretim elemanlarına da uygulanmış, bu iki öğretim elemanları anketinin sonuçları öğretmen adayı anket sonuçları ile karşılaştırılmış, istatistiki ve sözel olarak sunulup yorumlanmıştır.

Araştırma sorucunda Öğretmen Adayı grubunu Eleştirel Dününce becerilerinin orta seviyede olduğu (N= 119, %81, 5), sadece %18,5'inin yüksek başarı gösterdiği, analiz, yorumlama gibi becerilerinin yetersiz olduğu gözlenmiştir.Eleştirel Düşünce eğilimleri anlamında ile "açık fikirlilik" ve "araştırmacı olma" alt becerilerinin etkin olduğu, fakat gerçeği arama ve entellektüel olgunluk anlamında da yetersiz oldukları gözlenmiştir. Bu bulgunun yanısıra Eleştirel Düşünce becerileri ve eğilimleri arasında anlamlı bir ilişki gözlenmemiştir. Öğretmen adayları ve Öğretim elemanlarının Eleştirel Düşünce eğilimlerinin karşılaştırılması sonucunda Öğretim Elemanlarının çok daha güçlü bir yatkınlık ve eğilim gösterdikleri gözlenmiştir. Fakat hem öğretmen adayları hem de öğretim elemanlarının İngilizce Öğretmenliği bölümünde Eleştirel Düşüncenin geliştirilmesi konusunda ortak fikirlere sahip oldukları bulunmuştur. Araştırma evreninin demografik özellikleri ile Eleştirel düşünce becerileri ve eğilimleri arasında anlamlı bir ilişki bulunmamıştır.

ABSTRACT

A CASE STUDY ON
CRITICAL THINKING ABILITIES OF TEACHER TRAINEES AT
GAZİ UNIVERSITY ENGLISH LANGUAGE TEACHING DEPARTMENT

Özmen, Kemal Sinan
MA, English Language Teaching Department
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December, 2006

In this thesis, Critical Thinking (CT) skills and dispositions of teacher trainees of Gazi University, English Language Teaching Department have been assessed. The sample group (N=146) was administered a CT multiple-choice test so as to measure the cognitive skills, and apart from this test a questionnaire was designed in order to observe the dispositional skills of the teacher trainees. Besides these two instruments evaluating the two major aspects of CT, another questionnaire was administered assessing the current knowledge, beliefs and values of teacher trainees on CT. Teacher trainees are also provided with a part where they can share their ideas on how to improve CT in their department. Among these instruments, disposition questionnaire and suggestions part are also given to the academic staff of the department, and the results of the both group were compared. The findings are interpreted statistically and verbally.

The general portrait is that it may not be confidently stated that teacher trainees of Gazi University ELT department are talented Critical Thinkers (N= 119 and 81, 5%). Only 18, 5 % of the trainers display a strong CT cognitive ability. As some of the questions of the CT cognitive skills discussed in the previous sections and the scores of this test show that they are likely to improve their Cognitive CT skills, but still have some problems in displaying inference, interpretation, analysis and evaluation. The results of dispositional skills questionnaire show that trainees are strong in most of the sub-skills of CT dispositions such as "open-mindedness" and "inquisitiveness". However, the possible reasons of the weak aspects of their skills may be their "intellectual maturity" and "Truthseeking", which is also a disposition. In addition, no statistical relation can be observed between the variables Cognitive and Dispositional CT skills. Comparing to teacher trainees, academic staff group display a more effective CT dispositional skills. Both teacher trainees and academic staff are in an accord with the suggestions for improving CT in their department. Finally, no relations are observed between CTT and gender, school type, education type (day or evening classes) and 3rd 4th class variables in terms of statistical significances.

Dedicated to passionate artists, scientists, sages and to all great creators of our world, who were brave enough to risk some darkness to find the real light...

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1

INTRODUCTION

1.1 General Aspects of the Study

Science enables us to expand the circle of known in the infinite universes of unknown. By the help of arts, this expanding circle becomes meaningful and lively. It is the power of both arts and science that trigger our passion to discover, and to tell what we feel and know, so as to become the one who we want to be as an individual. Our universities, the heart of the all fields of the science and arts, are full of young people trying to get qualified. Whatever this young population on campuses studies, they need to be skilful analytic and reflective thinkers in order to struggle with the great amount of knowledge and skills they need to acquire, and finally become an open-minded, critical and a democratic member of our society and of the world. What is critical thinking, then? The Committee on Critical Thinking and the Language Arts (NCTE) defines critical thinking as "a process which stresses an attitude of suspended judgment, incorporates logical inquiry and problem solving, and leads to an evaluative decision or action." Siegel and Carey (1989) emphasize the roles of signs, reflection and skepticism in this process. As we will discuss the definition of critical thinking in the following chapter, various definitions were made by the scholars. All those definitions have many key concepts such as, judgment, reasoning, analyzing, synthesizing, and self-regulation in common. Therefore, only when the students doing academic study at universities show the evidences of these critical thinking skills, perhaps then, we may say that the curricular objectives of the faculties are fulfilled.

In this study, the literature of critical thinking, various kinds of critical thinking evaluation tests and inventories will be reviewed in terms of their use in academic studies and their contributions to the academic studies of university students. In view of this review, the critical thinking cognitive skills and dispositions

of teacher trainees at Gazi University, ELT department will be evaluated by a critical thinking skills test and two questionnaires in order to see whether they are capable of observing the theory, approach and practice relation links, and of questioning the underlying reasons of any kind of EFL classroom application, technique or technology. The criteria used in this research mainly focus on the dispositional domains of CT owing to the fact that the latest literature on CT shows that one may display a talent in CT cognitively, but if not disposed to think critically, s/he is not considered as a critical thinker (Facione, 1989). Also the studies and implementations of critical thinking skills in EFL and in teacher education setting will be briefly reviewed.

1.2. Problem

In ELT departments, it is clearly known that a teacher trainee should be definitely able to observe the relation between the theory and practice, and be able to analyze the theoretical studies and synthesize them when necessary in order to built up a scientific look to both their field and their job. Without rational and analytical thinking, those teacher trainees may fail to associate the theory of ELT with the practical applications. It might not be wise to teach all these classroom techniques, applications without leading the student teachers to question and reason on them.

Before starting to teaching applications in the third and forth years of an ELT program, teacher trainees cover a wide range of theoretical issues on both linguistics, language learning and teaching, literature, and also on educational sciences. In order to synthesize this theoretical input with the classroom applications, it is merely a fact that they have to be able to think critically, to judge those approaches and techniques when necessary. To give an example, in the second year of the ELT program at Gazi University, teacher trainees learn the principles of first language acquisition (FLA) and some theories on FLA. In the following years of ELT program, they are introduced to so many classroom applications that are based on language acquisition, and unless the trainees observe the bridge between the theory of FLA and these

classroom techniques, we cannot guarantee that they have really figured out the principles and the techniques of language learning and teaching.

Thompson (2002) notes that Critical thinking (CT) is a highly valued outcome of university study, although its nature is difficult to define. “Most students are not directly taught critical thinking, but are expected to display it in at least some of their assignments” he adds. A very similar statement made by Barnett (1997) is that critical thinking skills figure prominently among the goals for education, whether one asks developers of curricula, educational researches, parents, or employers. Although there are some quite diverse definitions of critical thinking, nearly all emphasize the ability and tendency to gather, evaluate, and use information effectively. The problem of critical thinking has led the educators and academicians to ponder over the evaluation of the CT abilities of the learners. Having been discussed and studied for decades in educational field, the question of a valid and a reliable evaluation of CT ability is now realized by “standardized critical thinking tests”, and many institutes are now using these tests.

In the last decades, many faculties and institutes in Turkey and abroad have conducted researches on the critical thinking abilities. A research done by İpşiroğlu (1996) of Istanbul University concludes that most of the students of German language and literature are not able to find the main discussion point of daily articles on magazines and newspapers. İpşiroğlu (1996) accentuates that without developing the critical thinking abilities of the university students, the universities in Turkey may have greater problems in production of knowledge, training of academicians and qualified graduates for the society.

1.3 Aim of the Study

The aim of this research is to evaluate the CT skills of students of an ELT department at Gazi University so that the underlying reasons of one of the problems that are faced in EFL teacher education may be pointed out clearly. The hypotheses to be discussed in this thesis are:

1. What is the tendency for thinking critically in EFL teacher trainees?
    1.1. Is there any statistically significant difference between 3rd and 4th class students?
    1.2. Is there any statistically significant difference in terms of Gender?
    1.3. Is there any statistically difference in accordance with the type of lycee they graduate?
    1.4. Is there any statistically difference between the groups of day and evening classes?

2. Are the EFL teacher trainees (of Gazi University) able to associate the theory and the practice of their field?
3. What is the tendency for thinking critically among academic staff of the Gazi University, ELT Department?
    3.1. Is there any difference between the CT tendency (Dispositions) of teacher trainees and teacher trainers?
4. What do the trainers and trainees (of Gazi University) "think about CT and CT in EFL teacher education?
    4.1. Is there any difference between suggestions (for improving CT) of teacher trainees and teacher trainers?

1.4. Scope of the Study

In this research, a critical thinking skills test and two questionnaires will be applied to trainees in third and forth classes of ELT department at Gazi University in order to assess the dispositional tendency to think critically and the current cognitive level. Apart from students, disposition tests (Disposition of CT and Notion of CT) will be applied to the academic staff of the department. After collecting the data, the researcher will attempt to analyze the results so as to observe the current situation.

The limitation of the study is that the critical thinking disposition tests, cognitive skills tests and appraisals available on the market are beyond the reach of the researcher. Using these tests as instruments would be better owing to the fact that they have been utilized in academic studies for a long time, and accordingly they have high reliability and validity alpha scores. This limitation led the researcher to design three different instruments for this study.

1.5 Methodology

The problem of evaluating the critical thinking abilities of third and forth class students of Gazi University ELT Department will be searched by a CT skills test and two questionnaires which all are designed by the researcher. These instruments, which are CT test (CTT) and questionnaires (CTD and NCT), will assess two different aspects of CT: cognitive skills, and dispositional skills. The research type of this process is a Case Study. The third and forth class students are chosen since they have already covered plenty of theoretical aspects of linguistics, language learning and teaching, and they did some attempts in teaching. By the third class, trainees start micro teaching demonstrations in which they try to put the knowledge they gained into practical application under supervision of a teacher trainer. Therefore, this group of trainees will lead the researcher to have an idea on how well the relation between theory and practice is figured out by the teacher trainees of Gazi University ELT department. The data obtained by a CT test (CTT) and questionnaires (CTD and NCT) will be presented as both verbal and statistical information. The context used in the CT test is based on ELT theory, linguistics and methodology, educational sciences and literature, which are the three main fields covered in ELT departments.

2

REVIEW OF LITERATURE

We are what we repeatedly do. Excellence, then, is not an act but a habit. ***Aristotle***

2.0. Introduction

This chapter constitutes two main topics. The former one is the literature of Critical Thinking in the fields of philosophy, psychology and educational sciences. The latter one reviews the Critical Thinking studies in English Language Teaching (ELT) and English Language teacher training.

The literature of critical thinking (CT), its development process through history of philosophy, some of cornerstone applications of CT in educational context will be reviewed. A detailed part on the various definitions of CT has been prepared so as to illustrate the vast amount of studies on the topic. The historical movement of critical thinking is reviewed briefly. Some important studies of scholars and philosophers such as, Socrates, Dewey, Paul, Bloom and Facione have been discussed in details due to their contributions to CT in educational sciences.

Some applications of CT in English Language Teaching (ELT) context, specifically in English as a Foreign Language (EFL) setting, and ELT teacher education have been discussed.

2.1. Historical Roots of Critical Thinking

The beginning of critical thinking goes back to the times of the Greeks in the 5th century BC. Among many other great philosophers of this era, Socrates is usually regarded as the establisher of critical thinking. His questioning method was to ask hard-hitting questions that required a rational response. Authorities were annoyed and embarrassed by the questions he asked, and they put him to death in 399 B.C.

(Cathers, 2000). Socrates advocated thinking clearly and establishing the importance of seeking evidence, examining reasons and assumptions, and identifying implications of actions. Socrates' approach to questioning is still used today and known as the "Socratic Method". Paul and et al. notes that:

> "Socrates set the agenda for the tradition of critical thinking, namely, to reflectively question common beliefs and explanations, carefully distinguishing those beliefs that are reasonable and logical from those which, however appealing they may be to our native egocentrism, however much they serve our vested interests, however comfortable or comforting they may be-lack adequate evidence or rational foundation to warrant our belief. He established the importance of seeking evidence, closely examining reasoning and assumptions, analyzing basic concepts, and tracing out implications not only of what is said but of what is done as well". (Richard Paul, Linda Elder, and Ted Bartell 1997)

During the middle ages and the Renaissance, Franciscan scholars including John Duns Scotus and William of Ockham continued to contribute to the ongoing conversation on critical thinking. Thomas Aquinas, was another great theologian and philosopher of the middle ages. In his book "Suma Theologica" he presented his theory on thinking. Aquina's contributions included writings about improving his own thinking by anticipating what his readers might argue against him, and then answering imagined criticisms that his readers would develop for him to answer.

During the 15th and 16th centuries, Thomas More and Francis Bacon from England, and René Descartes of France were the scholars who continued critical thinking conversations. Bacon laid the foundation for modern science with an emphasis on the empirical approach. Science would no longer be based on careful observations. More, in his manuscript titled "Utopia", critiqued English politics. Finally, Descartes wrote "Rules for the Direction of the Mind" in which he describes of using what he titled, "Systematic Doubt". He said that every part of thinking should be questioned, doubted, and tested. This is what the contemporary studies underlines for the cognitive process of CT.

Eighteenth Century thinkers contributed to Critical Thinking literature and functions and improved the understanding of the power of critical thought and of its

subject areas. The results of these efforts embodied a very important study: Adam Smith's Wealth of Nations. In the same years, when CT applied to the traditional concept of loyalty to the king, it produced the Declaration of Independence. Applied to reason itself, it produced Kant's "Critique of Pure Reason". Apart from the scientific studies, critical thought can also be observed in the many fields of arts and literature. Aesthetic, as a science, led artist to build a strong bridge between the personal ones and universal themes. In general, this century can be regarded as the wide use of critical thinking in science and philosophy thanks to the previous studies as mentioned in preceding paragraphs.

In the 19th Century, critical thought was extended even further into the domain of human social life by Comte and Spencer. Searching social and economic critique of Karl Marx is an example of an employment of critical thought to the problems of capitalism. When applied to the history of human culture and the basis of biological life, it led to Darwin's Descent of Man. During the 20th century, John Dewey wrote "How we Think" and "Quest for Certainty". His focus on consequences and his importance of applying critical thinking to real-world problems were two of his most important contributions to critical thinking theory.

Over the past 50 years, arguments on critical thinking have progressed from a behaviourist view toward developmental, cognitive, and educational views of critical thinking. During the behaviourist view era, it made sense to believe in human abilities, in a smooth, probably linear curve of learning. Learning progresses from infancy to old age, in a hierarchy of disciplines, and in the desirability of assessing potential and achievement. Behaviourists believe that if a student can produce certain behaviour, then thinking will follow the behaviour accordingly. The behaviour is the evidence of internalization that can be transferred to new situations.

Developmental scientists believe that critical thinking depends on the physical and emotional maturity of the student and that students' progress through stages where they can perform certain cognitive tasks. Therefore, certain tasks should not be presented until proof of maturity exists. Kitchener and King (1981) offer such

a stage theory and model of development toward the ability to make reflective judgments. Their model has seven stages that people go through in their ability to make such judgments. Cognitive scientists, who research how people learn, think, and remember, have introduced new elements such as metacognition and multiple intelligences. Educational scientists, constructivists, believe that critical thinking is a result of students learning by resolving conflicts through experiences, reflection, and metacognition. Students look at events, experiences, assumptions, and conclusions and challenge them before offering alternative solutions.

Until the mid-1980s the critical thinking act kept moving merely a small group of educators proposing a shift from a didactic paradigm of knowledge and learning, to a Socratic, critically reflective paradigm (Paul,1993). According to Paul, the roots of modern critical thinking movement can be tracked back to Edward Glaser's acclaimed study "An Experiment in the Development of Critical Thinking"

2.2. Some Important Definitions and Views on Critical Thinking

Critical thinking is an important and vital issue in high education. Many academic departments hope that their academic staff will become informed about the strategy of teaching critical thinking skills, identify areas in one's courses as the proper place to emphasize and teach critical thinking, and develop and use some problems in exams that test students' critical thinking skills. However, many significant studies indicate that higher education, in both abroad and our country, does not promote critical thinking effectively (Paul, 1997 & İpşirpoğlu, 1996).

It is not that easy to give a clear definition of critical thinking. Before all different definitions and functions of critical thinking, we can say that critical thinking is a skill which can be improved. Socrates emphasizes that a life without questioning is not valuable. Aristotle notes that all men possess by nature the desire to know. When we associate these two views of philosophers, we may infer that thinking critically is a must for all. However, we can say that an effective critical thinking ability is not a natural born ability. Apart from cognitive domains of CT, it

is known that thinking critically, or a need for questioning, reasoning and asking appropriate questions where necessary in our daily lives are regarded as a habit or a tendency which is the initial requirement for becoming a critical thinker. Therefore, it is important to mention that critical thinking ability can be taught and this must be the one of the goal of all educational institutions in order to aid the society to build up this “habits of mind”. As Aristotle notes “It is education’s business to ingrain into individuals working habits, methods of inquiry and reasoning” The formation of these habits is the training of mind (Thompson 1995:3). Also a famous criticism made by the contemporary critical thinking experts and educators is that the higher education is teaching the students what to think but not how to think.

There are vast amount of definitions of critical thinking in literature. The first reason of these varying definitions is that CT is discussed under many different disciplines such as psychology, philosophy and educational sciences. Critical thinking is viewed in general as well in an educational structure with varying views. There are endless ideas, theories, and methods of implementation that can help educators integrate critical thinking into their course curriculum. The theories and ideas discussed in this review all appear to have validity and relevance in the classroom. Definitions are quite diverse. Some scholars feel that there are "stages" or "aspects" to critical thinking, and others have their own views. While the idea of bringing critical thinking into the classroom is unanimous, ideas for fulfilling this outcome, as well as the implementation, differ dramatically. When we observe those definitions, we can see that there have been some changes in time.

All this definitions have some similarities in common as well as confusing differences. For educational context, for instance, John Dewey’s definition is a remarkable one: John Dewey (1933) defined the nature of critical thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends"(Dewey, 1933). Critical thinking is generally agreed to include the evaluation of the worth, accuracy, or authenticity of various propositions, leading to a

supportable decision or direction for action. Michael Scriven and Richard Paul (1998) accentuate that:

> "Critical thinking is the intellectually disciplined process of actively and skilfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. It is based on universal intellectual values that transcend subject matter divisions: Clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness. It entails the examination of those structures or elements of thought implicit in all reasoning: purpose, problem, or question-at-issue; assumptions; concepts; empirical grounding; reasoning leading to conclusions; implications and consequences; objections from alternative viewpoints; and frame of reference. Critical thinking, in being responsive to variable subject matter, issues, and purposes, is incorporated in a family of interwoven modes of thinking, among them: Scientific thinking, mathematical thinking, historical thinking, anthropological thinking, economic thinking, moral thinking, and philosophical thinking."

When we ponder over this definition in terms of educational context, it is clear that any kind of higher education program should lead its students to become an effective critical thinker. At this point, the question of how to teach critical thinking rises. Thompson (1995) claimed that critical thinking should be taught through a subject matter McPeck (1981) argues that CT skill is not only a cognitive list of acts functioning in isolation from knowledge, but can be developed through subject-specific courses. Hemming (2000) makes an important point by saying:

> "To try to explore criticism in isolation from content is to present a superficial understanding of critical thinking which will not lead to transfer across subject areas and into everyday life. When developing a critical approach to learning, it is essential that building content knowledge and critical thinking occur simultaneously. Otherwise, a danger arises, similar to that about which Dewey warned us in 1938, i.e. the learner will be viewed as a receptacle of transmitted knowledge rather than someone whose dispositions and skills are to be applied in assessing new information."

Watson and Glaser (1980) stated that "critical thinking encompasses an attitude of inquiry, knowledge of e creators of the critical thinking assessment test, logically determined generalizations and abstractions, and skills driven by this attitude and knowledge." Critical thinking isn't learned in one given course, but

rather developed over time. According to Dewey (1933) “The essential elements of critical thinking are maintaining a state of suspended judgment and conducting a systematic inquiry. Learning occurs as plans based on past experiences and prior knowledge are applied and tested.” This means that students must dig deeper than their textbooks to discover truths. It takes an inquisitive mind to search beyond the theory and find his or her personal discovery.

So as to realize this “personal discovery process”, in other words; to teach how to think, many universities and institutes try hard to implement critical thinking skills to their curriculum and instruction. However, the state of critical thinking is not a promising one at universities. A study by Paul Hurd (2005) shows that the critical thinking skills are not promoted in the USA. He adds that “Most college faculty at all levels lack a substantive concept of critical thinking. Most college faculty does not realize that they lack a substantive concept of critical thinking, believe that they sufficiently understand it, and assume they are already teaching students it. Lecture, rote memorization, and (largely ineffective) short-term study habits are still the norm in college instruction and learning today.” He concludes that:

> …These three facts (addressing to lecture, rote memorization and short-term study) , taken together, represent serious obstacles to essential, long-term institutional change, for only when administrative and faculty leaders grasp the nature, implications, and power of a robust concept of critical thinking-as well as gain insight into the negative implications of its absence-are they able to orchestrate effective professional development. When faculty have a vague notion of critical thinking, or reduce it to a single-discipline model (as in teaching critical thinking through a “logic” or a “study skills” paradigm), it impedes their ability to identify ineffective, or develop more effective, teaching practices. It prevents them from making the essential connections (both within subjects and across them), connections that give order and substance to teaching and learning.”

Gardiner’s summary of the research coincides with the results of a large study (Paul, et. al. 1997) of 38 public colleges and universities and 28 private ones focused on the question: To what extent are faculty teaching for critical thinking? The study included randomly selected faculty from colleges and universities across California, and encompassed prestigious universities such as Stanford, Berkeley, and the California State University. Among these “universities of ivory league”, only a small

minority could give a clear explanation of what critical thinking is (19%). Furthermore, according to their answers, only 9% of the respondents were clearly teaching for critical thinking on a typical day in class. Those are simply the best universities of the USA such as Berkeley, Stanford. Perhaps this research may give us a broad idea about the universities in Turkey in terms of the familiarity with the CT.

Halpern (1996) points out that critical thinking is the use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned and goal directed; the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions when the thinker is using skills that are thoughtful and effective for the particular context and type of thinking task. Critical thinking also involves evaluating the thinking process, the reasoning that went into the conclusion we've arrived at the kinds of factors considered in making a decision. Critical thinking is sometimes called directed thinking because it focuses on a desired outcome. Therefore we can say that critical thinking can be described as the scientific method applied by ordinary people to the ordinary world owing to the fact that critical thinking mimics the well-known method of scientific investigation. All of the skills of scientific investigation are matched by critical thinking, which is therefore nothing more than scientific method used in everyday life rather than in specifically scientific disciplines or endeavours.

Although critical thinking has been researched since the beginning of intellectual movements gained importance, perhaps beginning with the Socrates, American scholar John Dewey is widely regarded as the founder of the modern critical thinking tradition. He emphasized the distinction between process and product in thinking. Dewey (1933) viewed “experimentalism”, the scientific method of living, as the process by which all human experience can be “integrated and unified, and growth promoted” (Hill, 1973) He called critical thinking is “Reflective Thinking”.

By defining critical thinking as an “active” process, Dewey is contrasting it with the kind of thinking in which one receive ideas and information from someone else, which may be called “a passive process”. When we pool our thinking to seek a connection between the concept “Critical thinking as an active process”, and the Socratic thinking method, we can conclude that a successful thinking process requires questioning, reasoning on the issue or idea in lieu of accepting any sort of information directly.

Dewey believed that a student’s problem solving abilities and judgment could be improved or hindered by education. He was an advocate of education via the scientific method, integrating experience and reflection with learning content. Dewey’s ideas spurred a reform movement, called “progressive education”. The progressive education reform movement led to curricular and instructional changes designed to improve students’ thinking skills at the elementary level. However, there was minimal impact on secondary and higher education (Kurfiss, 1988).

Another scholar Ennis, influenced by the philosophies of Dewey, defines critical thinking a “reasonable reflective thinking that is focused on deciding what to believe or do” (Ennis, 1962). This definition is dated but still is applicable for describing today’s learners. Ennis accentuates 12 aspects of critical thinking that are all oriented around judgment. These twelve aspects of critical thinking are

1. Grasping the meaning of a statement
2. Judging whether there is ambiguity in a line of reasoning
3. Judging whether certain statements contradict each other
4. Judging whether a conclusion follows necessarily
5. Judging whether a statement is specific enough
6. Judging whether a principle establishes a statement alleged to be an application of it.
7. Judging whether an observation statement is reliable.
8. Judging whether inductive conclusion is warranted.
9. Judging whether the problem is identified.
10. Judging whether something is an assumption.
11. Judging whether a definition is adequate.
12. Judging whether a statement made by an alleged authority is reliable.

As can be seen from this list, judgment is a major component of critical thinking. Critical thinkers must be able to make judgments between opposing issues. The use of comparison and contrast helps learners figure out differences in ideas and it is a complex development schema (Hatton & Ladd, 2002). However, when critical thinking description of Ennis discussed in details, it can be pointed out that the CT definition merely has a cognitive focus, and do not include any affective factors in CT, or any behavior of a critical thinker, which is generally regarded as the dispositions or the tendency for CT.

As we have mentioned before, there are some problematic cases in teaching, implementing and assessing of critical thinking due to the fact that the definition of critical thinking is not clear enough and it is not like a simple reading skill to teach. In addition, some studies show that the understanding of critical thinking is also varied among scholars and educators. Dike investigated some faculty member's perceptions of critical thinking. In her investigation, she discovered that although there was some agreement, there was not total agreement on the concept of critical thinking among these educations (Dike, 2001).

Why these problems and different understandings occur, then? Scholars differ on their constructions of their understanding and agreement of critical thinking as a concept. Paul (1990) analyzed several definitions of critical thinking, and he suggests that one should retain a host of definitions as the definition of no one covers all of the dimensions of critical thinking. He suggests that by using a combination of definitions, one can avoid the limitations of each. On the other hand, Ballin, Case, Coombes and Daniels (1990:285) note that agreement about critical thinking persists only so long as "theorists remain at the level of abstract discussion and permit the use of the term to remain vague". These scholars stress that as soon as theorists interpret the term critical thinking in such a way as to provide a clear conception of critical thinking, agreement evaporates. This difference has probably created confusion among practitioners trying to teach and assess critical thinking.

For the past 20 years, it is also the consensus that this attribute is same for in college graduates. The United States has been described as a "nation at risk" because the USA is failing to provide students with the most essential component of education and instruction that foster the development of the ability to think (National Commission of Excellence in Education, 1983). Steen (1987) summarized the results of an international study on mathematical reasoning with this warning:

> "…in the 15 years, the ability of the U.S. students to think (rather than to memorize) has declined accordingly. A report by the American Association of Medical Colleges, stated "…students are not prepared as critical and quantitative thinkers and clinical problem solvers either when they enter or graduate from medical school."

2.2.1. A Delphi Report on Critical Thinking

After discussing some key definitions, implementations and problematic issues in critical thinking, we will focus on a very important study realized by forty six scholars, experts and theoreticians on the conceptualization of critical thinking though a study method called "Delphi Method". This method enables a great number of many scholars, practitioners, experts to fulfill a study even if they are not at the same place. It is stated in the report that "The Delphi Method requires the formation of an interactive panel of experts. These people must be willing to share their expertise and work toward a consensus resolution of matters of opinion. In all forty-six people, widely recognized by their professional colleagues to have special experience and expertise in CT instruction, assessment or theory, made the commitment to participate in this Delphi project." (Facione, 1989)

Delphi report includes some dimensions of CT issue such as the definition and sub-skills (see Table 1) of CT, consensus statement on the teaching and assessment of critical thinking and so on. The definition and the description of the ideal critical thinker stated in the report are that:

> "We understand critical thinking to be purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as

> explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based. CT is essential as a tool of inquiry. As such, CT is a liberating force in education and a powerful resource in one's personal and civic life. While not synonymous with good thinking, CT is a pervasive and self-rectifying human phenomenon. The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. … developing CT skills with nurturing those dispositions which consistently yield useful insights and which are the basis of a rational and democratic society" (Facione, 1989).

The experts characterize certain cognitive skills as central or core CT skills. The experts are not, however, saying that a person must be proficient at every skill to be perceived as having CT ability. The experts to be virtually unanimous (N>95%) on including analysis, evaluation, and inference as central to CT. Strong consensus (N>87%) exists that interpretation, explanation and self-regulation are also central to CT. It is stated in the report that:

> "There is consensus that one might improve one's own CT in several ways. The experts agree that one could critically examine and evaluate one's own reasoning processes. One could learn how to think more objectively and logically. One could expand one's repertoire of those more specialized procedures and criteria used in different areas of human thought and inquiry. One could increase one's base of information and life experience."

The experts do not regard CT as a body of knowledge to be delivered to students as one more school subject along with others. Like reading and writing, CT has applications in all areas of life and learning. Also as with reading and writing, CT instruction can occur in programs rich with discipline-specific content or in programs which rely on the events in everyday life as the basis for developing one's CT. It is reported that:

> "One implication the experts draw from their analysis of CT skills is this: while CT skills themselves transcend specific subjects or disciplines, exercising them successfully in certain contexts demands domain-specific knowledge, some of which may concern specific methods and techniques used to make reasonable judgments in those specific contexts."

Although the identification and analysis of CT skills transcend, in significant ways, specific subjects or disciplines, learning and applying these skills in many contexts require domain-specific knowledge. This domain-specific knowledge includes understanding methodological principles and competence to engage in norm-regulated practices that are at the core of reasonable judgments in those specific-contexts. The explicit mention of "evidential, conceptual, methodological, criteriological, or contextual" considerations in connection with explanation reinforces this point. As Facione (1989) accentuates, “too much of value is lost if CT is conceived of simply as a list of logical operations and domain-specific knowledge is conceived of simply as an aggregation of information” Inquiry into the core of reasonable judgment and actual applications can produce new appreciations of the necessity of concepts of both CT and domain-specific knowledge in education.

2.2.1.1.The Cognitive Skills Dimension

The cognitive skill dimensions of critical thinking are that an effective critical thinking process includes both a cognitive skill dimension and a dispositional dimension. The consensus of cognitive skills and the sub-skills are introduced, as follows:

TABLE 1: The Consensus on the Descriptions of Each of The Skills And Sub-Skills Of CT

CONSENSUS LIST OF CT COGNITIVE SKILLS AND SUB-SKILLS		
	SKILLS	**SUB-SKILLS**
1	**INTERPRETATION**	Categorization Decoding Significance Clarifying Meaning
2	**ANALYSIS**	Examining Ideas Identifying Arguments Analyzing Arguments
3	**EVALUATION**	Assessing Claims Assessing Arguments
4	**INFERENCE**	Querying Evidence Conjecturing Alternatives Drawing Conclusions
5	**EXPLANATION**	Stating Results Justifying Procedures Presenting Arguments
6	**SELF-REGULATION**	Self-examination Self-correction

As it is stated in the Table 1, CT skills can usefully be grouped and sub-classified in a number of legitimate ways. Hence, the sub-classification which resulted from this Delphi research should not be interpreted as necessarily excluding all others. Indeed, while declaring themselves to be in agreement with this sub-classification, various participating experts have also published their own sub-classifications. While characterizing each skill and sub-skill is important, creating arbitrary differentiations simply to force each and every sub-skill to become conceptually discrete from all the others are neither necessary nor useful. In practical contexts the execution of some skills or sub-skills may presuppose others.

Many of the CT skills and sub-skills identified are valuable, if not vital, for other important activities, such as communicating effectively. Also CT skills can be applied in concert with other technical or interpersonal skills to any number of specific concerns such as programming computers, defending clients, developing a winning sales strategy, managing an office, or helping a friend figure out what might be wrong with his car (Facione, 1989). In part this is what the experts mean by characterizing these CT skills as pervasive and purposeful. Not every useful cognitive process should be thought of as CT (Facione, 1989). Not every valuable thinking skill is CT skill. It can be stated that CT is one among a family of closely related forms of higher-order thinking, along with, for example, problem-solving, decision making, and creative thinking.

The Delphi experts (Facione, 1989) find remarkable consensus on the descriptions of each of the skills and sub-skills. (See Table 2) The examples associated with each sub-skill are intended as clarifications. Some might see in them suggestions of possible instructional or assessment strategies. Others might see in them the tools to initiate staff development conversations about the curricular implications. However, the panel's consensus has to do with the skill and sub-skill descriptions, and does not necessarily extend to the examples. Also one may underline that there are many different kinds of taxonomies, or classifications of critical thinking skills, most of which are created by respected scholars and may ask

that why this research especially focuses on the critical thinking classification of Delphi research. The most appropriate answer is that there are many classifications of critical thinking skills because CT is an interdisciplinary issue having been discussed by educators, philosophers, many fields of psychology so far. The result is thousands of descriptions CT, different kinds of classifications and so on. However, when the academic background of the panelists involved in CT studies in Delphi process are investigated carefully, it can be seen that those respected contemporary scholars represent different fields, involved in CT studies, which lead researcher to give an extra attention to the study.

Another ponder point in this report is that the habit and tendency of critical thinking have been underlined much more than the previous academic studies did. In Table 2, we will discuss the cognitive domains of critical thinking and certain skills and attitudes to be displayed by a critical thinker will be reviewed. However, the consensus is that if one does not have a tendency to think critically, or simply one is a lazy person, s/he is not defined as an effective critical thinker whether he puts the evidence of a high order thinking skills ability in an assessment test. Please refer to Appendix 1 for a brief list Cognitive Dimensions of CT.

2.2.1.2. The Dispositional Skills Dimension

According to the experts, an effective critical thinker is habitually disposed to engage in, and to encourage others to engage in, critical judgment. She is able to make such judgments in a wide range of contexts and for a wide variety of purposes. The Panelists are in general accord with the idea that there is a critical spirit, a probing inquisitiveness, a keenness of mind, a zealous dedication to reason, and a hunger or eagerness for reliable information which good critical thinkers possess but weak critical thinkers do not seem to have. They stated that:

> It is evident that there are dispositional components to critical thinking specifically in the descriptions of self-examination and self-correction. Indeed each cognitive skill, if it is to be exercised appropriately, can be correlated with the cognitive disposition to do so. In each case a person who is proficient in a given skill can be said to have the aptitude to execute that skill,

> even if at a given moment the person is not using the skill. But there was a great deal more many experts wished say in regard to the personal traits, habits of mind, attitudes or affective dispositions which seem to characterize good critical thinkers.
> (Facione, 1989)

One may infer that the great contribution to the literature of CT made by Delphi experts is that they do not simply focus on the cognitive aspect of the CT, but also they underline the importance of being in need of CT as a person. It is stated in the report that CT may help people overcome the blind, sophistic, or irrational defence of intellectually defective or biased opinions. CT promotes rational autonomy, intellectual freedom and the objective, reasoned and evidence based investigation of a very wide range of personal and social issues and concerns. Therefore it would be wrong to comment that these "habits of mind" accentuated in the report can be acquired through a CT lesson aiming at teaching student high order thinking skills. Another commentary made by the experts emphasizes on this issue by noting that "From early childhood people should be taught, for example, to reason, to seek relevant facts, to consider options, and to understand the views of others. It is neither impractical nor unreasonable to demand that the educational system teach young people the habits of mind which characterize the good critical thinker, reinforce those practices, and move students well down the path toward their attainment." (Facione, 1989).

Another important contemporary pioneer of critical thinking movement, Richard Paul (1993) models critical thinking in a similar way with the Facione's Delphi Report. He states that there are simply two kinds of critical thinking process, one of which is "the weak sense" and the other is "the strong-sense". He concludes that if you approach critical thinking as a method for defending your initial beliefs or those you are paid to have, you are engaged in "weak sense critical thinking". The purpose of weak-sense critical thinking is to resist and annihilate opinions. On the other hand, strong-sense critical thinking requires us to apply the critical questions to all claims, including our own. By forcing ourselves to look critically at our initial beliefs, it creates a protection against self-deception and conformity. When this two different study are synthesized, it can be inferred that one may display a cognitive

aptitude as a critical thinker, but if one is biased or do not possess the habit of thinking critically, it would be a mistake to call him/her an effective critical thinker. Thus, critical dispositions are the superior factors in identifying the attitudes a critical thinker.

Nearly two-thirds of the experts claimed that the term CT includes in its meaning a reference to certain affective dispositions and the roughly one-third minority who hold that CT refers only to cognitive skills and dispositions, but not to affective dispositions. The majority (61%) regard the dispositions listed in Table 2 as part of the conceptualization of CT. The consensus (83%) is that good critical thinkers can be characterized as exhibiting these dispositions.

TABLE 2: Dispositions of Critical Thinking

AFFECTIVE DISPOSITIONS OF CT APPROACHES TO LIFE AND LIVING IN GENERAL	**AFFECTIVE DISPOSITIONS OF CT APPROACHES TO SPECIFIC ISSUES, QUESTIONS AND PROBLEMS**
• inquisitiveness with regard to a wide range of issues, • concern to become and remain generally well-informed, • alertness to opportunities to use CT, • trust in the processes of reasoned inquiry, • self-confidence in one's own ability to reason, • open-mindedness regarding divergent world views, • flexibility in considering alternatives and opinions, • understanding of the opinions of other people, • fair-mindedness in appraising reasoning, • honesty in facing one's own biases, prejudices, • stereotypes, egocentric or sociocentric tendencies, • prudence in suspending, making or altering judgments, • willingness to reconsider and revise views where honest reflection suggests that change is warranted.	• clarity in stating the question or concern, • orderliness in working with complexity, • diligence in seeking relevant information, • reasonableness in selecting and applying criteria, • care in focusing attention on the concern at hand, • persistence though difficulties are encountered, • precision to the degree permitted by the subject and the circumstance.

In order to point out the subskills of dispositional CT skills, one may refer to the criteria of "The California Critical Thinking Dispositions Inventory (CCTDI)" (Facione & Facione, 1992), a test aiming at assessing CT dispositions. The seven subskills of CCTDI (Facione et al., 1992) include:

1. Truth-seeking: Targets the disposition of being eager to seek the best knowledge in a given context, courageous about asking questions, and honest and objective about pursuing inquiry even if the findings do not support one's self-interests or one's preconceived opinions.

2. Open-mindedness: Measures one's tolerance of divergent views and sensitivity to the possibility of one's own bias.

3. Analyticity: Assesses prizing the application of reasoning and the use of evidence to resolve problems, anticipating potential conceptual or practical difficulties, and consistently being alert to the need to intervene.

4. Systematicity: Measures being organized, orderly, focused, and diligent in inquiry.

5. Inquisitiveness: A measure of one's intellectual curiosity and desire for learning even when the application of the knowledge is not readily apparent.

6. CT self-confidence: Measures the trust one places in one's own reasoning processes. CT self-confidence allows one to trust the soundness of one's own reasoned judgments and to lead others in the rational resolution of problems.

7. Maturity: Targets the disposition to be judicious in one's own decision-making. The CT-mature individual is one who approaches problems, inquiry, and decision-making with a sense that some problems are necessarily ill-structured, some situations admit more than one plausible option, and many times judgments must be made based on standards, contexts and evidence that preclude certainty.

2.3. Blooms Taxonomy

When reviewing the literature on critical thinking, it is impossible not to mention Bloom's taxonomy of educational objectives. In 1956 Benjamin Bloom published the taxonomy of educational objectives. Bloom was Director of the Board of Examination at the University of Chicago when he needed a framework to facilitate exchange of test items among faculty across several colleges. From 1949 to 1956 measurement specialists, including Bloom, met every six months. Their objective was to create banks of tests items to measure educational objectives across the colleges (Anderson & Krathwhol, 2001)

Bloom's taxonomy continues to be widely accepted and taught. Benjamin Bloom and a group of educational psychologists developed a list of educational objectives in three overlapping learning domains: cognitive (knowledge), psychomotor (skills), and affective (attitude) at the American Psychological Association in 1948 (Anderson & Krathwohl, 2001; Bloom & Krathwhol, 1956; Gronlund, 1970 as cited by Kearsley, 2003).

Bloom's Taxonomy categorizes objectives from simple to conceptual. Different levels of objectives are appropriate for different purposes and for students at different stages of development. It is a framework for classifying statements of what we expect our students to learn because of instruction. Bloom's original taxonomy is presented in Table 3.

TABLE 3: Taken from the Book "Taxonomy of Educational Objectives" (Bloom,1956)

Bloom's Taxonomy

The Taxonomy of Educational Objectives: Cognitive Domain

1.0 *Knowledge*
- 1.10 Knowledge of Specifics
- 1.11 Knowledge of Terminology
- 1.12 Knowledge of Specific Facts
- 1.20 Knowledge of Ways and Means of Dealing with Specifics
- 1.21 Knowledge of Conventions
- 1.22 Knowledge of Trends and Sequences
- 1.23 Knowledge of Classifications and Categories
- 1.24 Knowledge of Criteria
- 1.25 Knowledge of Methodology
- 1.30 Knowledge of Universals and Abstractions n a Field
- 1.31 Knowledge of Principles and Generalizations
- 1.32 Knowledge of Theories and Structures

2.0 *Comprehension*
- 2.10 Translation
- 2.20 Interpretation
- 2.30 Extrapolation

3.00 *Application*
The use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods. The abstractions may also be technological principles, ideas, and theories which must be remembered and applied.

4.0 *Analysis*
- 4.10 Analysis of Elements
- 4.20 Analysis of Relationships
- 4.30 Analysis of Organizational Principles

5.0 *Synthesis*
- 5.10 Production of Unique Communication
- 5.20 Production of a Plan, or Proposed Set of Operations
- 5.30 Derivation of a Set of Abstract Relations

6.0 *Evaluation*
- 6.10 Judgments in Terms of Internal Evidence
- 6.20 Judgments in Terms of External Criteria

The cognitive levels above knowledge and comprehension are generally considered to be higher order reasoning skills, components of critical thinking.

The first taxonomy has been used extensively by educators to assess student learning and to create learning objectives. Teachers have been using Bloom's Taxonomy to teach their students teachers how to "classify student objectives, activities, and assessments"(Krathwohl, 2002). Krathwohl presents a revised version that includes a second dimension, Cognitive Processes (2002). The revised version includes two tables: one that updates "The Knowledge Dimension" previously included in the original taxonomy and a new dimension "The Cognitive Process Dimension" in Table 4.

TABLE 4 is a study fulfilled by Krathwohl (2002) to upgrade Bloom's Taxonomy.

Structure of the Cognitive Process
Dimension of the Revised Taxonomy

1.0 Remember – Retrieving relevant knowledge from long-term memory.
- 1.1 Recognizing
- 1.2 Recalling

2.0 Understand – Determining the meaning of instructional messages, including oral, written, and graphic communication.
- 2.1 Interpreting
- 2.2 Exemplifying
- 2.3 Classifying
- 2.4 Summarizing
- 2.5 Inferring
- 2.6 Comparing
- 2.7 Explaining

3.0 Apply – Carrying out or using a procedure in a given situation
- 3.1 Executing
- 3.2 Implementing

4.0 Analyze – Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose.
- 4.1 Differentiating
- 4.2 Organizing
- 4.3 Attributing

5.0 Evaluate – making judgments based on criteria and standards.
- 5.1 Checking
- 5.2 Critiquing

6.0 Create – Putting elements together to form a novel, coherent whole or make an original product.
- 6.1 Generating
- 6.2 Planning
- 6.3 Producing

According to Bloom (1956), an acceptable response at a particular level assumes that one can exhibit the cognitive processes at all of the lower levels. For instance, being asked to design a study to determine how much student learning is caused by teacher enthusiasm would be a synthesis level item. This would require a student to know about each aspect of the study such as research design and data collection (knowledge), know what each aspect of the study means, such as why an

“case study” would be an appropriate research method for a specific hypothesis (comprehension); apply these abstract concepts to a particular situation (application); and tie in each of these separate concepts together such that each component becomes an integral part of the newly created product (synthesis). Appendix 2 gives detailed information of these skills.

However, Hierarchy of Critical Thinking developed by Bloom has some limitations in defining the mechanisms of cognitive aspect of CT in that levels of thinking processes are, actually, not hierarchical (Ennis, 1993). Ennis (1993) points out the problem of Bloom’s taxonomy by saying that “This conception (addressing Bloom’s model) is a good beginning, but it has some problems…the levels are not really hierarchical, as suggested by the theory, but rather interdependent” To give an example, the evaluation phase of Bloom’s taxonomy can be displayed unless all the stages such as analysis, synthesis are fulfilled. However, it is a fact that one need to monitor his/her own thinking process at any level, whether that thinking level is synthesis or application, high order thinking skills or not. The importance of monitoring self-thinking process was accentuated in Facione’s study (1990), namely, “self-regulation” including the subskills “self-correction” and “self-evaluation”

2.4. Socratic Questioning Method

Socratic Inquiry is a technique of questioning created by Greek philosopher and teacher Socrates. The questioning model of Socrates has been widely used in education, law and in many other disciplines. The underlying principle of Socratic Questioning is that it fosters critical thinking through inquiry. Many academic studies searching for an effective teaching methods and approaches in classes are conducted on Socratic model and, among these studies, four models are widely known: Paul's (1990) Socratic Questioning model, Adler's (1984) Paedeia Socratic Seminar programme, Van Tassel-Baska's (1986) Epistemological Concept Model and Lipman's (1980) model of Philosophy for Children.

Socrates' teaching was done orally. He developed the Socratic method of questioning, one that leads individuals to logical conclusions through the inductive approach. As its goal is to reach a true and universal definition, it requires the questioning of what is assumed to be true. In this style of teaching, there is the persistent asking of important questions in pursuit of lasting values (Rivlin, 1943). As developed by Socrates, this quiz method has two stages, the `ironic' or destructive phase and the `maieutic' or constructive phase.

In the destructive phase, by skilful questioning, the student is brought from unconscious secondary ignorance to conscious ignorance. In the constructive phase, by further questioning, the student is led from conscious ignorance to clear and rational truth. Inquiry in the classroom needs what Reed (1992) calls "scholarly ignorance", which has its basis in Socrates. In the "Socratic" method, the teacher utilizes dialogue to bring the student to the point where he is able to realize his "ignorance" and thus acquire the attitude of the learner.

Therefore, so as to form a habit of inquiry, the students should acquire knowledge actively and through pragmatic observation. In the conventional classroom, knowledge tends to be acquired passively and through observation. In the Socratic Method, the teacher utilizes questions and discussion to take the control of the information to which the students are exposed. Student responses are shaped and directed by questions, and use is made of the correct part of the answer. Such questions usually lead students to deeper meanings.

To utilize Socratic Questioning Method in the classroom, students should be encouraged to ask questions and be active participants in learning rather than passive recipients or spectators. There should be less emphasis on acquiring massive amounts of facts in their lessons and more on acquiring the ability to reason well and think for oneself. The teacher needs to encourage self reflection to encourage thanking. The students may, then, become autonomous learners and critical and evaluative thinkers. The role of Socratic Thinking in ELT classes can now be better defined since active participation in language classes is a goal of ELT instructors and

questioning anything they learn will no doubt lead learners of English to possess a better understanding of language and to achieve a communication in the class.

In order to put Socratic questioning method into practical use, there are many studies have been carried out up to now. Among all these, the taxonomy of Richard Paul (1993) is perhaps the most important one. In this acclaimed book, "Critical Thinking: How to Prepare Students for a Rapidly Changing World", Paul (1993) mentions the importance of using Socratic Questioning Method in educational context by stating that "Socratic questioning is a simple yet strong method for exploring ideas or statements in depth and breadth. It is applicable in all courses and an essential tool of all teachers of thinking. In simplest form, it involves:

- Selection of a question or issue of interest
- Production and examination of a central statement from some source or produced by a student in response to the question or issue
- Clarification of the statement and its relationship to the question or issue
- Listing and critical examination of Support, Reasons, Evidence, and Assumptions related to the central statement
- Exploration of the Origin or Source of the statement
- Developing and critically examining the Implications and Consequences of the statement
- Seeking and fairly examining Conflicting Views (alternative points of view)".

The taxonomy of Socratic questions, created by Richard Paul, is not a hierarchy in the traditional sense. The categories build upon each other, but they do not necessarily follow a pattern or design. One question's response will lead into another category of questioning not predetermined by the teacher/facilitator. Table 5 shows the taxonomy of Socratic Thinking designed by Paul(1993):

TABLE 5: Adapted from Richard Paul, Critical Thinking: How to prepare students or a rapidly changing world, Sonoma State University:California.(1993:341,342)

Socratic Questioning

1. Questions of Clarification

- What do you mean by …….?
- What is your main point …… ?
- How does ……..relate to …….?
- Could you put that another way?
- What do you think is the main issue here?
- Let me see if I understand you; do you mean ……. or ……..?
- How does this relate to our discussion/problem/issue?
- What do you think Faizal meant by his remark?
- Mei Ling, would you summarise in your own words what Praveen has said? ……. Praveen, is that what you meant?
- Could you give me an example?
- Would this be an example: …..?
- Could you explain that further?
- Would you say more about that?
- Why do you say that?

2. Questions that Probe Assumptions

- Why do you think that is true?
- Do you have any evidence for that?
- What difference does that make?
- What are your reasons for saying that?
- What other information do you need?
- Could you explain your reasons to us?
- But is that good evidence to believe that?
- Is there reason to doubt that evidence?
- Who is in a position to know if that is so?
- What would you say to someone who said ……..?
- Can someone else give evidence to support that response?
- By what reasoning did you come to that conclusion?
- How could we find out whether that is true?

3. Questions about Viewpoints or Perspectives

- You seem to be approaching this issue from ……. perspective. Why have you chosen this rather than that perspective?
- How would other groups/types of people respond? Why? What would influence them?
- How could you answer the objection that ……. would make?
- What might someone who believed ……. think?
- Can/did anyone see this another way?
- What would someone who disagrees say?
- What is an alternative?
- How are Kong Beng and Rosli's idea alike? Different?

4. Questions that Probe Implications and Consequences

- What are you implying by that?
- When you say ……. are you implying …….?
- But if that happened, what else would happen as a result? Why?
- What effect would that have?
- Would that necessarily happen or only probably happen?
- If this and this are the case, then what else must be true?
- If we say that this is unethical, how about that?

5. Questions about the Question

- How can we find out?
- What does this assume?
- Would …… put the question differently?
- Why is this question important?
- How could someone settle this question?
- Can we break this question down at all?
- Is the question clear? Do we understand it?
- Is this question easy or hard to answer? Why?
- Does this question as us to evaluate something?
- Do we all agree that this is the question?
- To answer this question, what questions would we have to answer first?
- I'm not sure I understand how you are interpreting the main question at issue.
- Is this the same issue as ……?
- How would ……. put the issue?

2.5. Assessment of Critical Thinking Skills

Assessment of critical thinking is a very important element of instruction and studies of CT. During the last decades, as the understanding and definition of CT changed, the content and form of the CT tests and inventories changed accordingly. The earlier CT tests basically focused on the cognitive abilities of the students. Later ones also have a focus on the affective factors and dispositions of critical thinking. Facione (1990) and et al. underline some crucial points of assessment of CT to ponder over, as follows;

> "… One way is to observe a person over time performing those activities, processes or procedures generally regarded as presupposing that skill for proper execution. One then makes a judgment regarding the degree to which the person possesses the general skill in question. A second way is to compare the outcomes (if any) that result from executing a given skill against some set of criteria. A third way is to query persons and receive their descriptions of the procedures and judgments they are using as they exercise that skill, would use if they were to perform that skill, or did use when they performed that skill. A fourth way is to compare the outcomes (if any) that result from performing another task against some set of criteria, where the performance of that other task has been shown to correlate strongly with exercising the skill of interest. However, that such correlations exist between any other task and CT, or any of its sub- skills, has yet to be established in the research literature. Each of the four ways of CT assessment has limitations as well as strengths. No matter which ways are used, it is important to ensure that the assessment conditions foster an attitude in which the subjects are disposed to use their skills as well as they can, and are not constrained or inhibited from doing so. In our view it is highly advantageous to gather evidence regarding CT performance in many situations, using several assessment methods, so as to compile a composite picture of the subject and to cross check the results of any one way of assessment."

Pointing out the ways of assessing CT skills, Facione also reminds us the importance of evaluation of dispositions by underlying that any CT test claiming to be valid and reliable would not fulfil this claim unless it assesses dispositions as well. Facione (1990) recommends teachers and institutions preparing CT tests by saying that "In evaluating the acceptability of a CT assessment strategy or instrument one should consider content validity, construct validity, reliability, and fairness" The following 4 aspects of assessment strategies have been extracted from the Delphi report of Facione (1990), as follows:

1. Content Validity: The strategy or instrument should be based on an appropriate conceptualization of CT and a clear understanding of which aspects of CT the assessment targets. Each task or question should be evaluated to insure that correctly responding to that item is not a matter of rote learning or information recall. Whether for the classroom or for broader educational purposes, CT assessment should include strategies for targeting CT's dispositional dimension as well as its cognitive skills dimension.

2. Construct Validity: In acceptable CT assessment each task or question should have been evaluated to insure that students who answer correctly do so on the basis of good CT and that inadequate or wrong responses are the result of weak or inadequate CT. Entire strategies or specific items on which good CT leads to wrong answers, or poor CT to right answers, should not be used.

3. Reliability: In acceptable CT assessment each task or question should have been evaluated to insure that good critical thinkers generally do better on that item than weak critical thinkers. If different persons are involved in evaluating the results, for example grading essays or judging presentations, the evaluations of the different judges should be cross-checked to assure that their findings are reliable, that is, generally consistent with one another. However, it is an open question whether the levels of achievement associated with the different CT sub-skills and affective dispositions are positively correlated. Empirical research on how the sub-skills correlate with each other and with various dispositions has yet to be undertaken. Thus, at this time, due caution should be exercised regarding how to interpret technical measures of test-form reliability in the case of paper and pencil CT assessment instruments.

4. Fairness: CT assessment should not unfairly disadvantage or advantage groups of students on the grounds of reading ability, domain-specific knowledge (broadly understood as including the evidential, conceptual, methodological, criteriological, contextual considerations, or familiarity with technical vocabulary), gender or age related life experience, ethnicity or socioeconomic status, differences in social

norms, or differences in cultural assumptions. CT assessment locates CT tasks and questions in some assumed context, either subject-specific, everyday life, or fictional. Thus, guaranteeing that all students, regardless of their individual backgrounds, will come to the CT assessment on a perfectly equal basis in terms background knowledge, reading ability, life experiences, etc. is impossible. However, examining the assessment strategy or instrument to be sure that these factors do not unfairly influence the results is prudent and reasonable. Although one cannot eliminate the influence of these variables, one may be able to neutralize or control for their affects.

The fairness criterion applies both to discipline-neutral and discipline-specific CT assessment. Within curricular programs discipline-specific CT assessment is encouraged, since it is possible for one to be fair in one's presumptions regarding subject-specific criteria, methodologies, concepts, evidence, information and terminology. The challenge of such assessment is to factor out the discipline content in order to access the strength or weakness of the CT. It is worth noting that discipline-neutral CT assessment makes similar assumptions regarding the everyday contexts which form its topic content (Facione 1990).

2.5.1. Assessment of CT Dispositions

The issue of assessment poses one of the greatest challenges to the concept of thinking dispositions. As Robert Ennis noted, "a fundamental problem in assessing critical thinking dispositions, "...is that a disposition is something we want students to evidence on their own- without being pushed or prompted to evidence it" (Ennis, 1994). Traditional assessments, particularly multiple choice tests, measure only ability, and tell us nothing about how the learner is disposed to think without external prompts or guidance. Essay tests, such as the Ennis-Weir critical thinking Essay test, do a better job of eliciting students' thinking dispositions, but they don't discriminate between the influence of disposition and ability on performance, and they can even fail to fully reveal critical thinking abilities, because of students' countervailing dispositional influences (Norris, 1994). Ennis argues that the most promising way to

assess critical thinking dispositions is through guided open-ended opportunities (Ennis, 1994). These are opportunities for students to pursue any pattern of thinking they want, in response to a specific problem situation.

For example, Stephen Norris is exploring assessments that challenge students with an open-ended yet focused problem situation, such as a search for living creatures on another planet. The problem provides students with some information from which it is possible to derive hypotheses, interpretations, and conclusions, although students are not explicitly directed to do so. According to Norris, an analysis of students' responses can reveal the critical thinking dispositions they bring to the task.

Another quite different approach to the assessment of thinking dispositions is through self-report of attitudes, opinions, beliefs and values. The most well-known example of this approach is the California Critical Thinking Dispositions Inventory (CCTDI), developed by Peter Facione and Noreen Facione(1992). This is a 75 item survey, to which students respond to each item using a six-point Likert scale ranging from "strongly agree" to "strongly disagree." For example, two items chosen at random from the inventory are: We can never really learn the truth about most things, and The best argument for an idea is how you feel about it at the moment. Based on students' responses to these and similar questions, the CCTDI provides a profile of seven critical thinking sub-dispositions: truthseeking, openmindedness, analyticity, systematicity, critical thinking self-confidence, inquisitiveness, and maturity. The CCTDI was written to be used at the college-level, but has been adapted with some success to earlier grades. Unlike the assessments proposed by Ennis and Norris, it is a measure of critical thinking disposition only; it does not measure cognitive ability, nor does discriminate between the contributions of ability and disposition to intellectual performance.

A third approach to the assessment of thinking dispositions is currently being developed by David Perkins, Shari Tishman, and Albert Andrade. Based on the Perkins-Tishman-Jay triadic definition of thinking dispositions, this approach aims to

distinguish between cognitive ability, inclination, and sensitivity, and assesses their relative contribution to overall critical thinking performance. The Perkins-Tishman-Andrade assessment instruments consist of a three-task sequence. Each task is designed to isolate one element of the dispositional triad.

In task one, thinking shortcomings are embedded in a story text-shortcomings such as overgeneralization, or a failure to seek alternative options. Students are asked to read the text and identify any problems, puzzles or concerns they have with it. Task one measures sensitivity to thinking occasions. In task two (which typically but not necessarily immediately follows task one), the embedded shortcoming are made salient, and students are invited to respond to them directly. Task two measures inclination, and it is similar to the "guided open-ended opportunity" encouraged by Ennis and Norris. Task three, which typically is administered a few days after tasks one and two, reintroduces students to the shortcomings and explicitly asks students to respond to them in a particular way. For example, if the shortcoming consists of a character in a story failing to seek alternative options in a situation where it is important to do so, task three will explicitly ask students to generate alternative options for the character. In this way, task three "stands in" for sensitivity and inclination, and directly measures cognitive ability. Early testing of the Perkins-Tishman-Andrade prototype instruments indicates that the three-task sequence can reveal reliable information about students' thinking dispositions. However, the instruments are still under development.

2.5.2. Tests and Inventories

As it can be inferred from four criteria of preparing effective CT test, it is not that easy to obtain a valid and reliable CT test scores. Nevertheless, there are many CT tests available in literature. Critical thinking is measured by:

- standardized critical thinking tests;
- critical thinking indicators or criteria as components of rubrics or grids for use in evaluating discussions, oral presentations, written papers, journals;

- Socratic questioning of thinking related to knowledge and actions or practice;
- evaluation of use of mind maps or graphic diagrams used to clarify concepts or connections;
- multimodal means and methods of assessment overtime to provide the most accurate picture of an individual's critical thinking ability;

The critical thinking texts can be classified under three topics. These are: (1).General Critical Thinking Tests, Covering More Than One Aspect of Critical Thinking (and thus, comprehensive to some degree), (2). General Critical Thinking Tests Covering Only One Aspect of Critical Thinking, (3). Subject Specific Critical Thinking Test.

2.5.2.1. General Critical Thinking Tests, Covering More Than One Aspect of Critical Thinking

Assessment of Reasoning and Communication, (1986): Reasoning Subtest offered in conjunction with writing and speaking subtests. The test mostly aims at students finishing college, but probably it is also usable with other levels as well. The test is an open-ended, requiring student to produce three short essays and three short speeches. Locally gradable, requiring graders to make judgments about pertinence, relevance, plausibility, reasonableness, and realism of student responses; graded on the basis of the number of responses judged successful (from 0 to 4). Yields total subtest score plus part scores in social reasoning, scientific reasoning, and artistic reasoning.

The California Critical Thinking Cognitive Skills Test (CCTCST), (1990): The CCTCST is a 34-item tool designed to measure the cognitive skills of critical thinking. It assesses the extent to which one is able to analyze, evaluate, infer, and inductively and deductively reason when faced with a problem. It is composed of five cognitive skill dimensions: analysis, evaluation, inference, inductive reasoning and deductive reasoning.

The California Critical Thinking Dispositions Inventory (CCTDI, 1992): The CCTDI was designed to measure the extent to which an individual possesses the dispositions or characteristics of the ideal critical thinker. These dispositions are categorized into seven subscales as truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and maturity. The reported Cronbach's alpha reliability is .90. The subscale alpha reliability for the seven dispositions ranges from .72 to .80. It is composed of 75 items measuring seven dispositions.

Critical Thinking (1996): Author unlisted, but Alec Fisher has been instrumental in the development of this test. The test aims at post-secondary students. There are two parts in the test: a half-hour, 15-item, multiple-choice test of argument assessment; and a one-hour essay test calling for critical evaluation of an argument and for further argumentation.

Critical Thinking Interview (1998) was designed by Gail Hughes and Associates at Minnesota State Colleges and Universities. The test aims at college students and adults. It is based on an interview about one half hour for a one-to-one interview. People being tested are interviewed about an issue of their choice, and rated on a combination of their displayed knowledge and reasoning. Emphasis is on clarity, context, focus, credibility, sources, familiarity with the topic, assumption identification, and appropriate use of such reasoning strategies as generalization, reasoning to the best explanation, deduction, values reasoning, and reasoning by analogy.

Critical Thinking Test (1989) is one of a series of College Assessment of Academic Proficiency tests done by ACT, and aims at students at the end of their second year in college, though probably usable at other levels. The test is a multiple-choice items based on passages to be read. Calls for such things as identifying conclusions, inconsistency, and loose implications; judging direction of support, strength of reasons, and representativeness of data; making predictions; noticing other alternatives; and hypothesizing about what a person thinks.

The Ennis-Weir Critical Thinking Essay Test (1985), is by Robert H. Ennis and Eric Weir. The test aims at grades 7 through college. Also it is intended to be used as a teaching material, and incorporates getting the point, seeing the reasons and assumptions, stating one's point, offering good reasons, seeing other possibilities (including other possible explanations), and responding to and avoiding equivocation, irrelevance, circularity, reversal of an if-then (or other conditional) relationship, overgeneralization, credibility problems, and the use of emotive language to persuade.

ICAT Critical Thinking Essay Test (1996) is prepared at the "Center for Critical Thinking and Moral Critique", Sonoma State University. The test provides eight criteria (to be shown to students in advance and also used for grading by specially trained graders). Students respond to an editorial (selected by test administrator) and write an essay summarizing the editorial, identify its focus, and comment on its strengths, and weaknesses.

New Jersey Test of Reasoning Skills (1983) is designed by Virginia Shipman at the Institute for the Advancement of Philosophy for Children in Montclair State College. It aims at grades 4 though college. Multiple-choice questions incorporate with the syllogism (heavily represented), assumption identification, induction, good reasons, and kind and degree.

Ross Test of Higher Cognitive Processes (1976) is designed by John D. Ross and Catherine M. Ross at Academic Therapy Publications. It aims at grades 4-6 with multiple-choice sections on verbal analogies, deduction, assumption identification, word relationships, sentence sequencing, interpreting answers to questions, information sufficiency and relevance in mathematics problems, and analysis of attributes of complex stick figures.

Tasks in Critical Thinking (1993) is designed by Educational Testing Service, Princeton. A variety of more or less authentic tasks are offered calling for critical thinking. The test requires specially trained graders.

Test of Enquiry Skills (1979) is prepared by Barry J. Fraser at Australian Council for Educational Research Limited in Australia. It aims at Australian grades of 7-10 with multiple-choice questions, and sections on using reference materials (library usage, index, and table of contents); interpreting and processing information (scales, averages, percentages, proportions, charts and tables, and graphs); and (subject-specific) thinking in science (comprehension of science reading, design of experiments, conclusions, and generalizations).

The Test of Everyday Reasoning (1998) is designed by Peter Facione for California Academic Press. It is derived from The California Critical Thinking Skills Test (given above), with choices of justifications added.

The Watson-Glaser Critical Thinking Appraisal (WGCTA): The WGCTA is one of the most widely-used standardized test to measure the critical thinking skills. It has been undergone to measure gains in critical thinking abilities resulting from instructional programs in schools, colleges, and business and industrial settings; to predict success in certain types of occupations or instructional programs in which critical thinking has an important role, and to determine, for research purposes, the relationship between critical thinking abilities and other abilities and traits. There are five sub-tests in the appraisal: These are inference, recognition of assumption, deduction, interpretation, and evaluation of arguments.

Test of Inference Ability in Reading Comprehension (1987) is presented by Linda M Phillips and Cynthia Patterson in the institute for Educational Research and Development, Memorial University of Newfoundland, Canada. The test targets grades 6-8. Tests are for ability to infer information and interpretations from short passages. Also the multiple choice version (by both authors) and constructed response version (by Phillips only) is available.

Cornell Critical Thinking Test Level X (1985): Aspects of CT measured by the test are: induction, deduction, observation, credibility, and assumptions.

Cornell Critical Thinking Tests Level Z (1985): This test is aimed at grade 7 through college and consists of the aspects of induction, deduction, observation, credibility, and assumptions. These aspects make up of the sections induction, credibility, prediction and experimental planning, fallacies, deduction, definition, and assumption.

2.5.2.2. General Critical Thinking Tests Covering Only One Aspect of Critical Thinking

Cornell Class Reasoning Test (1964) is designed by Robert H Ennis, William L. Gardiner, Richard Morrow, Dieter Paulus, and Lucille Ringel at University of Illinois. This CT test mainly aims at grades 4-14.

Cornell Conditional Reasoning Test (1964) is designed by Robert H. Ennis, William Gardiner, John Guzzetta, Richard Morrow, Dieter Paulus, and Lucille Ringel at Illinois Critical Thinking Project, University of Illinois. Similar with the reasoning test of 1964, it aims at grades 4-14. There are multiple-choice tests for a variety of forms of (deductive) conditional reasoning in this test.

Test on Appraising Observations (1983), aiming at grades 7-14 with multiple-choice tests for ability to judge the credibility of statements of observation, is created by Stephen P. Norris and Ruth King for Institute for Educational Research and Development at Memorial University of Newfoundland.

2.5.2.3. Subject-Specific Critical Thinking Tests

Science Reasoning (1989): This test is one of a series of College Assessment of Academic Proficiency tests done by ACT, and aimed at students at the end of their second year in college, though probably usable at other levels. Multiple-choice items based on passages, diagrams, and tables. Although not deep in its requirement of science knowledge, this test expects some familiarity with scientific vocabulary and concepts. The test asks students to read with comprehension, identify conclusions, interpret data, evaluate experiments, draw probable conclusions from data, and hypothesize best explanations, and uses natural science content.

2.6. Critical Thinking Literature in ELT Studies

During the final decade of the 20th century, critical thinking became a focus in the field of language teaching. For several decades prior to the 1990s, critical thinking had been widely discussed and implemented in first language settings, particularly in Western educational institutions, such as the United States. Given that a number of educational concepts have entered second and foreign language teaching and learning from the general educational field, it is therefore not surprising that critical thinking has now become part of the ELT profession (Day, 2003).

As we mentioned, CT theories, instruction is under an intense attention of ELT researchers, scholars and teachers. Some studies discuss CT in ELT as a cognitive tool utilized for supporting the cognition of the students through language learning. Many language learning activities have been designed in this sense. Others focus on the dispositional aspect of CT theory and believe that the "communicative approaches era" will surely aid ELT teachers to lead their students to develop a sense of critical spirit and the social aspect of CT, namely; reflective thinking through language learning. These two views are not opposed to each other, and apparently, fields of CT and ELT have so much to share and contribute each other.

However, when we examine the literature in the field of ELT in details, we often find critical thinking called cognitive skills. For example, Short (1989) regards clarifying as a cognitive thinking skill. To make the situation even more difficult to resolve, Chamot and O'Malley (1987) use both terms, cognitive and critical, with no clear distinction. Moreover, critical thinking is often used synonymously with critical reading, often in the context of English for academic purposes.

Nevertheless, field of language learning is an indispensable area of experiments for CT researchers and the same attention is same for ELT experts since the relationship between use of language and thinking, and affect of quality of thinking in language learning are vital topics having been studied by the both experts

of these two fields, and it seems that there are so many blind spots are needed to be researched.

2.6.1. Interdisciplinary Background

Atkinson (1997) claims that critical thinking is essentially the value of the West. This, however, does not necessarily follow that it has not been recognized in the East. Critical thinking has been found in many schools of philosophy, especially within Indian and Chinese cultures (Hongladarom, 2000).

The main aim in ELT is to make students successful in their communication in the target language. Unlike the past, today most language educationists agree that the focus on language usage alone is inadequate for a world where English has already become a universal language. Pattern drilling and grammar practice and translating are not sufficient for successful communication. The current trend is more communicative, and in language education it is known as the communicative approach to language teaching. This movement focuses more on language in use rather than the mere isolated forms of language.

In the field of language studies, proponents of critical theory under the term critical discourse analysis, would like learners, both teachers and students, rather than being passive learners or passive consumers of data, to be more active and critical when they make sense of the text or discourse (Pennycook, 1997). Even though different approaches to critical thinking have been widely discussed and implemented in general education, especially in first language setting (L1), only became part of the ELT discourse during the last decade of the 20th century (Atkinson, 1997; Thompson, 2002; Day, 2003).

ELT and critical thinking theory have shared areas. Historical developments of both fields have also so much in common owing to the fact that they both benefit from the same pedagogical and psychological theories. To give an example, some decades ago, when CT development was in its infancy stage, mostly relying upon Dewey's and Bloom's studies, ELT methodology emphasized repetitive language

drills and memorizing vocabulary. In recent years, CT development has become widely taught, and ELT has shifted to a more collaborative learning environment where teachers are often more facilitators than dictators of information into students' accounts using Friere's (1970) "Tabula Rasa" analogy. The latest studies reveal the fact that CT is not only a cognitive skill, and that affective factors, called dispositions, are the key identifiers of one's ability to think critically. Thus, we may find another linkage between CT and ELT, which is the emerging importance of personal variables, emotions of learners. The Socratic questioning method is a significant proof of another relationship between ELT and CT, both of whose theory suggest an inductive perspective in their instruction.

2.6.2. Theoretical Relationships of ELT and CT

Critical thinking has become widely accepted in the ESL/EFL field. It was used first in composition, but has also become a component in both ESL and EFL reading texts and courses. Nevertheless, there are those who have presented a variety of arguments against using a critical thinking pedagogy in EFL classrooms.

Considering the concepts applicable to both ELT and CT, three different concepts should be taken into account, which are both related and different. These three concepts are: Learner-centered learning, cooperative learning, and collaborative learning (Hall & Hewings, 2001). All three involve groups working together to order to improve their individual and cooperative learning. As mentioned before, CT is a reflective skill. All three also is applied to both ELT and CT instruction.

The major tenet of learner-centered education is that learners are actively involved in their own learning process. Each is involved in the decision-making processes that affect their learning. Each element in the curriculum process involves the learner, including: (1) Planning, (2) Implementation, (3) Assessment and Evaluation (Hall & Hewings, 2001). However, even though getting involved in these three steps of learner-centered curriculum is beneficial for both ELT and CT instruction, hardly even is it accomplished.

Cooperative learning is a theory that promotes the development of thinking skills that are highly applicable to all learners (Davidson & Worsham, 1992). Cooperative learning includes ELT and CT for learning activities. These activities are based on a social interaction, leading the learners to develop their both personal and language communication skills. Davidson and Worsham (1992) note that cooperative learning can help learners improve cognition, increase thinking skills, better thinking processes, and facile social skills (Davidson & Worsham, 1992). For ELT learners, the improvement of cognition is clearly a benefit. In addition, the increased social skills can aid the learners to overcome some of the shyness that is often found in ELT learners (Celce-Murcia, 2001). To associate the statement of Celce-Murcia with the CT theory, we may recall that the presuppositions of the dispositions of CT include self-confidence and self-esteem.

Collaborative Learning (CL) in general allows learners to have access to more sense data, which is pivotal for effective language learning (Brown and Rodgers, 2002). Long (1997) has discussed one of the weaknesses of teacher-fronted, lock-step instruction, "whereby the teacher presents and practises the same material in the same way to and with all the learners simultaneously". He suggests the use of group work as an alternative. Learning together with peers and others allows learners to have access to more sense data or stimuli, anything that is able to cause response in us as human beings. Meaningful interaction is a crucial factor in language learning. CL is an important issue in ELT theory. Its basic principles is focused on instructor who (1) Explore a theory, (2) View examples, (3) Practice the principle, (4) Collaborative with other learners and finally, (5) Reflect on what has been learned (Cifuentes, 2001). Clearly, this multi-step process is similar to critical thinking practices. The understanding and application of collaborating in learning process in a social environment is shared by CT and ELT. This is similar to Social Constructivist pedagogy that fosters learning, how to teach, and language acquisition (Vygotsky, 1978). By realizing the impact of the learner's social environment, teachers can transform students into independent thinkers through social interaction, assisted by a mentor.

As seen, there are clear linkages between CT and ELT theory, and many other similarities can be pointed out. Suhor (1984) notes that:

> "Language as a way of thinking and learning, then, is not merely a pedagogical catchphrase. It is an essential element in every classroom and the most persuasive way of insuring that thinking skills are, in fact, being taught effectively in every subject area."

In communicative methodology, increasing emphasis is placed on language learning tasks which involve pair work and group work (Brown and Rogers, 2002). Communication basically is interaction. Collaboration or working together, in principle, creates more sense data, and many of such data are inputs for learners. According to Krashen's input hypothesis, the more comprehensible input, the better. Hence, the more students interact with each other, the better for language learning. Cooperative learning has been used as a method to increase learners' interaction.

According to Kumaravadivelu (1993, 12), the Communicative Approach has similar aims with the critical thinking theory. These are:

1. Seeking to promote interpretation, expression and negotiation of meaning, an attempt which requires the students to be active in order to be involved in such skills,

2. Encouraging students to ask for information, seek clarification, express an opinion, agree/disagree in order to participate in meaningful interaction,

3. Creating learning opportunities in class so that language will develop in its own way,

4. Contextualizing linguistic input presented to learners in units of discourse so that students can benefit from the interactive effects of linguistic components.

2.6.3. Critical Thinking and Language Learning

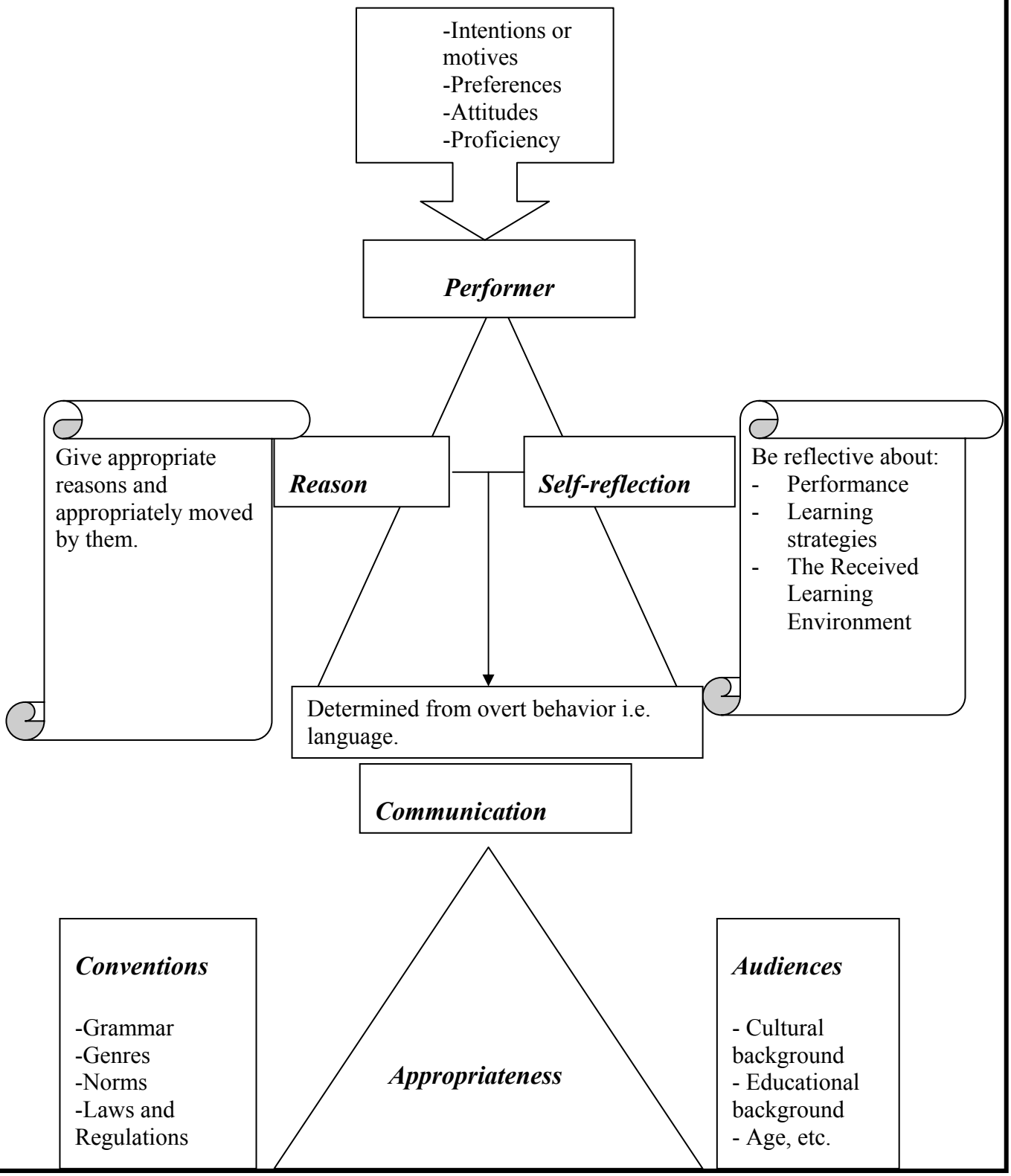
Critical thinking in language learning has two components: thinking critically about language learning and using language for reasoning. First, it requires that learners think critically, or be reflective about their own language learning, i.e. using strategies, attitudes towards language learning as well as their perception of their own ability. Secondly, critical learners need to use appropriate language to reason, and when they reason, they need to do so appropriately (Thadphoothon and Jones, 2004). Because it is not likely that we will be able to directly observe what is going on in people's heads in the near future, all we can do at the present is to infer how and what people think from the language they have produced. Many researches in the field of language learning have reported that competent language users are effective communicators, and that they have the ability to organize sentences or texts as well as use them for communication effectively (Bachman and Palmer, 2000). Critical thinkers are individuals who can sort "sense from nonsense" (Johnson and Johnson, 1994, p. 57). When language learners ask appropriate questions, build connections among ideas, they are thinking critically. Such learners are also creative and open to new experiences (Thadphoothon and Jones, 2004).

In teaching EFL students to think critically, usually the scope is limited to the following three characteristics: (1) Differentiation between fact and opinion, (2) Examination of assumptions, (3) Flexibility and open-mindedness whilst looking for explanations, causes, and solutions to problems.

The following model on Table 6 draws some cornerstone relations and possible interaction between critical thinking skills and language learning.

TABLE 6: "*A Performer's Model of Critical Thinking in Language Learning*" (Thadphoothon and Jones, 2004)

A Performer's Model of Critical Thinking in Language Learning



According to model of Thadphoothon and Jones (2004), critical thinking in language learning consists of two essential elements, which are reasoning and self-reflecting. Critical thinkers use reasons to serve their purposes or preferences. It is worth noting here that many people think well without any formal instructions. In fact, everybody thinks and uses language to mean. However critical thinkers apply a particular quality of thought. Although reasoning is drawn from other sources, it has specific applications in ELT, e.g., knowing how to adapt L1 culture and knowledge to a target language situation (Thadphoothon and Jones, 2004).

Self-reflective is what Oxford (1990) calls learning strategies and what Dearn (2003) refers to as reflective learning. It would be wise to recall that the term "reflective thinking" in education was first used by Dewey in 1933, and the idea of reflective thinking was established by Socrates. Dearn (2003) urges learners to be more reflective. According to Dearn (2003) it is very difficult for the learners to be reflective by themselves, so educators must design a course in ways that will make them "think harder about" their learning. Reflective elements have to be integrated into the existing course. To be constructively reflective, learners should be reflective about their own performance, the learning experience received (normally through the teaching of the teacher), and their ways of learning styles (how they learn or their learning strategies).

As directly observing how and what people think is not yet possible, researchers have to rely on overt behaviour, such as behaving and talking (Smith, 1992), and that is their communication through the use of language, and in this case English as a foreign/second language. Thadphoothon and Jones (2004:5) noted that as far as language use is concerned, appropriateness lies at the heart of communication. Learners think critically when they are being reflective about their language learning and can appropriately use English for communication. The language they use needs to be appropriate to the audience and they have to take into account the conventions. In addition, they need to consider their preferences and intentions, and recognize their limitations, i.e. their proficiency. Critical language

users rely on a variety of means to get their messages across. They gesture as well as utter the words. They improvise things to serve their intentions. They are active, and they can be passive when they need to be. If a learner does not behave in a certain manner or communicate using certain words, it may not be that they are incapable of performing them. It may be that they prefer not to. It is not easy to infer critical thinking behaviour from its performer's motives.

As illustrated, it can be determined that learners display self-reflection and reason through their behaviour, and through language learning. Appropriate communication means that learners take into account the audiences and the conventions, power relation and appropriateness, which means that they fulfil this process with the aid of critical thinking abilities. This model is in line with one of the main foci of many communicative approaches in language teaching, that is, the emphasis on appropriateness. Johnson and Johnson (1998) explain this focus as follows:

> " Language use reflects the situations of its use and must be appropriate to that situation depending on the setting, the roles of the participants, and the purpose of the communication."

Hymes (1974) proposed a concept of socio-linguistic competence as another component within the communicative competence. He suggested that an effective language learner needed both grammatical competence and socio-linguistic competence, that is, the learner needed to know a system of its usage and use. A critical language learner needs to be aware of the language as it is used within its speech community. Hymes explains how a child might acquire the communicative competence:

> " Within the social matrix in which it acquires a system of grammar a child acquires also a system of its use, regarding persons, places, purposes, and other modes of communication, etc. --- all the components of communicative events, together with attitudes and beliefs regarding them" (p. 75).

In order to communicate successfully, a person needs to take into consideration the communication context. Littlewood (1981) talks about two types of communicative activity: functional and social interaction activities. He suggests that

language educators should devise communicative activities that will enable learners (1) to use the language they know in order to get meanings across as effectively as possible and (2) to use it appropriately to the social setting he or she is in.

The learner needs good thinking and careful self-reflecting. In should be noted here that one of the most influential scholars in critical thinking, Siegel (1990), albeit at a deeper level of discourse, also defines a critical thinker as an individual who is "appropriately moved by reasons". The fact that the notion of appropriateness appears in both literatures may validate the significance of this construct.

On the model of Thadphoothon and Jones (2004), appropriate use of language for communication, however broad it can be, is situated next to self-reflection and reason. Critical thinking is a form of reasoning. Reasons suggest an awareness of cultural differences. The two concepts capture the essence of critical thinking in language learning. What about grammar? One may ask about the linguistic aspects of communicative competence. The simple answer would be that it is embedded into appropriateness. A learner may use English in a grammatically correct way, but his or her communication may fail if the language the use is inappropriate. Being appropriate in this sense also entails being grammatically correct. However, the term 'correct' needs to be elaborated. What people considered 'correct' yesterday may not be so in today's contexts. It must be emphasized here that the correlation between language in its narrow sense and thought may not be significant. Banesh Hoffman (1967, quoted in Thadphoothon and Jones, 2004) gave an account of how Einstein did his thinking when he and his colleague asked for help:

> " We would all pause and Einstein would stand up quietly and say in his quaint English, '*I will a little think* (*emphasis added*).' So saying, he would pace up and down and walk around in circles, all the time twirling a lock of his long grey hair around hid forefinger."

If Einstein had uttered such a sentence in an ELT classroom, a teacher would have corrected his English and suggested better grammatically correct sentences. From Einstein's example, it should be realized that quality of thinking is not always available in words.

In the case of ELT, or broadly in language learning situation, a critical thinker is a person who has both communication skills and dispositions, and someone who can use language to communicate his or her ideas and feelings appropriately and is moved appropriately by good reasons. The person who is moved appropriately by reasons is someone who is open to new experiences, values different perspectives, and loves freedom of thought. Critical thinking in language learning, therefore, should be functioned within a more communicative paradigm of language learning and teaching.

2.7. Critical Thinking in Teacher Education

In recent years, critical thinking has become a central focus of education, especially in North America. Within this focus, there has been a major debate regarding the generalizability or specificity of critical thinking (Hager, 2001). The main issue in this connection appears to have been whether critical thinking needs to be closely linked with traditional disciplines. If critical thinking is really as vital as its proponents maintain, then it will also be important in applied fields such as teacher education. Surprisingly, relatively few documents are catalogued in ERIC and PsycINFO that target the inclusion of critical thinking in teacher education, with most of these reports being opinion rather than research documents (e.g., Ashton, 1988; Paul, 1988). As Kennedy et al. conclude on the subject of critical thinking and teacher education:

> "....the question of how we can help teachers acquire critical thinking abilities and dispositions has not really been investigated. How can the transition be facilitated for experienced teachers to go from the traditional classroom approach to the critical thinking approach? How different or alike is the critical thinking approach from the traditional approach?" (Kennedy et al., 1991:28-9),

The fact that there are very few studies on the application of critical thinking in teacher education can not be an issue to neglect. As Williams (2005) rightfully mentions, "Critical thinking is important in all academic disciplines within democratic education, but it is indispensable in the field of teacher education" Given the number of students who go through our schools, future teachers could eventually

affect the critical thinking skills of an entire society. According to Williams (2005), new teachers should be proficient in "instructional strategies for students' development of critical thinking, problem solving and performance skills". However, it is unlikely that future teachers will promote students' critical thinking unless future teachers themselves become skilled critical thinkers. It is equally unlikely that teacher education students will become skilled critical thinkers if critical thinking practices are not emphasized in their teacher education programs (Kaye, 1998).

As we have discussed in the previous chapters, application of critical thinking to some certain fields has many problems, many of which may be because of the fact that there is no consensus on the nature of the CT itself. Nevertheless, there are some invaluable studies conducted on employing CT to education. As the need of CT in higher education has been understood in the last three decades, a vast amount of researches are already completed. Among those studies, a pioneer of CT, Paul (2004:2) claims that “departments teach history but not historical thinking; education but not educational thinking, or biology but not biological thinking”. Therefore, we can assume that the literature of teacher education should find new ways to promote CT skills and dispositions of the teacher trainees so as to get them to lead their students to think critically. Loacker (1984) comments on the inadequate studies of CT and teacher development by saying that:

> “Is critical thinking a significant part of the process of effective teaching? While much has been written about the implications of critical thinking theory and research for curricula and the learning needs of students (e.g. Norris, 1985), little attention seems to have been directed at the role of critical thinking in the process aspects of teaching. What thinking dispositions and abilities (if any) are required in effective teaching? While various research findings about teacher thinking are available, it appears that we don't know the relationship, if any, between being an effective teacher of a subject and being a critical thinker in that subject.”

Williams (2005) notes that emphasizing critical thinking in teacher education can potentially increase society's effectiveness in addressing national and international problems. He underlines a linkage between teacher education and societal problem solving on three major possibilities: (a) Increased emphasis on

critical thinking in teacher education will increase the emphasis on critical thinking in K-12 education, (b) increased emphasis on critical thinking in K-12 will lead to increased use of critical thinking within society, and (c) increased use of critical thinking among society's leaders and citizens will produce better problem solving at a societal level. The proposed linkage between teacher education and societal problem solving is anchored in three aspects of critical thinking: disposition toward critical thinking, cognitive skill in critical thinking, and information bases for critical thinking (Williams, 2005).

2.7.1. Ways and Views

As a solution to the problem of place of CT in teacher education, some studies are conducted so as to examine the possible ways to systematically incorporate critical thinking practices and skills in teacher education. All of these studies are based on an understanding of the dimensions of critical thinking previously explained in the previous chapters. An examination of the cognitive disposition and skills in critical thinking provides a framework for how to assess and promote critical thinking. The challenge is to construct teacher education programs that will promote dispositional characteristics, cognitive skills, and information retrieval associated with critical thinking.

Although the literature on critical thinking in teacher education is not extensive, teacher educators are increasingly acknowledging the possibility of promoting critical thinking practices and skills among future teachers. Some teacher educators (Beineke, 1985; Kaye & Ragusa, 1998; Lu, 2001) have recognized that teacher educators must become change agents for critical thinking at a societal level. Beineke (1985) found critical thinking to be a common emphasis in several national reports on education, pointing to the wisdom of infusing critical thinking in teacher education. Kaye and Ragusa (1998) contended that the use of critical thinking within teacher education could lead to better judgments as to what would make the world more conducive to life and happiness.

One of the few systematic and comprehensive attempts to infuse critical thinking into a teacher education program has occurred at Montclair State College (Michelli, Pines, & Oxman-Michelli, 1990). Collaboration between the college and the public schools involved clinical sites for the teacher education students to develop and practice their critical thinking skills. This program appeared to include many of the facets of critical thinking addressed in the current article. The goal of the program was to integrate both critical thinking practices and skills in all parts of the curriculum. A pervasive emphasis in the program was the examination of the assumptions and evidence for claims, as well as alternative perspectives of targeted problems. The program attempted to specifically teach critical thinking practices and skills. Although the program involved recurring assessment of the teacher education students and classes taught by those students, the report did not present data confirming the actual effectiveness of the program (Michelli, Pines, Oxman, 1990). Neither ERIC nor PsycINFO lists a follow-up report documenting the effectiveness of this program.

2.7.1. Instructional Models for Critical Thinking in Teacher Training

With multiple ways identified to assess their students' progress in critical thinking, teacher educators must then begin incorporating critical thinking demands and practices into their regular methods and content courses. Improvement in student skill in critical thinking is not an automatic by-product of teaching conventional academic courses (Chance, 1986; Ennis, 1992; Harris & Clemmons, 1996; Reed & Kromrey, 2001). Emphasis on subject matter as a sufficient route for promoting critical thinking in teacher education has received minimal support in the critical thinking literature (Williams & Worth, 2001). Although deep and extensive knowledge of a subject area provides a foundation for critical thinking, it does not ensure critical application of that knowledge in addressing problems in other academic areas. In fact, recent research targeting the promotion of course knowledge and generic critical thinking in psychology coursework showed significant increases in course knowledge but minimal increases in critical thinking (Williams, 2005).

If students are to learn to reason critically at either a professional or societal level, specific materials and activities must be developed for accomplishing that outcome (Bangert-Drowns & Bankert, 1990). Critical thinking skills are best taught explicitly, rather than expected to emerge as by products of teaching subject matter. Admittedly, critical thinking dimensions appear more teachable within the framework of course content rather than as generic skills and practices unrelated to a subject matter base. For example, some college level research on critical thinking has shown moderate improvement in psychological critical thinking in selected psychology courses, but minimal improvement in generic critical thinking within the same courses (Williams, Allin, & Booher, 2003; Williams, Oliver, & Stockdale, 2004). Improvement in psychological critical thinking (evaluating the support for various psychological claims) was achieved by specifically targeting strategies for evaluating psychological claims in course activities and materials (e.g., discussion questions, practice exam items).

One way to promote critical thinking in subject matter courses is to structure them around critical thinking models (Allegretti & Frederick, 1995; Isaacs, 1991; Reed & Kromrey, 2001). In this vein, Halpern (1998) has developed a critical thinking model that includes both the dispositional and skill dimensions of critical thinking. Her model also includes a transfer component for teaching students to identify contextual cues signaling the need for critical thinking and a metacognitive component for assessing the efficiency and effectiveness of one's progress toward a targeted goal. Halpern's 1998 American Psychologist article describing her model contains a rich menu of ways to apply the model within an educational context.

Promoting transferability of critical thinking practices, as emphasized by Halpern (1998), is an especially salient challenge in teacher education. One possibility for enhancing transferability is to require students to critically evaluate claims within the evening news from a variety of media sources. Ideally, students would be especially alert to claims that have some linkage to the content they are studying in their courses. The objective of the assignment would be for students to determine whether sufficient evidence was cited regarding a given claim (e.g.,

American schools are providing inadequate attention to societal problems, military warfare represents our nation's best deterrent to terrorism), whether credible sources of information were cited in support of the claim, whether the evidence cited could be interpreted differently from that represented in a particular newscast, and whether newscasters presented both sides of the target issue.

Perkins (1986) has made the concept of "thinking frames" pivotal in his model for enhancing student thinking. The concept of thinking frames appears roughly equivalent to frames of reference that guide, support, and facilitate one's thinking in various domains. He views productive frames as counter to typical ways of perceiving life events. For example, many individuals have biased frames in which they tend to ignore or discount evidence counter to their personal views, whereas even-handed thinking seeks evidence on both sides of an issue. Another pair of frames contrasts interpreting information as facts versus human inventions. Presumably, good thinkers are more likely to view information as human constructions. Thus, even cherished scientific principles are regarded as human creations (open to further revision) rather than as absolute statements of reality.

Perkins (1986) proposed three processes for learning useful thinking frames: acquisition, internalization, and transfer. The acquisition process depends heavily on teacher modelling and direct instruction as avenues for helping students acquire productive frames. Internalization is best achieved by students' applying a particular frame until it becomes second nature, such as routinely looking at both sides of an issue before reaching a conclusion. Practice is crucial in the internalization of a thinking frame. One experience in thinking even-handedly does not make one an even-handed thinker. Perhaps the most challenging of all Perkins' processes (1986:9) is transferring thinking frames to contexts distant from the contexts in which they were learned. Instead of assuming that such transfer will occur naturally, Perkins insists that "we must teach for transfer". One way to promote transferability of a thinking frame is to incorporate a wide diversity of examples in teaching that frame. Thus, in promoting transferability of even-handed thinking, one must not only

practice even-handed thinking but apply this thinking frame in diverse ways under a wide range of circumstances.

Paul (1993) also has constructed a critical thinking model that could be used as a framework for organizing content and instructional activities conducive to critical thinking in teacher education courses. In fact, his eight-step model can be applied to any reasoning task, whether in teacher education or at the top levels of government. His model requires that individuals articulate the goal of a particular reasoning task, the problem to be solved, basic concepts related to the task (e.g., theories, principles), information necessary to solve the problem (e.g., facts, data), assumptions affecting how one addresses the problem, alternative viewpoints related to the problem, potential conclusions from the information assembled, and likely consequences of acting or not acting on conclusions derived from assembled information.

Reed and Kromrey (2001) reported that building content and learning activities in a language course around Paul's (1993) model was effective in promoting the use of critical thinking skills in analyzing the language taught. Although the results of their study supported the notion that critical thinking skills can be explicitly taught, particularly by basing course activities on a coherent model of critical thinking, the study failed to show that improvement in critical thinking was paralleled by an increased proclivity toward using critical thinking in problem solving. Perhaps the critical thinking processes reflected in Paul's model appeared overly regimented and intensive to some students.

In summary, there are many unanswered questions about the appropriate role of critical thinking in teacher education. Also, it would be wise to remember that lack of interest, and as a result of this, the limited number of studies focusing on CT in teacher education is an interesting blind spot of the educational literature.

3

THE RESEARCH

In this chapter, the overall design of the study, data collection instruments, population and sampling procedures, the pilot study of the data, the data collection procedures, the data analysis procedures and limitations of the study are discussed.

3.1. Purpose of the Study

This research examined the Critical Thinking abilities and tendencies (dispositions) of teacher trainees at Gazi University, Gazi Faculty of Education, English language Teaching Department. Since the application of CT in teacher education is rare, the researcher has aimed at identifying the current status, CT abilities and dispositions of the teacher trainees, in order to find out possible ways to fulfill some applications of CT in EFL teacher education and create an infrastructure for the following studies. The major research questions observed in this study are:

1. What is the tendency for thinking critically in EFL teacher trainees?
    - 1.1. Is there any statistically significant difference between 3rd and 4th class students?
    - 1.2. Is there any statistically significant difference in terms of Gender?
    - 1.3. Is there any statistically difference in accordance with the type of lycee they graduate?
    - 1.4. Is there any statistically difference between the groups of day and evening classes?

2. Are the EFL teacher trainees (of Gazi University) able to associate the theory and the practice of their field?
3. What is the tendency for thinking critically among academic staff of the Gazi University, ELT Department?

3.1. Is there any difference between the CT tendency (Dispositions) of teacher trainees and teacher trainers?

4. What do the trainers and trainees (of Gazi University) "think about CT and CT in EFL teacher education?

4.1. Is there any difference between suggestions (for improving CT) of teacher trainees and teacher trainers?

3.2. Method

The method designed for collecting necessary the data is based on the instruments including a questionnaire focusing on the understanding and habit of participants on CT (CTD), a CT cognitive skills tests (CTT), a notion of CT questionnaire (NCT), and an information form. The research is a "Case Study". After the instruments were designed and evaluated in terms of reliability, they applied to the sample group selected for the research.

3.3. The Subjects

The experimental population of Trainees for this research consisted of third and forth class students of Gazi University ELT department since one of the hypotheses checked in this study was the problem whether EFL teacher trainees are able to associate the theory to which they are exposed with the real English language teaching situation. Therefore, this population had already been introduced most of the related theories and they were in practice phase such as doing demonstrations or teaching in real EFL classes in their practicum course. Also the random stratified sampling was used to choose the appropriate sample since the variables involves different sub categories, and it is necessary to represent them in the sample with about the same proportion of the population. Sample group of academic staff consisted of all the teacher trainers in the ELT department.

Some demographic features of trainees are given above in pie charts:

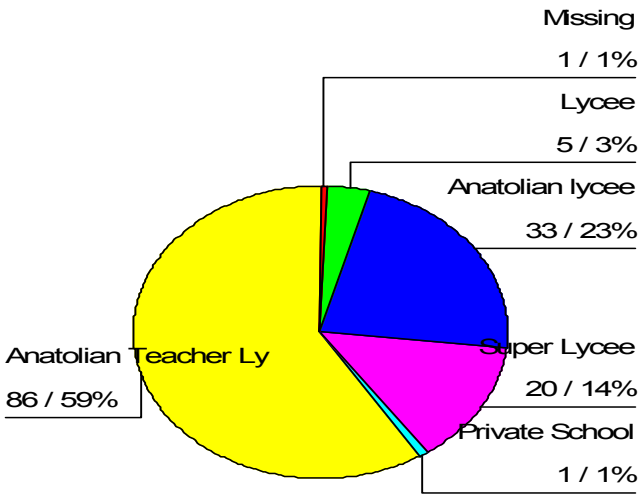


FIGURE 1: The lycee type of the participants**.**

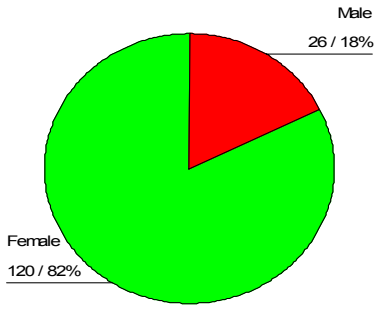


FIGURE 2: Gender of participants

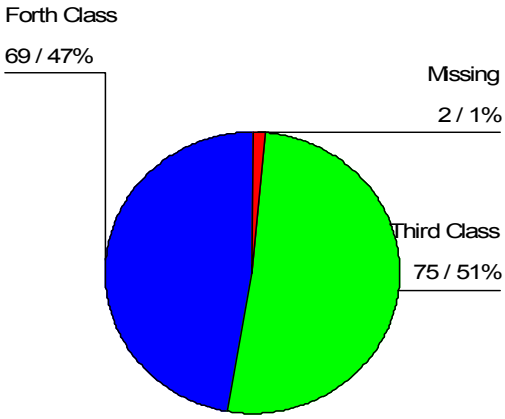


FIGURE 3: Classes of Participants

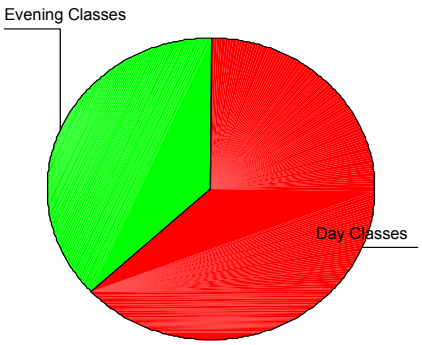


FIGURE 4: Education Type of Participants

3.4. The Treatment

3.4.1. Research Design

This study is designed as a case study in which any forms of systematic data collection is undertaken with a view to providing a detailed description and analysis of a particular topic" (Kent, 2001: 6). A Case Study (also called Survey Research) requires the consideration of lots of aspects before conducting it; that is, pre-planning. This pre-planning constitutes sampling, the instrument, the method of gathering data, and preliminary plans for analysis (Krathwohl, 1998: 353).

A case study differentiates according to the method of data gathering such as interview survey, questionnaire survey, e-mail questionnaire survey, and telephone survey (Kent, 2001& Krathwohl, 1998). This study was designed as a questionnaire type of survey research since the instruments were a critical thinking test and two questionnaires. Also, an information form was designed to gather data in order to identify the demographic features of the students involved in this study.

After examining the literature in terms of instruments used to evaluate the critical thinking cognitive skills and dispositions, the researcher was failed to identify a CT ability test specifically focuses on ELT teacher education. For the dispositions of the teacher trainees, a content-specific test would be unnecessary simply because dispositions are all about the "habits of mind" and do not need to be bound to a certain context. Therefore, the best and frequently used CT dispositions test is "The California Critical Thinking Dispositions Inventory (CCTDI) (Facione & Facione, 1992), which would be beneficial in evaluating the CT dispositions of teacher trainees. However, as the price of CCTDI was beyond the financial resources of this research, it was impossible to obtain them. Thus, the researcher prepared a content-specific CT cognitive skills and yet another CT dispositions test. Apart from these two instruments one more questionnaire NCT was designed so as to observe the current knowledge of the trainees on CT.

3.4.2. Group Size and Selection

Two different study groups were selected in this research; one is the group of students, and the other is the group of academic staff. The first sample for this study consisted of 146 students of third and forth class students of Gazi University, ELT department. They ranged in age from 20 to 24 (M=22), and the gender profile was 120 female and 26 male.

As the second sample group, all the academic members of ELT department were the sample of the study. The actual academic staff population is 38 in this department. However, excluding the research assistants and the ones who are not teacher trainees, we have the population of 16. These group, different from the sample group of students, were not given a "CT cognitive test" since this is not the outcome of the research. Instead, academic staff group were given the "CT Disposition questionnaire" test to observe their tendency and habit of CT. The academic staff group was also given "Notion of CT questionnaire" in order to obtain their ideas on CT in education and get their possible suggestions for fostering CT in teacher education.

3.4.3. Instruments

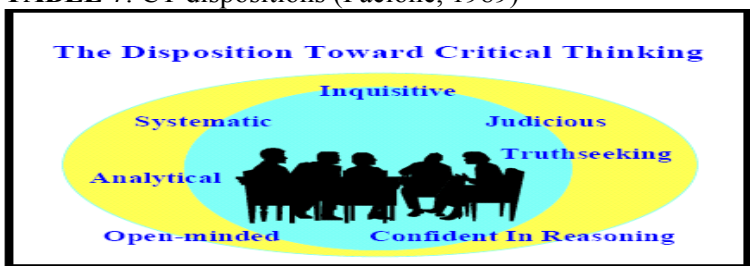
In this study, three different instruments were used: A Critical Thinking Skills Test (CTT), a Critical Thinking Dispositions (CTD) questionnaire, a questionnaire on notion of CT (NCT), and an information form. Critical Thinking Test provided the information about the students' cognitive critical thinking levels. Critical Thinking Dispositions test provided information about the tendencies and habits of the EFL teacher trainees and trainers for thinking critically. The notion of CT questionnaire mainly focused on the understanding of CT among students, and on place of CT in Turkish educational system. Pearson's Chi-Square, Crossstabulation and some descriptive statistical processes have been utilized to obtain the necessary output from the software SPSS 11.5. The information form was useful to obtain necessary information related to the students' background and their demographic features. Please refer to Appendix 3 (Appendix 8 for English version for the instruments.

As the related field of literature suggests, one is not considered an aptitude critical thinker unless s/he is disposed to do so (Facione, 1989). Also as it was mentioned in review of literature section, same statement is supported by the "weak sense critical thinking and strong sense critical thinking" notions by Paul (1990). Therefore, it can be inferred that evaluating one's CT dispositions would be enough to decide on whether s/he is a critical thinker or not. This may lead the researcher to apply only a dispositions test. However, a cognitive CT skill test was designed and administered to have a broad idea on the cognitive abilities of the teacher trainees.

CT cognitive skills test is composed of 20 multiple choice questions in which the applications of the important abilities in the critical thinking are included. The CT skills test was based on Facione's Delphi report. The contexts of the questions are based on three chief fields of ELT departments: ELT Methodology, linguistics, literature and Educational Sciences. Most of the questions are based on a paragraph or statements.

CT disposition test used in this research is a 20 item survey, to which students respond to each item using a five-point likert scale ranging from "strongly agree" to "strongly disagree." These 20 questions prepared for the questionnaire are based on the dispositions of Critical thinking identified and accepted among the experts of CT such as open-mindedness, seeking the truth and fair-mindedness and so on. The CT tests utilized in this research, the questionnaire and the information form are in Appendix 3 (See Appendix 8 for English Version). The skills measured through these two questionnaires are given in the Table 7.

TABLE 7: CT dispositions (Facione, 1989)



4

INTERPRETATION AND ANALYSIS OF THE DATA

In this chapter, the data obtained through some certain instruments will be interpreted and analyzed. Some of the variables to be analyzed are the results of CT test, the relationship between the results of CT test (CTT) and demographic features of the trainees, and possible significances among the results of the CTT and CTD. Besides, the analysis of two different groups, trainees and trainers, will be realized separately. Also statistical analyses of suggestions of both teacher trainees and trainers are discussed.

The data obtained were processed through SPSS 11.5 and the most of the statistical results will be given in SPSS format. Also the reliability studies of this research were fulfilled via the same program.

4.1. Pilot Study

The pilot study has been conducted to evaluate the validity and reliability of the instruments used in this research. This phase of survey comprises 55 samples randomly selected from the students of 3rd and 4th class of the ELT department. They were informed about the objectives and the importance of the study, and their vital roles for the following steps of the research so that measurement of the instruments could be fulfilled without any external variable, such as indifference of the participants and related attitudes that can commonly occur in social sciences research.

4.1.1. Demography

Demographical features obtained are same for both pilot group and the experimental group. Demographical features of the group are:

- Classroom: Whether they are third or forth class.
- Gender
- Education type: whether they are day or evening-class trainees.
- School type: This variable refers to their educational background before faculty.

The tables 8, 9, 10 and 11 given below are the details of the demographic features of the participants.

TABLE 8: The Number and Percentage of Participants of 3rd and 4th Class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Third Class	28	50,9	51,9	51,9
	Forth Class	26	47,3	48,1	100,0
	Total	54	98,2	100,0	
Missing	System Missing	1	1,8		
Total		55	100,0		

TABLE 9: The Distribution of the Participants in Terms of School Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lycee	1	1,8	1,8	1,8
	Anatolian lycee	15	27,3	27,3	29,1
	Super Lycee	10	18,2	18,2	47,3
	Private School	1	1,8	1,8	49,1
	Anatolian Teacher Lycee	28	50,9	50,9	100,0
	Total	55	100,0	100,0	

TABLE 10: Distribution of Gender of the Participants.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	9	16,4	16,4	16,4
	Female	46	83,6	83,6	100,0
	Total	55	100,0	100,0	

TABLE 11: This Education Type of the Participants.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Education	28	50,9	50,9	50,9
	Second Education	27	49,1	49,1	100,0
	Total	55	100,0	100,0	

4.2. Reliability Analysis of the Instruments.

The 35 items (Please see Appendix 3 and Appendix 8 for English Version.) of the two different questionnaires, namely; Critical Thinking Dispositions (CTD) questionnaire and Notion of Critical Thinking questionnaire (NCT), are processed in SPSS 11.5, and some certain findings with the alpha scores are given above. The details of the reliability analysis are presented in Appendix 5.

Reliability Coefficients

N of Cases = 51,0 N of Items = 35

Alpha = ,8399

The critical thinking cognitive test used in the research comprises 20 questions evaluating the critical thinking subskills such as inference, analysis, synthesis (please see chapter 2) and so on. The alpha score of CT TEST is given below.

Reliability Coefficients

N of Cases = 51,0 N of Items = 20

Alpha = ,8812

After the pilot study some of the questions were altered and some excluded from the instruments. Also one of the contributions of the pilot study was that the alpha coefficients of the instruments increased.

4.3. Demography of Teacher Trainees

The table 12 and figure 5 below displays the demographical features of the participants. Age is not included to the demography since the sample group are in the same age (+ -1), which would not give a statistically significant result. At first glance, the distribution of gender may be considered problematic. However, this distribution is representing the actual case.

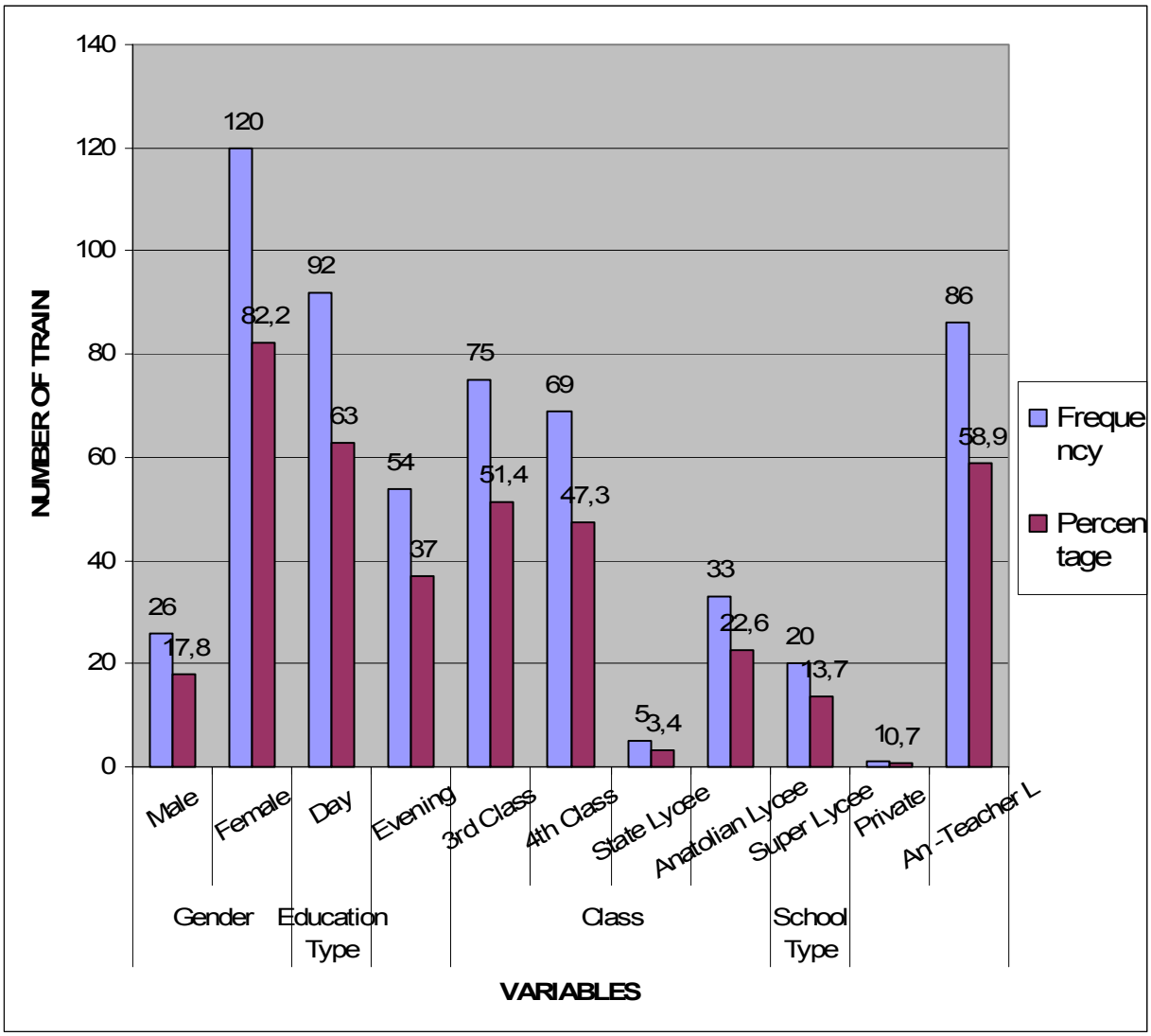


FIGURE 5: Frequency and Percentage Distribution of Demographical Variable

TABLE 12: Frequency & Percentage Distribution of Demographical Variables

DEMOGRAPHY		DISTRIBUTION	
		Frequency	**Percentage**
1.Gender	**Male**	26	17,8
	Female	120	82,2
2.Education Type	**Day**	92	63,0
	Evening	54	37,0
3. Class	**3rd Class**	75	51,4
	4th Class	69	47,3
4.School Type	**State Lycee**	5	3,4
	Anatolian Lycee	33	22,6
	Super Lycee	20	13,7
	Private	1	,7
	Anatolian Teacher Lycee	86	58,9
	TOTAL	146	100

4.4. Critical Thinking Test for Cognitive Skills -Trainees' Case.

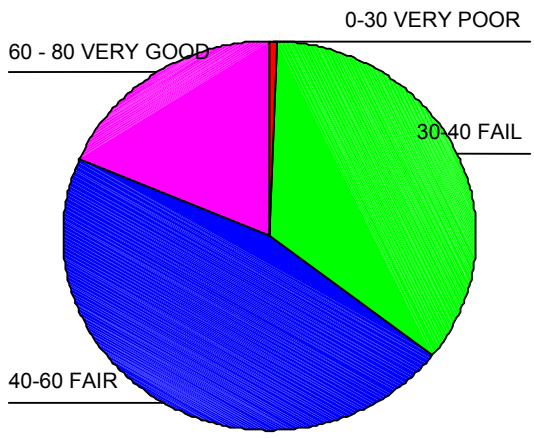
As mentioned (3.4.3.Instruments), this test is designed merely for this study for two reasons: One is that the available tests on market are too expensive, some would cost more than 3000$ if they used for this study. The prices of some are detailed in appendices 5 and 6. Another reason is that there is no content-specific CT test (CTT) particularly designed for ELT context is available.

Apart from those reasons given above, it should be borne in mind that the cognitive skills of CT are not the major markers for the researches in the pursuit of identifying CT abilities of people. The contemporary literature suggests that the dispositions of an individual are more important than the cognitive skills she or he is likely to display because the dispositions are the key element in leading some one to seek the truth, be open and fair minded or having a zealous dedication to be inquisitive and so on. The rest, the cognitive skills, can be developed by the formal

instruction, intellectual maturity and growth. Finally, it is claimed that after an effective instruction and an intellectual maturity, a person may not still be a critical thinker unless she or he is disposed to do so. Therefore, what can be inferred is that measurement of dispositions merely would be enough to observe how skilled the samples of this study are in CT. Facione (1989) states that:

> They argue that these dispositions flow from, and are implied by, the very concept of CT, much as the cognitive dispositions are. These experts argue that being adept at CT skills but habitually not using them appropriately disqualifies one from being called a critical thinker at all. Thus, in addition to using "CT" in its procedural sense, these panelists also use "CT" in its laudatory sense. They find it sensible to say, "This person is a critical thinker, but this other person is so mentally lazy, close-minded, unwilling to check the facts and unmoved by reasonable arguments that we simply cannot call him a critical thinker."

However, the research also contains this cognitive test to observe the current intellectual levels and cognitive aptitudes of the experimental group. Nevertheless, disposition questionnaires, CTD and NCT, will lead the researcher to comment on the CT abilities of EFL teacher trainees and trainers of Gazi University, ELT Department. The CT test will only give us a broad idea about the CT cognitive abilities of the trainees.



C T T		Fre	Per
Valid	30-40 FAIL	51	35,2
	40-60 FAIR	67	46,2
	60 - 80 VERY GOOD	27	18,6
	Total	145	100,0

FIGURE 6: CT Scores of Trainees

The pie graph (Figure 6) above illustrates the distribution of the CT scores of the teacher trainees. The graph indicates that there is no sample achieved a score over 80 grades in the test.

4.4.1. Relationship between CTT and Demography Variables

The following tables display the relation between the demographic features; class, gender, education type, school type of the participants and CTT. Table 13 shows the class and CT test, as follows:

TABLE 13: Chi-Square Tests of Class and CTT

CROSSTAB			CLASS		Total
			Third Class	Forth Class	
CTTEST	30-40 FAIL	N	25	26	51
		%	49,0%	51,0%	100,0%
	40-60 FAIR	N	37	28	65
		%	56,9%	43,1%	100,0%
	60 - 80 VERY GOOD	N	12	15	27
		%	44,4%	55,6%	100,0%
Total		N	74	69	143
		%	51,7%	48,3%	100,0%

Chi-Square Tests	Value	df	p
Pearson Chi-Square	1,426	2	,490

No statistical significance can be observed between the CTT and 3rd and 4th Class, (p=0,490> 0, 05 chi-square test). Those who obtained the scores of 60-80 (%55, 6) are the forth class students.

Table 14 below displays the possible relationship between gender and CT test, as follows:

TABLE 14: Chi-Square and Crosstab of the Gender and CTT

Crosstab			GENDER		Total
			Male	Female	
CTTEST	30-40 FAIL	n	7	44	51
		%	13,7%	86,3%	100,0%
	40-60 FAIR	n	13	54	67
		%	19,4%	80,6%	100,0%
	60 – 80 VERY GOOD	n	6	21	27
		%	22,2%	77,8%	100,0%
Total		n	26	119	145
		%	17,9%	82,1%	100,0%

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,049(a)	2	,592

No significant relation can be observed between the variables CTT and Gender. (p=0,592>0,05 Pearson Chi-Square test). The scorers of 30-40 with a percentage of %86,3 are female. This result can be associated with the findings of Facione's Delphi report (1989), which also indicated that there were no statistical differences between opposite sexes in ability of CT. Table 15 below displays the Education Type and CT test, as follows:

TABLE 15: Chi-square and Crosstab of Edutype and CTT

CROSSTAB			**EDUTYPE**		**Total**
			Day Classes	Evening Classes	
CTTEST	30-40 FAIL	n	33	18	51
		%	64,7%	35,3%	100,0%
	40-60 FAIR	n	45	22	67
		%	67,2%	32,8%	100,0%
	60 - 80 VERY GOOD	n	13	14	27
		%	48,1%	51,9%	100,0%
Total		n	91	54	145
		%	62,8%	37,2%	100,0%

Chi-Square Tests"	Value	df	p
Pearson Chi-Square	3,105	2	,212

No significant relation can be observed between the variables CTT and EDUTYPE (P=0,212>0,05 Pearson Chi-Square test). The grades of 60-80 are attained by the group of Second Education.

TABLE 16: Crosstab of the School Type and CTT

Crosstab			SCHOOL TYPE					Total
			Lycee	Anatolian lycee	Super Lycee	Private School	Anatolian Teacher Lycee	
CTTEST	30-40 FAIL	n	3	11	5	0	31	50
		%	6,0%	22,0%	10,0%	,0%	62,0%	100,0 %
	40-60 FAIR	n	2	12	11	1	41	67
		%	3,0%	17,9%	16,4%	1,5%	61,2%	100,0 %
	60 - 80 VERY GOOD	n	0	10	4	0	13	27
		%	,0%	37,0%	14,8%	,0%	48,1%	100,0 %
Total		n	5	33	20	1	85	144
		%	3,5%	22,9%	13,9%	,7%	59,0%	100,0 %

The distribution of CTT scores in terms of school type can be seen in Table 16. Since the distribution of the variables is not appropriate, Chi-square test is not applied. However, there is also no statistical between the groups of school type variables.

Commentary:

The general view on the CTT scores is that most of the participants in the study display a weak ability in cognitive CT skills. 81,4% of the experimental group obtained a score of "0 and 60", and 18,6% of them attained a remarkable success by scoring between "60-80". No trainees obtained a score over 80.

Apart from CTT scores, the researcher can not find any evidence of a statistical relation between the variables:

- Gender and CT ability (p=0,592>0,05)
- School Type and CT ability
- Education Type (Day and Evening Class)and CT ability (P=0,212>0,05)
- 3rd & 4th Class teacher trainees (p=0,490> 0, 05)

4.4.2. Analyses of the Some Significant Items of CT Test

All the instruments have been applied in the native language of the participants owing to the fact that the language, somehow, would be a barrier, which might affect the CT scores of the trainees. The questions required cognitive critical thinking skills processes, as listed in the Delphi report of Facione (1989).

CTT test comprises twenty multiple choice items, thirteen of which are ELT-specific (methodology and linguistics) questions. Among these thirteen questions, five questions are based on a co-text or a statement, and eight of them are based on two reading texts. There are three questions for educational sciences. Two of these questions are reading-based questions, and another one is based on a statement. The rest four questions are literature-specific questions. Three of them are about a poem of Orhan Veli (Moro Romantico). The last question is a quote from Shakespeare's Hamlet. This poem of Orhan Veli is selected on purpose because the most of the people regard this poem as a "Love Poem", but actually it is not. This case can be defined as a limitation of CT cognitive skills in terms of analysis, interpretation, and self-regulation. As it is known "Intellectual Maturity" is also considered as a strong factor in thinking critically, the answers to these three questions related to Orhan Veli's poem are significantly important.

Questions 17, 18 and 19 are based on the poem "Moro Romantico". The first question is about the main theme of the poem evaluating all the CT cognitive skills including self-regulation. Evaluation of self-regulation is not that easy since one should correct and/or evaluate his/her background schemata in order to exhibit a self-regulation sub-skill of CT. This poem is readily known by all participants (Table 17 and Figure 8)

TABLE 17 : Distribution of Multiple Choice Items for CTT 17th Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	58	39,7	39,7	39,7
	b	45	30,8	30,8	70,5
	c	22	15,1	15,1	85,6
	d	20	13,7	13,7	99,3
	e	1	,7	,7	100,0
	Total	146	100,0	100,0	

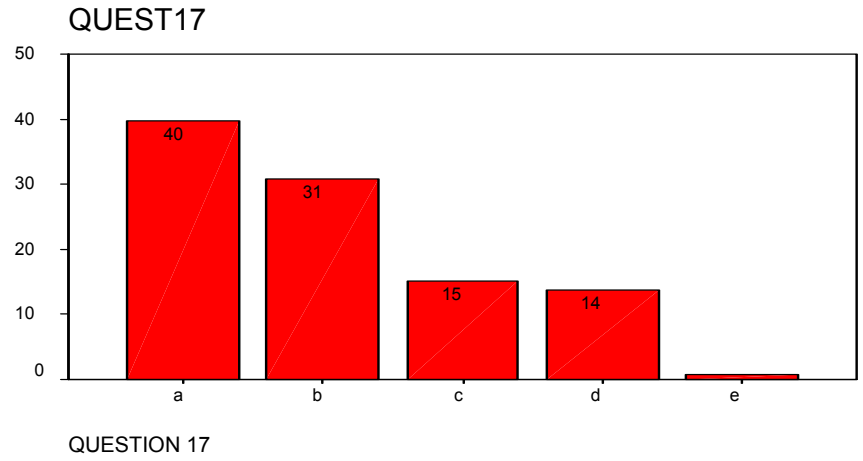


Figure 7 : Distribution of Multiple Choice Items for CTT 17th Question

As it can be seen on table 17, only 13, 7 (F=14) of the respondents marked the right option for this question. However, the most preferred options are "a" and "b" (70,5% and F= 103), these two wrong options state that the main theme of this poem is a love.

For the 18th question, which is another multiple choice test item based on the same poem by quoting a verse. The test item is:

18. "*Bu derde düşmeden önce…***" "Bu dertten" kasıt nedir?**

a. Aşk b. Anlatamamak c. Yalnızlık
d. Tutku e. Karasevda

This question has two functions. One is to evaluate all the CT cognitive skill, and another is to check the validity of the preceding question. Therefore, this question also focuses on the main theme of the poem by quoting a verse. The following Table 18 and Figure

TABLE 18 : Distribution of Multiple Choice Items for CTT 18th Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	52	35,6	35,6	35,6
	B	14	9,6	9,6	45,2
	C	27	18,5	18,5	63,7
	D	4	2,7	2,7	66,4
	E	49	33,6	33,6	100,0
	Total	146	100,0	100,0	

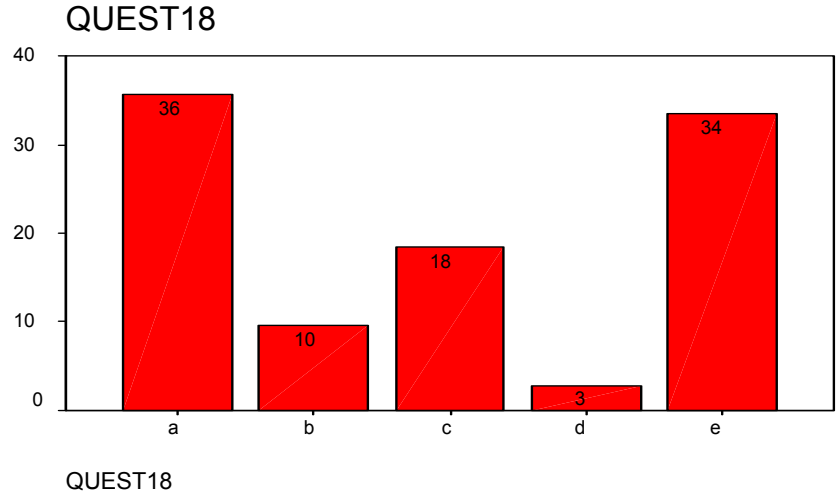


FIGURE 8 : Distribution of Multiple Choice Items for CTT 18th Question

On Table 18, it can be analyzed that 9,6% (F=10) of the respondents marked the right option for this question. However, “a” and “e” possess a high frequency of preference as right options (70, 5% and F= 103). Like in question 17, these two wrong options state that the main theme of this poem is a love.

For literature specific test items, the 20th question of the CT test necessitates all the subskills of cognitive CT skills.

20. "*İyi ve kötü diye bir şey yok! Düşünce her şeyi öyle yapan***" Hamlet adlı oyunda Prens Hamlet tarafından söylenen bu replik aşağıdaki hangisiyle aynı anlamdadır?**

a. "Sıradan bir insan yaşamında olan her şeyi iyi ya da kötü olarak tanımlar. Oysa bir savaşçı için her şey bir meydan okumadır." (Don Juan De Marco)
b. "Şimdi kötülüklerimizle kirlenen bu kan çanağı güneş, başka topraklara iyiliğin baharını götürüyor."
c. "Bir aynadan yansıyanlar tüm yaşadıklarımız! O halde bazen değişmek lazım açısını..."
d. "Kötülükler olmasaydı düşüncelerimizin derinliklerinde, iyilik yaptığımız zaman çocuklar gibi sevinir miydik hiç?
e. "Körler onları görmese de yıldızlar vardır" (Gazali)

The aim of this question is to evaluate whether the participants understand what Hamlet meant by saying "There is nothing either good or bad, but thinking makes it so!" One should display the subskills of (1) interpretation, (2) analysis, (3) evaluation, (4) inference and (5) explanation and (1) self-regulation in order to answer this question correctly, which means that this question evaluates all the subskills for CT skills of Facione (1989). 125 of the 146 respondents failed in answering this question correctly. As seen, this question requires no further knowledge on the play "Hamlet", or any sort of background in English literature or drama. Yet, the 85,6% of the participants weren't able to answer the item.

TABLE 19 : Distribution of Multiple Choice Items for CTT 20th Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	47	32,2	32,2	32,2
	B	45	30,8	30,8	63,0
	C	21	14,4	14,4	77,4
	D	31	21,2	21,2	98,6
	E	2	1,4	1,4	100,0
	Total	146	100,0	100,0	

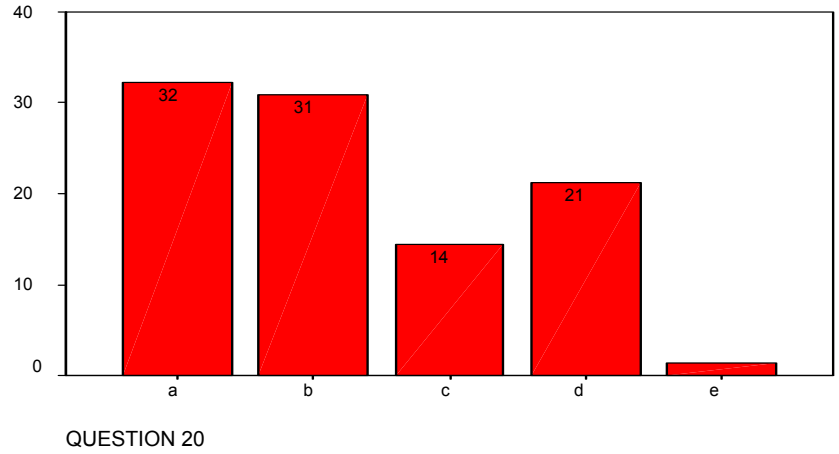


FIGURE 9 : Distribution of Multiple Choice Items for CTT 20th Question

Another test item result is analyzed for question 16 based on a context of educational sciences, as follows:

16. "*Değeri olan hiçbir bilgi öğretilemez.*" Bu önermeden yapılacak en doğru çıkarım hangisidir?

a. Bize öğretilen bilgilerin bir çoğu değersizdir.
b. Değerli bilgiler bireysel deneyimlerle edinilir.
c. Değerli bilgiler edinirken bir eğitmene ihtiyaç yoktur.
d. Gerçek bilgi sınıflarda değil yaşamın içinde öğretilir.
e. Değeri olan bilgi zaten bizimledir. Biz onu öğrenmeyiz, ancak anımsayabiliriz.

TABLE 20: The Frequency of the Responses for the Question 16 in CTT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	19	13,0	13,1	13,1
	B	43	29,5	29,7	42,8
	C	39	26,7	26,9	69,7
	D	29	19,9	20,0	89,7
	E	15	10,3	10,3	100,0
	Total	145	99,3	100,0	
Missing	System Missing	1	,7		
Total		146	100,0		

Only, 43 of the 145 participants (29, 7%) marked the right question (see Table 20). The percentage and mean of the wrong doers are 102 and 70,3%.

For the test items related to ELT are the greatest group of questions in the test. The 3rd question, as an example, focuses on both CT cognitive skills and field knowledge, as follows:

3. Aşağıdaki derslerin hangisinde teorik ve pratik ilişkisi en yüksektir?

a. Roman İnceleme ve Öğretimi	-	Gelişim Psikolojisi
b. Dil Edinimi	-	Çocuklara yabancı dil öğretimi
c. Dil bilimi	-	Okuma Becerileri
d. Dil Öğretim Projesi	-	Konuşma Becerileri
e. Şiir inceleme ve Öğretimi	-	Dil Öğretiminde Materyal Geliştirme ve Uyarlama

TABLE 21: The Frequency of the Responses for the Question 3 in CTT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	1	,7	,7	,7
	b	32	21,9	21,9	22,6
	c	40	27,4	27,4	50,0
	d	72	49,3	49,3	99,3
	e	1	,7	,7	100,0
	Total	146	100,0	100,0	

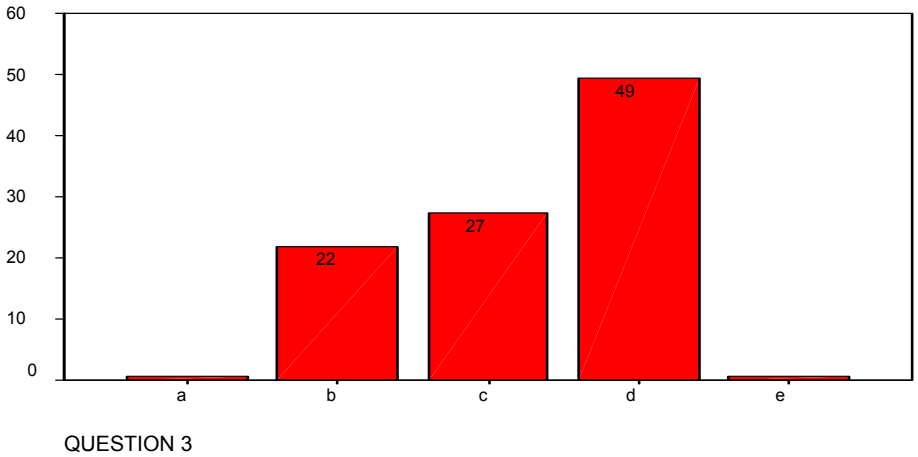


FIGURE 10 : Distribution Of Multiple Choice Items for CTT 3rd Question

21,9% (F=22)of the participants marked the right choice. The highest frequency of the choices is of "d". This may be due to the personal experiences of the participants in "Language Teaching Project" course, through which they are exposed to NLP, and that they fulfil different kinds of presentations in this course may lead

them to choose “d” distractor. However, the root of the question asks for a “theory and practice” relation between the courses given in choices. Percentage of failure is 78,1% (F=114) for this test item.

4.5. Discussion of CT Dispositions -Trainees’ Case

There are two different questionnaires focus on the dispositions of CT. CTD is directly evaluating the CT dispositions of the participants. The other questionnaire, notion of CT (NCT), aims at identifying the current knowledge, beliefs and values on CT as well as dispositions. The table below is a summary of CTD. The questionnaire CCT below comprises 20 statements with likert (5) answers. The distribution of Disposition subskills in CTD questionnaire items is given below in Table 22:

TABLE 22: Checklist of CTD Questionnaire

CHECKLIST OF DISPOSITIONAL SUBSKILLS FOR CTD QUESTIONNAIRE							
☺	Systematic	Inquisitive	Openminded	Judicious	Truthseeking	Confidence	Analytical
1				X	X	X	
2		X	X	X	X	X	X
3		X	X	X	X	X	X
4	X	X	X	X	X	X	X
5	X	X	X	X	X	X	X
6	X	X	X	X	X	X	X
7	X	X	X	X	X	X	X
8	X	X			X	X	X
9		X	X	X	X		
10	X	X	X	X	X	X	X
11	X	X	X	X	X	X	X
12			X	X	X	X	
13						X	
14		X	X	X	X	X	
15	X	X	X	X	X	X	X
16			X	X	X	X	
17	X	X	X	X	X	X	X
18	X	X	X	X	X	X	X
19		X	X	X	X	X	
20	X	X	X	X	X	X	X

The statements 4, 5, 6, 7, 8, 10, 11, 15, 17, 18 and finally 20 are evaluating all the subskills of dispositions of Critical Thinking. As well as these statements, others are also measuring CTD skills in a high level. The 13th statement evaluates

only “Confidence in Reasoning”, which can also be regarded as an effective question in terms of having one specific subskill (F=113 for Agree and Completely agree).

TABLE 23: Distribution of the responds to CTD

☺	**CRITICAL THINKING DISPOSITIONS**	**1**	**2**	**3**	**4**	**5**	**N / %**
1	I believe that the best point of view is mine.	8	69	23	30	10	146/100
2	I usually try to understand the ideas that I don’t agree with.	11	9	20	85	21	146/100
3	I do not consider the ideas supporting the opinions that l am opposed to.	44	63	16	13	10	146/100
4	I do not question the reasons that lead other peoples’ attitudes.	58	40	37	10	1	146/100
5	I am easily influenced by the speeches of the effective orators.	14	45	44	28	15	146/100
6	I do not question the philosophies that control my life.	66	45	26	6	3	146/100
7	I can easily change any of my idea if I feel a logical fallacy or a limitation.	22	29	28	56	11	146/100
8	I like analyzing the abstract concepts and find some relation among them.	9	20	27	60	30	146/100
9	Learning is a source of excitement and joy for me.	2	5	10	67	62	146/100
10	I sometimes question the validity and reliability of my beliefs, values and principles with an objective eye.	2	5	10	67	62	146/100
11	I have some beliefs that I do not question their validity.	25	42	35	32	12	146/100
12	I never change what l say in a discussion even if I know they are wrong.	26	60	30	14	16	146/100
13	I can not think effectively when I am stressed and depressed.	12	7	14	30	83	146/100
14	I read books and other materials with a specific point of view.	12	22	27	63	22	146/100
15	If I happened to understand that my principles, beliefs and values and all I know about life were not actually valid and accurate, I would feel annoyed.	4	20	22	33	67	146/100
16	Thinking critically may help me get rid of my prejudices.	2	7	4	56	77	146/100
17	Thinking critically may lead me to a depression and cause confusion in my life.	56	31	36	11	12	146/100
18	If I knew that being a real intellectual would annoy me and made me unhappy, I would, nevertheless, want to be an intellectual who understands his/her world and people.	8	8	43	44	43	146/100
19	I find questioning myself annoying.	63	38	11	18	16	146/100
20	I usually collect information before I come to a decision about any thing.	6	4	35	63	33	140/95,6

Many of the questions provide us with significant results of the dispositions teacher trainees. For example the statement 2 and 4 “I usually try to understand the ideas that I don’t agree with” and “I do not question the reasons that lead other peoples’ attitudes”.

TABLE 24: Distribution of 2nd Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	11	7,5	7,5	7,5
	Disagree	9	6,2	6,2	13,7
	Not Sure	20	13,7	13,7	27,4
	Agree	**85**	**58,2**	**58,2**	85,6
	Completely Agree	**21**	**14,4**	**14,4**	100,0
	Total	146	100,0	100,0	

TABLE 25: Distribution of 4th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**58**	**39,7**	**39,7**	39,7
	Disagree	**40**	**27,4**	**27,4**	67,1
	Not Sure	37	25,3	25,3	92,5
	Agree	10	6,8	6,8	99,3
	Completely Agree	1	,7	,7	100,0
	Total	146	100,0	100,0	

72,6% for s2 and 67,1% for s4 are accumulated in “agree” and “completely agree” options. Observing the frequency and the percentages of the s2 and s4 in the light of the checklist given in Table 22, we can say that nearly all CT dispositions are displayed.

For the statements 1 and 3, which are supporting each other as questionnaire items, the case is similar with the s2 and s4. The following tables 26 and 27 show that:

TABLE 26: Distribution of 1st Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**8**	**5,5**	**5,5**	5,5
	Disagree	**69**	**47,3**	**47,3**	52,7
	Not Sure	23	15,8	15,8	68,5
	Agree	30	20,5	20,5	89,0
	Completely Agree	16	11,0	11,0	100,0
	Total	146	100,0	100,0	

TABLE 27: Distribution of 3rd Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**44**	**30,1**	**30,1**	30,1
	Disagree	**63**	**43,2**	**43,2**	73,3
	Not Sure	16	11,0	11,0	84,2
	Agree	13	8,9	8,9	93,2
	Completely Agree	10	6,8	6,8	100,0
	Total	146	100,0	100,0	

52,8% for s1 and 73,3% for s3 are accumulated in "agree" and "completely agree" options. Observing the frequency and the percentages of the s1 and s3 in the light of the checklist given in Table 22s, we can say that most of the CT dispositions are acquired and used by the participants.

Besides these statements, the 8th 16th and 20th ones, which are successively "I like analyzing the abstract concepts and find some relation among them", "I usually collect information before I come to a decision about anything" and "Thinking critically may help me get rid of my prejudices" may indicate that they have the habits and a tendency for thinking critically . The statistical interpretations of these statements are given below in Tables 28, 29 and 30:

TABLE 28: Distribution of 8th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	9	6,2	6,2	6,2
	Disagree	20	13,7	13,7	19,9
	Not Sure	27	18,5	18,5	38,4
	Agree	**60**	**41,1**	**41,1**	79,5
	Completely Agree	**30**	**20,5**	**20,5**	100,0
	Total	146	100,0	100,0	

A frequency of 93 (61,6%), statement 8 is statistically signifiacnt in terms of a developed CT dispositions. This statement can also be considered as a statement for cognitive aspect of CT since the root of the question is also based some skills of cognitive CT such as analyzing and synthesizing. Thus, the result of this statement is of great importance.

TABLE 29: Distribution of 16th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	2	1,4	1,4	1,4
	Disagree	7	4,8	4,8	6,2
	Not Sure	4	2,7	2,7	8,9
	Agree	**56**	**38,4**	**38,4**	47,3
	Completely Agree	**77**	**52,7**	**52,7**	100,0
	Total	146	100,0	100,0	

For s16, 91,1% is (F=133) highly significant indicating that participants possess a developed CT dispositional skills for this item.

TABLE 30: Distribution of 20th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	6	4,1	4,3	4,3
	Disagree	4	2,7	2,9	7,1
	Not Sure	34	23,3	24,3	31,4
	Agree	**63**	**43,2**	**45,0**	76,4
	Completely Agree	**33**	**22,6**	**23,6**	100,0
	Total	140	95,9	100,0	
Missing	System Missing	6	4,1		
Total		146	100,0		

Similar strong significant score is realized for the s20, with a frequency of 93. The 23,3% of "not sure" indicates that participants aren't adequately informed about the mechanics and functions of CT.

TABLE 31: Distribution of 5th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	14	9,6	9,6	9,6
	Disagree	45	30,8	30,8	40,4
	Not Sure	**44**	**30,1**	**30,1**	70,5
	Agree	28	19,2	19,2	89,7
	Completely Agree	15	10,3	10,3	100,0
	Total	146	100,0	100,0	

s5, which asks whether you influce from orators, illustrates a stitistically insignificant result: the percentage of "completely disagree and agree" is very close to the "not sure". 30% of the participants do not know whether they can be led by an effective orator.

TABLE 32: Distribution of 7th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	22	15,1	15,1	15,1
	Disagree	29	19,9	19,9	34,9
	Not Sure	28	19,2	19,2	54,1
	Agree	**56**	**38,4**	**38,4**	92,5
	Completely Agree	**11**	**7,5**	**7,5**	100,0
	Total	146	100,0	100,0	

s7 focuses on the flexibility in thinking that can be regarded as openmindedness and truthseeking subskills of CT. Other subskills that are checked through this item is given in Table 22. There is a little statistical difference between agree and disagree poles (Agree: F= 67, Disagee: F= 49)

TABLE 33: Distribution of 11th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**25**	**17,1**	**17,1**	17,1
	Disagree	**42**	**28,8**	**28,8**	45,9
	Not Sure	35	24,0	24,0	69,9
	Agree	32	21,9	21,9	91,8
	Completely Agree	12	8,2	8,2	100,0
	Total	146	100,0	100,0	

The statement 11 displays a better statistical result compared to s5 and s7. 67 (45,9%) of the respondents disagrees with the idea that "I have some beliefs that I do not question their validity". However, 44 (30,1%) people stated that they have some beliefs that they do not question their validity. This statement clearly shows that for this item, 30,1% of the teacher trainees are weak in Dispositional CT subskills such as inquisitiveness, Truthseeking, confident in reasoning and being judicious.

The three tables (34, 35 and 36) are given below for the s6, s9 and s 10.

TABLE 34: Distribution of 6th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**66**	**45,2**	**45,2**	45,2
	Disagree	**45**	**30,8**	**30,8**	76,0
	Not Sure	26	17,8	17,8	93,8
	Agree	6	4,1	4,1	97,9
	Completely Agree	3	2,1	2,1	100,0
	Total	146	100,0	100,0	

TABLE 35: Distribution of 9th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	4	2,7	2,7	2,7
	Disagree	10	6,8	6,8	9,6
	Not Sure	13	8,9	8,9	18,5
	Agree	**59**	**40,4**	**40,4**	58,9
	Completely Agree	**60**	**41,1**	**41,1**	100,0
	Total	146	100,0	100,0	

TABLE 36: Distribution 10th Statement of CTD Questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	2	1,4	1,4	1,4
	Disagree	5	3,4	3,4	4,8
	Not Sure	10	6,8	6,8	11,6
	Agree	**67**	**45,9**	**45,9**	57,5
	Completely Agree	**62**	**42,5**	**42,5**	100,0
	Total	146	100,0	100,0	

Not only validating each other as questionnaire items, the findings of these last three statements show that participants enjoy questioning the philosophy controlling their lives (s9 = 81,5%), do not hesitate to question their values, principles and beliefs (s10 = 88,4) and learning new things s6 = 77%)

When we re-analyze the results of s10 and s11, we can say that the dispositional CT abilities were observed as low in s11, but it is fairly high in s10.

The reason for these variety of responds for same kind of items may be asking merely “questioning your beliefs” in s11. This might disrupt the participants owing to underlying message of questioning religion. However, in s10, beliefs are asked with values and principles, which led the participants to be more firm on the CT disposition favour options.

A final analyze for CTT is made on the statement 17 whose results will give us a clear picture of understanding of CT among teacher trainees.

TABLE 37: Distribution 17th Statement of CTD questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	**56**	**38,4**	**38,4**	38,4
	Disagree	**31**	**21,2**	**21,2**	59,6
	Not Sure	36	24,7	24,7	84,2
	Agree	11	7,5	7,5	91,8
	Completely Agree	12	8,2	8,2	100,0
	Total	146	100,0	100,0	

In the statement17, thinking critically may lead me to a depression and cause confusion in my life, is not mark “completely disagree and disagree” by 87% of the participants. Only 15,7 believe that thinking critically may lead one to a depression. Also 24,7% of individuals with the answer of “not sure” indicate that people should be well informed about what CT is because for the case of this statement “not sure” option can be regarded as a weakness in CT dispositions, like disagree options of this statement.

4.5.1. Relationship between CTT and CTD

The twenty statements, and tables between 38 and 52 below, display relationship between CTT scores of the participants with the CTD results in terms of frequency distribution in order to find out a possible interaction between the two major skills of CT; dispositions and cognitive skills.

TABLE 38: The Relation between CTT Scores and CTD s1

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 - 80 VERY GOOD	Total
CTD1	Completely Disagree	0	2	**5**	**1**	8
	Disagree	1	30	**27**	**11**	69
	Not Sure	0	7	12	4	23
	Agree	0	8	12	10	30
	Completely Agree	0	4	11	1	16
Total		1	51	67	27	146

For the CTT scores and CTD statement 1 (I believe that the best point of view is mine), successful 44 CTD responds of 146 participants possess a CTT score of over 40 and above, which is not singificant.

TABLE 39: The Relation between CTT Scores and CTD s2

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 - 80 VERY GOOD	Total
CTD2	Completely Disagree	0	3	7	1	11
	Disagree	0	2	4	3	9
	Not Sure	0	9	5	5	20
	Agree	1	28	**40**	**16**	85
	Completely Agree	0	9	**10**	**2**	21
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 2 (I usually try to understand the ideas that I don't agree with.), successful 68 CTD responds of 146 participants possess a CTT score of 40 and above, which is not significant.

TABLE 40: The Relation between CTT Scores and CTD s3

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD3	Completely Disagree	0	16	**20**	**8**	44
	Disagree	1	21	**30**	**11**	63
	Not Sure	0	5	6	5	16
	Agree	0	5	6	2	13
	Completely Agree	0	4	5	1	10
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 3 (I do not consider the ideas supporting the opinions that l am opposed to.), successful 69 CTD responds of 146 participants possess a CTT score of 40 and above, which is not significant.

TABLE 41: The Relation between CTT Scores and CTD s4

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	
CTD4	Completely Disagree	1	17	**30**	**10**	58
	Disagree	0	17	**16**	**7**	40
	Not Sure	0	14	15	8	37
	Agree	0	2	6	2	10
	Completely Agree	0	1	0	0	1
Total		1	51	67	27	146

When comparing the CTT scores and the questionnaire statement 4 (I do not question the reasons that lead other peoples' attitudes.), successful 63 CTD responds of 146 participants possess a CTT score of 40 and above, which is not significant.

TABLE 42: The Relation between CTT Scores and CTD s5

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	
CTD5	Completely Disagree	0	4	8	2	14
	Disagree	0	22	13	10	45
	Not Sure	1	11	23	9	44
	Agree	0	7	16	5	28
	Completely Agree	0	7	7	1	15
Total		1	51	67	27	146

Comparing the CTT scores and the questionnaire statement 5 (I am easily influenced by the speeches of the effective orators.), no significance can be observed in the frequency distribution.

Table 43: The Relation between CTT Scores and CTD s6

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 - 80 VERY GOOD	
CTD6	Completely Disagree	0	23	**32**	**11**	66
	Disagree	1	17	**20**	**7**	45
	Not Sure	0	9	11	6	26
	Agree	0	1	3	2	6
	Completely Agree	0	1	1	1	3
Total		1	51	67	27	146

Comparing the CTT scores and the questionnaire statement 6 (I do not question the philosophies that controls my life.), no significance can be observed in the frequency distribution (F=69).

Table 44: The Relation between CTT Scores and CTD s7

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	
CTD7	Completely Disagree	0	7	13	2	22
	Disagree	0	14	7	8	29
	Not Sure	0	12	12	4	28
	Agree	1	17	**28**	**10**	56
	Completely Agree	0	1	**7**	**3**	11
Total		1	51	67	27	146

When comparing the CTT scores and the questionnaire statement 7 (I can easily change any of my idea if I feel a logical fallacy or a limitation.), no significance can be observed in the frequency distribution (F=49).

TABLE 45: The Relation between CTT Scores and CTD s8

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 - 80 VERY GOOD	
CTD8	Completely Disagree	0	2	6	1	9
	Disagree	0	8	7	5	20
	Not Sure	1	6	14	6	27
	Agree	0	23	**28**	**9**	60
	Completely Agree	0	12	**12**	**6**	30
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 8 (I like analyzing the abstract concepts and find some relation among them.), no significance can be observed in the frequency distribution (F=55).

TABLE 46: The Relation between CTT Scores and CTD s9

		CTTEST				Total
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 - 80 VERY GOOD	
CTD9	Completely Disagree	0	1	3	0	4
	Disagree	0	2	6	2	10
	Not Sure	0	2	9	2	13
	Agree	1	23	**19**	**16**	59
	Completely Agree	0	23	**30**	**7**	60
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 9 (Learning is a source of excitement and joy for me.), a significance can be observed in the frequency distribution (F=72).

TABLE 47: The Relation between CTT Scores and CTD s10

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD10	Completely Disagree	0	1	1	0	2
	Disagree	0	1	2	2	5
	Not Sure	0	1	5	4	10
	Agree	0	29	**26**	**12**	67
	Completely Agree	1	19	**33**	**9**	62
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 10 (I sometimes question the validity and reliability of my beliefs, values and principles with an objective eye.), a significance can be observed in the frequency distribution (F=81).

TABLE 48: The Relation between CTT Scores and CTD s11

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD11	Completely Disagree	0	6	15	4	25
	Disagree	0	15	20	7	42
	Not Sure	1	18	10	6	35
	Agree	0	10	15	7	32
	Completely Agree	0	2	7	3	12
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 11 (I have some beliefs that I do not question their validity.), no consistent frequency distribution can be observed.

TABLE 49: The Relation between CTT Scores and CTD s12

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD12	Completely Disagree	0	9	**11**	**6**	26
	Disagree	1	20	**29**	**10**	60
	Not Sure	0	15	10	5	30
	Agree	0	3	8	3	14
	Completely Agree	0	4	9	3	16
Total		1	51	67	27	146

For the CTT scores and the questionnaire statement 12 (I never change what l say in a discussion even if I know they are wrong.), no significance can be observed in the frequency distribution (F=56).

TABLE 50: The Relation between CTT Scores and CTD s13

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD13	Completely Disagree	0	1	8	3	12
	Disagree	0	3	3	1	7
	Not Sure	0	6	6	2	14
	Agree	0	10	**14**	**6**	30
	Completely Agree	1	31	**36**	**15**	83
Total		1	51	67	27	146

When comparing the CTT scores and the questionnaire statement 13 (I can not think effectively when I am stressed and depressed.), a significance can be observed in the frequency distribution (F=71).

TABLE 51: The Relation between CTT Scores and CTD s14

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD14	Completely Disagree	0	5	4	3	12
	Disagree	0	10	9	3	22
	Not Sure	0	8	14	5	27
	Agree	0	23	**30**	**10**	63
	Completely Agree	1	5	**10**	**6**	22
Total		1	51	67	27	146

Comparing the CTT scores and the questionnaire statement 14 (I read books and other materials with a specific point of view.), no significance can be observed in the frequency distribution (F=66).

TABLE 52: The Relation between CTT Scores and CTD s15

		CTTEST				
		0-30 VERY POOR	30-40 FAIL	40-60 FAIR	60 – 80 VERY GOOD	Total
CTD15	Completely Disagree	0	1	2	1	4
	Disagree	0	6	12	2	20
	Not Sure	0	8	9	5	22
	Agree	0	13	**15**	**5**	33
	Completely Agree	1	23	**29**	**14**	67
Total		1	51	67	27	146

Comparing the CTT scores and the questionnaire statement 15 (If I happened to understand that my principles, beliefs and values and all I know about life were not actually valid and accurate, I would feel annoyed.), no significance can be observed in the frequency distribution (F=63).

In most of the questions we can not observe any relation between CTT and CTD. This data prove that cognitive and dispositional CT skills are different abilities, which are not necessarily have to be interrelated. Also, Facione (1989) warns that the [CT] experts are not, however, saying that a person must be proficient at every skill to be perceived as having CT ability.

4.6. Notion of Critical Thinking – Trainees' Case

This questionnaire aims at reaching some information on the current knowledge of the teacher trainees about critical thinking, their evaluation of Turkish National Education system in terms of CT, and their habits of critical thinking which can be regarded as dispositions.

TABLE 53: Distribution of the Responds to NCT

☺	**NOTION OF CRITICAL THINKING**	**1**	**2**	**3**	**4**	**5**	**N/%**
1	My previous education before university was effective enough to develop my critical thinking abilities	32	60	33	13	8	146/100
2	Courses in our department are beneficial for developing our critical thinking abilities.	23	57	46	16	4	146/100
3	Critical thinking abilities are culture-based skills that vary from one country to another. However, it is not a skill that can be developed through formal education	8	34	17	63	24	146/100
4	Improvement of critical thinking abilities are strongly related to the intellectual level of an individual.	9	NA	8	74	55	146/100
5	Students in our departments are able to see the relationship between the theory and practice of ELT field.	19	24	57	30	16	146/100
6	Critical thinking can not be taught, but rather it is a set of skills that can be developed through personal efforts.	8	41	17	32	48	146/100
7	I believe that a course on critical thinking in our department would be useful.	4	8	4	65	65	146/100
8	Language skills lessons such as reading and writing skills promote the critical thinking abilities of the students.	44	28	27	36	11	146/100
9	The individuals who were given respect and importance display more developed critical thinking abilities than others.	1	9	31	75	30	146/100
10	Affective and habitual aspects of critical thinking are more important than its cognitive domains.	4	12	24	58	48	146/100
11	We can not think of critical thinking abilities without a strong need for them.	2	9	16	45	74	146/100
12	Individuals who do not know and face themselves can not be an effective critical thinker.	NA	NA	8	52	82	142/97,3
13	The fuel of critical thinking is the curiosity of solving any kind of problems and the need for inquiring.	16	10	37	75	6	144/98,6
14	I think that I possess developed critical thinking skills.	4	29	65	36	12	146/100
15	My friends and colleagues are skilful critical thinkers.	24	46	38	35	3	146/100

The first think likely to attract the attentions may be the dilemma of the 1st statement. Most of the participants (63%, F=92) believe that the Turkish educational system does not foster critical thinking. However, they are still educated in this system.

TABLE 54: Frequency Analysis for NCT1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	32	21,9	21,9	21,9
	Disagree	60	41,1	41,1	63,0
	Not Sure	33	22,6	22,6	85,6
	Agree	13	8,9	8,9	94,5
	Completely Agree	8	5,5	5,5	100,0
	Total	146	100,0	100,0	

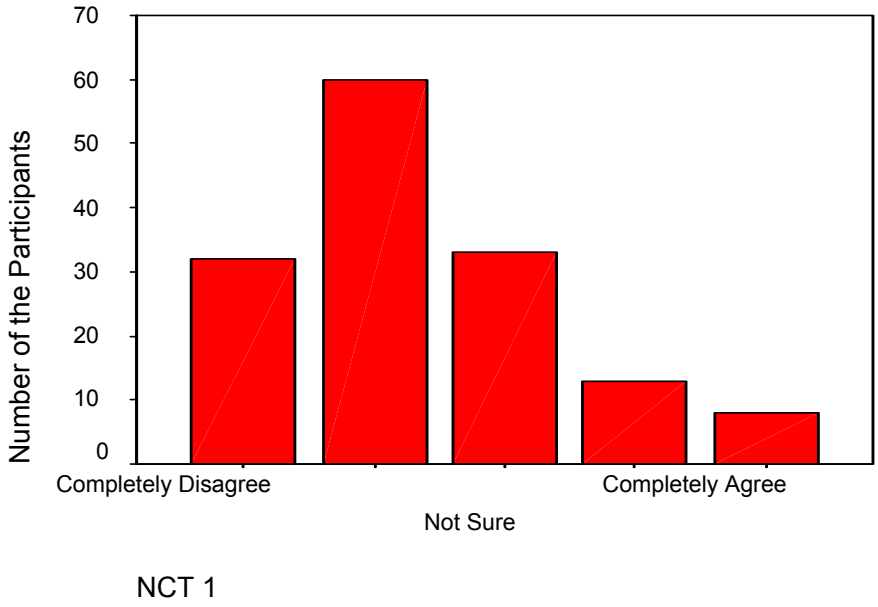


FIGURE 11: Distribution of the Responds to NCT1

Broadly the same type of respond is given to the s2 of NCT, as can be seen on Table 53. The reason of this negative rating for NCT, s1 and s2 may have various reasons, but above all, they are notable feedback for educators.

In general, we can infer that participants are fairly informed about the CT as a notion and an educational outcome. For instance, the statements evaluating the knowledge of the participants on CT such as s2, s3, s4, s6, and s7 display relatively a positive distribution which may lead us to underline that they have an idea on what CT is. Nevertheless, this is not enough. Studies reveal the fact that the more one knows about thinking itself, the better she or he will think.

s14 assesses the self-awareness of the participants. The self-awareness statement in NCT, s14, gives us a clear idea about the current situation in this department. When we observe the table 23, more statistically significant value compared to other responds is "not sure" with F= 65 (%45).

TABLE 55: Frequency Analysis table for NCT 14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	4	2,7	2,7	2,7
	Disagree	29	19,9	19,9	22,6
	Not Sure	**65**	**44,5**	44,5	67,1
	Agree	36	24,7	24,7	91,8
	Completely Agree	12	8,2	8,2	100,0
	Total	146	100,0	100,0	

s12 and s14 are also self awareness items of the NCT questionnaire. However, comparing the results of s12 with s14 it is clear that the participants know that self-awareness is a very important aspect of CT. What they simply know is that they aware of importance of self-awareness, but don't know to achieve it.

TABLE 56: Frequency Analysis of NCT 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Sure	8	5,5	5,6	5,6
	Agree	**52**	**35,6**	36,6	42,3
	Completely Agree	**82**	**56,2**	57,7	100,0
	Total	142	97,3	100,0	
Missing	System Missing	4	2,7		
Total		146	100,0		

Another statement, s10, supports and validates the responses given for s12 and s14 in that s10 states that affective and habitual aspects of critical thinking are more important than its cognitive domains, and the findings reveal the relation among three statements. As inferred, s10 is also a statement assessing the knowledge on CT. The table 57 shows that 106 respondents agree or strongly agree with the statement with a percent of 72,6%, and the disagree and strongly disagree possess F= 16 (11%). This indicates that participants have some knowledge on nature of CT.

TABLE 57: Frequency Analysis of NCT 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely Disagree	4	2,7	2,7	2,7
	Disagree	12	8,2	8,2	11,0
	Not Sure	24	16,4	16,4	27,4
	Agree	**58**	**39,7**	39,7	67,1
	Completely Agree	**48**	**32,9**	32,9	100,0
	Total	146	100,0	100,0	

4.7. Academic Staff's Case

CTD questionnaire is also applied to the academic staff of the GU ELT department. Although the aim of this thesis is not to measure the academic staff's critical thinking abilities and tendencies, there may be a relation between the trainees and the trainers CT skills and dispositions, and this relation may be an indicator of trainees' success or failure. Thus, this part will be reviewed briefly.

In order to compare the CTD results of the trainees and academic staff, some of the statement will be discussed. Table 58 illustrates the distribution of CTD responses of trainers and trainees. Statistically significant questions are shown by red ink, and will be discussed.

TABLE 58: Distribution of Percentages of Academic Staff & Trainees

CTD 1		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	7,3	5,5
	Disagree	43,6	47,3
	Not Sure	12,7	15,8
	Agree	23,6	20,5
	Completely Agree	12,7	11,0
	Total	100,0	100,0
CTD 2		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	12,5	7,5
	Disagree	6,3	6,2
	Not Sure	12,5	13,7
	Agree	37,5	58,2
	Completely Agree	31,3	14,4
	Total	100,0	100,0
CTD 3*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	40,0	30,1
	Disagree	40,0	43,2
	Not Sure	20,0	11,0
	Agree	-	8,9
	Completely Agree	-	6,8
	Total	100,0	100,0
CTD 4*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	56,3	39,7
	Disagree	25,0	27,4
	Not Sure	-	25,3
	Agree	6,3	6,8
	Completely Agree	12,5	,7
	Total	100,0	100,0
CTD 5		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	25,0	9,6
	Disagree	31,3	30,8
	Not Sure	31,3	30,1
	Agree	12,5	19,2
	Completely Agree	-	10,3
	Total	100,0	100,0
CTD 6*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	50,0	45,2
	Disagree	31,3	30,8
	Not Sure	12,5	17,8
	Agree	-	4,1
	Completely Agree	-	2,1
	Total	93,8	100,0
CTD 7*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	6,3	15,1
	Disagree	18,8	19,9
	Not Sure	12,5	19,2
	Agree	56,3	38,4
	Completely Agree	6,3	7,5
	Total	100,0	100,0

There is a slight statistical difference in s3, s4, s6 and s7 in that academic staff are stronger in CT dispositions and have a more reliable response distribution.

CTD 8*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	-	6,2
	Disagree	-	13,7
	Not Sure	12,5	18,5
	Agree	50,0	41,1
	Completely Agree	37,5	20,5
	Total	100,0	100,0
CTD 9*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	-	2,7
	Disagree	-	6,8
	Not Sure	-	8,9
	Agree	26,7	40,4
	Completely Agree	73,3	41,1
	Total	100,0	100,0
CTD 10*		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	-	1,4
	Disagree	-	3,4
	Not Sure	-	6,8
	Agree	53,3	45,9
	Completely Agree	46,7	42,5
	Total	100,0	100,0
CTD 11		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	25,0	17,1
	Disagree	18,8	28,8
	Not Sure	6,3	24,0
	Agree	43,8	21,9
	Completely Agree	6,3	8,2
	Total	100,0	100,0
CTD 12		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	25,0	17,8
	Disagree	37,5	41,1
	Not Sure	18,8	20,5
	Agree	12,5	9,6
	Completely Agree	6,3	11,0
	Total	100,0	100,0
CTD 13		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree		8,2
	Disagree	6,3	4,8
	Not Sure	12,5	9,6
	Agree	18,8	20,5
	Completely Agree	62,5	56,8
	Total	100,0	100,0
CTD 14		**ACADEMIC PER**	**TRAINEE PER**
Valid	Completely Disagree	25,0	8,2
	Disagree	25,0	15,1
	Not Sure	12,5	18,5
	Agree	37,5	43,2
	Completely Agree	-	15,1
	Total	100,0	100,0

For s8, there is a slight difference between the two groups. However, for the statements 9 and 10, academic staff is in an accord and displays a 100,0% agree.

CTD 15*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	6,3	2,7
	Disagree	-	13,7
	Not Sure	-	15,1
	Agree	37,5	22,6
	Completely Agree	56,3	45,9
	Total	100,0	100,0
CTD 16*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	-	1,4
	Disagree	-	4,8
	Not Sure	-	2,7
	Agree	43,8	38,4
	Completely Agree	56,3	52,7
	Total	100,0	100,0
CTD 17*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	43,8	38,4
	Disagree	37,5	21,2
	Not Sure	18,8	24,7
	Agree	-	7,5
	Completely Agree	-	8,2
	Total	100,0	100,0
CTD 18*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	-	5,5
	Disagree	6,3	5,5
	Not Sure	12,5	29,5
	Agree	18,8	30
	Completely Agree	62,5	29,5
	Total	100,0	100,0
CTD 19*		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	50,0	43,2
	Disagree	43,8	26,0
	Not Sure	-	7,5
	Agree	6,3	12,3
	Completely Agree	-	11,0
	Total	100,0	100,0
CTD 20		ACADEMIC PER	TRAINEE PER
Valid	Completely Disagree	6,7	4,3
	Disagree	13,3	2,9
	Not Sure		24,3
	Agree	26,7	45,0
	Completely Agree	53,3	23,6
	Total	100,0	100,0

The responses of academic staff exhibit some significant differences in the statements 15, 16, 17, 18 and 19, and especially for the s16 academic staff responds 100% agree. As the intellectual maturity itself is a in remarkable factor of CT, it is not surprising that the academic staff possess more developed CT dispositions.

4.8. Suggestions

For both trainees and academic staff, the questionnaire comprises a suggestion section (appendix 3 and appendix 8 for English Version) where they put a tick to the options they want to offer as a solution so as to improve CT skills and dispositions in ELT departments.

The suggestion statements are:

1. To redesign language skills lessons of the department.
2. To teach a critical thinking course.
3. To design arts (acting, creative writing courses) so as to promote CT skills.
4. To make a deeper analysis and intensive reading in literature courses.
5. To teach extra ELT methodology courses aiming at associating the ELT theory with the practice.
6. Making some adjustments in the evaluation system of the department so as to lead the students to break the habit of memorizing and isolated learning.
7. To design social activities and programs in order to raise the self-esteem and self-awareness of the students.

4.8.1 Suggestions of Trainees

The distributions of the seven suggestion statements (Frequency, percentage and valid percentage) are given in Table 27, and only the suggested statements and their distribution is presented in figure 8. Because the statements do not have Likert-scale values, they are defined as “Yes” or “No”.

TABLE 59: Analysis of Suggestions of Trainees

SUGGESTION1		Frequency	Percent	Valid Percent
Valid	No	65	44,5	50,4
	Yes	**64**	**43,8**	**49,6**
	Total	129	88,4	100,0
Missing	System	17	11,6	
Total		146	100,0	
SUGGESTION 2		**Frequency**	**Percent**	**Valid Percent**
Valid	No	8	5,5	5,8
	Yes	**131**	**89,7**	**94,2**
	Total	139	95,2	100,0
Missing	System	7	4,8	
Total		146	100,0	
SUGGESTION 3		**Frequency**	**Percent**	**Valid Percent**
Valid	No	9	6,2	6,4
	Yes	**132**	**90,4**	**93,6**
	Total	141	96,6	100,0
Missing	System	5	3,4	
Total		146	100,0	
SUGGESTION 4		**Frequency**	**Percent**	**Valid Percent**
Valid	No	111	76,0	79,9
	Yes	**28**	**19,2**	**20,1**
	Total	139	95,2	100,0
Missing	System	7	4,8	
Total		146	100,0	
SUGGESTION 5		**Frequency**	**Percent**	**Valid Percent**
Valid	No	96	65,8	72,7
	Yes	**36**	**24,7**	**27,3**
	Total	132	90,4	100,0
Missing	System	14	9,6	
Total		146	100,0	
SUGGESTION 6		**Frequency**	**Percent**	**Valid Percent**
Valid	No	5	3,4	3,7
	Yes	130	89,0	96,3
	Total	**135**	**92,5**	**100,0**
Missing	System	11	7,5	
Total		146	100,0	
SUGGESTION 7		**Frequency**	**Percent**	**Valid Percent**
Valid	No	1	,7	,7
	Yes	135	92,5	99,3
	Total	**136**	**93,2**	**100,0**
Missing	System	10	6,8	
Total		146	100,0	

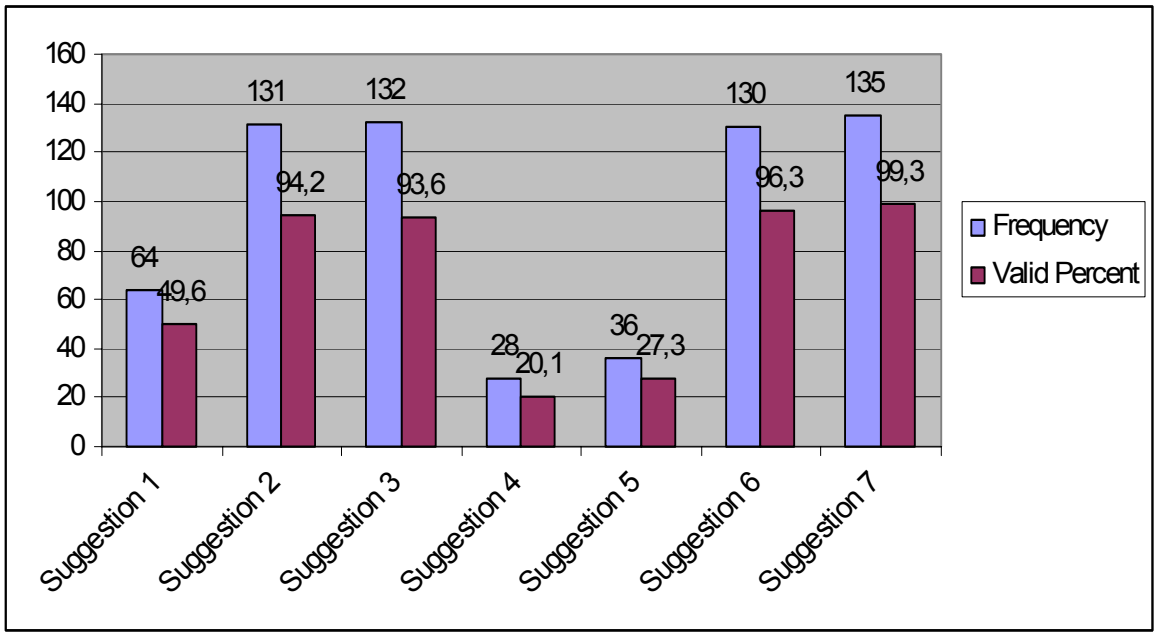


FIGURE 12: Graph of Percentage and Frequency of Suggestions

As seen on the graph, the suggestions 2, 3, 6 and 7 possess a high percentage. Then, the suggestions of the trainees can be concluded as:

- A CT Course for the department
- Redesign of the Language skills Courses in the light of CT
- More social sciences and some arts in their faculty.

4.8.2 Suggestions of Trainees

Suggestions of the trainees are exactly the same with the trainees, (the suggestions 2, 3, 6 and 7), which may lead the researcher to note that even having some suggestions on how to improve CT in a department, and being in an accord as the whole school, may be considered as a good step towards CT in action. The Figure shows the frequency graph of the academic staff. Since the number of this group is 16, the percentages are excluded from the graph.

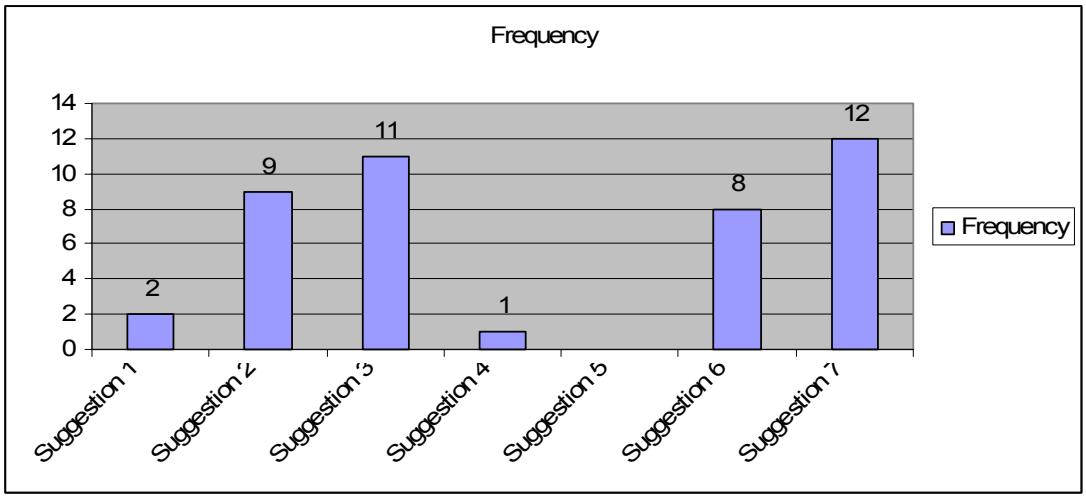


FIGURE 13: Frequency Graph for Suggestions of Academic Staff.

Groups, academic staff and teacher trainees, have also written down their further ideas as suggestions (Please refer to Appendix 6 and 7).

4.9. Evaluation of Hypotheses

The hypotheses checked in this study are discussed in relation with the findings of the research. The general portrait is that it may not be confidently stated that teacher trainees of Gazi University ELT department are talented Critical Thinkers (For 0-60 scores: N= 119 and 81, 5%). Only 18,5 of the trainers display a strong CT cognitive ability. As some of the questions of the CTT discussed in the previous sections and the scores of CTT show that they are likely to improve their Cognitive CT skills, but still have some problems in displaying inference, interpretation, analysis and evaluation.

TABLE 60: Distribution of CT Test scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-30 VERY POOR	1	,7	,7	,7
	30-40 FAIL	51	34,9	34,9	35,6
	40-60 FAIR	67	45,9	45,9	81,5
	60 - 80 VERY GOOD	27	18,5	18,5	100,0
	80 - 100	-	-	-	
	Total	146	100,0	100,0	

A slightly different commentary may be made for the dispositional CT skills of the trainees. CTD and NCT show that trainees are strong in most of the sub-skills of CT dispositions such as “open-mindedness” and “inquisitiveness”. However, the possible reasons of the weak aspects of their skills may be their “intellectual maturity” and “truthseeking”, which is also a disposition. No relations are observed between CTT and gender, school type, education type (day or evening classes) and 3rd 4th class variables in terms of statistical significances. In addition, no statistical relation can be observed between the variables CTT (Cognitive) and CTD (Dispositional).

The case of academic staff is much more promising since the answers given to CTD show developed skills in CT dispositions. This research group was not given a cognitive CT skill test since it is not a discriminating factor in identifying one as a critical thinker. Also, this kind of data would be out of scope of the research.

The suggestions of both group is similar, and this can be regarded as an initial self-awareness on CT. There are so few studies have been conducted on CT in teacher training. When it comes to the case of ELT, the numbers of these studies fall dramatically. Nevertheless, the positive aspect of the suggestions data is that both groups suggested the hard-hitting solutions despite limited knowledge in the field of CT.

5

CONCLUSION

This chapter is devoted to the conclusions of the study, implications for practice and implications for further research. The first part of the conclusion illustrates the current situation of the CT abilities of the trainees, and the possible reasons for the findings of the research. The second part (5.2) is mainly about the place and importance of critical thinking in higher education. It is necessary to come to a conclusion about higher education and CT since we can not think of a teacher education setting out of a faculty context. The last heading (5.3.) comprises some suggestions for further research.

5.1. Summary

This research has been fulfilled at Gazi University, ELT department. A sample group of 146 (20 male, 146 female) participants representing 3rd and 4th class trainees were chosen, and they were applied three different instruments, namely; Critical Thinking Skills Test (CTT), Dispositions of Critical Thinking Questionnaire (CTD) and Notion of Critical Thinking (NCT). After the administration of these instruments, the results were processed in SPSS 11, 5 statistics program, and necessary data were analyzed and interpreted. Some of these data include the relation of CTT and demographic features of the sample group, analysis of CTT and CTD interrelation, and analyses interpretations of striking examples of CTD and NCT. Also CT disposition questionnaire (CTD) was applied to the academic staff (N=16) of the department to observe the possible correlation between trainees and trainers in terms of their tendencies towards thinking critically. Academic staff group was not applied CTT and NCT since these data are out of scope of the study. Also a separate part in the questionnaire was devoted to the suggestions of both trainees and trainers. The results of these data are also given in some tables and figures.

The results of CTT for trainees display a “Fair” (F=67) level of cognitive CT skills, and show that trainees should be supported for developing their CT skills. CTD and NCT of trainees indicate that they are skilled in many aspects of dispositional CT. However, some certain sub-skills are needed to be developed such as “truthseeking” and “confidence in reasoning”. The interpretation of these weak sub-skills was that a weakness in CTD is not only a problem of ELT trainees, but a problem for all societies. Another weakness in CTD scores of the trainees were the “Intellectual Maturity” and “Confidence in Reasoning”, which can be defined as the necessary knowledge and background considered as the fuel of CT. These Dispositional weaknesses are not observed in academic staff group.

The suggestions of both groups show a very strong consensus on the following issues for developing CT, which was defined as a strong step towards CT by the researcher.

- A CT Course for the department
- Redesign of the Language skills Courses in the light of CT
- More social activities and some arts in their faculty.

Both groups were also in an accord with the idea that developing CT is strongly related with the self-awareness, which may be realized by developing self-esteem of the trainees. Popularity of this statement among participants is also a very promising in terms of autonomy of the individuals on the way of thinking critically.

5.2. The Current Portrait

A good hypothesis, and accordingly the research will be spoiled if we infer wrong information from them. As an example, the CTT scores of the participants are not promising. Also their tendency for being a critical may not be adequate as some of the questionnaire items indicate. Nevertheless, the problem of higher education is not isolated from the problems of the society, or the world in general. Therefore, judging the trainees isolated from the society and the world they live in would spoil this study. When we read the literature and see the results of similar studies to this research, we can see that same limitations, perhaps surprisingly, are exactly the same for the students and for academic staff of the "ivory league universities" such as Duke, Berkeley and so on. At this point, since the cognitive abilities of CT will mislead us in identifying one as a critical thinker, the researcher focuses on the dispositional skills of the faculty students. The reason of insufficient skills of CT dispositions may be how much democratic we are, how much we are free in sharing our opinion, and how much we are encouraged and respected when we attempt to think morally. The dispositions are the moral habits of a questioning mind. Then if there is a problem in these skills, where should we look for the flaw? Perhaps the hard hitting and specific questions would be "Do education really teaches how to think?" and "To whom does the education serve for?"

In brief, the results obtained from the research indicates that some adjustments must be made in the curriculum of the ELT departments, some separate CT courses must be designed so as to lead the trainees to have a self-awareness on their CT skills (both cognitive and dispositional) and learn more about importance and necessity of CT.

Another important point is that the number of researches aiming at implementing CT to teacher education is surprisingly few. Every single individual of the communities is taught by a teacher at least once in her/his life. Millions of people spend thousands hours in classes for sake of getting trained. Therefore, implementing CT to teacher education has to be more important than any application of it.

However, one will witness that researches and efforts in nurse education focus on CT more than teacher education field does.

When it comes to field of ELT teacher education in Turkey, studies of critical thinking in this field should be promoted immediately. The list above shows the reasons of necessity of CT in ELT teacher training in Turkey:

1. Teaching requires CT.
2. ELT is a well-analyzed and studied field possessing enough theoretical infrastructures to base CT on.
3. In the eve of EU, ELT teachers with developed CT skills and habits will definitely be beneficial for the national outcomes.
4. Teaching communication skills will help students to improve their CT abilities since CT can be developed better in social learning groups. This social groups are well-studied in ELT literature (Collaborative learning, Constructivism in ELT, so on)
5. Improving language skills means improving thinking skills

5.2. CT in Higher Education

The conclusion is that the conventional model of educational habits and traits do not foster CT in higher education, and even modern education has similar problems to do so. Also, we can say that necessity of CT is not discussed in Turkish higher education in details. Theorists of CT stress that CT should be promoted by the early ages on the grounds that being disposed to think critically is the controlling factor of utilizing our cognitive CT skills and abilities. However, too much burden still remains on the shoulders of higher education institutes. Nonetheless, whether the understanding and applications of education are conventional or not, professors and lecturers should be questioning the ultimate production of their curriculum and courses. The main issue whether the graduates are disposed to be Critical Thinker or not. The answer to this question is not only related to the CT dispositions of the graduates, but also an answer related to the acquisition of the field taught, related to

lifelong learning and related to becoming a rational and democratic society. The problems hampering development of CT skills and dispositions at Universities are:

1. Vague definition of the concept CT;
2. Misconceptions and misunderstandings of CT among lecturers;
3. The passive role of the students in faculties;
4. Assessment designs of courses leading students to memorization, to learn isolated terms, concepts and methods instead of developing a sense and need of productive thinking;
5. Assessment design of student selection exams for compulsory schools and lycee. These exams begin by primary school and keep its dominance after faculty graduation;
6. Overconfidence of lecturers in fostering CT;
7. No national, governmental or institutional organizations of CT exist in Turkey;
8. Proportion of number of academic staff and student.

Vagueness of concept CT may hinder effective administrations in both higher education and lower educational facilities. However, we have clear examples of CT acts and successful applications for higher education in the world. In order to shift to an educational model improving CT skills and dispositions, some certain actions should be carried out as follows:

1. Curriculum, syllabuses and assessment models of higher education must be redesigned and CT skills and dispositions must be implemented to all courses possible. Also separate CT lessons must be designed.

2. Lecturers at any level of academic rank should be informed on the theories and practices of CT through in-service trainings.

3. Responsible governmental institutions must have organizations and research centers carrying out researches on CT at National level,

following the literature and informing educators. Also those institutions must provide educational process with the valid and reliable results of CT assessment and instruction samples.

4. Universities must constitute an institute of critical thinking where researches and MA, PhD studies are conducted and interdisciplinary studies are carried out, and where annual conferences, seminars on CT are held.

5. For sustainable development of CT in society, government ought to develop strategic action plans for every level of education and business branches.

6. All books, educational materials of Ministry of National Education are to be assessed and necessary adjustments should be made so as to foster CT from early ages.

In the eve of joining to EU, it is time for Turkish universities to figure out the necessity and importance of CT skills and dispositions for training productive-thinking generations. Every person surely merits thinking critically so that s/he may understand and enjoy the world s/he lives in, and higher education possesses enough skills, knowledge and staff to give people what they deserve.

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APPENDICES

APPENDIX 1

CONSENSUS LIST OF CT COGNITIVE SKILLS AND SUB-SKILLS	
SKILL	**1. INTERPRETATION** • To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures or criteria.
SUB-SKILLS	**.1. CATEGORIZATION**: • to apprehend or appropriately formulate categories, distinctions, or frameworks for understanding, describing or characterizing information. • to describe experiences, situations, beliefs, events, etc. so that they take on comprehensible meanings in terms of appropriate categorizations, distinctions, or frameworks. For example: to recognize a problem and define its character without prejudice to inquiry; to determine a useful way of sorting and sub-classifying information; to make an understandable report of what one experienced in a given situation; to classify data, findings or opinions using a given classification schema. **1.2. DECODING SIGNIFICANCE**: • to detect, attend to, and describe the informational content, affective purport, directive functions, intentions, motives, purposes, social significance, values, views, rules, procedures, criteria, or inferential relationships expressed in convention-based communication systems, such as in language, social behaviors, drawings, numbers, graphs, tables, charts, signs and symbols.For example: to detect and describe a person's purposes in asking a given question; to appreciate the significance of a particular facial expression or gesture used in a given social situation; to discern the use of irony or rhetorical questions in debate; to interpret the data displayed or presented using a particular form of instrumentation. **1.3. CLARIFYING MEANING**: • to paraphrase or make explicit, through stipulation, description, analogy or figurative expression, the contextual, conventional or intended meanings of words, ideas, concepts, statements, behaviours, drawings, numbers, signs, charts, graphs, symbols, rules, events or ceremonies. • to use stipulation, description, analogy or figurative expression to remove confusing, unintended vagueness or ambiguity, or to design a reasonable procedure for so doing. For example: to restate what a person said using different words or expressions while preserving that person's intended meanings; to find an example which helps explain something to someone; to develop a distinction which makes clear a conceptual difference or removes a troublesome ambiguity.
SKILL	**2. ANALYSIS** • To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions or other forms of representation intended to express beliefs, judgments, experiences, reasons, information, or opinions.

SUB-SKILLS	**2.1. EXAMINING IDEAS**: • to determine the role various expressions play or are intended to play in the context of argument, reasoning or persuasion. • to define terms. • to compare or contrast ideas, concepts, or statements. • to identify issues or problems and determine their component parts, and also to identify the conceptual relationships of those parts to each other and to the whole. For example: to identify a phrase intended to trigger a sympathetic emotional response which might induce an audience to agree with an opinion; to examine closely related proposals regarding a given problem and to determine their points of similarity and divergence; given a complicated assignment, to determine how it might be broken up into smaller, more manageable tasks; to define an abstract concept. **2.2. DETECTING ARGUMENTS**: • given a set of statements, descriptions, questions or graphic representations, to determine whether or not the set expresses, or is intended to express, a reason or reasons in support of or contesting some claim, opinion or point of view.For example, given a paragraph, determine whether a standard reading of that paragraph in the context of how and where it is published, would suggest that it presents a claim as well as a reason or reasons in support of that claim; given a passage from a newspaper editorial, determine if the author of that passage intended it as an expression of reasons for or against a given claim or opinion; given a commercial announcement, identify any claims being advanced along with the reasons presented in their support. **2.3. ANALYZING ARGUMENTS**: • given the expression of a reason or reasons intended to support or contest some claim, opinion or point of view, to identify and differentiate: • the intended main conclusion, • the premises and reasons advanced in support of the main conclusion, • further premises and reasons advanced as backup or support for those premises and reasons intended as supporting the main conclusion, • additional unexpressed elements of that reasoning, such as intermediary conclusions, unstated assumptions or presuppositions, • the overall structure of the argument or intended chain of reasoning, • any items contained in the body of expressions being examined which are not intended to be taken as part of the reasoning being expressed or its intended background. For example: given a brief argument, paragraph-sized argument, or a position paper on a controversial social issue, to identify the author's chief claim, the reasons and premises the author advances on behalf of that claim, the background information used to support those reasons or premises, and crucial assumptions implicit in the author's reasoning; given several reasons or chains of reasons in support of a particular claim, to develop a graphic representation which usefully characterizes the inferential flow of that reasoning.

SKILL	**3. EVALUATION** • To assess the credibility of statements or other representations which areaccounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intend inferential relationships among statements, descriptions, questions or other forms of representation

S U B- S K I L L S	**3.1. ASSESSING CLAIMS**: • to recognize the factors relevant to assessing the degree of credibility to ascribe to a source of information or opinion. • to assess the contextual relevance of questions, information, principles, rules or procedural directions. • to assess the acceptability, the level of confidence to place in the probability or truth of any given representation of an experience, situation, judgment, belief or opinion. For example: to recognize the factors which make a person a credible witness regarding a given event or credible authority on a given topic; to determine if a given principle of conduct is applicable to deciding what to do in a given situation; to determine if a given claim is likely to be true or false based on what one knows or can reasonably find out. **3.2. ASSESSING ARGUMENTS**: • to judge whether the assumed acceptability of the premises of a given argument justify one's accepting as true (deductively certain), or very probably true (inductively justified), the expressed conclusion of that argument • to anticipate or to raise questions or objections, and to assess whether these point to significant weakness in the argument being evaluated. • to determine whether an argument relies on false or doubtful assumptions or presuppositions and then to determine how crucially these affect its strength. • to judge between reasonable and fallacious inferences; • to judge the probative strength of an argument's premises and assumptions with a view toward determining the acceptability of the argument. • to determine and judge the probative strength of an argument's intended or unintended consequences with a view toward judging the acceptability of the argument; • to determine the extent to which possible additional information might strengthen or weaken an argument.
SKILL	**4. INFERENCE**: • To identify and secure elements needed to draw reasonable conclusions;to form conjectures and hypotheses; to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation.

SUB-SKILLS	**4.1. QUERYING EVIDENCE**: • in particular, to recognize premises which require support and to formulate a strategy for seeking and gathering information which might supply that support. • in general, to judge that information relevant to deciding the acceptability, plausibility or relative merits of a given alternative, question, issue, theory, hypothesis, or statement is required, and to determine plausible investigatory strategies for acquiring that information. • For example: when attempting to develop a persuasive argument in support of one's opinion, to judge what background information it would be useful to have and to develop a plan which will yield a clear answer as to whether or not such information is available; after judging that certain missing information would be germane in determining if a given opinion is more or less reasonable than a competing opinion, to plan a search which will reveal if that information is available. **4.2. CONJECTURING ALTERNATIVES**: • to formulate multiple alternatives for resolving a problem, to postulate a series of suppositions regarding a question, to project alternative hypotheses regarding an event, to develop a variety of different plans to achieve some goal. • to draw out presuppositions and project the range of possible consequences of decisions, positions, policies, theories, or beliefs.For example: given a problem with technical, ethical or budgetary ramifications, to develop a set of options for addressing and resolving that problem; given a set of priorities with which one may or may not agree, to project the difficulties and the benefits which are likely to result if those priorities are adopted in decision making. **4.3. DRAWING CONCLUSIONS**: • to apply appropriate modes of inference in determining what position, opinion or point of view one should take on a given matter or issue. • given a set of statements, descriptions, questions or other forms of representation, to educe, with the proper level of logical strength, their inferential relationships and the consequences or the presuppositions which they support, warrant, imply or entail. • to employ successfully various sub-species of reasoning, as for example to reason analogically, arithmetically, dialectically, scientifically, etc. • to determine which of several possible conclusions is most strongly warranted or supported by the evidence at hand, or which should be rejected or regarded as less plausible by the information given. For example: to carry out experiments and to apply appropriate statistical inference techniques in order to confirm or disconfirm an empirical hypothesis; given a controversial issue to examine informed opinions, consider various opposing views and the reasons advanced for them, gather relevant information, and formulate one's own considered opinion regarding that issue; to deduce a theorem from axioms using prescribed rules of inference.

SKILL	**5. EXPLANATION**: • To state the results of one's reasoning; to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments.
SUB-SKILLS	**5.1. STATING RESULTS**: • to produce accurate statements, descriptions or representations of the results ofone's reasoning activities so as to analyze, evaluate, infer from, or monitor those results.For example: to state one's reasons for holding a given view; to write down for one's ownfuture use one's current thinking about an important or complex matter; to state one's research findings; to convey one's analysis and judgment regarding a work of art; to state one's considered opinion on a matter of practical urgency. **5.2. JUSTIFYING PROCEDURES**: • to present the evidential, conceptual, methodological, criteriological and contextual considerations which one used in forming one's interpretations, analyses, evaluation or inferences, so that one might accurately record, evaluate, describe or justify those processes to one's self or to others, or so as to remedy perceived deficiencies in the general way one executes those processes. For example: to keep a log of the steps followed in working through a long or difficult problem or scientific procedure; to explain one's choice of a particular statistical test for purposes of data analysis; to state the standards one used in evaluating a piece of literature; to explain how one understands a key concept when conceptual clarity is crucial for further progress on a given problem; to show that the prerequisites for the use of a given technical methodology have been satisfied; to report the strategy used in attempting to make a decision in a reasonable way; to design a graphic display which represents the quantitative or spatial information used as evidence. **5.3. PRESENTING ARGUMENTS**: • to give reasons for accepting some claim. • to meet objections to the method, conceptualizations, evidence, criteria or contextual appropriateness of inferential, analytical or evaluative judgments. For example: to write a paper in which one argues for a given position or policy; to anticipate and to respond to reasonable criticisms one might expect to be raised against one's political views; to identify and express evidence and counter-evidence intended as a dialectical contribution to one's own or another person's thinking on a matter of deep personal concern.
SKILL	**6. SELF-REGULATION**: • Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results.

SUB-SKILLS	**6.1 SELF-EXAMINATION**: • to reflect on one's own reasoning and verify both the results produced and the correct application and execution of the cognitive skills involved. • to make an objective and thoughtful meta-cognitive self-assessment of one's opinions and reasons for holding them. • to judge the extent to which one's thinking is influenced by deficiencies in one's knowledge, or by stereotypes, prejudices, emotions or any other factors which constrain one's objectivity or rationality. • to reflect on one's motivations, values, attitudes and interests with a view toward determining that one has endeavored to be unbiased, fair-minded, thorough, objective, respectful of the truth, reasonable, and rational in coming to one's analyses, interpretations, evaluations, inferences, or expressions. For example: to examine one's views on a controversial issue with sensitivity to the possible influences of one's personal bias or self-interest; to review one's methodology or calculations with a view to detecting mistaken applications or inadvertent errors; to reread sources to assure that one has not overlooked important information; to identify and review the acceptability of the facts, opinions or assumptions one relied on in coming to a given point of view; to identify and review one's reasons and reasoning processes in coming to a given conclusion. **6.2 SELF-CORRECTION**: • where self-examination reveals errors or deficiencies, to design reasonable procedures to remedy or correct, if possible, those mistakes and their causes. For example: given a methodological mistake or factual deficiency in one's work, to revise that work so as to correct the problem and then to determine if the revisions warrant changes in any position, findings, or opinions based thereon.

APPENDIX 2

COGNITIVE CT TAXONOMY OF BLOOM AND SKILLS DEMONSTRATED

Competence	**Skills Demonstrated**
Knowledge	• observation and recall of information • knowledge of dates, events, places • knowledge of major ideas • mastery of subject matter • *Question Cues:* list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.
Comprehension	• understanding information • grasp meaning • translate knowledge into new context • interpret facts, compare, contrast • order, group, infer causes • predict consequences • *Question Cues:* summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
Application	• use information • use methods, concepts, theories in new situations • solve problems using required skills or knowledge • *Questions Cues:* apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover
Analysis	• seeing patterns • organization of parts • recognition of hidden meanings • identification of components • *Question Cues:* analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer
Synthesis	• use old ideas to create new ones • generalize from given facts • relate knowledge from several areas • predict, draw conclusions • *Question Cues:* combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite
Evsaluation	• compare and discriminate between ideas • assess value of theories, presentations • make choices based on reasoned argument • verify value of evidence • recognize subjectivity • *Question Cues* assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize

APPENDIX 3

GAZİ EĞİTİM FAKÜLTESİ
İNGİLİZ DİLİ EĞİTİMİ BÖLÜMÜ
ELEŞTİREL DÜŞÜNCE BECERİSİ DEĞERLENDİRME TESTİ ve ANKETİ
2005 - 2006

Ö Ğ R E N C İ T E S T V E A N K E T İ

KATILIMCININ DİKKATİNE

Lütfen Bu Bölümü Dikkatle Okuyunuz

Bu çalışmanın amacı bölüm öğrencilerimizin Eleştirel Düşünce Becerilerini ELT teorisi ve pratiği arasındaki ilişki bağlamında ölçmek, sorgulama ve problem çözme gibi eğilimlerini belirlemek ve Eleştirel Düşünce üzerine fikirlerini almaktır.

Bu test ve anket toplam 10 sayfa olup dört ana bölümden oluşmaktadır. **A Bölümünde** ELT teori ve pratiği arasındaki ilişkiyi temel alarak eleştirel düşünce becerilerini ölçen test sorularına, **B Bölümünde** Eleştirel düşünce becerileri eğilimlerinizi sorgulayan anket sorularına yer verilmiştir. **C Bölümünde** Eleştirel Düşüncenin eğitim sistemindeki yeri ve Eleştirel düşünceye dair fikirleriniz üzerinde durulmuştur. Son olarak **D Bölümü** Eleştirel Düşünceyi geliştirmek için önerilerinizi ve eklemek istediğiniz fikirlerinizi yazacağınız bir bölüm olarak sunulmuştur.

Test ve anketin cevaplanma süresi en fazla 50 dakika olarak düşünülmüştür. Lütfen sorulara dikkatle okuyup yanıt veriniz. Cevaplarınız araştırmanın bulgularını birebir etkileyecektir. Araştırma sonuçlarını görmek isteyen ve/veya Eleştirel Düşünce üzerine paylaşmak istedikleri fikirleri olan katılımcılar araştırmacıya başvurabilirler.

Teşekkür Ederim.

Arş. Gör. Kemal Sinan ÖZMEN
İngiliz Dili Eğitimi ABD

KATILIMCININ

1.Sınıfı: 1 ( ) 2 ( ) 3( ) 4 ( )

2.Cinsiyeti: Kadın ( ) Erkek ( )

3. Mezun Olduğu Okul Türü:

Düz Lise	( )	Teknik Lise	( )
Anadolu Lisesi	( )	Anadolu Teknik/ Mesleki Lisesi	( )
Süper Lise	( )	Diğer	( )
Özel Okul	( )		
Anadolu Öğretmen	( )		

4. Örgün Eğitim ( ) İkinci Öğretim ( )

A – BÖLÜMÜ

A-Bölümü için yönerge:

Aşağıdaki 20 soru Yöntembilim ve Dilbilimi, Eğitim Bilimleri ve Edebiyat bağlamlarında Eleştirel Düşünce Becerilerinizi ölçen sorulardır. Bu bölüm için gerekli süre ortalama 30 dakikadır.

1. Bir öğretmenin derste İngilizce konuşması gerçekten öğrencilerin İngilizceyi daha iyi öğrenmelerine katkı sağlıyor mu?

Doğru (x) Yanlış ( )

2. Dil Edinimi dersinde öğrendiklerimin Özel Öğretim Yöntemleri dersine ve KADKİ dersine katkı sağlar

Doğru (x) Yanlış ( )

3. Aşağıdaki derslerin hangisinde teorik ve pratik ilişkisi en yüksektir?

a. Roman İnceleme ve Öğretimi	-	Gelişim Psikolojisi
b. Dil Edinimi	-	Çocuklara yabancı dil öğretimi
c. Dil bilimi	-	KADKİ
d. Dil Öğretim Projesi	-	Konuşma Becerileri
e. Şiir inceleme ve Öğretimi	-	Dil Öğretiminde Materyal Geliştirme ve Uyarlama

4. Aşağıdaki gerekçelerden hangisi "Dil Edinimi" dersinin bölümümüzde okutulmasını en iyi şekilde tanımlıyor?

a. Dil öğretimi üzerinde genel bir bakış açısı kazanmak
b. Dil bilgisi yapılarının nasıl geliştiğinin teorik dayanaklarını görmek
c. Dil ediniminin ve dil öğretim yöntemlerinin teorik temellerini öğrenmek
d. Dil öğretmenine gereken dil bilimi hususlarını detaylarıyla öğrenmek
e. Dil öğreniminin tarihsel gelişimi sürecinde etkileşime girdiği beşeri bilimler ve bu bilim dallarının Dil öğretim yöntemlerine katkılarını pratik uygulamalarıyla öğrenmek

5. Metot derslerinizde İngilizce öğretme sunularınızda özellikle İngilizce konuşmanız beklenmektedir. Bunun sebebini aşağıdaki seçeneklerden en iyi hangisi tanımlar?

a. Öğretmen adayı olarak iletişim becerilerimizin gelişmesine katkıda bulunmak
b. İngilizce yönerge vermeyi öğrenmek
c. Ne teorik ne de mantıklı bir gerekçesi var
d. Bölümümüzün kurallarından biri olduğu için
e. Güncel Dil öğretimi literatürü bunu önerir

6 -9. soruları aşağıdaki metni okuyup ilgili soruları yanıtlayınız.

Dil öğrenme kuramları incelendiğinde göze ilk çarpan gerçek bu kuramların oluşum süreçlerinde birçok farklı bilim dalından faydalanılmış olduğudur. Bir yanda öğrenmenin doğasını ve sistematiğini açıklığa kavuşturmaya çalışan eğitim psikolojisi alanı, bizlere dilin biyolojik ve psikolojik unsurlarını ve dil öğrenme biçimlerimizi anlatmaya çalışmakta, diğer taraftan dil bilimciler gelişen ve anlam bilim, edim bilim gibi alt dallara bölünen alanlarıyla dilin tanımını yeniden yapmaktadır. Bu bilgiler ışığında dil yöntem bilimcileri, gelişen eğitim teknolojisinin de desteği ile en etkin dil öğretme yöntemlerini oluşturma gayretindedirler. Bu süreçte ülkeden ülkeye görülen farklılıklar dikkate alınmasa da, dil öğretme yöntemlerinin ortak yanı disiplinler arası bir çalışmanın ürünü olan veriler ışığında toplumlar için kaçınılmaz olan yabancı dil öğrenme ihtiyacını karşılamaktır.

6. Aşağıdaki önermelerden hangisi metinden çıkarılabilir?

a. Eğitim teknolojileri disiplinler arası çalışmalardan faydalanır.
b. İngilizce öğrenmek tüm toplumlar için kaçınılmaz bir ihtiyaçtır.
c. Dil öğrenme kuramları bize dillerin doğasını ve sistematiğini anlatır.
d. Dil öğretme yaklaşımları dizayn edilirken toplumsal çeşitlilik ve ihtiyaçlar dikkate alınır.
e. Dil öğreniminin verimliliği öğrencinin kendi becerilerinin farkına varmasıyla başlar.

7. Aşağıdaki önermelerden hangisi metinde dolaylı olarak vurgulanmaktadır?

a. Eğitim teknolojileri son yıllarda oldukça gelişmiştir.
b. Dil öğrenme kuramları disiplinler arası çalışmalar sonucunda oluşmuştur.
c. Dil öğretme yaklaşımları oluşturulurken dil bilimi çalışmaları, eğitim psikolojisi ve teknolojisi alanlarında yapılan çalışmalara baş vurulur.
d. Dil öğretme oldukça zor ve karmaşık bir süreçtir.
e. Dil yöntem bilimcileri en etkin dil öğretme yöntemlerini oluşturma gayretindedirler.

8. Aşağıdaki çıkarımlardan hangisi metinde KESİNLİKLE bulun<u>ma</u>maktadır?

a. Eğitim teknolojileri dil öğrenme yöntemleri içinde önemli bir yer tutar.
b. Son yıllarda Dil Biliminde bir çok önemli gelişme olmuştur.
c. Eğitim Psikolojisi alanında bir çok yeni gelişme olmuştur.
d. Dil Öğretim yöntemlerinin gelişmesi bir anlamda arz-talep ilişkisine bağlıdır.
e. Çağımız bilim dalları karşılıklı etkileşim ve paylaşım içindedirler.

9. Aşağıdaki çıkarımlardan hangisi metinde bulunmaktadır?

a. Ana dil eğitimine yabancı dil eğitimi kadar önem verilmelidir.
b. Dilin öğrenme sürecinin bilişsel ve psikolojik adımları vardır.
c. Dil öğretiminin verimliliği eğitim teknolojilerine doğrudan bağlıdır.
d. Dil öğretiminin verimliliği herşeyden öte öğretmen kalitesine bağlıdır.
e. Tüm dillerin derin yapıları ortak özellikler ve yapılar bulundurur.

10-13. soruları aşağıdaki metni okuyup ilgili soruları yanıtlayınız.

(1)Dil öğretim yöntemlerinin yakın tarih boyunca gelişimini izlediğimizde çok köklü değişikliklerin olduğunu görmekteyiz. 20yy başlarından son çeyreğine kadar bir çok farklı ve iddialı metotlar geliştirilmiştir. Bu metotlar bir bütün olarak dil öğrencisinin yabancı dil öğrenme sürecine yanıt verdiğini, baştan sona ve doğru adımlarla uygulandıkları taktirde etkin bir dil öğrenme sürecini sağladıklarını dile getirmişlerdir.(2) Metot dönemi olarak adlandırılan bu süreçte birbirinden renkli ve ilginç çalışmalar sunan bilim adamları dil öğretimine çok büyük katkılar sağlamış olsalar da katı kurallarla kısıtlanmış metotları dil öğretimine etkin bir çözüm sunamadıkları tartışılmaktadır. Metotları takiben dil öğretiminde "yaklaşım" terimi kullanılmaya başlamış, bu yöntemler öğretmenlere metotlara nazaran daha esnek bir uygulama şansı yaratmış, dil sınıfları ihtiyaçlarına metotlara göre daha iyi yanıt vermişlerdir. (3)Örnek olarak TPR' a başka bir yaklaşımın veya metodun herhangi bir tekniğini entegre edemezsiniz, oysa bu durum dil öğretimi yöntemleri için geçerli değildir. Dil öğretim yöntemleri esnek kullanımları yanı sıra bireysel farklılıklara da eğilmiş, dil öğrencisini tek bir kişi olarak değil, birbirinden farklı kişiler olarak ele almıştır. (4)Günümüzde post modern dönemde olan dil öğretimi alanı "tümleşik yaklaşım" adı altında bir yöntemle eğitim programcılarının ve öğretmenlerin yaratıcılıklarına fırsat tanıyan bir hal almıştır.

10. Aşağıdaki önermelerden hangisi metinde dolaylı olarak vurgulanmaktadır?

a. Metotlar yaklaşımlara göre daha başarılı olmuştur.
b. Metotlar yaklaşımların doğmasına olanak sağlamıştır.
c. En iyi dil öğretim yöntemi "Tümleşik Yaklaşımdır".
d. Metotların sunduğu teknikler doğru uygulanınca etkin bir dil öğrenme gerçekleşir.
e. Teori bir özfarkındalık yaratan keşiflerdir. Oysa metodoloji bir icatlar zinciridir.

11. Metinde DÖRT cümlenin önünde rakamlar bulunmaktadır. Bu rakamlar kendilerinden sonra gelen cümleyi temsil etmektedir. Sizce hangi cümle metinde olmasa da olur?

a. 1
b. 2
c. 3
d. 4
e. hepsi

12. Aşağıdaki çıkarımların hangisi metinde bulunmaktadır?

a. Dil öğretmenleri ve Eğitim Programcıları yaratıcı kişilerdir.
b. Dil Öğretim alanı aktif ve üretken bir alandır.
c. "Tümleşik Yaklaşım" diğer yaklaşım ve metotlara göre daha güçlü bir teorik temele sahiptir.
d. Repertuarlarını genişletmek isteyen dil öğretmenleri için bir çok farklı dil öğretim tekniği bulunmaktadır.
e. Eğitim programcıları dil eğitim ve öğretim teorilerine hakim olmalıdırlar.

13. Aşağıdaki bilgilerden hangisini bu metne dayanarak söyleyemeyiz?

a. Tümleşik Yaklaşım tüm metotların ve yaklaşımların tekniklerini içerebilir.
b. Metotlar yaklaşımlardan önce dizayn edilmiştir.
c. Eğitim programcılarının dil öğretimi çalışmaları önemlidir.
d. Dil öğrenme yöntemleri hala geçerliliğini korumaktadır.
e. Genel anlamda öğrenme düzenli ve yoğun çalışmaya bağlıdır.

14-17. Aşağıdaki metni okuyup ilgili soruyu yanıtlayınız.

Dil öğretimi çok iyi öğretmenlere sahip olsanız bile bir kurum olarak her zaman gerçekleştirebileceğiniz bir iş değildir. Bunun sebebi dil öğretiminin uzun vadeli çalışmalarla belirlenmiş adımlarla gerçekleşebileceğidir. Eğer doğru müfredata, materyale ve sınıf koşullarına sahip değilseniz, kurumunuzda çalışan çok etkin öğretmenler tam başarı sağlayamayabilirler. Bunun tersi de geçerlidir; doğru tasarımlanmış bir dil öğretimi sistemi için de sıradan bir dil öğretmeni de öğrencilerini etkin bir sonuca götürebilir. Tıpkı tiyatro gibi; eğer elinizde iyi bir oyun metni ve yaratıcı bir yönetmen yoksa sahneleyeceğiniz oyun hem seyirci hem de oyuncu açısından bir felaket olabilir.

14. Metinde yapılan benzetme ışığında aşağıdaki eşleşmelerden hangisi doğrudur

a. Yönetmen ↔ Eğitim Müdürü
Oyuncu ↔ Öğretmen
Seyirci ↔ Eşleşme Yok
Oyun Metni ↔ Müfredat

b. Yönetmen ↔ Öğretmen
Oyuncu ↔ Öğrenci
Seyirci ↔ Eğitim Müdürü
Oyun Metni ↔ Eşleşme Yok

c. Yönetmen ↔ Eğitim Müdürü
Oyuncu ↔ Öğretmen
Seyirci ↔ Kurum Çalışanları
Oyun Metni ↔ Ders Kitabı

d. Yönetmen ↔ Eğitim Müdürü
Oyuncu ↔ Öğretmen
Seyirci ↔ Öğrenci
Oyun Metni ↔ Sistem

e. Yönetmen ↔ Eğitim Müdürü
Oyuncu ↔ Öğretmen
Seyirci ↔ Öğrenci
Oyun Metni ↔ Müfredat

15. Metne göre, aşağıdakilerden hangi seçenekte dil eğitim öğeleri en önemliden en az önemliye doğru sıralanmıştır? (> büyük işareti)

a. Eğitim Sistemi > Eğitim Müdürü > Dil Öğretmeni > Müfredat
b. Dil Öğretmeni > Eğitim Müdürü > Müfredat > Eğitim Sistemi
c. Eğitim Müdürü > Eğitim Sistemi > Müfredat> Dil Öğretmeni
d. Eğitim Sistemi > Müfredat > Eğitim Müdürü > Dil Öğretmeni
e. Dil Öğretmeni > Müfredat > Eğitim Sistemi >Eğitim Müdürü

16. "*Değeri olan hiçbir bilgi öğretilemez.*" Bu önermeden yapılacak en doğru çıkarım hangisidir?

a. Bize öğretilen bilgilerin bir çoğu değersizdir.
b. Değerli bilgiler bireysel deneyimlerle edinilir.
c. Değerli bilgiler edinirken bir eğitmene ihtiyaç yoktur.
d. Gerçek bilgi sınıflarda değil yaşamın içinde öğretilir.
e. Değeri olan bilgi zaten bizimledir. Biz onu öğrenmeyiz, ancak anımsayabiliriz.

17. Aşağıdaki soruyu şiir ışığında yanıtlayınız.

Ağlasam sesimi duyar mısınız,
Mısralarımda;
Dokunabilir misiniz,
Gözyaşlarıma, ellerinizle?

Bilmezdim şarkıların bu kadar güzel,
Kelimelerinse kifayetsiz olduğunu
Bu derde düşmeden önce

Bir yer var; biliyorum;
Her şeyi söylemek mümkün;
Epeyce yaklaşmışım, duyuyorum;
Anlatamıyorum.

Orhan Veli'nin şiiri neyi anlatıyor?

a. Ne kadar özel olursa olsun, aşk sonunda hep acı ve gözyaşı ile sonuçlanır.
b. Aşk acısı çeken birinin duygularını ifade edememesin anlatıyor.
c. Kendinizi ifade edebileceğiniz bir yer muhakkak vardır.
d. Anlatma tutkusu ve anlatamamanın acısını dile getiriyor
e. Duygularınızı anlatacağınız biri olmayınca aşık olursunuz.

18. "*Bu derde düşmeden önce…***" "Bu dertten" kasıt nedir?**

a. Aşk **b.** Anlatamamak c. Yalnızlık
d. Tutku e. Karasevda

19. Bu şiirin ilk iki dizesinde sorulan soruların amacı nedir?

a. Acısını okuyucusuyla paylaşmak
b. Okuyucuyu iğnelemek
c. Okuyucuya derdini söyleyip yardım istemek
d. Nafile bir çabanın altını çizmek
e. Aşkın yarattığı acının paylaşılamaz olduğunu ima etmek

20. "*İyi ve kötü diye bir şey yok! Düşünce her şeyi öyle yapan***" Hamlet adlı oyunda Prens Hamlet tarafından söylenen bu replik aşağıdaki hangisiyle aynı anlamdadır?**

a."Sıradan bir insan yaşamında olan her şeyi iyi ya da kötü olarak tanımlar. Oysa bir savaşçı için her şey bir meydan okumadır." (Don Juan De Marco)

b. "Şimdi kötülüklerimizle kirlenen bu kan çanağı güneş, başka topraklara iyiliğin baharını götürüyor."
c. " Bir aynadan yansıyanlar tüm yaşadıklarımız! O halde bazen değişmek lazım açısını..."
d. "Kötülükler olmasaydı düşüncelerimizin derinliklerinde, iyilik yaptığımız zaman çocuklar gibi sevinir miydik hiç?
e. "Körler onları görmese de yıldızlar vardır" (Gazali)

B -C - D

BÖLÜMERİ İÇİN
AÇIKLAMA VE YÖNERGELER

Bu üç bölümün ortak amacı Eleştirel Düşünce üzerine fikirlerinizi, eğilimlerinizi ve bölüm öğrencilerimizin Eleştirel Düşünce Becerilerini geliştirmek için olası önerilerinizi toplamaktır. Her üç bölümü de yanıtlarken size yöneltilen soruların ideal veya doğru bir seçeneği olmadığını, en doğru yanıtın sizin düşünce ve duygularınız olduğunu hatırlayınız.

B - Bölümü direkt veya dolaylı olarak sizin Eleştirel Düşünce eğiliminizi anlamaya yönelik sorular içermektedir. Her soru için 5 ölçekli (1, 2, 3, 4, 5) yanıt verilmiştir. Bu bölümde toplam **20 adet** önerme bulunmaktadır. Bu bölümdeki soruların büyük bir kısmında öz eleştiri yapmanız, alışkanlık ve eğilimlerinizi değerlendirmeniz beklenmektedir. Lütfen sorulara yanıt verirken bu noktaya hassasiyet gösteriniz.

C - Bölümü ise Eleştirel Düşünce Becerilerinin eğitim sistemimizde ve bölümümüzdeki yerine dair düşüncelerinizi, bir kavram olarak Eleştirel düşünceye dair yaklaşımınızı; bu beceriyi nasıl anladığınız ve tanımladığınızı değerlendirmeye yönelik sorulara yer verilmiştir. Her soru için 5 ölçekli (1, 2, 3, 4, 5) yanıt verilmiştir ve toplam **14 soru** bulunmaktadır.

D - Bölümünde bir anket sorusu dışında, hem Eleştirel Düşünce hem de bu çalışma üzerine yazmak istediğiniz tavsiyeleriniz ve fikirleriniz için bir alan bulunmaktadır. Eklemek istediklerinizi yazmaya tereddüt etmeyiniz.

PART B

The questionnaire below comprises 20 statements with 5 diffferent answer. Please think on each statement carefully and decide on an answer.

1 ↔ Completely Disagree 2 ↔ Disagree 3 ↔ Not Sure
4 ↔ Agree 5 ↔ Completely Disagree

☺	CRITICAL THINKING DISPOSITIONS	1	2	3	4	5
1	I believe that the best point of view is mine.					
2	I usually try to understand the ideas that I don't agree with.					
3	I do not consider the ideas supporting the opinions that l am opposed to.					
4	I do not question the reasons that lead other peoples' attitudes.					
5	I am easily influenced by the speeches of the effective orators.					
6	I do not question the philosophies that controls my life.					
7	I can easily change an of my idea if I feel a logical fallacy or a limitation.					
8	I like analyzing the abstract concepts and find some relation among them.					
9	Learning is a source of excitement and joy for me.					
10	I sometimes question the validity and reliability of my beliefs, values and principles with an objective eye.					
11	I have some beliefs that I do not question their validity.					
12	I never change what l say in a discussion even if I know they are wrong.					
13	I can not think effectively when I am stressed and depressed.					
14	I read books and other materials with a specific point of view.					
15	If I happened to understand that my principles, beliefs and values and all I know about life were not actually valid and accurate, I would feel annoyed.					
16	Thinking critically may help me get rid of my prejudices.					
17	Thinking critically may lead me to a depression and cause confusion in my life.					
18	If I knew that being a real intellectual would annoy me and made me unhappy, I would, nevertheless, want to be an intellectual who understands his/her world and people.					
19	I find questioning myself annoying.					
20	I usually collect information before I come to a decision about any thing.					

PART C

The questionnaire below comprises 20 statements with 5 diffferent answer. Please think on each statement carefully and decide on an answer.

1 ↔ Completely Disagree 2 ↔ Disagree 3 ↔ Not Sure
4 ↔ Agree 5 ↔ Completely Agree

☺	NOTION OF CRITICAL THINKING	1	2	3	4	5
1	My previous education before university was effective enough to develop my critical thinking abilities					
2	Courses in our department are beneficial for developing our critical thinking abilities.					
3	Critical thinking abilities are culture-based skills that vary from one country to another. However, it is not a skill that can be developed through formal education					
4	Improvement of critical thinking abilities are strongly related to the intellectual level of an individual.					
5	Students in our departments are able to see the relationship between the theory and practice of ELT field.					
6	Critical thinking can not be taught, but rather it is a set of skills that can be developed through personal efforts.					
7	I believe that a course on critical thinking in our department would be useful.					
8	Language skills lessons such as reading and writing skills promote the critical thinking abilities of the students.					
9	The individuals who were given respect and importance display more developed critical thinking abilities than others.					
10	Affective and habitual aspects of critical thinking are more important than its cognitive domains.					
11	We can not think of critical thinking abilities without a strong need for them.					
12	Individuals who do not know and face themselves can not be an effective critical thinker.					
13	The fuel of critical thinking is the curiosity of solving any kind of problems and need for inquiring.					
14	I think that I possess developed critical thinking skills.					
15	My friends and colleagues are skilful critical thinkers.					

PART D

In your opinion, what precautions should be taken so as to promote critical thinking in ELT departments. (You may tick more items if necessary)

( ) To redesign language skills lesson of the department.
( ) To teach critical thinking
( ) To design arts (acting, creative writing) courses so as to promote CT skills
( ) To make a deeper analysis and intensive reading in literature courses.
( ) To teach extra ELT methodology courses aiming at associating the ELT theory with the practice.
( ) Making some adjustments in the evaluation system of the department so as to lead the students to break the habit of memorizing and isolated learning.
( ) To design social activities and programs in order to raise the self-esteem and self-awareness of the students

Please write down your suggestions and further ideas here.

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APPENDIX 4

Ö Ğ R E T İ M E L E M A N I A N K E T İ

A –B – C

BÖLÜMERİ İÇİN

AÇIKLAMA VE YÖNERGELER

Bu üç bölümün ortak amacı Eleştirel Düşünce üzerine fikirlerinizi, eğilimlerinizi ve bölüm öğrencilerimizin Eleştirel Düşünce Becerilerini geliştirmek için olası önerilerinizi toplamaktır. Her iki bölümü de yanıtlarken size yöneltilen soruların ideal veya doğru bir seçeneği olmadığını, yanıtın sizin düşünce ve duygularınız olduğunu hatırlayınız.

A – Bölümü direkt veya dolaylı olarak sizin Eleştirel Düşünce eğiliminizi anlamaya yönelik sorular içermektedir. Her soru için 5 ölçekli (1, 2, 3, 4, 5) yanıt verilmiştir. Bu bölümde toplam **20 adet** önerme bulunmaktadır. Bu bölümdeki soruların büyük bir kısmında öz eleştiri yapmanız, alışkanlık ve eğilimlerinizi değerlendirmeniz beklenmektedir.

.

Bu bölümde hem Eleştirel Düşünce hem de bu çalışma üzerine yazmak istediğiniz tavsiyeleriniz ve fikirleriniz için bir alan bulunmaktadır. Eklemek istediklerinizi yazmaya tereddüt etmeyiniz.

Katkınız için teşekkür Ederim.

Arş. Gör. Kemal Sinan ÖZMEN

PART A

The questionnaire below comprises 20 statements with 5 diffferent answer. Please think on each statement carefully and decide on an answer.

1 ↔ Completely Disagree 2 ↔ Disagree 3 ↔ Not Sure
4 ↔ Agree 5 ↔ Completely Disagree

☺	CRITICAL THINKING DISPOSITIONS	1	2	3	4	5
1	I believe that the best point of view is mine.					
2	I usually try to understand the ideas that I don't agree with.					
3	I do not consider the ideas supporting the opinions that l am opposed to.					
4	I do not question the reasons that lead other peoples' attitudes.					
5	I am easily influenced by the speeches of the effective orators.					
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7	I can easily change an of my idea if I feel a logical fallacy or a limitation.					
8	I like analyzing the abstract concepts and find some relation among them.					
9	Learning is a source of excitement and joy for me.					
10	I sometimes question the validity and reliability of my beliefs, values and principles with an objective eye.					
11	I have some beliefs that I do not question their validity.					
12	I never change what l say in a discussion even if I know they are wrong.					
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16	Thinking critically may help me get rid of my prejudices.					
17	Thinking critically may lead me to a depression and cause confusion in my life.					
18	If I knew that being a real intellectual would annoy me and made me unhappy, I would, nevertheless, want to be an intellectual who understands his/her world and people.					
19	I find questioning myself annoying.					
20	I usually collect information before I come to a decision about any thing.					

PART B

In your opinion, what precautions should be taken so as to promote critical thinking in ELT departments. (You may tick more items if necessary)

(1) To redesign language skills lesson of the department.
(2) To teach critical thinking
(3) To design arts (acting, creative writing) courses so as to promote CT skills
(4) To make a deeper analysis and intensive reading in literature courses.
(5) To teach extra ELT methodology courses aiming at associating the ELT theory with the practice.
(6) Making some adjustments in the evaluation system of the department so as to lead the students to break the habit of memorizing and isolated learning.
(7) To design social activities and programs in order to raise the self-esteem and self-awareness of the students

Please write down your suggestions and further ideas here.

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APPENDIX 5

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Mean	Std Dev	Cases		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Collected Item-Total Correlation	Alpha if Item Deleted
1.	CTD1	2,9412	1,2395	51,0		CTD1	111,9	89,217	-0,064
2.	CTD10	4,1569	0,946	51,0		CTD10	110,7	84,883	0,2001
3.	CTD11	2,7451	1,2937	51,0		CTD11	112,1	79,441	0,3535
4.	CTD12	2,6667	1,2275	51,0		CTD12	112,2	90,853	-0,132
5.	CTD13	4,1569	1,255	51,0		CTD13	110,7	85,683	0,0864
6.	CTD14	3,3725	1,1826	51,0		CTD14	111,5	83,775	0,1891
7.	CTD15	3,9216	1,2303	51,0		CTD15	111	82,118	0,2527
8.	CTD16	4,2549	0,9559	51,0		CTD16	110,6	85,398	0,1672
9.	CTD17	2,1961	1,2169	51,0		CTD17	112,7	91,06	-0,141
10.	CTD18	3,7647	1,2098	51,0		CTD18	111,1	86,866	0,0415
11.	CTD19	2	1,2166	51,0		CTD19	112,9	91,786	-0,172
12.	CTD2	3,5686	1,1001	51,0		CTD2	111,3	84,86	0,1577
13.	CTD20	3,9608	0,9157	51,0		CTD20	110,9	86,114	0,1361
14.	CTD3	2,2353	1,1241	51,0		CTD3	112,6	97,433	-0,425
15.	CTD4	2,0588	1,0847	51,0		CTD4	112,8	88,388	-0,015
16.	CTD5	2,8824	1,2271	51,0		CTD5	112	86,6	0,0508
17.	CTD6	1,9216	0,9969	51,0		CTD6	113	85,918	0,1274
18.	CTD7	3	1,2329	51,0		CTD7	111,9	88,586	-0,036
19.	CTD8	3,5882	1,1345	51,0		CTD8	111,3	82,092	0,2864
20.	CTD9	4,098	1,1001	51,0		CTD9	110,8	82,253	0,2908
21.	NCT1	2,3529	1,0358	51,0		NCT1	112,5	83,774	0,233
22.	NCT10	4	0,9798	51,0		NCT10	110,9	85,106	0,177
23.	NCT11	4,3137	0,883	51,0		NCT11	110,6	88,53	-0,003
24.	NCT12	4,5294	0,6117	51,0		NCT12	110,4	87,273	0,1417
25.	NCT13	3,451	0,9862	51,0		NCT13	111,4	82,25	0,3378
26.	NCT14	3,1765	0,953	51,0		NCT14	111,7	84,372	0,2277
27.	NCT15	2,3137	1,1044	51,0		NCT15	112,6	83,53	0,2237
28.	NCT2	2,451	1,0642	51,0		NCT2	112,4	82,05	0,3155
29.	NCT3	3,4706	1,1722	51,0		NCT3	111,4	83,567	0,2018
30.	NCT4	4,2745	0,8736	51,0		NCT4	110,6	86,803	0,1044
31.	NCT5	2,9412	1,1561	51,0		NCT5	111,9	79,777	0,3948
32.	NCT6	3,5294	1,2705	51,0		NCT6	111,4	81,513	0,2676
33.	NCT7	4,1961	0,9385	51,0		NCT7	110,7	81,86	0,3842
34.	NCT8	2,6275	1,3559	51,0		NCT8	112,3	78,474	0,3727
35.	NCT9	3,7647	0,8852	51,0		NCT9	111,1	86,026	0,1496

Statistics for SCALE	Mean	Variance	Std Dev	Variables
	114,8824	89,2659	9,4481	35

Reliability Coefficients	
N of Cases = 51,0	N of Items = 35
Alpha = ,8399	

APPENDIX 6

SUGGESTIONS AND IDEAS OF TEACHER TRAINEES FOR DEVELOPING CT

44 of the 146 questionnaires constitute some further suggestions. They are listed below. The language used in the responses is in Turkish. In order not to make any changes in meaning, they are presented in Turkish.

GAZİ ÜNİVERSİTESİ İNGİLİZCE ÖĞRETMENLİĞİ YAPILMASI İSTENEN DEĞİŞİKLİKLERE DAİR ÖNERİLER

- Bence bu beceri öncelikle öğretmenlerimize verilmeli. Bütün bölüm hocalarını kastediyorum. Ancak bu şekilde daha etkili olabilir.

- Derslerin seçmeli olması; öğrenci belli bir krediyi dolduracak kadar dersi alacak. Hangi dersleri seçeceğine danışman yardımcı olabilir. Kişi kendi eğitiminden sorumlu olsun.

- Öğretmenler kendileri hakkında her yıl sonu yapılan anketlere daha duyarlı olup kendilerini geliştirsinler.

- Bu kadar çok metot dersi alıyoruz çıkıp da bütün öğrencilerin yaptığı şey aynı. Tek bir model var, hepimiz onu kullanıyoruz. Hocamız neyi beğenirse ve neyi doğru bulursa. Bence öğrenciler farklı düşünebilmeli ve uygulamalı. Mesela birkaç kişi çıkıp reading demosu yaptıktan sonra diğer öğrencilerin hepsi o demoyu farklı yapmak zorunda olmalı, farklı tatları görmeliyiz ki beynimizde farklı odacıklar açılmalı. Teşekkürler.

- Bence bu bölümdeki öğrencilerin en büyük sorunu kaygı ve benimsemek istemeyiş. Birinci sınıfta sürekli ya hocalardan ya derslerden bir şekilde kurtulduk ve ikinci sınıfta ezberleyerek (fazla çalışmadan da) geçileceğini

öğrendik. Ben buna benimsemeyiş diyorum çünkü ben öğretmen olacaksam kendim için, öğrencilerim için öğrenmeliydim, geçmek için değil. Ben kendime ve arkadaşlarıma bakıyorum, mezun olmaya bir ay var ama öyle bir tembellik görüyorum ki üzerimizde ve kendi kendime şu soruyu soruyorum: "çalışma isteği olmadan, yaratıcılık olmadan eleştirel düşünce olabilir mi?"diye.

- Büyük umutlarla geldiğim üniversitemde 4 sene boyunca yaşadığım hayal kırıklığıydı. Tabi bunu sadece bölümüme bağlamıyorum. "Siz buraya İngilizce'yi öğrenmiş olarak geldiniz, biz size, İngilizce'yi nasıl öğreteceksiniz, onu öğreteceğiz" demeleri beni alt üst etti. Ben İngilizce'yi öğrenmiş miydim? İngilizce sadece bu kadarcık mıydı? Okulumuz bize 4 sene boyunca benim de tam olarak bilmediğim İngilizce'yi öğrencilere nasıl anlatacağımı, öğreteceğimi bana empoze etmeye çalıştı! Yazılacak çok şey var. 4 senenin sonunda bize en azından bunları ifade edebilmemiz için fırsat verdiğiniz için size minnettarım! Eleştirel düşünce konusunda fazla yorum yapamadığım için üzgünüm.

- Bölümde ders dışında İngilizce'ye yönelik herhangi bir sosyal faaliyet yapılmaması, en azından yabancı film izlettirmek gibi, özellikle 1. ve 2. sınıfta ezber odaklı derslerin ve hocaların olması ve hocaların kendi kapasitelerinin üstündeki şeyleri bizden beklemesi kendimizi yeterince geliştiremememizin etkenlerinden biri. Mezun oluyorum ama sanki hiçbir şey öğrenmemiş gibi hissediyorum kendimi. Geleceğe dair öğretmenlikle ilgili endişelerim var.

- Bölüm programına sanat dersleri eklemenin eleştirel düşünce becerisini doğrudan etkileyeceğini düşünmüyorum. Bölümdeki bazı teorik derslerin içeriğinde değişiklik yapılarak, anlama, kavrama ve ifade etme becerileri üzerinde durularak farklı bakış açıları kazandırabileceği görüşündeyim.

- Ölçme değerlendirme sisteminin değiştirilip gerçekten öğrencileri ezberden kurtaracağını düşünmüyorum. Çünkü hangi sistem getirilirse getirilirsin öğrenciler yine ezberlemeye mahkum edilecektir. Öğrencilere ne kadar ezberlemeyin denilse bile onlar yine ne olur ne olmaz diye ezberlemeyi elden bırakmayacaklardır.

- Öğrencilere 1. sınıftan başlayarak ciddi ödevler, projeler verilmeli. Son sınıfa gelmeden liseli olmaya devam ediyoruz.

- Böyle bir ders açılacaksa içeriği hiç yakışmayacak adına. Daha çok diğer derslere eklentiler yapılmalı, özellikle edebiyat derslerine. Yine de başarılar size.
- Bu bölümde öğrencilere sürekli edebiyat, dilbilgisi gibi dersler okutuluyor, metotlar da buna dahil. Bunlar yerine temel becerilerin dersleri olsa yanında da özel öğretim yöntemleri dersi olsa her dönem daha iyi olmaz mı? Bir İngilizce öğretmeni sınıfa metot dersine geldiğimiz gibi kamyonla gelebilir mi, o kadar materyal getirebilir mi?

- Kesinlikle okutulması gereken bir ders. Çünkü çoğu öğrencinin bu beceriye sahip olmadığını düşünüyorum ve bu yine bir çok öğrenciyi ezberci öğretime zorluyor. Bir çok öğrenci ne öğrendiğinin farkında bile değil. Öğrendiklerini uygulamaya geldiğinde yetersiz kalıyor.

- Gazi Üniversitesi imajından kurtulmak bence en önemlisi. Biz bölüme ister eleştirel düşünce dersi koyalım ister farklı tarzda ders koyalım bana bazı kalıplar değişmezmiş gibi geliyor. Ama şunu belirtmeliyim ki Gazi'de verilen eğitimden memnun değilim. Sırf ezbere dayanan pek çok gereksiz bilgi yüklüyorlar halbuki üniversite öğrencisi olmak, üniversitede okumak bu değildir. Teşekkürler.

- Biri lütfen şu Dil Edinimi – Dil Bilimi ve Araştırma Becerileri derslerini kaldırsın. Öğretmenden midir bilmiyorum ama tam anlamıyla müfredatı

doldurmak için koyulduğuna inanıyorum. Bu derslerin yerine daha aktif dersler koyulsa, speaking gibi, daha yararlı olur.

- Bence müfredata Eleştirel Düşünce dersi koymak öğrencilere sıkıcı gelebilir. Bunun yerine diğer derslerle entegre ederek bu amacı gerçekleştirebilirsiniz. Ama eğer illa ki böyle bir dersin koyulması gerekiyorsa kanımca tamamen gereksiz ve meşgul edici Araştırma Becerileri dersinin yerine getirilebilir. Çok daha mutlu oluruz. En azından bize bir faydası olacağına inanırız.

- Bütün derslerde uygulanacak eleştirel düşünce becerileri gerektiğine inanıyorum. Sadece bir eleştirel düşünce dersi değil de bütün derslerin içinde olması gerekir diye düşünüyorum.

- Sınıftaki gramer derslerinin sınavları bile ezbere dayalıydı. Bildiğimiz şeyleri bile sınavda uygulayamıyorduk. Okulda sadece ÖÖY derslerini seviyorum ve çok şey öğrendim ÖÖY hocalarımdan. Roman dersi alıyoruz, 5 tane romanın 1 tanesini bile okuyamadan sınavına giriyoruz. Dersin adı da roman incelemesi!!!

- Bölümde bazı gereksiz derslerin olduğunu düşünüyorum. Bunların kaldırılıp yerine Eleştirel Düşünce Becerileri dersi gelse bin kat daha iyi olur bizim açımızdan. Çünkü o tür derslerin (structure) gibi ilerde işe yarayacağını düşünüyorum.

- Öncelikle öğretmenlerin verdikleri derslerin mantıklı olup olmadığını kendileri düşünerek vermelerini sağlamak ve öğrencileri bir denek olarak yeni yöntemleri üzerlerinde değil de başka şekilde uygulayıp işe yarıyorsa derse koymaları gerekir.

- Bence eleştirel düşünce çok mantıklı bir ders olabilir ama bunu sadece öğrencilerin değil bütün öğretmenlerimizin de almaları gerekmektedir. Bir üniversitede öğrenci istediği gibi giyinip, saçını sakalını bırakamıyorsa buna

da dayanamayan kuş beyinliler oldukça zaten biz kendi kendimize eleştirel düşünmenin son noktasına varmışızdır. Eleştiriyoruz ama sonuç aynı elde var sıfır. Umarım bir ilerleme olur.

- Bölümde reading ve ileri reading dersleri bizleri köreltmekte. Ezber yaparak eleştirel düşünme becerimizi yok ettiğimizi düşünüyorum. Edebiyat ve türevleri derslerde hocaların ders notları ezberlenerek geçme hedefleniyor bizler arasında. Eleştirel düşünme becerisinin ilkokul seviyesinde yayılması daha iyi olur. Sosyal faaliyetler ve seçmeli dersler maalesef gerekli önemi görmüyor. Ancak bence asıl sorun burada üniversite ortamında değil de ilkokul müfredatında yapılacak düzeltmelerle çözülmelidir.

- Bölümde iyi olacağı düşünülüp konulan dersler hiçbir işe yaramayan dersler halinde gelmiş. Örneğin bir writing dersi. İlk sınıfta yetersiz olarak aldığım için hala bu şekilde devam ediyor. Biliyorum istesem geliştirebilirdim. Ama açıkçası minor idea, major idea neymiş çok da ilgilenmiyorum. Bunlar bir insanın istediği şekilde yazmasını engelliyor. Boşuna yırtınıyoruz "communicative approach" diye. Hocalar bile uygulayamıyor ki bunu. Yazarken de, konuşurken de sınırlar koyuyorlar önümüze. Bu kağıtta sınırladı işte beni ama yazmam lazım. İşte bazen "dikkat edelim, aman kaçırmayalım ya da fazla yazmayalım" diye gerçekten anlatmak istediğimiz şeyleri anlatamıyoruz. Birinci sınıftaki writing dersinden ne öğrendim şimdi ben? Öğrencilerin yanlışlarını tepegözde tahtaya yansıtıp, daha doğru düzgün tanımadığı insanların arasında rezil etmeyi mi? Çok saçma. Bir letter ya da iş başvurusu nasıl yazılır öğretselerdi ya! Çünkü bu gidişle ikincisi baya işimize yarayacak ilerde!

- Bölümdeki derslerin, metotların ve eksikliklerin açık bir platformda, yoğun bir katılım altında tartışılıp eleştirilmesi gerekir.

- Bir eğitimci adayı olarak eğitimin kanayan yarası olan ezberin, zihinlerden nasıl silinmesi gerektiğine dair güçlü bir çalışma gibi görünmektedir. Zihnin

nasıl kullanılması gerektiğini ya da ne kadar kullanabildiğimizi ölçeceğini umuyorum.

- Genel olarak eleştirel düşünceye sahip bireyler değiliz. Eleştirel düşünme becerilerimizi geliştirecek tarzda derslerin konulması, şimdiden sonra bizlere faydalı olur mu bilinmez ama bizden sonrakilere yararlı olabilir.

- 3 senedir o kadar çok saçma ders okuduk ki şu an sınav yapsanız çoğundan kalırım. Mantık şöyleydi: ezberle ve geç. Sınıf Yönetimi, Materyal Geliştirme, yazılı ve sözlü anlatım dersleri, Edebiyat dersleri ya bunlar modifiye edilmeli ya da kaldırılmalı. Edebiyat dersinde (roman) yaptığımız tek şey sınavdan önce notları al sonra çalış sonra da sınava gir mantığı vardı ve halen de bu mantık devam ediyor. Araştırma Becerileri çok saçma bir ders. Bence seçmeli olmalı.

- Kesinlikle katılıyorum. eleştirel düşünce becerilerimizi geliştirmek için mutlaka en azından bir ders olmalı.

- Aynı zamanda var olan derslerde eleştirel düşünceden sadece teorik olarak bahsetmeyip akademisyenler olarak hayata geçirebilmek.

- Bu bölümde bazı dersleri ezberleyerek geçiyoruz. Geriye döndüğümüzde aslında hiçbir şey öğrenmediğimizi anlıyoruz. Oysa bunun yerine eleştiriye dayalı dersler alabiliriz. Mesela üstte yer alan oyunculuk, yaratıcı yazarlık gibi dersler bize faydalı olacaktır. Gerçi bizim okul sadece havuz taşları değiştirir, ders programını değil ☺

- Eleştirel düşünceye sahip olmak güzel bir olgu fakat bu dersin eleştirel düşünce adı altında değil eleştirel düşüne sağlayan daha ilginç bir ders halinde verilmesi taraftarıyım. Teşekkürler…

- Eleştirel ve yaratıcı düşünmeye sevk edecek sanat dersleri bölüme mutlaka getirilmeli ve öğrencilere seçme hakkı tanınmalı.

- Öğretmenler öğrencilerden feedback alabilmeli öğrenciler de öğretmeni rahatça eleştirebilmeli. Tabii ki art niyetli değil bir çok şeyi not korkusuyla dile getiremiyoruz. Seçmeli dersler konmalı. Bu bölümdeki birçok ders ezbere dayalı. Öğretmenler her ne kadar anlasanız yeter deseler de ezber yapmadan derslerden yüksek not almak mümkün değil. Kitaptaki cümlenin aynısını alıp bir iki kelime çıkarmak ve bunu sormak bilgi ölçmez. Maalesef bunu yapan hocalar profesör ve doçentler. Ne kadar trajikomik bir durum. Bu sistem ne zaman değişecek.

GENEL YORUMLAR

- Bizzat "Eleştirel Düşünce Becerileri" şeklinde bir ders eklenmesi taraftarı değilim. Çünkü beceri edinilemez sadece var olan beceri geliştirilip muhteşem bir seviyeye getirilebilir bence. Hem böyle bir ders olursa sınavı da olacaktır. Bizi ödevleriyle sınavıyla sıkıntıya sokacak yeni bir ders olmaktan öteye gidecekmiş gibi gelmiyor. Eleştirel düşünce becerisini oluşturmak için topluma çok fazla sorumluluk düşüyor. Özellikle aileler bu becerinin gelişmesine küçük yaşlardan itibaren önem vermeliler.

- Bence eleştirel düşüncenin kaynağı, insanın ailesine kadar dayanmaktadır. Eğer bir insan hep hazır fikirlere alıştırılır, hiçbir şeyi sorgulamasına izin verilmezse, kişi hep verileni alır, fazlasına uğraşmaz. Ya da fikirlerini rahatça açıklayacağı bir ortam yoksa zaten böyle bir şey yapmaz. Günümüzdeki bir çok akademisyen, kendisi böyle bir şeyde bulunmadığı için öğrencilere de müsaade etmemekte, aksine, fikrini açıklayan öğrencilere müdahale etmektedir. Öğrenciler de gerek not, gerekse okul uzatmaktan korktukları için basit bir ders konusunda bile fikirlerini söyleyememektedir. Ben eleştirel düşünceyi kültürel boyutta ele alıyorum. Eleştirel düşünce öğretilebilir ama

belli bir seviyeye kadar. Kişinin ipuçlarını görmesi ve yakalayabilmesi, yetişmesi, kendini geliştirmesi ve araştırmasıyla alakalıdır.

- Bence çok faydalı ve yararlı bir araştırma konusu bizdeki eksikliği hissettirir derecede önemli. Bu dersin sadece üniversitede değil öğretimin daha alt kademelerine de indirilmesi lazım ki her şeyi olduğu gibi gören farklı görüşlere tahammül edemeyen nesiller yetişmesin. Ayrıca mesleki alamda her branşta bu eleştirel düşünce testleri ve ek olarak hizmet içi kurslar verilerek eleştirel düşüncede hala kısır döngüler içinde yaşayan toplumun üst kademesindeki insanlar kendilerinden haberdar edilmeli gerekiyorsa terfi edilmemeli. (Bu bir eleştirel düşünceydi tahammülsüzlük değil) Teşekkür ederim.

- Anketinizin eleştirel düşünme becerilerini ölçmede etkili olduğunu düşünüyorum. Sorularınızın çok güzel hazırlanmış olduğunu söylemek isterim.

- Anladığım kadarıyla Eleştirel Düşüncenin önemli bir kısmı kendimizin farkında olmak ile bağdaşıyor.

- Eleştirel düşüncenin sonradan kazanılması imkansız değil ama zor bence yani ilköğretimden başlanmalı çocukları eleştirel düşüncede eğitmeye.

- Anket çok güzel çünkü nerdeyse herkesin aynı şekilde düşünmeye zorlandığı bu dönemde eleştirel düşüncenin güzelliğini ortaya çıkarıyor. Eski Yunan'daki kadar özgür ve eleştirel düşünce ortamı olmasa bile bu tip çalışmalar bu kavramın güzelliğini ortaya çıkarabilir.

- Aslında sadece dersle bitecek bir iş değil. Çevre, aile, arkadaşlar, okul bütün bunlar eleştirel düşünceye etkendir. Öğretmen adayı olarak bunu okulda, anne adayı olarak da evde ve çevremde bunu yapmaya özen gösterecek insanlara ihtiyacımız var. Teşekkür ederim.

APPENDIX 7

SUGGESTIONS AND IDEAS OF ACADEMIC STAFF FOR DEVELOPING CT

Six of the sixteen questionnaires constitute some further suggestions. They are listed below. The language used in the responses is in Turkish. In order not to make any changes in meaning, they are presented in Turkish.

- Eleştirel Düşünme becerileri tüm disiplinlerin, hatta her seviyede eğitim veren kurumların ortak müfredat hedefleri arasında olmak durumundadır. Uygulamada, özellikle ülkemizde, böyle olmadığını görüyoruz. Bunun kültürel, ekonomik bir çok sebebi sıralanabilir. Bunlardan önce bilmeliyiz ki, eleştirel düşünce literatürünün etkinlik kazanması son otuz yıl içinde gerçekleşmiştir. Dolayısı ile inanıyorum ki Türk üniversiteleri de yakın zaman içinde, tıpkı Amerikada yapıldığı gibi, bir eleştirel düşünme becerileri hareketi başlatacaklardır. Bu eylemin yokluğu, Türk eğitim sisteminin ciddi sıkıntılara düşeceği anlamına gelir.

- Öğretmen yetiştiren fakültelerin en önemli özelliği, mezunlarının bilgi çağının devasa mirasını ve birikimini doğru algılayıp aktaran iletişimciler olmasıdır. Bu yetkinlikte mezunlar veremiyorsak, ülkemizin ihtiyaç duyduğu eğitmen kitlesini de yetiştiremiyoruz demektir. Bunu başarmak sadece çok iyi bir akademik ekiple iyi bir müfredatı sürdürmek ile olmaz. Eleştirel düşünme becerileri toplumun demokratik oluş seviyesinin önemli bir göstergesidir. Bu noktada eleştirel düşünme becerileri, gerek bu bölümde gerekse tüm eğitim kurumlarımızda, eğer geliştirilecekse, bu amaç ancak devletin ilgili kurumlarının uzun vadeli stratejik projeler hazırlaması ve bu projeleri uzun vadede bilimsel metodlarla uygulaması ile gerçekleşebilir. Yani her yeni nesilin benimsemesiyle bu beceri ve alt becerileri topluma injekte etmek gerekir, ki evrensel olanı kültürel ve geleneksel olanla birleştirilebilsin.

Bunun dışındaki çabalar, kanımca, bilimsel olsalar dahi samimi ve bireysel çabalar olmanın ötesine geçemeyecektir. Teşekkür ederim.

- Eleştirel düşünce eğitimimizde gerçekten eksik kalan bir noktadır. Bölümümüzde eleştirel düşünce becerilerini geliştirecek derslerin konulması tabi ki çok yararlı olabilir. Keşke bu dersler ilköğretimden itibaren çocuklukta öğretilebilse...

- Bireylerin üniversite eğitimine başlamadan önce bu beceriyi kazanması yönünde çalışmaların daha erken bir dönemde başlaması gerektiğine inanıyorum. Özellikle aile içi eğitimin bu konuda son derece önemli olduğu kanısındayım.

- Bireylerin kendini sorgulamasının dersle olabileceğinden çok fazla emin değilim. Ancak buna yatkın bireylere katkı sağlayabileceğini düşünüyorum.

- Programa [müfredata] kişisel gelişim dersleri koyup eleştirel düşünmeyi onun bir modülü haline getirebiliriz.

APPENDIX 8

GAZİ FACULTY OF EDUCATION
ELT DEPARTMENT
QUESTIONAIRE AND TEST OF CRITICAL THINKING SKILLS
2005 - 2006

Please read the following instructions carefully

Aim of this test is to assess Critical Thinking (CT) Skills of trainees of the department in terms of ELT theory and practice, to evaluate their questioning problem solving skills, to observe the tendency for thinking critically and their current knowledge on CT

This ten-page has four main parts. In **PART A,** ELT-specific critical thinking test aims at evaluating the cognitive dimension of CT, **PART B** is prepared for the CT dispositions. **PART C** constitutes some questions on your beliefs and values on CT, and its place in educational context. Finally, in **PART D,** you can suggest your ideas as a solution for an effective CT development in ELT setting.

The duration for this test is 50 minutes. Please read the questions carefully since all your answers will affect the findings of the study directly.

Thank you

Res. Assist. Kemal Sinan ÖZMEN
ELT Department

PARTICIPANTS'

1.Class: 1 ( ) 2 ( ) 3( ) 4 ( )

2.Gender: Female ( ) Male ( )

3. Lycee Type:

State School	( )	Technical	( )
Anatolion Lycee	( )	Anatolian Technical/ Vocational	( )
Super Lycee	( )	Other	( )
Private School	( )		
Anatolian Teaching L	( )		

4. Day Class ( ) Evening Class ( )

PART - A

Instruction:
The following 20 questions evaluate CT skills in the context of ELT methodology, linguistics, literature and educational sciences.

1. Speaking English in the classroom as a EFL teacher will contribute to learning of students

True ( ) False ( )

2. What we have covered in language acquisition course contributes to methodology courses.

True ( ) False ( )

3. Which of the following course items are interrelated in terms of theory and practice?

a. Novel Analysis - Developmental Psychology
b. Lan. Acquisition - Teaching Young Learners
c. Linguistics - EFL Course-Book Analysis
d. EFL Project - Speaking Skills
e. Poetry - Materials Evaluation and Adaptation

4. Which of the following statements defines the place of Language Acquisition course in curriculum of ELT departments?

a. To learn a general understanding of language teaching.
b. To learn the process of development of language structures
c. To learn the infrastructure of language acquisition, learning and teaching
d. To learn the necessary aspects of linguistics for EFL teachers
e. To learn theoretical and practical interactions of language learning literature and other social sciences in the historical process of language learning literature

5. You are expected to speak English when you attempt to do teaching demonstrations. What may be the reason for this?

a. To contribute to our communication and interpersonal skills as teacher trainees.
b. To learn how to give instructions
c. There is no theoretical or rational reason.
d. This is a rule in our department
e. This is suggested by the ELT literature.

6 -9. Answer the questions according to the text below.

When language learning theories are observed at a glance, one may initially see that these theories have been benefited from many different disciplines. In one hand, educational sciences explaining the nature and systematicity of the behavior of the teacher studies psychological, biological domains of language and our learning habits and treats. On the other hand, linguists redefines the language by the help of newly emerging linguistic fields such as semantics, pragmatics and discourse analysis. In the light of this vast amount of knowledge, language methodologists, with the improving innovative educational technology, are trying hard to establish new ways and views of language teaching. In this process, while the differences among countries are not taken into account, the common aspect of all these

methods and approaches of language teaching is that they provide the societies who are in need of learning a foreign language with effective language learning opportunities.

6. Which of the statements below can be inferred from the passage?
a. Educational technology benefits from interdisciplinary studies.
b. Language learning is a must for all the societies.
c. Language learning theories explain us the nature of the language
d. While language teaching approaches are designed, differences among societies are considered.
e. Effectiveness of language teaching approaches starts with the self awareness of the learners.

7. Which of the statements below is stated in the text indirectly?
a. Educational technology is advanced in our age.
b. Language learning theories are developed though interdisciplinary studies.
c. While language teaching methods are designed, linguistics and educational sciences are consulted.
d. Language teaching is a complicated and a hard process.
e. Language teaching methodologies try to design better ways of teaching.

8. Which of the statements below can not be inferred from the text?
a. Educational technology has an important place in the theory of language learning.
b. Many developments have been brought about in field of Linguistics.
c. Many developments have been brought about in field of Educational Psychology.
d. Development of language teaching methods is related to the need for them.
e. Contemporary sciences are interact and share their knowledge.

9. Which of the statements below is stated in the text?
a. First language teaching should be cared as much as foreign language teaching.
b. Language learning process has some psychological and biological phases.
c. Effectiveness of language teaching is strongly related to educational technology.
d. Effectiveness of language teaching is strongly related to quality of the teacher.
e. Deep structure of all languages have some features in common..

10-13. Answer the questions according to the text below.

(1)Observing the development of the language teaching methodology, we can see some important changes and shifts. Beginning by 20th century, many methods have been developed. These methods claimed that when they are practiced appropriately, they can provide the language learners with an effective process of language learning. (2) While this colorful process of Methods era supplied interesting studies, it is discussed the strict application rules of the methods lead them to be not handy at all times. Following the methods era, approaches have emerged with a more flexible application measures, and therefore, they were more beneficial in language classes. (3)Giving an example, we can not add any technique of another method to TPR. However, this is not the case for approaches. Language teaching approaches have also focused on learner variables, understood that learners are all unique and different from each other. (4) In our day, eclectic approach enables educators to be more creative and flexible in language teaching.

10. Which of the statements below is stated in the text indirectly?
a. Methods were more successful than the approaches.
b. Methods enabled approaches to emerge.

c. The best language teaching approach is the “eclectic approach”.
d. When the techniques of the methods are applied accurately, language learning can be realized.
e. Theories are self-discovery. However, methodology is a series of invention.

11. Which of the numbered sentence can be omitted?
a. 1
b. 2
c. 3
d. 4
e. all

12. Which of the statements below is stated in the text?
a. Language teachers and programmers are creative people.
b. Field of language teaching is a prolific field.
c. “Eclectic Approach” possesses a stronger theoretical basis than other approaches.
d. There are many methods and approaches for the teachers who want to improve their teaching repertoire.
e. Educational programmers should be competent in ELT methods and approaches.

13. Which of the followings can not be said according to the text above?

a. Eclectic approach may include many techniques of different methods.
b. Methods were designed before the approaches.
c. ELT methods and approaches are important for educational programmers
d. Language teaching approaches are valid and reliable in our time.
e. Learning in general is based on regular and systematic study.

14-17. Answer the questions according to the text below.
Even you have wonderful EFL instructors, it is not that easy to fulfill an effective language teaching process as an institution. The reason for this is that language teaching requires a detailed planning and managing. If you don’t have the right curriculum and syllabus, materials and classroom setting, your successful teachers may not be successful at all. The contrary case may also happen: a well designed teaching and learning atmosphere may lead an ordinary teacher to success. Just like in theater, if you don’t have a good text and a creative director, the staged play may turn out to be a nightmare for both actors and audience.

14. Which of the relations is true according to text?

a. Director ↔ Educational Director
Actor ↔ Teacher
Audience ↔ No matching
Play text ↔ Syllabus

b. Director ↔ Teacher
Actor ↔ Student
Audience ↔ Educational Director
Play text ↔ No matching

c. Director ↔ Educational Director
Actor ↔ Teacher
Audience ↔ All staff
Play Text ↔ Course Book

d. Director ↔ Educational Director
Actor ↔ Teacher
Audience ↔ Student
Play Text ↔ System

e. Director ↔ Educational Director
Actor ↔ Teacher
Audience ↔ Student
Play text ↔ Syllabus

15. In the text which choice displays the language teaching components from the most important to less important
a. Educational System > Educational Director > Language Teacher > Syllabus
b. Language Teacher > Educational Director > Syllabus > Educational System
c. Educational Director > Educational System > Syllabus > Language Teacher
d. Educational System > Syllabus > Educational Director > Language Teacher
e. Language Teacher > Syllabus > Educational System > Educational System

16. "*Nothing precious can be taught*" Which of the following is the best inference to make from this statement?
a. Many of what we have been taught is worthless.
b. Precious knowledge can be acquired by personal experiences.
c. We do not need a teacher when learning precious knowledge.
d. Real knowledge is learned in life not in classes.
e. Precious knowledge is always with us. Thus, we can learn them, but just recall.

17. Answer the following question by reading the poem.

If I cried, could you hear
My voice in my poems,
Could you touch my tears
With your hands?

Before I fell prey to this grief,
I never knew songs were so enchanting
And words so mild.

I know there's a place
Where you can talk about everything;
I feel I'm close to that place,
Yet I can't explain.

What is the main theme of this poem?

a. Love will always end with grief and tears no matter how special it would be.
b. The pain of someone who is in grief of love and cant explain it.
c. There is a place where we can express ourselves.
d. The need and passion of explaining
e. When there is no one to share your feelings, you fall in love.

18. " *Before I fell prey to this grief* **" "What does "grief" stand for?**

a. Love b. Not to be able to explain c. Solitude
d. Passion e. İmpossible love

19. What is the aim of the questions in this poem?

a. to share his grief with the reader
b. to ridicule from the reader
c. to tell his problem to the reader and ask for help
d. to underline a solution that is impossible
e. to imply that the pain of love is unbearable

20. "*There is nothing either good or bad. Thinking makes it so***" (Hamlet) which of the items below is the equivalent of this sentence?**

a. "An ordinary person defines everything in life as good or bad. But for a warrior, everything is a challenge."(Don Juan De Marco)
b. "Now this sun poisoned by our evil acts brings the spring of the peace to another lands.
c. "What we live is merely the reflections of a mirror... Then, we need to change its angle sometimes."
d. "If no evil were hiding in the deep of our thoughts, could we be happy like children when we do a favour?
e. "Stars do exit even blinds do not see them." (Gazali)