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**TEACHING TENSES IN ENGLISH TO THE STUDENTS
OF THE SECOND STAGE AT PRIMARY EDUCATION
THROUGH USING 5E MODEL IN CONSTRUCTIVIST
APPROACH (7 th GRADE)**

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ÖZET

Bu çalışmanın amacı yapılandırmacı yaklaşım teorisine dayalı 5E öğrenme modelinin 7. sınıf öğrencilerinin İngilizce ders müfredatı içerisindeki simple past tense konusunu anlamalarına yönelik etkisini araştırmaktır. Aynı zamanda öğretim yönteminin öğrencilerin İngilizce dersine yönelik tutumlarına etkisi de araştırılmıştır.

Bu çalışma Konya Abidin Saniye Erçal İlköğretim okulunda 2008–2009 bahar döneminde gerçekleştirilmiştir. Bu çalışmaya aynı İngilizce öğretmenin iki ayrı 7. sınıfındaki 50 öğrenci katılmıştır. Sınıflar kontrol grubu ve deney grubu olarak rastgele seçilmiştir.

Kontrol grubunda geleneksel yöntem kullanılmış, deney grubunda ise yapılandırmacı yaklaşım teorisine dayalı 5E öğrenme modeli kullanılmıştır. Öğrencilerin simple past tense konusunu anlama düzeylerini ölçmek için simple past tense ile ilgili alıştırmalar ve testler her iki gruba ön test ve son test olarak uygulanmıştır. Uygulanan testlerin sonuçları Microsoft SSPS 10.00 programında istatistiksel olarak değerlendirilmiştir. İstatistik tekniği olarak Independence Sample Test kullanılmıştır.

Sonuç olarak, yapısalıcı yaklaşım ve 5E öğrenme modelinin, geleneksel yönetime göre öğrencilerin başarısı ve İngilizceye karşı tutum ve algılamaları daha olumlu yönde etkilediği görülmüştür.

Anahtar Kelimeler: Yapısalcılık, 5E Modeli, Geleneksel Öğretim

ABSTRACT

The main purpose of this study was to research the effectiveness of 5E model based on constructivist approach on seventh grade students' understanding of simple past tense in English lesson curriculum and their attitudes towards English.

Fifty seventh grade students from two different classes of an English course taught by the same teacher in Konya Abidin Saniye Erçal Primary School 2008-2009 spring semester were enrolled in the study. The classes were randomly assigned as control group and experimental group.

Students in the control group were instructed by traditionally designed English instruction whereas students in the experimental group were taught by the instruction based on 5E model. Multiple choice tests and exercises about simple past tense were administered to both groups as a pre-test and post test in order to assess the students' understanding of concepts related to simple past tense. The results of the tests were evaluated in Microsoft SPSS 10.00 programme. As statistics technique Independent Sample Test was used

As a result it has been observed that 5E model based on constructivist approach has positive effect on students' success according to traditional method and their attitudes and perceptions of English

Key words: Constructivism, 5E learning model, Traditional teaching

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Due to the technological development , nowadays societies communicate each other more. In such a condition people must know foreign language. So countries give more importance to foreign language education to teach a foreign language to their citizens.

Speaking a foreign language is essential today. In trade, in education , in international relations at least a foreign language ,which is universal, needs to be spoken. This language is English. Therefore in our country foreign language education especially English is very important . But due to the deficiency in applying system and error the following procedure, intended aim couldn't be reached totally. We explain these reasons in this way:

Students ,who learn English, can use it only in classrooms. Because except class they can't find opportunities to use foreign language. So to use this language, individuals need to go other countries where people use it as a native language , or they need to use tv , internet or other visual equipments to improve their English level.

The other reason is that because learning English, which is put forward by education system, is a must for the students especially at the public schools , they see English as a must so they come to class unwillingly. And this creates lack of motivation . Also , lack of supplies and insufficient qualifications at the public schools are the other reasons for the failure of language teaching. For example , there aren't enough English teachers at schools so teachers from different branches try to teach English. This means that required supplies and procedure in language education aren't carried out. For instance, students never or sometimes use and hear English. So, because of insufficient language guidance, students don't give much importance to English. And students try to learn English like Turkish and Maths

lessons but they can't manage to learn it consequently they quit studying. What's more, after some periods the teachers, who graduated from English department, begin to think English lessons like other lessons and they lose their willing to teach English due to insufficient lesson's hours and items at schools. For example in the seventh grade English lessons due to intensive items and insufficient lesson' hours , the teachers are seized in worried of weekly and yearly plans to complete the lesson..And, so teachers teach some subjects yet, they don't teach some. Consequently students can't connect between subjects. The other and the most important reason is based on wrong teaching techniques approaches. First of all, although teachers are equipped with lots of methods and techniques, they can't use these methods and techniques because of these reasons explained above. Besides, most of the teachers don't follow newly developed educational methods and techniques so they can't renew themselves as a result they can't keep up with new approaches and techniques. And they use old methods and approaches. As it has been explained before since the teachers try to teach English by using old methods like used in history and philosophy lessons or others, instead of student-centered education , teacher- centered education arises. So students lose their interests about English. Consequently , The reason of failure about English teaching is owing to wrong methods , techniques and approaches in the class.

Recently, one of the most popular approaches used in language teaching is 5E model based on constructivist approach. According to traditional teaching approaches humans' minds look like an empty sheet and learning happens as a result of reaction to the stimulants given by the individuals. But here the students are passive receivers who don't interrogate why and how learning happens. Personality traits like individual differences, abilities, intelligence and learning speed aren't taken into consideration.

This situation leads to new researches and developments in learning and teaching process. The studies about nature of knowledge and learning have brought about different approaches for learning of people.

Especially, after new researches in the field of psychology a new teaching approach after behaviourism and cognitivism the learning area has come out. In the traditional approach, knowledge is regarded as independent from the individuals. As for teachers they are the main sources of knowledge. According to constructivist approach, knowledge isn't independent from individuals.

Constructivists see learning as a mental formation. Students learn by putting new knowledge into the previous knowledge. They internalize the new knowledge by making it simpler and changing their abilities of understanding in the light of this knowledge. Constructivism is not a teaching approach but is a knowledge and learning approach. Constructivist learning is also affected by content, the beliefs, attitudes and behaviors of the students. It provides the students to produce their own solutions, also to gain the self confidence of expressing their ideas and hypotheses. All these create an opportunity to put new knowledge onto prior knowledge. According to constructivist approach, knowledge is formed effectively by individuals and groups.

Learning is a process in which knowledge isn't taken passively but learners permanently construct their concepts. In this process, students try to form a meaning about the knowledge in their mind and try to appropriate this formed meaning for themselves. They form the learning not as presented to them but as the shape they formed in their mind.

According to this, individuals can't achieve constructivist learning passively without making an effort. Constructivist learning forms peculiar to individuals. In this formation, pre-learning of the individuals, how they have made a scheme before, social, physical environment they are in and how these are in interaction are important factors. Although there are some similarities among the individuals, when each individual is regarded as a world, their giving meaning to the knowledge is different.

The aim in education isn't to make similar these worlds but to help them to make their own formations. Hence, constructivist learning significantly differs from behaviorists (traditional , objective) learning.

Constructivist approach which supports student- centered teaching instead of teacher-centered teaching can be used in English lessons This approach requires students' active attendance in class or out and in learning process students realize the importance of taking responsibilities and attending the process of taking decision and the students behave in this sense.

Individuals provide new information to be formed by sharing their old experiences and knowledge in the method of speaking when they learn. Gaining knowledge isn't a result but is a source for forming new knowledge

5E model, which is one of the most effective models in constructivist approach, is one of the most suitable one in teaching English. 5E model is a linear process in teaching a new concept or in making more understandable the known concepts elaborately. In 5E model study it has been found out that success of the students has increased, conceptual development has been provided and their attitudes have been changed positively. The stages of 5E model can be explained as follows (Vygotsky).

1. Engagement: In this stage teacher creates interest and generate curiosity in the topic of study. For this reason activities are made. These activities help students to make connections with the previous knowledge. Teacher raises questions and elicits responses from students that will give you an idea of what they already know. Teacher has also a good opportunity to identify misconceptions in students' understanding. During this stage students should be asking questions (Why did this happen? How can I find out?) Examples of engaging activities include the use of children's literature and discrepant events.

2. Exploration: In exploration stage, students should be given opportunities to work together without direct instruction from the teacher. Students get directly involved with phenomena. The teacher's role in the exploration phase is that of guide, coach and facilitator. Using Piaget's approach, this is the time for disequilibria.

Students should be puzzled. This is the opportunity for students to test predictions and hypotheses and/or form new ones, try alternatives and discuss them with peers, record observations and ideas and suspend judgment.

3. Explanation: During explanation, teacher helps students make sense of their observations and questions arise from their observations. The teacher encourages students to explain concepts in their own words, ask for evidence and clarification of their explanation, and listen critically to one another's explanation and those of the teacher. Students should use observations and recordings in their explanations. Then, the teacher introduced a scientific explanation for the event through formal and direct instruction. The teacher connected the scientific explanation with the physical evidence from exploration and engagement and also relates it to the explanations that the children have formed. Besides the verbal methods, the teacher might also use videos, books, multi-media presentations, and computer courseware.

4. Elaboration: During “Elaboration” students should apply concepts and skills in new (but similar) situations and use formal labels and definitions. Students expand on the concepts they have learned, make connections to other related concepts, and apply their understanding to the real world around them. Elaboration strategies apply here as well because students should be using the previous information to ask questions, propose solutions, and make decisions, experiment, and record observations. This phase often involves investigate projects, problem solving and decision making, and discussing . The teacher may decide to recycle through different phases of the 5E learning cycle to improve students’ understanding or move on to new English lessons.

5. Evaluation: Evaluation should take place at all points along the continuum of the instructional process. Teacher observe students' knowledge and/or skills, application of new concepts and a change in thinking. Teacher may be using also rubrics, student interviews, portfolios designed with specific purposes, project and problem-based learning products, and concept maps. Students should assess their own learning. Teacher asks open-ended questions and look for answers that use

observation, evidence, and previously accepted explanations. Students are also asked questions that would encourage future discussion and speaking

As it is explained above this study points out how language teaching with 5E model based on constructivist approach becomes more effective and productive.

This study also points out that the influence of this approach in the seventh grade students at primary schools by applying this 5E model which is one of the constructivist approach models on two different experimental group of the students and by taking feedback.

1.2 Statement of the Problem

One of the chief problems in traditional approach is that the knowledge taught to the students is not permanent, that is; the knowledge memorized is forgotten easily and the knowledge misunderstood by the students and the knowledge and the skills are not used properly in their future lives.

Unfortunately nowadays in primary schools the students are passive and teacher-centered method is used in English lessons. In this situation because the teachers are more active than students, the students are passive and the teachers have no opinion about whether the students understand the subject or not due to the teacher-centered approach. Therefore, some subjects are skipped without determining if there is a lack of knowledge or misunderstanding of it and this affects the learning of the new subjects negatively and thus the success of the students decreases. However, the purpose of the education is to adjust the students to the social environment. In this aim, education must support the students' hereditary traits with activities suitable for their cognitive developments. Instead of external obligation; it must allow the students' own efforts to be directed. In English lessons the students have more difficulties than in any other lessons. In the first grade of the primary school, the students only memorize every topic in English lessons. However, when they come to second grade they have a lot of difficulties about English and as a result they hate English. This situation makes them learn English in a wrong way, incomplete and so they have negative attitudes towards English. These problems

need to be solved. The problems arising from traditional method force the teachers to find out more effective, productive and attractive teaching methods. The key principle in the studies about education is to create an environment where the students can learn more easily, more permanently and in a short time. And related to this, the productivity of teaching increases when the students are more active and when they can use the knowledge they have learnt. Thus, many countries question their present educational system. The goal is to train individuals who can think and who can solve the problems on their own.

Recently in learning process some teaching models are based on constructivist approach. One of the most effective form of this approach is 5E model developed by Bybee. He supports that the knowledge can not be transferred directly in constructivist approach. In learning process the students must be active. The students must experience mental activities and then internalize the knowledge. In this process the teachers must create an environment to build the knowledge and they must give opportunities to the students to discover the knowledge. In other words, they must be directors of the students.

To sum up, nowadays so many studies have been carried out about different sorts of learning models to increase the success of the students. From this point of view , the main problem of this study is whether this 5E model based on constructivist approach has a positive effect on seventh grade students' learning simple past tense.

If this model is used in English lessons , it will be much more easier to see and understand the students' misunderstandings and shortcomings about English. Hence, these problems can be solved and removed. Consequently, the success and the motivation of the students in English lessons will be increased.

1.3. Significance of the Study

With this study it is hoped that the results of the obtained data from 5E model based on constructivist approach will enlighten the teachers about English teaching studies and practices. This study is significant since the students and the teachers are

active and the students are away from memorization activities and also they can think and create their new ideas in their learning process .The teachers always test the new methods and the practicability of the technology to develop the education system and to solve the problems in teaching process. And this can be done by the experiments involving student-centered activities.

With the results of the activities that are student-centered, it is hoped:

1- to enlighten English teachers

2- to contribute to the development of more productive and more practical English teaching.

3- to lead to the application of the study in the other fields.

Besides, this study is important in two respects:

The first one is to manifest the suitability and practicability of 5E model based on constructivist approach in English teaching.

And the second one is to show the contribution of 5E model based on constructivist approach in education system.

1.4. Purpose of the Study

The aim of this study is to determine whether it creates a meaningful difference to use traditional teaching methods or 5E learning model Based upon Constructivist Approach to increase attitudes toward English. Therefore, in this study 5E learning model Based upon Constructivist Approach has been defined by the researcher and it has been carried out experimentally in the scope of the research.

In this study, the effects of constructivist approach and 5e model and traditional approach on students' understanding of simple past tense were studied. It was studied whether there was a statistically significant difference between the experimental group to whom constructivist approach was applied, and the control group to whom traditional approach was applied in the learning of simple past tense.

The research question can be expressed as follows: “Does teaching simple past tense based upon constructivist approach and 5e model have any effects on the achievement of students and their attitudes towards English?” By providing an interactive atmosphere based upon constructivist approach and 5e model, this study aims to investigate the effects on students’ learning levels by the activities, which involve active participation of students, and are designed according to the English curriculum that is based upon constructivist approach, then the results to the learning level of the group of students who are taught with traditional methods.

5e learning model based on the constructivist approach results in greater achievement in English, better retention of concepts, improved attitudes toward English and English learning, improved reasoning ability, and superior process skills than would be the case with traditional approaches. This study deals with 5E learning model, and its effectiveness. It tries to compare 5E learning model with traditional English instruction. Therefore this study will provide some information about the on 5E learning model, its application into the classroom situation.

1.5. Research Hypothesis

In this study, the following hypothesis will be tested:

The students who learn the simple past tense through 5E learning model based on the constructivist approach will score significantly higher on the post-test than the students who learn the simple past tense through traditional methods.

In other words, it is hypothesized that the students who are taught target subject through 5E learning model based on the constructivist approach are more successful when compared to the students who are taught the same target subject through traditional methods.

1.6. Method

In this study, an experimental design with ‘pre-test’- ‘post-test’ was employed. The research was conducted in an four-week period of time in the spring term of 2008-2009 year. The research consists of two groups; the control group and the

experimental group. The experimental group and control group consisting of 50 students in the 7th grade of Abidin Saniye Erçal primary school in Konya were selected according to the results of their pre-tests.

The data of the research were collected by means of Independent Sample test. The data obtained from the Independent Sample test which were given to the experimental and control groups, were analyzed by operating SPSS 10.00 packet programme. The average achievement scores of students were calculated and comparisons were made between the control and the experimental groups by administering Independent Sample test, and then the obtained data were transferred into tables or charts. The tables and charts which were obtained from the responses of the Control and the Experiment group students were presented in the sections of findings and comments.

1.7. Scope and Limitations

The first limitation of the study was that only 7th grade students at Abidin Saniye Erçal primary school were used in this study.

The second limitation of the study was the number of the students in both experimental and the control groups. Because the number of the students in each classes was restricted to twenty-five, and the number of tenses involved in the study was one. The data obtained from a larger group of students would have more reliable results.

The third limitation of the study was that only *grammatical aspect* was focused on this study. Therefore, the productive aspect and pronunciation were often ignored during the study.

1.8. Organization of the Study

This experimental study comprises five chapters.

Chapter 1 states the research problem, the purpose of the study and the research hypotheses, the significance of the study, and limitations.

Chapter 2 reviews the literature focusing on constructivism. First of all, introduction part clarifies some of the terms related with the topic. This follows a brief history of constructivism, the features of constructivist learning and teaching, basic principles of constructivist learning, the teaching strategies of constructivist approach, teaching techniques of constructivism and the role of constructivism in learning a foreign language. Afterwards, 5E learning is reviewed. The rest of this chapter deals with 5E model in teaching English. It includes the advantages and purposes of 5E model. In addition, it shows the reasons for using 5E model in teaching English.

Chapter 3 describes the research design, the participants, the materials used in the experimental and the control groups and the data collection procedure of the study.

Chapter 4 describes the data analysis procedure in detail and presents the analyses of the pre-test and post-test test results.

Chapter 5 summarizes the findings of the study and discusses these findings in terms of the research hypotheses stated in Chapter 1. This is followed by a description of the pedagogical implications of the results of the study, the suggestions for further studies and final concluding remarks.

CHAPTER II

REVIEW OF LTERATURE

Introduction

This chapter reviews the literature focusing on constructivism. First of all, introduction part clarifies some of the terms related with the topic. This follows a brief history of constructivism, the features of constructivist learning and teaching, basic principles of constructivist learning, the teaching strategies of constructivist approach, teaching techniques of constructivism and the role of constructivism in learning a foreign language. Afterwards, 5E learning is reviewed. The rest of this chapter deals with 5E model in teaching English. It includes the advantages and purposes of 5E model. In addition, it shows the reasons for using 5E model in teaching English.

2.1. What is Constructivist Approach

Constructivist learning is the most frequently used and is a fairly popular learning approach. Constructivism indicates formation of the knowledge as a term by the learner in the context of learning and the education. In the constructivist approach, knowledge doesn't exist in the nature independently from the recognizant individual. The knowledge isn't free from the subject, the subject forms the knowledge during the interaction with the other subjects, and both he and his environment are affected from this knowledge (Piaget, 1973; Vygotsky, 1978; Moll, 1992).

The approach of constructivist learning confronts as a learning approach that aims to explain the students' observation of new knowledge through present knowledge and forming the specific knowledge. According to Bodner (1986, 1990), one of the most important exponents of constructivist model, knowledge is configured in the mind of the learner and the chance of transition of knowledge from the mind of the teacher to the mind of the learner is quite limited. In other words, the knowledge that the students obtain in the environments of education in the school depends on the

available related information and the ones the education environment provides them. For that reason, if the related information is defective, the knowledge built on it can be defective too knowledge (Hewson and Hewson, 1984; Üstüner and Sancar, 1999).

Jonassen (1991) states the constructivism as :

A function of learners' beliefs they form their own actuality or, at least, they interpret the meaning in terms of their previous experiences and perceptions, thus the knowledge of an individual is a function of their mental structures and their beliefs they use to interpret the meaning of the objects and events.

The Constructivist approach the knowledge can't be thoroughly transferred to the students by the teachers and it should be actively configured by the student is rather successful in explaining why the students have alternative concepts and provides significant traces about what to do to produce conceptual changes in the students.

Çepni and others (2005) gathered basic constructivist components that are inseparable with definite borders under five topics.

1. Activating the previous knowledge: Since everything that has been learned is directly related to the previous knowledge they have learned and available knowledge in their intelligence, the definition of the previous information is rather significant. Because, for the students, being aware of the information structure they have is important for both the teachers and the students.

2. Preparation of the new knowledge: The teachers should plan and apply the appropriate teaching techniques and get the students comprehend the matter they want to teach. Within this period, it must be decided whether there is a harmony between the newly given information and the current available information. The teacher should help the students in learning new information.

3. Understanding the Knowledge: The students compare the knowledge they have encountered and the ones available in their minds and start the process of comprehending. Within this period, new knowledge that doesn't conflict with the available ones are easily accepted, a mental process is started in case there is a conflict.

4. The Application of the Knowledge: The indicator shows that newly obtained information has been comprehended in the desired levels is the capability of that problem in solving new and various problems, in other words, having a capacity of being used for different purposes.

5. Recognizing the Knowledge: The activities that will make the students comprehend the knowledge that they possess are the activities which enable them see how and in what ways the knowledge is used. The activities such as sample case examination, acting, project-based activities, teaching the obtained knowledge to the others helps to understand the structure of the knowledge they have; the level and type of the knowledge. Newly obtained knowledge is configured depending on the individual. According to this belief, the students compare the newly obtained information to his previous ones and he configures it in his mind, thus he makes the sense of the world around him. Namely, the core of constructivist approach is based on the fact that the knowledge doesn't passively exist out of the individual, it isn't transferred to the brain after being organized outside; on the contrary the individual actively configures it in his mind and makes it meaningful.

Cultural and social content also play an important role besides the current available knowledge of the individuals in learning. The approach of constructivist learning generally looks for the answers to these questions: "how does the knowledge obtained from outside settle into our minds?", "How do we process these knowledge and arrogate it to ourselves?" and "What kind of changes occur while the newly obtained knowledge that conflict with the previous one are configured in our minds?" Constructivism implies the following three principles which Von Glassersfeld set forth:

- 1- Knowledge is not passively received either through the senses or by way of communication. Knowledge is actively built up by the cognizing subject.
- 2- The function of cognition is adaptive, in the biological sense of the term, tending towards fit or viability .
- 3- Cognition serves the subject's organization of the experiential world, not the discovery of an objective ontological reality.

(Von Glassersfeld ,E. An Exposition of Constructivism: Why some like it radical 1990.pp.22-23)

The constructivist approach overemphasizes that the students are able to understand the new situations they encounter through their previous experiences and knowledge. The constructivist learning is a process of interpretation of the world and the knowledge that arrives at the mind. In the learning process, the students interpret the situations they have newly encountered with respect to their previous experiences and knowledge. Although the learning occurs as the individually configuration in the mind of the student, social interaction is rather important in the constructivism. Because, the students frequently interact with other individuals during the learning process and perform the peer learning (Taber, 2001). One of the basic principles that are agreed in different constructivist learning types is the knowledge is configured in the mind of the student and it occurs with active participation of the student. Namely, the knowledge can't be transferred to the head of the student from the teacher much the same. In other words, knowledge isn't the objective presentation of the world; rather it is its configuration in the individual

The theory of constructivism can be regarded as the continuation of the other theories in the context of interpreting life. In this context, it includes various aspects of the real world and life. For example, individualism and sociability, mind and environment, communication and culture, development and learning, knowledge and experience, radical and critical thinking etc. As is seen, the conceptions that exist in the constructivist approach are the ones that orientate our lives. When the constructivist approach is analyzed, it can be seen that multidirectional point of view and the opinion that more than one answer may be available for a single question. The development of the technology, the circulation of the knowledge more comfortably and cheaper, easy access to knowledge, the distribution of printed and visual media in a way to form and change the opinions of people require that language teaching comprehension should be multifunctional. In this context, the Constructivism concept can give a long way towards.

The Constructivist approach has a different philosophical comprehension than objectivist approach related to the knowledge and the meaning of knowing something. In the base of this approach; there is the opinion about the nonexistence

of the knowledge or meaning free from the individual and they aren't transferred to the mind, instead they are actively configured in the mind of the individual (Türk Eğitim Bilimleri Dergisi Güz 2007, 5(4), 609–635).

In the Constructivist approach the knowledge is thought to be produced by the existing standards of judgement and life of the learner. The real knowledge doesn't occur apart from the life of individual. The mind isn't a blank blackboard. The individual doesn't receive the knowledge passively; the learner actively processes it, gets in touch with his previous knowledge, and appropriates for himself. Learning doesn't depend on memorizing, but transferring the knowledge, reinterpreting the existing knowledges and form new ones (Türk Eğitim Bilimleri Dergisi Güz 2007, 5(4), 609–635).

Constructivist learning theory which has been spoken a lot over and is based on radically configuration of the information is a new matter in the education system in our country.

Constructivist learning, one of the most commonly emphasized approaches of recent times, has blazed a trail, has taken to reinterrogation of knowledge through carrying it to its roots; it has reshaped the system, the parts of the system and duties and responsibilities of the system.

In the world that rapidly develops and changes, the roles of the individuals and the qualifications required on them are changing too. Instead of accepting and consuming the knowledge as it is given, the roles of the individuals in today's knowledge society are considered in the environment that interrogates, interprets and configures the knowledge.

Developing the process of researching and interpreting, analyzing facing the knowledge, unifying previous and present life is based on the principles where social interaction plays a critical role.

Table 1: Basic Characteristics of Constructivist Approach

Learning Angles	Exploring the change and reality in the meaning based on the previous knowledge and experiences according to individual comprehension.
Types of Learning	Based on problem solving and cooperation.
Strategies of learning	The optimization for a self-compensative and reflective learning, beginning the education with a problems and challenges, a strategy based on cooperative work and the use of multiple approaches in the presentation of the context
Strategies of communication	Mutual and multiple environment, multiple communication, multiple tools and equipments
Key Term	Inner motivation, constructivism, experience, real-life based learning activities
Teacher	It provides multiple interactions and multiple communications. It guides and models in learning-teaching processes with problems and based on cooperation.

On the contrary to the traditional learning theories, “making mistakes” has a place in these learning types that is based on self-organization. Discussions within small groups become meaningful only in case occurring problems are examined and corrected. Finding the reason for the mistake increases the learning capacity of individual, it enables the knowledge to be understood better and built. This complicated learning field is established based on related to the fields of interest. Such a content challenges the students to organize the experiences and interests they obtain from real (Terhart, 2003).

Besides, constructivism enables individuals learn real knowledge through actively interacting with their environment. Constructivism forms a general framework

according to individual differences, social structure and knowledge obtaining types (Joyce, Weil, 1996). Since Constructivism a theory of knowledge, it includes cognition, knowing, known, the process of configuring the knowledge, and numerous explanations affecting this process Constructivism rejects the ideas such as the truth exist in outer world outside of the knowing, the knowledge should be realistic to be true and should reflect the truth. Constructivist approach has been developed as an alternative to the existing traditional theories (behavioral and cognitive) and in order to respond to the needs of technological age. In this approach, “the student doesn’t directly learn the given knowledge but he learns by reconfiguring it”. In this context, the learning isn’t an imitation but a direct activity of the student. The constructivist education brings critical thinking and allows the development of motivated free individuals.

The main principle that lies in the base of the constructivism is learning through practicing not observing. When the students start a new topic, they will configure the knowledge for themselves using the critics in the light of their foreknowledge. The expression of their comments and reevaluation process they will execute in this way will continue until they show that they have comprehended the matter. Constructivism will frequently use cooperation and the critics of friends as a forcing power to bring the students up to a higher comprehension level. Active experiences are the keys for Constructivist Learning.

“Constructivism” describes interactive, inductive and cooperative gainings in the learning environments where the questions are evaluated and various points of view are exhibited (Brown, Collins and Duguid, 1989).

Piaget accepts the constructivism as a communication between the cognitive processes of the individual and knowledge. Cognitive processes of the child follows a gradual order. These are the phase of sense-movement (0-2), pre-process period (2-7), concrete processes period (7-11) and abstract process period (12- ---).

Piaget emphasizes the significance of thinking proper to the rules of logic and points out its relationship between language developments.

According to Vygotsky, the knowledge is configured based on social interaction of the individual and experience. Both the child and the environment is active. Configuration is executed through the cooperation of both.

Types of Constructivism

- 1- Simple Constructivism (Cognitive (Realist) Constructivism
- 2- Radical Constructivism
- 3- Social (Communal) Constructivism
- 4- Cultural Constructivism
- 5- Critical Constructivism

(Erfidan, 2005: 18)

In the constructivist learning where the learner is active, the learning is obtained through actively participating the learning processes such as discussing, defending an opinion, hypothesizing, interrogating and sharing the ideas. The interaction of the individuals is rather important. The learners don't accept the knowledge as is, but they create or reexplore it. (Perkins, 1999: 7).

All newly obtained knowledge girds for the configuration of the next knowledge. Because, new knowledges are built over the previously configured ones. Thus, constructivist learning a process in which a connection is fomed between existing learnings and new ones. However, this process shouldn't be regarded as heaping of the knowlwdgw. If the individual has really configured the knowledge, he will make his own comment and configure the knowledge from thr groundwork. Constructivism isn't the accumulation and memeorizing the knowlwdgw but thinking and analyzing it.

The truth in constructivist learning isn't the acceptance of the knowledge by the students but the interpretation of the knowledge by the student. The knowledge is produced existing standards of judgement and lives of the learners. all the efforts in constructivism in constructivism is to provide maintenance and contribute to the development of top level cognitive skills.

The education program that based on constructivist approach is designed to provide the continuence of learning and develop the top level cognitive skills of the learner. In such an approach, the student is in the centre.

Constructivism teaches the learners how to learn and makes the knowledge more meaningful for them. New target of the education is to create a model of human who knows how and where to use the knowledge, who knows his own learning methods and use them effectively, use his previous knowledge while forming new knowledge. Constructivist approach plays an important role in reaching this target Yapıl (Abbott, 1999: 68).

In Constructivist approach, the significant matter isn't whether there is content in the education program or not, but the existence of interaction between the learner and the content in the process and make it meaningful. The aim in the constructivist approach is not the predetermination of what the learners will do but to give opportunities to them to direct learning upon their request through tools and learning materials (Erdem, 2001: 58). According to constructivist approach, all the learnings occur as a result of a configuration in the mind.

There are these aspects in the base of Constructivist Approach:

- 1) Research, interpret and analyze the knowledge.
- 2) Develop the knowledge and making them them
- 3) The combination of past lives and current ones.

It doesn't teach the knowledge but only it emphasizes.

It encourages the students to research.

It makes the students to be natural and curious.

It is based creativity and analysis.

It keeps the students and the teachers in touch.

It supports learning together.

It provides students new ideas and comprehensions as a result of their own experiences.

What does a Constructivist Education Provide the Individual?

It gives opportunity to form knowledge.

It gives opportunity to develop knowledge.

It provides the ability of interpreting the knowledge.

It helps to configure the knowledge.

There is no a single true in constructivism.

Constructivist learning is a decision making period which includes the student's personal abilities, motivations, attitudes and the things they obtain from their experiences. The individual is selective, constructive and effective during learning.

The control of learning is on the individual. He directs learning in accompany with the teacher. In this directing process, the student's past life, point of view, readiness levels are effective.

Constructivist approach is an approach that can lead to new developments. Thanks to this approach aims to develop the student from every aspect, the students see the learning as a mysterious world expecting to be explored not a too high wall to pass over.

The principal in constructivist learning isn't the students' taking and accepting the knowledge but the meaning they inferred from the knowledge. The knowledge is produced from existing value judgements and lives of the learner. All the efforts in constructivism is to contribute to the maintenance of learning and establishment of high level cognitive skills. The learners configure the knowledge through researching and exploring, interpreting and forming and interaction with the environment. Thus, they learn both the content and process at the same time. (Demirel, 2000)

Constructivist learning theory features critical thinking, interrogating, problem-solving and entrepreneurship of the individuals. (Brook & Brooks, 1993, Marlowe &

Page, 1998). Learning activities should be carried out within the scope of realistic activities that support active learning. (Wilson, 1996).

Constructivist approach regards the conversation and discussion as a base for the formation of knowledge. Vygotsky (1994) emphasizes that interactions are more effective when they are formed next to the individuals with a high level knowledge and they intensify their critical thinking, high level thinking abilities thanks to the interactions and sharings.

How does learning come true?

Constructivist approach is a theory which matches learning and forming a meaning from experience. Human beings form the knowledge instead of taking it directly. It means that learning can only occur depending on present knowledge and experiences. However knowledge may be presented, the students will not really learn them so long as they don't personally use this knowledge and identify with past experiences.

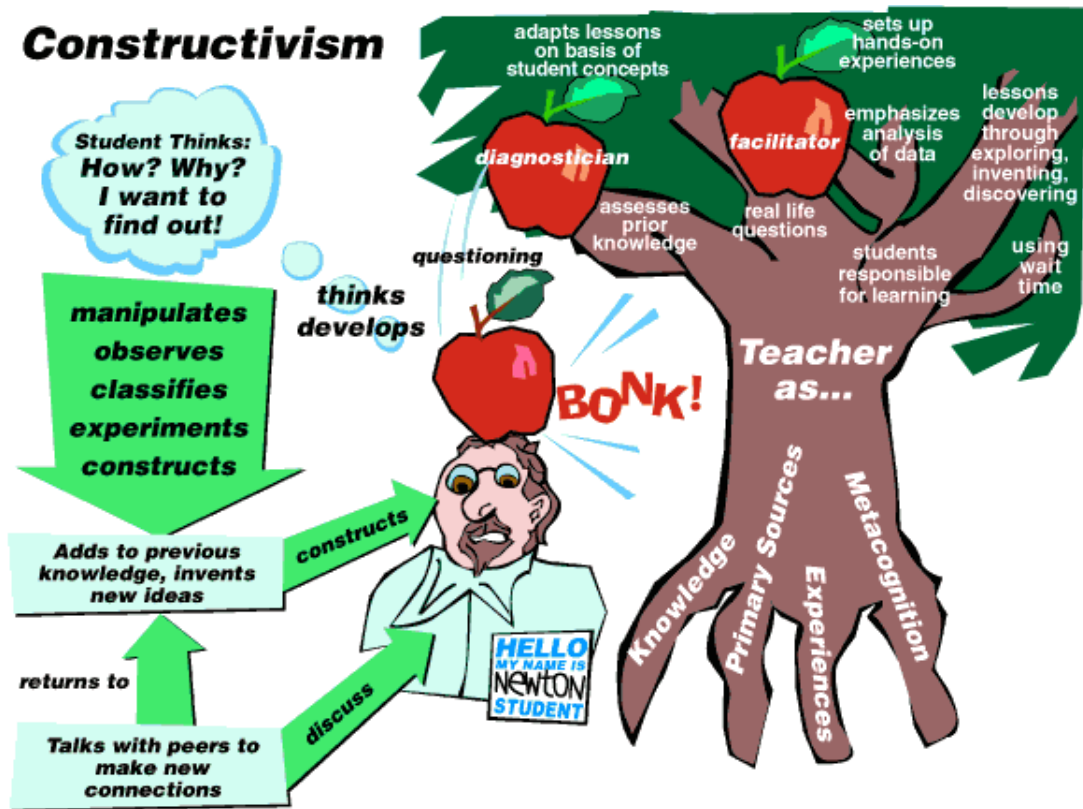
Constructivist approach is an approach that discusses how the information is fictionalized and configured in the mind. According to this approach it can be defined as the meaning obtained as a result of comprehension, processing, evaluating and judging of the events in the external world. In other words, the knowledge is a meaning that he attributed as a result of interaction of the individual with the things, events and existences around him

Since the past lives of the individuals aren't the same, their interpretation of a schema related to the concept and new knowledge can't be the same. Past lives, knowledge and learnings all effect how we should interpret new lives. On the other side, the interpretations are effective on the configuration of the knowledge and new learnings.

According to constructivist approach, the important matter isn't whether the learners interpret or not but the way they interpret. When an aim is externally forced to be accepted, the activities of teachers-learners become mechanical. The learner's

making connection with outer world, using his ability, reflecting his experience and critically seeing the facts is very important in long-term remembering and knowledge transfer (Erdem and Demirel, 2002).

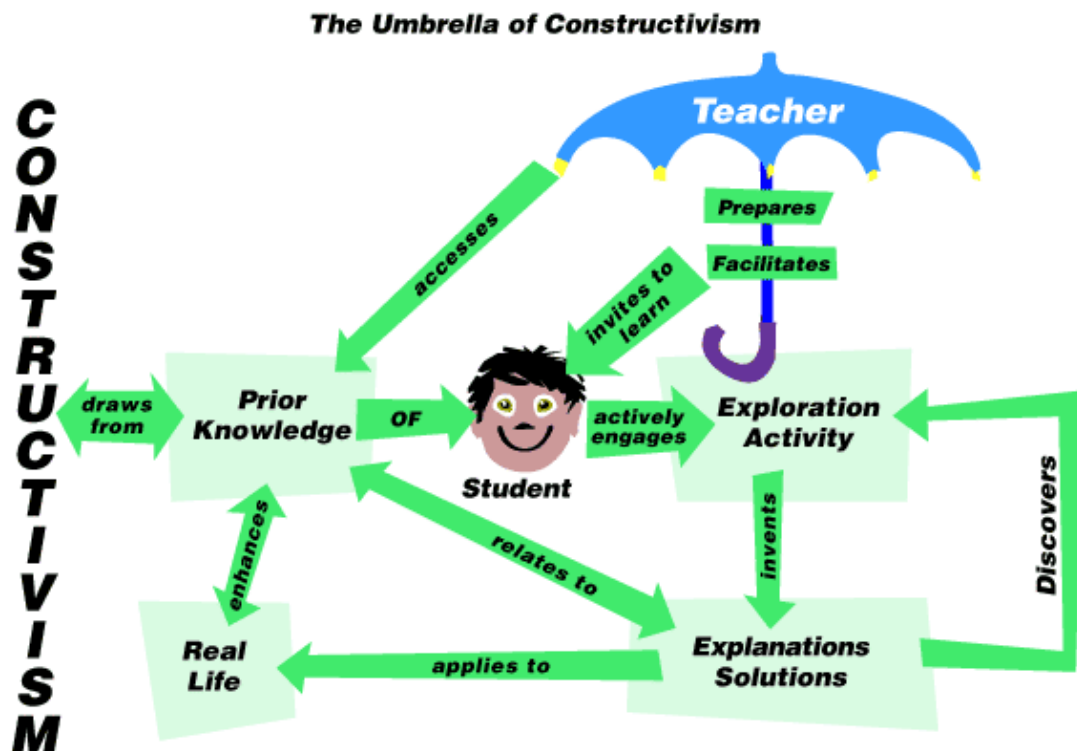
THE SCHEMA OF CONSTRUCTIVISM



(Kabaca, 2002: 52)

We can say it defends that the knowledge can't be availablely transferred to the individual.

The individual should be active within the period of learning to produce the knowledge. He needs a chain of experiences and needs to perform a number of mentations and internalize the knowledge. (Kabaca, 2002: 56)



(Kabaca, 2002: 52)

THE CONSTRUCTIVIST IDEA
Tknowledge has personal meaning, it is nominative. They are formed by the students.
The students form their own knowledge. They interpret what they hear, read according to their previous learning and previous habits.
The learning is successful so long as the students are able to show the conceptual meaning.

THE CONSTRUCTIVIST APPROACH
Learning occurs as a result of configuration of old and new knowledges
The student is the internalizer of the stimulants and active performer of the attitudes.

The education programs are taught through inductive method and through concentrating on basic concepts, they are shaped according to the problems and needs of the students.
The teachers try to take the ideas and opinions of the students in a definite matter.
At the same time, the teachers are learners in the learning process. They interact with the students and they organize and prepare the learning environment.
The students are responsible from their own learning, they construe the knowledge they obtain from the environment in their minds and thus they are active in learning.
The activities related to the education programs are extensively based on primary sources.
The evaluation is a part of teaching process. It is executed through the observation of the teacher and collection of students' activities during teaching.
The wishes, concerns, needs of the students and their question on various matters take up too much room in the teaching process.

The approximations are important for the constructivist approach since they reflect the the learners' points of view and their way of thinking. Constructivism can be assumed as a cognitive-development approach that is affected from philosophical approaches since it is a way of thinking related to the function of cognition and correlates among the cognitive-related developments (Ashgar, 1995).

Constructivism is a social activity.

The use of constructivism for the learner has been given as follows:

- 1) It develops the individual's ability to think and make plans,
- 2) It develops enterpreneurships,
- 3) It provides better understanding the learning experiences,
- 4) It improves the relationships between the learner and the teacher,
- 5) It provides motivation,
- 6) It increases the interest of the learner for school,
- 7) It allows to express oneself,
- 8) It has higher success levels than the classical classes related to the matter

(Marlowe & Page, 1998).

The process of dimension and mental configuration of the knowledge by the learner is more dominant in the constructivist approach. There are no familiar target and behavioral expressions. It is student-centered. The teacher is the guide, not the one who serves knowledge.

The dominant thing in the center of the learning is the process and production of the knowledge not the knowledge itself. The main principle is learning to think and creativity. The basic philosophy isn't learning but learning to learn.

The way to fictionalize the learning process is related to the cognitive, affective and material abilities of the student and is formed impromptly.

The important matter is how and why the learning is executed not how much has been learned.

The learning-teaching process is performed through the activities that the students can carry out and develop

Constructivism isn't a single learning model, but an "eclectical" model that centralizes the individual, knowledge based production, participative and interactive. Thus, it isn't a model merely uses inductive method but it is a reflexive model that allows the individual and the teacher decide where to use inductive method and where to use deductive method. Standardizing this model through various methods and strategies is against its structure. For example, the notion that teacher presentations are abolished in constructivist teaching is wrong and dangerous. Constructivism isn't "self-learning of the individual" but "his learning in accompany with the teacher". Thus, the roles of the teacher hasn't been decreased, instead it has been increased.

Constructivist lesson isn't in the control of the teacher. Constructivist lesson is student and activity centered. The student's cognitive, affective and corporal abilities and competences of the students determine the fiction of the lesson. For that reason, there is no a standard lesson. There is the lesson which changes according to the student and physical conditions. However, the target (gaining) is common. The

productibility of the target can be achieved through through the synthesis of student-activity-teacher-infrastructure opportunities.

The constructivist lesson can not be planned in detail and shouldn't be planned. Because, the things exactly will happen, the way the process functions and which speed it will continue cannot be determined previously. The only known reality is the activity to be done. The development process of the activity will occur in the lesson within the bounds of the quality of the teaching and opportunities. The constructivist lesson cannot be fictionalized with predetermined teaching methods. Instead of traditional teaching methods, the methods and techniques such as cooperative learning aimed at developing affective behaviours, drama, and brainstorming.

Constructivist lesson isn't limited with physical places. According to the activity and the conditions, the physical places except classrooms (school yard, library, cafeteria, museum, street etc.) can be given. About this, the teacher should be full authorized and there shouldn't be bureaucratic barricades. Of course, extrascholastic activity fields should be previously determined and planned; the school management should facilitate these plannings. However, the place of extrascholastic activities can be changed according to socio-cultural and economical environment of the school. For that reason, extrascholastic activities should be left to the teacher.

2.2. A Brief History of Constructivism

The history of constructivism goes back until Giambattista Vico (Yager, 1991; Sewell, 2002). When the constructivist learning is analyzed in theoretical philosophy, we can say that it has been formed on the ideas of the philosophers such as John Dewey, Jean Piaget, Thomas Kuhn, Lev Vygotsky, Jerome Bruner, and Ernst Von Glasersfeld. (Çalık, 2006) Although psychological side of constructivist learning is based on the Piaget's incorporation approach, Bruner's independent learning and Ausubel's focusing on the ideas of the students has provided great contributions to the development of constructivist learning. (Köseoğlu and Kavak, 2001; Rezai and Katz, 2002; Çalık, 2006; Özsevgeç, 2007: 63).

Hawkins (1994) attributes the history of constructivism to Socrates. He emphasizes that Socrates asks questions to an illiterate slave in his dialogue called Meno and makes him manifest the Pythagoras Theorem. In the seventeenth century, Immanuel Kant showed that scientific knowledge has been actively formed as a result of their observation testings. According to Hawkins, “Hegel, a successor and critic of Kant, accepts the equality of mental schemas and the contradiction among them is a source for more researches and learning.” Among the eighteenth century philosophers, Giambattista Vico, has said “people only can understand what they form”. (Hawkins, above-mentioned book, page 8.) Between the end of nineteenth century and the beginning of twentieth century, William James publishes a book named *The Principles of Psychology* in 1901 and established psychology as a science; then he interrogates the cognitive world of the individual stream of consciousness, feelings and willpower, this makes him a contributor to the ideational development of constructivism (Fancher, 1997: 129-145).

Constructivist approach was systematized by Bruner early 1960's. However, the epistemological history of constructivism goes back to eighteenth century. The notion that the knowledge was configured by the knowing was supported by the scepticals about 5 or 6 B.C. (Phillips, 1995).

The roots of constructivism that discuss what the knowledge and teaching are, the possibility of existence of objectivity, and is a philosophical explanation for the nature of the knowledge are attributed to the philosophy of Kant and the ideas of Giambattista Vico, an Italian philosopher in the eighteenth century, (Glaserfeld 1995; Tynjälä, 1999), and American pragmatists of early twentieth century such as William James and John Dewey and other names such as F. C. Barlet, Jean Piaget and L. S. Vygotsky (Driscoll, 1994; Duffy, Cunningham 1996; Tynjälä, 1999).

The second half of the twentieth century is seen as the breakthrough with the works of the researchers such as Piaget, Vygotsky, Asubel, Bruner ve Glaserfeld.

Constructivism started to develop and form a base for other applications at the beginning of twentieth century. For example, William James and John Dewey

criticized “the concept of exhibiting knowledge” and they formed their own concepts on this (Philips, 1995). Bartlett determined that the meaning was transformed and the reading and writing was the product of constructivist process. (Wood, 1995). In this context, the empirical research project, started by Hall about early 1900’s and in which the ideas of children about the fact of nature were analyzed and Dukes’s fieldworks related to topic in 1947 attracted attention (Açıkgöz, 2004). However, the real breakthrough occurred after the works of scientists such as Piaget, Vygotsky, Ausubel, Bruner ve Von Glasersfeld in the second half of twentieth century. From now on, the researches aren’t limited with the preliminary concepts of the students; the researches are carried out on new concepts such as the ideas of the teachers about learning and teaching process, metacognitive strategies etc. (Bülbul, 2001)

We can state that contemporary constructivist learning approach started with Vygotsky. In the systematization of constructivist approach, we can mention about the educators such as Wundt, Ausubel and Titchener and the philosophers such as Saussure, Jakapson, ve Levi-Strauss. We can assume that constructivist learning approach is mainly related to cognitive learning theories.

2.3. The Characteristics of Constructivist Learning and Teaching

Some activities should be organized to make the learners more active in the classroom, the learners should evaluate the knowledge, the content and the power balances in their class through working together. Besides, the own voices and thoughts of learners should participate the learning process. This provides opportunity for a more democratic and pluralist education.

The opinions that are based for constructivist learning can be summarized as follows:

- Research, interpret and analyze the knowledge.
- Develop the knowledge and thinking process.
- Unify the past and new lives.

(Atam, 2006: 61)

1. Complicated learning environments that contain authentic activities should be formed. The students should be exposed to problem situations related to the daily life and they should learn how to solve them.

2. Social interaction that is an important complementary of constructivist learning should be formed. In this way, the students will share the ideas of each other and the peer learning will occur. Thus, each of the students will see the event from different aspects and a better comprehension and learning will be provided.

3. The content should be designed to be ranked in a definite order and provide opportunities for different and various presentations. In this manner, partly understanding will be prevented since they will process the content via different methods and techniques and tools and equipments and a complete comprehension will be provided.

4. The students should be aware of their own comprehension and learning. In this way, they will be able to defend their ideas and they will have multiple points of view.

A student-centered learning should be formed. Thus, the students will be able to actively decide what and how to study or understand. The knowledge is formed through reflective abstraction.

The learners/Individuals form their own comprehensions.

The cognitive schemas in the learner/individual make the learning process easier.

The meaningful learning occurs as a result of real learning activities/tasks (Eggen & Kauchak, 2001: 294). The learners should be able to interrogate inner class contents and activities. Especially, their charting the learning processes will help them analyze the content easier. This way, their learning is individualized and their sharing these schemas with their teachers and other learners in the class makes learning socialized in the content of desk learning. Such interrogations, that are a part

of classroom culture, support to forming the knowledge together and internalize it. Knowledge is a social, cognitive and one-sided concept. (Richardson, 1997: 7)

Constructivist approach defends that the learning doesn't occur with the transfer of the knowledge, but can be executed through activities such as asking questions, researching and problem solving.

Driscoll (1994), summarizes the main principles of the approach as follows:

- It has adopted a learning and teaching that is based on a complicated and effort requiring environment and real matters.
- As a part of learning, it has got share of responsibilities and social interaction and communication.
- There are multiple presentations about the content.
- Understanding the configuration of knowledge.
- The education is student-centered.

Driscoll (1994)

Von Glasersfeld (1990) brought some suggestions to constructivist teaching. Accordingly, the problems cannot be solved through recalling (remembering) the correct answers. In order to solve a problem, the individual has to see it as one of his own problems. Thus, he can see the obstacles to breakthrough in front of the targets. Moreover, individual should be motivated to reach the target. Making researches to reach a target and access to next step using the obtained data motivates the student for further stages. Besides, it is more pleasuring than using ready-to-use knowledges. This enables the teachers manage the attentions of the students more effectively (Von Glasersfeld, 1990). In the constructivist approach, the aim is to enable individuals to direct the learning according to their desires through tools and learning materials, not previously determine what the learners will do . In order to provide motivation during the education process, provide them appropriate opportunities and make them study effectively, various activities are are given way. The operation is desk-training or outdoor trainings that enrich the teaching process and increase the maintainability of learnings in order to achieve the targets. The learners take part in the various activities that have been organized every topic, field and learner in configuring the knowledge.

In the constructivist approach, the personal characteristics of the students, their intellectual and personal differences are considered contrary to the traditional conceptions. With this conception, the roles of teachers and the students interchanged. The teacher left the being first source to transfer the knowledge and turned into a role that directs the student to the knowledge. The students aren't individuals that are ready to take ready knowledge and turned into individuals who are knowledge winner and try to achieve the knowledge by him. One of the philosophical approaches adopted by this education approach is the students who take responsibilities in the learning process. In constructivist learning, main concern is the students. The student enters into an interactive communication with objects and events; he gains comprehending ability for these objects and events. In this way, the students build his conceptions and problem solutions. The autonomy and entrepreneurship of the students are accepted and encouraged in this way. In the constructivist learning, the students are stimulated to invent their own ways for solution and try their own hypothesis and ideas. They are given opportunities to build new knowledges over the old ones (Scheurman, 1998).

The learning process can include following stages for the effective learning that is based on this approach;

Piquantness and planning,

Research and exploring,

Analysis and deepening,

Sharing and adopting to real life

And in this approach, the teacher supports and accepts the anatomy of the student.

The teacher uses real knowledges and contemporary sources.

The teacher allows the students to direct the lessons, apply new methods and suggest alternative topics.

The teacher tries to reveal the way the students understand the topics before he shares his own knowledge.

The teacher supports the students to enter into a dialogue with their teachers and other friends.

The teacher supports the students to ask brainy and open-ended questions among themselves.

The teacher supports the student develop the feeling of responsibility by himself.

The teacher supports the students to form discussion groups and gain experiences to develop hypothesis.

The teacher gives time for answer after the question is asked.

The teacher provides the students develop themselves and make connections among the topics and he gives enough time for this.

The teacher helps the students develop their natural interests.

(Ergin, 2005: 119)

When these points are considered, constructivist learning applications should be student-centered, a special communication style should be adopted, suitable options for personal differences of the students, instructions should be given and every student should be helped to form their own decisions

The aim in the constructivist educational environment is make the learners build the knowledge from the beginning. The students come to class with their lives and they configure the knowledge intellectually by participating the learning actively. In this context, learners develop their own thoughts and comments. Learning isn't receiving a definite transferred knowledge but effectively thinking, reasoning, problem solving and learning abilities (Alkan et al., 1995: 57).

The program designers who base upon constructivist learning are interested in the question of "how do the learners learn?" instead of "what should be taught to the individuals?" Constructivist designers start developing programs with an activity that will help to reveal the existing knowledge of the individuals (Seiley, 1999: 16).

The aim in the constructivist learning is provide the learner opportunities to intellectually make sense of the knowledge not help them to reach hierarchically determined targets (Wilson, 1996: 208). The targets are commonly determined by both the teacher and the students. Participation of students to these decisions increases the desire in the learners to reach the target. It can be explained as:

Since the knowledge of the students show varieties, two individuals may attribute different meanings to a single concept instead of a single truth. for that reason, targets cannot be definitely determined. Only, there are general targets that the learners are expected to reach. More generally, the attitudes are within the target expressions

(Holloway, 1999: 85).

The strategies used in the constructivist approach are the following: Drama, project activities, learning through designing, learning through teaching and cooperative learning (Wilson, 1997: 8). The learners may benefit from repetition, making sense and organizing strategies in order to combine the new knowledge they have learned with the knowledges from their past life, make sense of the knowledge.

The basic element of constructivist learning environment is the learner. The learners form the knowledge they will use for a lifelong period through solving the complicateness of daily life problems in a democratic class environment. In constructivist approach, the class environment is organized to motivate the students to learn and attract their attention to the topic. The teacher and the learners cooperatively decide on how these arrangements will be.

In the constructivist approach, the education environment isn't a place where the knowledge is transferred. It's a place where the learning is obtained through intellectual activities of the student, the interrogations and researches are executed, thinking, reasoning, problem solving and learning skills are learned.

In order to develop independently thinking and problem solving abilities of the students, a special communication method is adopted during the learning-teaching process. In this communication type, the students are asked some questions such as "What do you think about this topic?", "Why do you think so?" and "How did you come to that conclusion?" The students are avoided to ask questions that needs

answer beginning with “Yes” or “No” The learner makes his decisions himself. (Demirel, 2000: 41)

Learning isn't automatically uploading the knowledge to the brains of the students. Learning requires intellectual participation and application of the students. Solely explanation and presentation don't provide learning in the long term. Only active learning will enable this. When the learning is active;

Most of the work is done by the teacher,

They use their brains,

They transform the ideas,

They solve the problems and apply what they have learned.

Besides, active learning is fast, amusing, supporting and attractive. The student is often out of his desk and thinks aloud. First of all, we should understand how the learning occurs for that purpose.

2.4. The Principles Of Constructivist Learning And Teaching

Constructivist learning is an active process: Constructivist learning requires that the students are continuously busy with their environment.

People learn while they are learning: Learning includes both configuring the meaning and comprehension systems.

The most important activity of configuring is the mental: Physical movements and experiences are necessary, but they are not enough; mental activities are absolutely needed.

Learning and language are one within the other: The language we use affects learning.

Learning is a social process: Interaction with the others occupies an important place in our learning.

Learning is related to our lives: Our knowledge, beliefs, fears, standards of judgement affect our learnings.

We need our previous knowledge for learning: New knowledge is gained and assimilated through structures built over the previous knowledge.

Time is required for learning: For a meaningful learning; revision of the ideas, playing with them and using them is needed. Time is required for these processes.

Motivation is the key element in learning: Motivation doesn't only help learning but also is a necessity.

Basic Principles in Constructivist Teaching:

In the written sources related to the topic, five basic principles of constructivist learning have been mentioned. However, these principles aren't independent from each other and there are no sharp borderlines among them.

In constructivist teaching, previous knowledge of the student is activated.

Learning is shaped around basic concepts to provide new knowledge to the students. Namely, the students should be assisted in seeing "the whole", "parts of the whole" and the relationships between the whole and the parts.

The evaluation of the student's point of view. Namely, the intellectual structure is strengthened if the existing knowledge and the newly presented knowledge don't conflict, but the student is supported in changing the intellectual structure making new organizations and setting a balance if there is a conflict.

The application of the knowledge. The students should be assisted in the application of the knowledge. This can be provided through preparing activities convenient to previous knowledge structures of the students.

5. Being aware of the knowledge. For the individual, solving a problem through knowledge and realizing the strategy that takes him to the solution of the problem are totally different. For that reason, the teacher should organize activities to

make the students aware of their knowledge. These activities should enable the students look back and review what they have done. The activities such as sample case analysis, role playing, project activities, teaching the learned knowledge to others and putting them on paper can be listed as the activities that provide the awareness of the knowledge.

The societies gather around definite purposes and they work cooperatively to execute them. When one fails in reaching to them, it gets help from the others. For that reason, various points of view should be allowed to develop. Therefore, intellectual and social autonomy of the learner should be regarded. When the autonomy of the learner is possible, he will be able to answer the questions from various points of view. The most important factor to develop it is the qualifications of true and false. The teacher's qualification of the individuals in the classroom as true and false may lead some sentimental limitations. Interpreting a single idea as true prevents the differentiation. There should be an agreement about the trues and falses among the learners in the class. For this, the learners should be allowed to personalize the questions in the classroom. Moreover, their autonomy will develop when they are able to clearly express their opinions about a topic and how they reached that conclusion and making this consciously.

According to the constructivist approach, the children don't expect to come to class in order to learn the knowledge given in the class. From this point of view, it is possible to conclude that the knowledge is within every field of life and it isn't a static existence.

2.5 How is The Constructivist Lesson?

It is student-centered.

The main material of the lesson is process, transform and produce knowledge on the grounds of collected knowledge. The lesson is carried out through cooperative learning, brainstorming, activity and projects under the guidance of the teacher. There is no authority of the lesson.

The lesson isn't limited with time, is limited with activities and projects.

The lesson is limited with activities and projects in convenient with the cognitive, affective and physical capacities of the student.

The lesson can be performed at any location (classrooms, workshops, museums, markets, etc) according to the character of the activities and the projects.

The materials of the lesson may differ according to socio-economical and the cultural conditions where the lesson takes place.

The lesson interrupted by a crier and the heard of "you have been rescued from the lesson" noise (sound of bell) is one of the most significant symbols of behavioral education model. Today, the same habit is seen to continue. However, the school bells should be considered as a habit that has completed its functions therefore should be dismissed in constructivist education. The lesson is a whole. The activity performed in the lesson should be considered as a process that has to go on until the activity is completed. In a two-hour lesson, the activity shouldn't be interrupted by the sound of bell. The activity during that two-hour lesson should be planned and performed regarding the slowest-the fastest student profiles. During that process, the student/students who finish the activity should be free to behave as they desire. This freedom may be leaving the classroom or doing something else. In order to perform this, the classrooms should have physical sound isolation. The sound outside will not disturb inside and inside will not disturb outside.

In the constructivist lesson, the matter that should be overemphasized is not teaching the learners definite and unfailing knowledge but showing them how to make a logical, analytic and interrogative interpretation. The students' gaining these qualifications is related to whether the teachers have these qualifications or not.

In the constructivist learning environments, the students should be encouraged to think and they should be helped to develop solution ways for the problems. Because, gaining various points of view in problem solving is important in the configuration of knowledge.

2.6. Teaching Strategies of Constructivism

According to Von Glasersfeld (1996), the best way to bring constructivism into the class is bringing topics, concepts and activities should be presented in the classroom as dialogs in which constructivism is explored. This is the directing function of the teaching. In this process, the teachers arbitrate. For effective teaching, teaching strategies from Williams & Burden (1997) Rosenshine ve Furst (1973) ve Brown and McIntyre (1992) state the following;

- The clarity of the presentation,
- The willingness of the teacher (enthusiasm),
- The diversity of activities during the lesson,
- The success-focused behavior in the classroom,
- The learning opportunity of the evaluation materials,
- Accepting and supporting the learned ideas,
- Lacking of critics,
- Motivating comment at the beginning and end of the lesson,
- Directing the answers of the learners (Rosenshine and Furst,1973)
- Creating comfortable and entertaining environment in the class,
- Gaining control in the class,
- Presenting the lesson in an interesting and incentive manner,
- Creating situations to make the learner comprehend the activity,
- Clearly explaining the learners what to do and what to succeed,
- Discussing the expectations from the learner,
- Helping the learners in difficult situations,
- Supporting the students to raise their expectations about themselves,
- Developing individual and experienced relationships.

(Williams & Burden, 1997: 47-8)

The teaching of learning strategies and their learning should be provided, cognitive and metacognitive strategies should be developed in constructivist foreign language classes. These strategies are intentional and target oriented. It can be defined as learning to learn (Williams & Burden, 1997; Eggen & Kauchak, 2001). The learner who is aware of these strategies and forms his own learning ways can be more autonomous and recognizing, moreover he can become self-acting in the context of participating the activities.

Foreign language skills are developed in this natural environment. It isn't easy to presuppose which skills the learner will bring to this environment, thus the way

the education will develop depends on that time, the relationship between the learner and the teacher and the emotional bond of learner with the topic and activity.

Adding the relationships between the teacher and the learner's participation to the experience is an important factor; verbal participation enables the student to form his own knowledge. However, the teacher should give opposite examples and create conflicts instead of making judgement in his relationships with his learners. Thus, the learner can benefit from the experiences while trying to overcome the real problems and difficulties. In this context, a learning culture which they can actively participate and include these characteristics in order to develop the aimed targets. In addition to this, they should be allowed to interrogate their own thinking processes, decide according to them, and change some aspects in this culture when necessary.

The aims in the constructivist programs cannot always be programmed externally and by the teacher, instead a pluralist, flexible and participative approach should be determined. The personal goals that the students will determine for themselves will be more meaningful and more motivating.

According to Solomon

(1995), constructivists are interested in the question of "How does the individual learn?" instead of "What should be taught?"

According to Lin(1998), the curriculum that can be valid in constructivist learning environments and developing metacognitive awareness can be listed as following.

1. Opportunities should be provided to enable the learners to evaluate what he knows.
2. The students should be able to express their own opinions.
3. The learner should be helped to internalize why and when they should use metecognitive aspects when the importance of creating a social environment in learning is considered.

4. As the learners, the students should configure the knowledge related to themselves.

The constructivist approach requires learners who are conscious, creative, searcher, and interrogator, knowing what, where and why he is learning and can produce his own technology. In constructivism, technology is used for effective learning, purposed learning, authentic learning and cooperative learning (Jonassen, Peck and Wilsom, 1999: 218).

1) Learning isn't a passive receiving of information but an active interpreting process.

2) Learning should be nominative.

3) Learning should be formed according to environmental conditions.

4) Learning is students-centered.

5) Learning is continuous. Following strategies are important in learning.

Drama

Project activities

Learning through designing

Learning through teaching

Cooperative learning

The students may benefit from these strategies while they are combining newly learned knowledge and the knowledge they obtained during their past lives (or configuring the knowledge).

Learning principles of constructivist learning

Greening emphasized on 6 learning principles that can guide constructivist pedagogy (1998).

1. Multiplicity (Diversity)

Learning should reflect the complicated nature of the knowledge that will encourage the multiple approach dimensions.

2. Activity

In order to provide an effective learning, activities such as finding problem, problems solving and separately testing should be performed.

3. Harmony

Harmony is a response to new lives related to existing intellectual structures.

4. Originality (Authenticity)

If learning is context sensitive, preparing an authentic learning environment is an important task of the educationalists.

5. Clarity (Resolution) (Articulation)

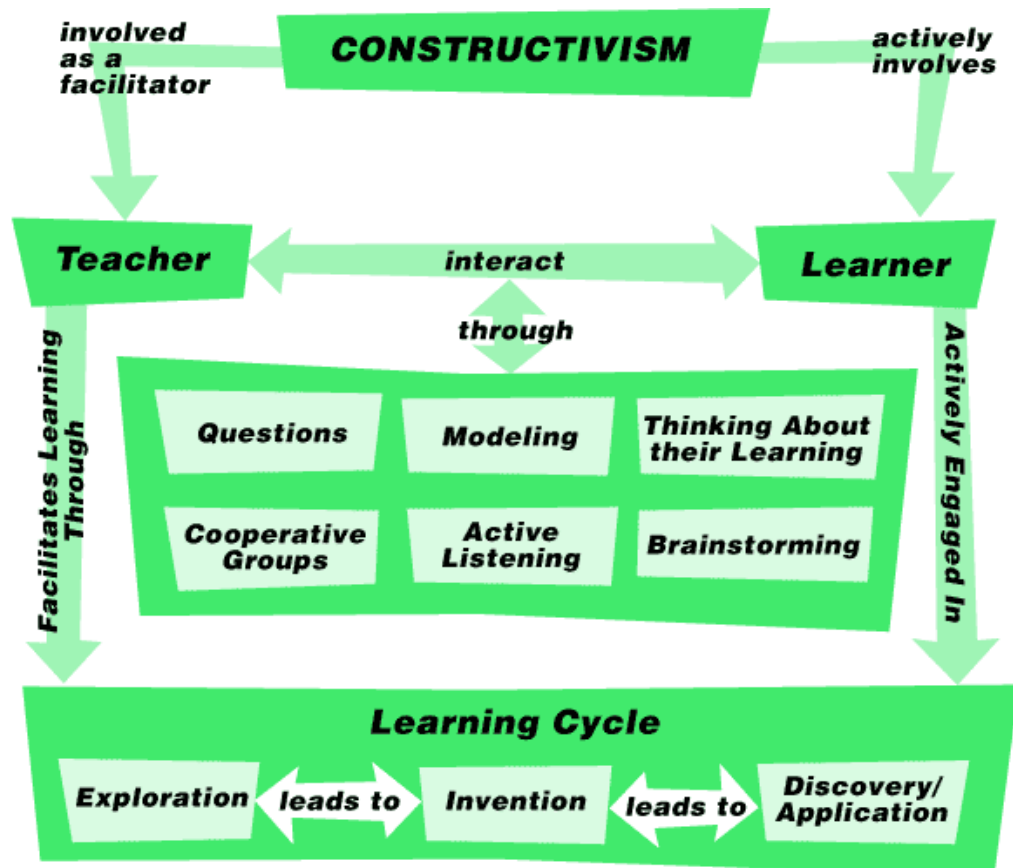
Cooperation is a common characteristic in constructivist approaches. There should be a successful student-student communication in a constructivist sensitive learning.

6. Indefiniteness (Termlessnes)

Learning process has more effects on learning products than the content. Cognitive processes are an important indicator of this.

Constructivist learning focuses on the student instead of the teacher. The student starts an interactive communication with the objects and events and gains the ability of comprehending related to the characteristics of these objects and events. In this way, the student builds his own conceptions and problem solutions. The autonomy and entrepreneurship of the student is accepted and encouraged in this way.

Lebow (1993) stated that traditional education technologies such as awareness, credibility, communication and control and 7 main values of constructivist approach such as cooperation, personal authenticity, productivity, reflectivity and activity were sharply controversial to each other.



Schema: Constructivism: The Teacher, Learner, Knowledge Circulation (Teacher, 2002)

Table 2: Constructivist Teaching Strategies Suggested by Bower and Lobdell

History Alive! Teaching Strategies		
Strategy	The Size of the group	Purpose
Interactive Slide Lesson	Whole class	Turns the lessons into a dynamic and participant experience
Building Social Working Ability	Couples	Working in pairs enables the students take fast steps and receive spontaneous feedbacks.
Experimental Exercises	Various	It combines the inter-personal intellect and enables the students feel the past events.
Problem solving group activities	Four or five	Inter-personal abilities should be used to solve rather complicated questions
Response groups	Three	Since all the students have chance to contribute, it enriches classroom discussions and develops critical thinking.
Writing for comprehension	Various	It enables the students write down all the knowledge of history they know.

(Kabaca, 2002)

Constructivist approach concerns with developing the abilities of the students besides learning-teaching activities.

2.7. Teaching Techniques Of Constructivism

Five principles that are most commonly accepted on constructivism are as following;

Directing students to interesting problems related to the topic,

Configuring learning through most common conceptions,

Revealing individual opinions of students and assign these opinions,

Changing the education program to appeal to the opinions of the students,

Considering the evaluations of learning in the context of education.

(Kaptan ve Korkmaz, 1999)

Bruner indicates that any education approach should have following 4 qualifications:

- 1) Make a sensation and spark towards learning;
- 2) A structure of knowledge that the learner can internalize the knowledge;
- 3) Finding best ways to present the material;
- 4) Benefit from awards and punishments for motivation.

(Can, 2005)

Moreover, the students are grouped and work on definite works in this approach. The researches exhibited that in-group activities increased the interaction among the students, provided the habit of collaborative work to them, helped students to develop positive attitudes towards the lesson and developed the feeling of self-confidence. This method that is very convenient for English lesson contributes the students to reach cognitive, social, and affective targets.

The student checks the previous knowledge he previously obtained while configuring new knowledge in his mind during the learning process. He determines what he knows about that topic. During the acquisition of new knowledge, he continues learning through observation, application, research, analysis etc. The teacher guides his student in reaching sources. In this process, the stories, articles and films that the student reached form the primer sources of knowledge for the student. The teachers, coursebooks and educational softwares are the secondary knowledge sources. Main teaching techniques of constructivism are as follows:

The students are made work in groups in which each of them takes on a definite task. Inter-group responsibilities may change by time and new groups may be recomposed.

During group works, the students are allowed to discuss the findings. Inter-group communication is provided in a democratic environment.

Learning is intrinsically controlled and maintained by the learner

Multi-dimensional symbols of the reality are provided;

The complexity of the real world is manifested;

Focused on forming the knowledge not copying it;

Real life and event-based environments are provided not predetermined learning organizations;

Authentic applications are supported;

Forming the knowledge through social agreement with cooperation is supported.

2.8. The Role Of Constructivism In Language Teaching

Social experiences, social knowledge and world knowledge, social opinions, common feelings and targets should be transferred more feasible and easier. Dewey states that transferring these concepts through cognitive processes with language styles and our symbolization ability is an important development stage for education. Symbolizing power of the language provides testing the experiences without living them.

The place of language in learning process can't be contradicted. When it is considered that the language is an important tool to provide communication, its contribution to learning can be seen (Vygotsky, 1978). Developing the people who newly join the society in order to provide the maintainability of the society is the most important task of the education. The society doesn't do it coincidentally but through its schools.

The conscience which the child develop through socializing is Vygotsky's another thought. The first words have purpose of communication while learning a language, and then they turn into internal speaking. Small children can be observed while they are talking themselves during their plays and they are acting as if they are

performing a task; this is called “internal speaking”. The more they grow the less they speak themselves and they separate this special speaking from talking to others. This internalized talking style functions as organizing and controlling the behaviours. Internalization process is called as realizing the difference between the abilities of thinking something and doing it. Development can be seen as the internalization of social interactions. From this point of view, Vygotsky and Piaget agree on that outer world is transformed or internalized into internal world of individuals and they form constructivist approach.

Just like Vygotsky; Bruner sees the language as “the most important tool for cognitive development”. Bruner researched how the adults intercede between them and the world to solve the problems of children. He specified this deliberate and moderator assisting talk of the individual while the children perform an activity as *scaffolding*. He determined that time is needed for language development and learning a new matter of the children. Routines and moderating assistance are two language using strategies that provide time they need.

Bruner thinks that the children construe their experiences in three ways; by using the activities, visual tools and the language. He has called them as activity (enactive), visual (iconic) and symbolization (symbolic). Learning in the levels of animating occurs as a result of interaction with things and materials. In the Visual (iconic) level, the things and visual images are presented; it means departing from real thing. The pictures are important since they compensate for the things but they can also be created freely. In the symbolization level, objects and mental images can be replaced with symbols and they can be used through symbols; here, language takes an important place since it symbolizes the world (Williams & Burden, 1997: 26). These levels may be one after another or they may occur at the same time. While the children are learning, dramas, games and real objects may be used in the activity level; in the visual level, pictures and colorful words, and in the symbolization level, upper characteristics of the language such as the language itself, intonation, stress and body language can be used within the context.

Complicated grammar is the most effecting activity of human mind with the size of its mental dictionary and multiple functionalities. It is almost impossible to reach a consensus during any discussion on language. Humanbeings has tried to explain the pattern of language throughout history; however, even today it is possible to find new characteristics about language. When we look at linguistics, a science that deals with language, we can see dissociated subbranches such as semantics, phonetics, syntax, and sentence and discourse analysis. It shows us that we can explain the language from which aspect we handle it. The complexity of the conception of language continues when the matter is how it is learned and how it will be taught. Is language an attitude or a cognitive conception or both? Numerous approachs have been developed on how the language is learned, the most effective ones are constructivist, behaviorist and cognitive theories; on the contrary, Krashen stated that the language wasn't learned but it was gained. The explanations about the language have continuously affected language learning, teaching and the applications related to this and is still in progress.

Among Humanist approaches, few methods were developed for foreign language teaching, they are SilentWay, Suggestopedia and Counselling Language Learning (Demircan, 1990). In the context of foreign language teaching, learning grammar patterns and words doesn't mean the learning of that language, it doesn't provide language ability. Moreover, developing the competition skills, processing language and developing strategies to develop learning abilities, being awara of language, reception and production of the language and forming knowledge are necessary for a successful foreign language teaching. These competences and skills are important for foreign language learning and teaching; they can be assessed in the context of autonomy of the learner. In this sense, constructivist approach has gone beyond the communicative method that was effective on foreign language teaching in the 80's. Moreover, with the development of learner's autonomy and his learning ability, communication and communicational methods are developed too. Besides, constructivist approach can bring new innovations to foreign language education.

Contructivism supports very important concepts in the context of foreign language such as directing learner and process and learner autonomy. Learning should

be regarded as an individual, effective and autonomous data-collection and processing mechanism; in such a process, the interaction between the previously obtained knowledge and new knowledge enables to obtain even produce new knowledge. Learning is a process which the learners actively form new knowledge over their old knowledge (Bruner, 1990). Language learning is transactional and effective processes where the learners form their knowledge through influentially explore among the sources. Such a process focused approach helps the learners understand the linguistic realities such as grammar patterns and words; moreover, it contributes to learning ability and awareness. The learners should be allowed to choose among the exercises and texts; in addition, they should be interrogated about why they made those choices. Thus, they should be aware that how they learn. Increasing the awareness among the learners is an important characteristic of constructivist approach.

Knowledge technologies have important impacts on the mental capacities of learners; they don't only affect knowledge structures but also affect their cognitive factors (Rüschhoff, **mentioned source**). Awareness on communicative competence, lingual, learning and strategic levels should be developed. Cognitive tools vitalize the learners to form and create the knowledge themselves instead of using knowledge previously internalized by others and support learners in realize the thinking ways. In order to provide the learners recognize how they think, activities and problems that will be meaningful for them should be provided (Jonassen, 2003).

The physical gaps between the language and its culture may be narrowed with the help of technology. Television, VCR, CD, computer and internet are the tools that can be used for this purpose. Directing the learners towards talking rooms and discussion forums that real language is used may help learners to get in touch with real language. Using internet sites and pages for data collection, development and production may be a fast and effective activity. Surfing the internet and discussion of them in class afterwards helps learners to form their world-view, reach to source of knowledge rapidly and effectively. The rich visual and audial contents of the internet may be used in foreign language lessons cheaply and rapidly. Performing some tasks in some internet sites such as registering, joining activities and playing games with

people in the other places of the world gives learners the opportunity of using the language in real situations. Besides, preparing their presentations in PowerPoint forms will provide students new apprehension about their thoughts and thinking ways; moreover, it will add the abilities of planning their own thoughts and being aware of it.

According to constructivism, another way to provide awareness is to develop inter-cultural awareness and make the students interrogate how they form their knowledge about other cultures through real texts and films from the other culture. Real communications may be obtained through the culture of foreign language. This way, the learner interrogates how he construed the world and the process he formed this knowledge; thus he reaches to a higher consciousness about himself. It enables him participate the processes and activities more effectively and more consciously. In order to provide the awareness, the teacher should present some realities to the attention of learners; the concept of attention intensifies the interest of the learners on important conceptions. It enables the the learners to consciously participate the activities. Learning a language is different from learning other topics; learning a new language includes learning the culture of another society. (Williams & Burden, s. 115.).

In the content of constructivism, foreign language education is a process which the teachers and learners continuously observe and evaluate themselves. In this process, the learners and the teacher recognize the factors affecting and forming their thoughts and behaviours. The aim in this process is the participants continuously see themselves in the process and analyze it. In order to asses this process, the learners and the teachers should record what they do and evaluate them. The teachers can collect the activities they perform in the classroom, the tools and equipments they use, lesson plans, homeworks, their thought about the process and results, thus they can evaluate themselves and the process they experience through concrete evidences. The learners also can collect the homeworks and their products they executed during the activities and the processes they perform, in this way, they can evaluate themselves and their successes, the point they reach. It can be assumed as creating a portfolio.

The learners may organize activities with their friends after the classes; they can work together and share the results during the lesson. In this way, the learner is supported in taking responsibility of his own learning process. In the context of constructivism, learning a foreign language is an activity of self-activating knowledge producer or former. The teacher of foreign language should support this process through real and complicated tools and equipments and direct the attention of learners on working together. Thus, the language that is foreign, the culture it symbolizes and strange sides of it become more common to learners. As well as meeting real tools and equipments in real world, the learners can make direct connections instead of learning through previously prepared units. In addition, the teacher supports the autonomy of the learners and their control on tools and equipments.

The learning activity should be within real contexts and reflect the thinking ways of real world. According to constructivism, learning a more productive learning will be supported through development of comprehensions related to the use of language in real contexts instead of the learners' memorizing the rules and list of words. The teachers develop real language problems in the classroom, guide the students in solving these problems and approach the discrete class environment towards real world. There is no single and definite answer for these problems, they reflect the complicated problems of the real world and prepare learners for it. He motivates learners to benefit from knowledge sources, supports working together and requires looking from numerous fields and points of view. As in the real world, it should necessitate research and using a definite period of time, should enable to produce more than one result and answer and direct sharing opinions and knowledge. During the experience of this process, students can learn listening and speaking, reading and writing purposively and effectively in a natural environment. They can learn to reach the knowledge they may need, use the sources of knowledge, find the terms they may have to use, the diversity of using language in real situations and using different symbolic systems together in a process of real conditions. Shortly, they form a comprehension related to the language as it is used in the real world.

The task of the teachers is to support and intercede on this topic; in the questions and answers to these questions the thinking process of the learners is aimed to control through following questions: *Why and what for?*, *What did you mean?*, *What do you mean?*, *How do you know it is true?* and *How did you understand this?* In this way, the learners are directed to ground their opinions more toughly by creating problems and producing reasons. At the same time, the learners should be leaded in asking question to themselves and interrogate the way they think. In the learning process, the supporter teacher should motivate learners for interrogation, critical equipments for research and exploration should be given to students. (Can, 2005: 88)

In the *Criteria for Common European Language*, published by European Union Office of Education in 2000, the student autonomy was especially emphasized. According to this, *Criteria for Common European Language* has two important functions: the first, providing learners concrete knowledge for the success of their experiences; the second, help the learners in making learning more transparent in order to enable them reflect and evaluate themselves, make them more responsible in their own learning, thus support the autonomy of the learner. Self-evaluation of learner and the evaluation of other are based on supporting each other, learning and cooperation. Besides, lifelong learning requires detailed learner autonomy. Although *Criteria for Common European Language* adopts an activity focused approach, the use of language and learning as follows (AODK, 2000: 19):

Use of language includes a chain of competences that conclude learning language, both general and communicative language competences and the activities that people as individuals or the representatives of a group. People use their competences with their behest through participating language activities including language processes at various obstacles, activating convenient strategies for succeeding the tasks to complete and in numerous contexts to create or take the texts related to the topics.

In this definition of *Criteria for Common European Language*, many aspects of constructivist approach are seen. For example, language learning means more than one competence; it is necessity of the principle of the constructivism which states that the

concepts should be evaluated through multiple points of view. To create the themes in the texts, participate the tasks, use the strategies, apply them in various contexts and this process was in the control of the learners were emphasized by the principles of constructivist approach. (Can, 2005: 105)

When we look at from the aspect of foreign language learning, we can see that constructivist approach has more than one characteristic. They can be summarized activity in teaching foreign language, learner, process-oriented and monolith language experience. Being process-oriented brings along the conceptions such as collaborative learning, actively participating to in-class activities and interrogation of the education. Being learner-oriented is focused on individualization of learning and autonomization of the learner. Being process-oriented requires awareness of interlanguages and intercultural. The monolith language experience presents the content-orientedness and real and complicated learning environments.

Basic principles of constructivist or structuralist foreign language education were given in the table below:

Activity-orientedness

Cooperative learning

Creativity in Classroom activities

Learning through projects

Learner-oriented learning: learning through teaching

Learner-orientedness

The individualization of learning

The autonomy of the learner

Process-oriented awareness

Awareness of learning

Awareness of language

Intercultural awareness

Monolith language experience

Content-orientedness

Real and complicated learning environment (Can, 2005: 149)

These tasks can be used to develop speaking ability. The meaning should head in speaking competences. General conceptions, the relationships of the objects with other objects or people can be used in the development of speaking competences. Speaking language forms a basis for other learnings too. Development of speaking competence enables some verbal competences to develop, thus active knowledge formation contributes to the acquisition of effective participation to other activities. The student tries to express what he means instead of how he tries to speak the language. The students who recognize the expression can develop the consciousness related to language used in the context, thus helps functionally using the language.

In the foreign language teaching process, time expressions are continuously experienced and these expressions differ according to the events and situations as the time passes. It shows that time expressions are important for construing language production and experienced events. The increase in the use of time expressions among the students is the indicator that conceptual knowledge increases among them. Time expressions describe the events that were experienced, are being experienced and will be experienced. The relationships among the times help their learning through classification.

In order to learn the time expressions, constructivist approach believes that the concepts such as discourse and content shouldn't be separated (Cameron, 2001). Time expressions should be learned within context and processes. According to constructivism, these structures tightly combine meanings and words in the contexts. Foreign language teaching should be used in real tasks without using technical and discrete names of the grammar. The learners should be able to effectively form these

structures in their minds in order to produce meaningful sentences and ideas. According to constructivism, structures of a language can be formed through cognitive processes. The use of a structure doesn't depend on the other. Any of them isn't more important or more difficult than others. During the formation of grammar patterns in the mind, the learners should actively participate such activities. The learner should be ready for this purpose, should be focused on the topic. For that reason, learning process should be meaningful and interesting for the learner. During the execution of foreign language activities, the air and the network of social relationships of the classroom is important too. An education process from discourse to grammar rules and structures means a more comfortable and productive learning position for learner. The teaching of time expressions should be carried out within other activities such as listening, reading, singing, recognizing, and presentation, using real tools and equipments, drama and using toys. Thus, they are acquired through real movements and activities instead of abstract rules. Grammar rules and time expressions within these grammar rules can be taught through knowledge-sharing, quiz shows, knowledge researches, questionnaires. The most important points during the formation of these activities is creating opportunities that the learner can continuously think, evaluate himself, chose, share with others and learn for himself. Thus, it is emphasized that constructivist learning is an individual and autonomous activity. According to constructivist principles, the teachers of foreign language see that the grammar rules and structures take place in tasks, activities, fables, stories, songs, poems and classroom talkings; he can organize various activities to put them forward and turn them into meaningful works.

Teaching foreign language through fables, stories and various narrations is a supported activity within constructivist approach. In the narrations, thematic and temporal relationships are symbolized as it is in the real language. At the same time, the narrations may help learners acquire the knowledge of target language's culture and being socialize in the target language since they reflect the culture of target language. The structural and temporal relationships of events the relations of individuals with their environment and the use of language in real contexts are richly found in the narrations. They give a monolith approach, present a rich intellectual and

imaginary world, set examples for creative language usage, and include events that can be evaluated from multiple points of view and present a world that every learner can individually deal with any side of it. The stories bring the real world and its language to the class; they allow the activities to be created around them. They give learners the opportunity to form their own thoughts, their knowledge about target culture and knowledge about foreign language, creating daily talks and creating rich and various sources of words. The narrations can be integrated to all abilities such as speaking, listening, reading, writing and playing. The general concepts such as discursive structures, temporal relationships, good-bad, success-failure, wealth-poverty and being employed-unemployed create rich sources for learner to understand the real world and interrogate the relationships in the real world. They give the opportunity to compare the culture of foreign language and his culture; from this point of view, it enables learner know himself and his culture better, interrogate himself and his culture, know the people in the other parts of the world, their attitudes, lives and traditions. They can help learners to see the factors forming himself and his way of thinking more transparently. They know lingual creation of other cultures and the characteristics and cultural values of his language better. For this, the teacher should be aware of it. The parallelisms, rich vocabulary usage, approximations, intertextuality, conflicts can create real problems for learners to solve. A rich source for constructivist language teaching may be formed through listening, roleplaying, story telling, combining the contexts in the narrations with other contexts, purposive and careful reading and using the events in the narrations (Bruner, 2003; Cameron, 2001).

Topic-oriented teaching and learning is one of the applications that can be suggested to foreign language teaching in the contents of constructivist approach. Diversity in the contents of the topics may bring learners multiple points of view and relationships among them. These topics create a relationship between the learner and the teacher. Besides, the learners can symbolize the relationships among the concepts given in the subjects through schemes in the content of general conceptions in the topic-oriented teaching, this helps the learners exhibit their opinions in schemes in this way. Thus, the learners can transparently see their way of thinking; furthermore, they can associate the concepts they already have and the concepts they newly encounter.

They can test their critical and creative abilities; they develop the competences in the class which they can use in their real lives through experiencing thinking process. Various language competences can be developed in the focus of topics. This exemplifies that an education can be given through topic-oriented education according to the principles of constructivism, thus we can conclude that the language can be taught in a monolith way without breaking into pieces. In this teaching method, the best way to follow in the frame of constructivist approach is choosing a topic, planning content and activities related to language. In the focus of topics, vocabularies, and communicative and intellectual competences may be developed.

The assessment that will be performed in foreign language classes within the learning period according to constructivist approach principles. The assessment should be regarded as opportunities for new learnings. For the assessment, the principles such as the participation in the activities during the learning process and finalizing the tasks to be performed should be determined. The assessment principles and the ways to perform them should be given to learners at the beginning of learning process. The learner may join the assessment process through evaluating himself; besides, he can evaluate others and other students in the class as a real group. The principles of assessment can be formed with learners through interrogation. The principles of assessment can be prepared with the help of learners; the results from self-evaluation of learners can be used for the formation of assessment principles. The principles should be determined from more than one point of view and as many ways as possible. Thus, the factors from the whole process can be evaluated. (Can, 2005:151)

Language learning occurs with the active participation of the child into the experience not through learning the way approaches work. Participation to the experience provides conjugately understanding and learning the nature of behaviours and their meaning. In addition to this, participation to the experiences enables learning the relationships between attitudes and meaning in the experiences and time and realizing the social and cultural nature. When the teacher gives his phone numbers and email address from the beginning, provides multiple ways for the

communication between the teacher and the learners, and they try to create these ways.

In order to see the effect of constructivism in language learning, all the students were given a paper-clip, they were given a definite time to make any figure. At the end of the period, the names of the figures formed by the learners are written on the blackboard and the learners are wanted to write stories in the content of these names. While the learners form the figures and write stories through working together showed that they can be used in lingual production.

In order to provide the learners see various functions of various grammar patterns, various text types were used. Among these text types, there are advertisement texts, stories, novels and songs. The learners were required to evaluate the differences and similarities among them according to grammar. The learners used strategies such as comparison, analysis and restructuring in such applications. In such applications, the learners developed metacognitive thinking styles. Moreover, classroom contexts were formed to use whole grammar patterns. The functions of grammar rules were discussed; thus, learners were expected to develop a flexible point of view towards English grammar. It is important for the learners to carry out their professions from this point of view, because they will teach according to the principles of constructivist approach. Especially real textx were used for each grammar topic. Articles or parts quoted from various magazines and books were used instead of subsequently produced or created texts. The function of grammar rules in these articles or parts were discussed. (Can, 2005: 153)

Recognizing grammar patterns in the texts the purpose and function they are used in the text were discussed with the learners and they were associated with lesson topics. In the end, the learners were asked to change the texts, develop and rewrite them through different grammar patterns. The inter-text relations of learners and the effects of grammar patterns to these relations were evaluated in this way.

One of the basic purposes in the lesson is prevent the learners from feeling bored. For this purpose, continuously new activities and discussions were organized.

When an association with the lesson was provided through various stories, questions and contemporary events instead of just beginning with the name of the lesson, an interesting start was obtained for the lesson. Such activities can be used to draw attention of the learner, make the lessons more attractive and create a more comfortable learning environment.

In order to draw the attention of learners and spark, continuously open ended questions that can be answered from many aspects were asked. The homeworks were in a form that can search the answers to these questions. For example, the questions of “Why are there regular and irregular verbs in English?” were aimed to answer. Through Why question that is common in these questions, the way learners may answer these questions in the future was discussed; moreover, a deeper comprehension was aimed to bring to grammar conception. (Can, 2005: 154)

Another application is the learners’s comparison of English grammatical structures and rules they learn with the ones in Turkish; thus, they form a more effective knowledge on their language. (Can, 2005: 154)

One of the principles of constructivist approach is using technology in constructivist classes. Technology was used for this application too. For example, laptop, reflector, CD-cassette player and tape-recorder were benefited to use visual materials and songs in some lessons. The learners stated that technology enriched the learning environment. Moreover, they concluded that they should be trained about how to use these tools after the applications. (Can, 2005: 155)

The general frame of Levi-Strauss’ approach is based on structural linguistics that Swiss linguist Ferdinand de Saussure set up its main principles. Starting out the ideas of N.S. Trubetskoy, one of the founders of Prague School and promoter of structural linguistics, Levi-Strauss emphasized the conception of subliminal infrastructures and he developed an approach that stresses out the relationships between terms instead of regarding each of them as a separate unit. Again, he based on the works of Roman Jakobson, another founder of Prague School that groups the differentiating aspects in the speaking sounds as animosities, he adopted the idea that

a subliminal superstructure occurred since human mind regarded objects as dual animosities. In the system of Levi-Strauss, human mind resembles a storeroom that contains numerous natural materials. The mind forms various structures through dual factors it chose from the depot; these dual animosities are separated into factors and new animosities are provided. (Erfidan, 2005: 26)

In students' correctly learning the conceptions, the language the teacher use in the classroom is very important. Teachers should be careful that the concept they use exist in the world of the student or overlap with the existing ones. When the teacher is asked about the answer of a question related to a approach or concept about any topic in the lesson and the teacher give the answer, the student stops thinking and they always expect their teacher give the answers. Namely, the roots of a ready-made user society are formed during the primary education. Considering that ready-answers might destroy the creativity of the students, the teachers should avoid ready-made answers, direct the students through questions and encourage them to find answers to those questions. However, it is difficult for many teachers to hide their ideas and their knowledge from the students. The reasons for it can be explained through these (Brooks ve Brooks,1999):

The teacher knows the correct answer and immediately shares it with his students. Thus, the students aren't forced to think.

Generally, the students are impatient. Some students, if they are on the wrong path, regard thinking about concepts that will direct them to the correct answer as loss of time. For that reason, the teacher feels a great pressure from the students to give the correct answer.

The teacher sees jnowledge as a power and use knowledge in controlling class. Thus they build authority in the class.

In many classes, "time" is an important problem. The curriculum has to be completed on time. For that reason, the teacher tends to give ready knowledge.

As it was mentioned above, social interaction is important in the configuration of knowledge by the students. Talking to others (especially with peers) helps in the explanation processes of knowledge. For this, the teacher should encourage students to talk and discuss, and continue the lessons in group or cooperative learning. The share of knowledge should be in the foreground and should be developed. A lot of questions should be asked to make the students talk and teacher should minimize his talking. (Howe, 2002). Whereas, the students ask to speak in the class, give short answers to the questions and talk whenever they are asked as if they are performing an obligatory task. Such an education carried out in the classes shows that the teachers act rapidly according to the curriculum. That situation doesn't help the students to configure new conceptions or show their deficiencies. Whereas, discussing with others at any topic reveals the thoughts of students related to the topic. During the interaction with the others, students explain their opinions and develop new skills. Learning occurs as a result of this interaction. (King, 1997).

The teachers use the method of asking questions more often than other techniques. However, 93% of these questions are found to require instant answers and they are questions that need lower levels of thinking to answer when the content of the questions is considered. (Martin, Wood and Stevens, 1998 by Martin and others, 1998). It can be explained as:

The questions asked by teachers can be used to investigate what is known, motivate the students, make researches and applications, help students to organize their thoughts, develop their thinking abilities, make interpretations, draw attention to an important point, show the relations, establish the reason-result connections, explore the fields of interest, provide revision (repetition), reveal the thinking processes, determine the learning difficulties and evaluation.

(Martin and the others, 1998).

The students should be asked questions that require reason-result multiple relationships. Because, such questions require senior level mental thinking (Howe, 2002).

What is the importance of waiting time given to the students after the questions are asked? If the students haven't memorized the answers, they will have to meaning

of the question. For this, necessary time should be given to the students. There are two types of waiting time:

Waiting time 1: The amount of time the teacher wait for the answers from the student

Waiting time 2: The amount of time after the students give their answers and wait for the responds of the teacher to their answer. (Ercan AKPINAR, Ömer ERGİN – Dokuz Eylül University)

2.8.1. The Role Of Teachers And Students in Constructivism

Teachers have definite roles in constructivist learning environments. The teacher isn't a person that transmits the knowledge one-to-one; he is the person who guides the students. The teacher needs a strong infrastructure and experience to direct the students and answer the questions (Ayas et al., 2006). The constructivist teacher tries to provide the development of conceptions, deep learning and create a dynamic learning circle instead of regarding targets, attitudes, and competences as the purposes of education. The characteristics of a constructivist teacher can be listed as following (Brooks ve Brooks, 1993; Zahorik, 1995; Holt-Reynolds, 2000).

1- In the process of education, the teacher has to primarily set the educational environment, prepare activities that students will actively participate and guide the students during class-hours; thus he should play a facilitating and motivating role. He accepts the autonomy of the student and encourages the student to make personal decisions.

2- He uses the raw data he obtained, the sources of data and education materials in interaction with each other and skillfully.

3- He provides the development of cognitive competences such as application, analysis, synthesis and evaluation while performing the activities and evaluations.

4- He describes the competences of the students from many aspects and determines what they have done or can do in the process of solving a problem.

5- He deeply researches the introductory information of the students before the education.

6- He encourages the students to interact with their friends and teachers during the learning process.

7- He encourages the students to research and ask questions to each other through thought-provoking and open-ended questions.

He enables the students to acquire experiences related to misunderstandings during the evaluation process, thus reorganize his old and new knowledges.

9- He gives enough time for answer after the questions are asked.

10- He provides necessary time to set a common idea and relationships between these ideas.

11- He considers evaluation as a learning process and acquires reliable knowledge using different methods and techniques.

12- He accepts widely application of conceptions and terms and harmonizes with truths and events as the foundation for the assessment.

13- He enables the students to configure the abstract theories and concepts and make generalization using concrete experiences.

14- He helps the students to give knowledge, competences and personal qualifications.

15- He works collaboratively with his colleagues in order to increase the quality of the education.

16- He interviews and cooperates with families in order to determine the developmental characteristics of the students, their feelings, opinions and abilities.

17- He considers the personal differences among the students while he is organizing educational activities and lesson plans. He pays attention to these characteristics during the application.

18- He supports active participation of students to the lesson, creates an environment of confidence in order to enable them express their feelings and opinions.

19- He frequently employs group works in the lessons, makes students work together.

20- He tries to train the students as individuals who are productive, creative, gives importance to the collaboration and cooperation, respects to national values and give importance to live and make the others live.

21- He uses various methods in the classroom.

22- He tries to reveal and support the natural curiosity of the students; he tries to increase their desire to learn through questions.

23- He considers feedbacks to provide students take lessons from their mistakes.

24- In the assessment and evaluation, he doesn't only focus on the products that appear after the activity but also the learning process of the students.

25- At the beginning of the lesson, he performs warm up activities to prepare the students to the presented topic, determines what they know and what they are interested in and new topic is shaped according to this situation.

26- In this approach, the teachers present questions and situations, then they guide the students to find their own answers. (Imagine that your child came to you saying that she lost her toy and failed in finding it and wanted you to find the toy for her. In this situation, you show the place of it if you know. Instead of this, you can do this too: ask your child where she last played with her toy and if she remembered or

not. Then tell her to look there. The child goes and finds the toy, if she can't find, you ask her where she might have left it. Thus, she checks the possible places each time and finally finds the toy). In such a situation, the child learns what to do whenever she loses her toy or something else.

26- The teachers should provide the students join the activities through doing-thinking.

In summary, a constructivist teacher should be broad-minded, contemporary, self-perpetuating, considering individual differences, providing convenient learning environments and learn with the students (Selley, 1999). Encouraging students active participation of the students to learning environment, provide the students associate their previous knowledge and new knowledge are among the tasks of a constructivist teacher.

A constructivist teacher should organize the knowledge around the main problem, establish confusion in the minds of the students, and draw the attention of the students. In this way, he should help the development of new ideas in the minds and provide more support to the relations between these ideas and the previous ones. Nevertheless, in this approach which integrates with student-centered activities, the teacher should make the student ask his questions.

According to the constructivist approach that defends that the students will construe new situations through their previous experiences and preknowledges, the teacher should guide in the development of the minds of the students and organizes suitable learning activities to enable the development of their competences. The teacher organizes the knowledge around conceptual problems and questions in order to draw the attention of the student. The teacher helps his students to form new ideas and combine their new ideas to their previous knowledge. The teacher focuses the attention of the students on wide concepts, and then these wide concepts are divided into pieces. The activities are student centered. The students are encouraged to ask their questions, make their own sentences, and reach their own results. Thus, the students form their own learning.

Like a construction engineer's determining the available materials; in an education which "the approach of learning through configuring in the mind (constructivist approach)", the teacher reveals what the students know is a based. The teacher determines what they should want to know about the topic, get answers to the questions they desire and they ask these questions. The teacher researches and reveals the conception fallacies in order to avoid the configuration of learning on a poor basis.

If the teacher doesn't search what the students know about the topic, the students may either repeat what they know or they try to configure the things they don't know on a different on a nonexisting basis. If the teacher starts out after researching what the students know and making necessary plans, the students will have a chance to establish a contact with their previous knowledge or establish a foundation for what they will learn in the future.

Like a construction engineer's making changes in order to eliminate the differences when the base and building aren't concurrently with each other, a teacher should change his plans, should organize activities to answer the needs of the students and help them configure their new knowledge related to the topic. These organizations may cause stay away from the points in the unitary plan and spend more time; however, the students' configuration a strong base in their mind becomes definite.

In order to satisfy the students' curiosity, the education strategies can be frequently changed. According to Yager (1991), significant aspects of the roles of teachers in a constructivist learning environment can be listed as following:

- Allow the students direct the lesson, affect the teaching methods and change the content of the lesson.
- Provide students lives that they can discuss with their existing knowledge. Being one of the sources that students benefit, not the primary source of knowledge.
- Encourage the students to ask questions and make thought-provoking discussions through open-ended and thought-provoking questions.
- Encourage the students to be autonomous and entrepreneur.
- Allow students express their opinions clearly.
- Give the students time to think after the question is asked.

- Encourage students to use alternative sources of knowledge.
- In order to increase the cooperation, use collaborative learning strategies.

Yager (1991)

A constructivist teacher should have initiative in planning the program to be used. Since constructivist approach is student-centered, a constructivist teacher consider that the previous knowledge and experiences, interest and desires, learning styles and speeds of the students are completely incident to them. The teacher asks questions to attract the students' attention and make a sensation in them. They may be the problems from real life, the questions that conflict with their past experiences. In this way, the teacher appreciates the situation in order to determine what they know and what they think about the new conception they will learn. The students start to think on the topic and form their own questions. Plans are made to investigate the answers to these questions such as "How did it happen?", "Why is it so?" and "What do I know?"

The students use different sources of knowledge and make researches through cooperative work. The teacher encourages the students to work collaboratively with minimum help. He observes, listens to them and asks questions in order to make them think deeply.

The students try to explain and identify the concepts in the guidance of their teacher. The teacher leads the explanations and analysis of the students considering their previous experiences; adds new conceptions if required and helps them to develop new competences. The teacher compares the meaning of existing concepts with those of other fields and forms new conceptions. For this, he asks new questions to the students. They apply the newly learned concepts or the ways to solve the problem in new events.

The teacher provides the knowledge sharing between the groups, analyzes the students who can apply new conceptions and competences, he tries to explain the changes in their attitudes through assessing their knowledge and competences.

From now on, the students can multidimensionally use the knowledge they obtain in their lives through configuring in their mind. They can make connections between their lives and newly learned conceptions.

The teacher's guidance to the reconfiguration of the students' internal knowledge through arousing suspicion and organizing activities in the class is a strategy of teaching through configuration in the mind. This means the teacher should create an environment of class which will stimulate the students to research. In such a class, there are numerous materials that students can use while they are researching. The most important of them is the computer environment that students can benefit.

For successfully motivation of the learners by the teacher:

He should be aware that the motivation is a complex process,

He should be aware of the location and maintenance of the motivation,

He should discuss the reason of activities with the learners,

He should give learners the opportunity to choose,

He should give the learners opportunity to determine the purposes of learning language,

He should accept learners as individuals,

He should provide learners feel sure about themselves,

He should develop the instriect opinion in the students,

He should help learners to develop a competence-oriented style,

He should provide instriect motivation,

He should create a supportive learning environment,

He should give feedbacks that contain knowledge (Can, 2005: 162)

In the constructivist approach, the aim of the teacher is make the learners use the foreign language in real situations as many as possible. The learners who are aware of the functions of discourses and language will be more comfortable in their mutual conversations; they will be able to functionally decide to lengthen or shorten the conversation. Moreover, this may help them to recognize the thoughts of other people. This can develop their classroom and social communications.

Moreover; being aware of textual discourses will their competence of reading in foreign language. Various narrations, definitions, descriptions, instructions, opinions are types of communication with discourse characteristics. The learners can develop comprehension of bigger contexts from smaller parts of contexts, besides the notion that the students can maintain the communication and their comprehension through some clues should be imposed to the learners and they must be shown that the lingual patterns and words they learn can be used in numerous contexts. In order to learn the discourse characteristics of foreign language, the learners can watch or see the use of language through films and various programs, most common daily sentence patterns, structures and words can bi directly given; the language used by the teacher may be pure and exemplifying, besides this special and directive class language can be developed by the teacher and the learner during the process. The teacher may form the use of language around important structures, develop a special communication between the teacher and the learner, the structures and vocabularies can be changed and made complicated during the process.

Beginning from the early ages; people form their own subjective meanings for vocabularies. We have our personal transmissions even for the vocabularies and concepts that are common for everybody. The constructivist approach supports this idea. Words symbolize the objects, grammar patterns may become usable thanks to vocabularies. A stage is formed to learn the vocabularies, formation of new knowledge and new learning.

The teacher may design the deficitly configured problems so skillfully that the student can incidentally reach the solution ways of targeted situation. Thus, the teacher turns into a person who organizes the experiences and facilitates the exploration of the students instead of giving the knowledge. In other words, the teachers don't simply distribute the knowledge and rules but accelerate and facilitate the students to form new knowledge (Dubs, 1993). (Türk Eğitim Bilimleri Dergisi Güz 2007:609–635)

In the constructivist approach, the teacher isn't the person who transmit the knowledge but who guides the students in forming the knowledge in their mind and use it.

A constructivist teacher configures the lseons around great ideas not small pieces of knowledge. First of all, he exposes the students to the whole of the knowledge. He helps the students to determine the convenient pieces when they dissociate whole knowledge. Namely, deductive method is adopted as a teaching method. The students are assessed through their activity within the lesson. (Ekinci, 2007: 74)

In this process, the teacher plays a role of organizing the learning environment and consultancy. The essentiality in this approach is learner's activity and his configuring and making sense of what he learned through his existing knowledge.

The roles of student in constructivist English teaching can be listed as following (İşman et al., 2002):

In the constructivist learning, the personal characteristics the learner should carry are being combative, curious, and patient. The learner researches, explores, creates, interpretes and configures trough interacting with the environment. Thus, they learn both content and process at the same time.

The students try to reach the correct knowledge through discussing the knowledge they learn within the group without help of the teacher via collaborative learning.

In constructivist English learning every student is responsible from his own learning. They decide what to learn and not to learn themselves and perform learning through group or individual activities.

During the students generate solutions to the problems they encounter, they benefit from the knowledge obtained through the researches instead of using the ready knowledge.

The students may reach the knowledge via technological developments as well as in the classroom, books or school. They share the knowledge they obtain and they perform peer learning.

The individual is selective, constructive and effective during the learning process. The constructivist learners actively participate the learning environment and they take more responsibilities. They make their own decisions. The important thing in learning and teaching is individual freedom.

Among the personal characteristics that should be in a constructivist learner are being combatant, curious, entrepreneur and patient. The learner continuously wonders; he researches so long as he wonders. While the curious learner is more motivated, he researches deeply, analyzes the knowledge, solves problem, asks critical questions, makes comparison, interprets, discusses what he finds and defends what he interprets entrepreneur learner with his entrepreneur identity. (Demirel, 2003: 85)

The learners configure the knowledge through researching, exploring, creating, interpreting and interacting with the environment. Thus, they learn both content and process at the same time.

As quoted from Yurdakul (2005), the learner is accepted as an arbitrator in deciding what and when to learn and how to form the learning in constructivism and a person who decides his own learning needs and actively participate in deciding how to answer these needs. (Ekinici, 2007: 93)

D.C.Philips (1995) describes three roles for the student in constructivism:

1. Active Students: Knowledge and comprehension somehow occurs.
2. Social Students: Knowledge and comprehension is socially configured.
3. Creative Student: Knowledge and comprehension are formed by the individual himself

(Perkins, 1999).

Constructivist learning is a deciding period which the learners obtained through his competences, instincts, beliefs, attitudes and experiences. The individual selective, constructive and effective during the learning process. The individual has the control of learning. He directs learning with his teacher. Previous lives of the learners, learning styles, their points of view and readiness levels are the factors direct their learning. The learner makes his own decisions (Brooks ve Brooks, 1993: 10).

The individual asks critical and constructive questions through using his mental autonomy in order to effectively take part in the learning process; he gets into touch with other learners and the teacher and discusses the ideas. The individual contributes the development of other individuals through his deductive questions in the learning environments (Lin et al., 1996: 211).

In the constructivist learning environments, the individuals who discharge the responsibility are expected to be entrepreneur, express him, communicate, critical thinking, planning and using the obtained knowledge in life (Marlowe and Page, 1998: 32).

As a result, these aspects of constructivist learning may lead to developments in the field of education. First of all, these aspects are expected to rescue the students from passivity, turn them into the individuals who can think and solve the problems. Since the individuals are directed to think instead of memorizing without knowing and using the ready knowledge, their cognitive aspects develop; thus, the learner sees learning as a mysterious world to be explored not a high wall that is impossible to cross over. This increases the motivation of the learners and directs them to new learning activities.

2.9. The Characteristics Of A Constructivist Class

The education environment where constructivist approach is applied, require individuals take more responsibilities and be more effective during the learning process. Because, mental configuration of factors to be learned are performed by the learner as it was stated previously. For that reason, constructivist learning environments are organized to allow people interact with their environment, thus give opportunity them to have a rich learning life. Thanks to such educational environments, the individuals have the opportunity to riddle the knowledge they configured previously, correct their mistakes even replacing previous knowledges with new ones abandoning the old ones.

In the constructivist foreign language classes, performing tasks may require various characteristics. These characteristics may need cognitive, lingual, transactional, upper-lingual, physical and effective participation. During the performance of these tasks, mother tongue may be used in some parts. However, the most important qualification of the task is the learners should focus on meaning and explain the meaning rather than structures. Basic aims of learners and teachers should be language and thinking about the language. These tasks should be convenient to their social, physical, experimental and intellectual developments. Unity, continuity, focusing on the meaning and targetsi with a definite beginning and end, providing the active participation of the learner are among these tasks.

The teachers in the classrooms which were formed according to constructivist approach:

Saves students from object-real-correct oriented curriculums and help them in focusing on general concepts;

The learners are encouraged work according to their interests, reformulize their thoughts and reach their unique results;

They share the notion with learners that the world shelters multiple points of view, it is the network of complicated relationships and the truth is only the matter of interpretation;

They accept that teaching, learning and assessment procedures are complicated and are difficult to apply (Brooks & Brooks, 1999).

Characteristics of Learner-oriented Classes

Activity in the Class: Interactive

The Role of Teacher: Participant, sometimes student

The Role of Learner: Participant, sometimes expert

The Load of the Lesson: Relationships

Acquisition of Knowledge: Interrogation and invention, transformation of knowledge into new ones

The Indicator of Success: Quality

Measurement: According to Criteria

Use of Technology: Communication, Participation, Access to Knowledge
(Can, 2005: 153)

The Class Environment with Constructivist Approach

The curriculum is presented from whole to the part through stressing out main concepts.

It is important to follow the questions of students.

The applications of program are built on the first sources of data and materials based on manual skills.

Students are regarded as philosophers who can make theories about the world.

Teachers are in an interactive attitude that intercedes between students and knowledge.

Teacher looks for the point of view that students can use the current terms in the following lessons.

Learning is evaluated through teacher observations while students perform the given tasks.

Students basically make group works. (Ekinici, 2007: 115)

Brooks ve Brooks (1993) set up a few principles that are base for a constructivist class. They are:

Presentation of problems in a way the attract the attention of students

The configuration of learning around basic concepts: the search for the core

Assignment to the ideas of students and search for it

Application of curriculum to determine the hypothesis of students

Deal with the assessment of learnings in the content of education

Constructivist classes should be:

The curriculum is presented from whole to the part through stressing out main concepts.

Observation of students' question is very important.

Teachers generally behave in an interactive manner through organizing the environment for the students.

In order to use in the following lessons, teachers try to reval the students' points of view through enabling them comprehend their present opinions.

The assessment of learning was regarded in the content of education. It is done through the observation of teachers while students are working.

Principally, students work in groups.

Program activities are especially based on primary sources of data and ready-to-use materials.

Students are regarded as individuals who experience the events in an environment.

The primary principle in a constructivist class is the educational is cyclic not linear. Furthermore, the education requires going to the pieces from the whole (deductive method) not from pieces to the whole (inductive method).

Constructivist Classes:

The education program emphasizes important patterns, the progress is towards pieces from the whole.

Emphasizing the questions of the teacher and directing them according to these questions is important.

The activities in the program are based on primary sources of knowledge and student materials.

The teachers generally behave in interactive mode and try to develop a personal comprehending among the students.

The evaluation of learning is within the teaching and is executed through the teacher observation to the works of students.

Students generally work in groups.

The students are regarded as philosophers who can theorize related to the real world.

The evaluation of the students is within the teaching process, it occurs as a result of the students' works, their portfolios and the teacher's observation during the activity of the students.

One of the principles of constructivist approach is creating real problems that the learner can relate with the learned things. When the learners enter the class, they aren't generally interested in the topic they will learn. The relations with the topic and the interest to it can be provided through teacher. The concern to the topic can be created (Brooks & Brooks, 1999; Dewey, 1966; Bruner, 1971) .

Appreciating the learners' point of view means bot being aware of it and making attributions to it. Recognizing the ideas of others supports relativeness, facilitates multiple thinking method, and accepting the existence of others prevent assuming one thing true without thinking. Listening the opinions and points of view of the others has great importance. Listening to others is one of the characteristics of constructivist learning. In constructivist classes, the developmetal levels of learners are considered.

Another application supported by the constructivist approach is using technology in the classes, as it was mentioned before. According to Tezci and Gürol (2001): "In constructivist education designing, technology provides forming the knowledge by the students in solving problrm through collaborative processes, existence of knowledge in more meaningful contexts and correlating learning with the experiences of the students."

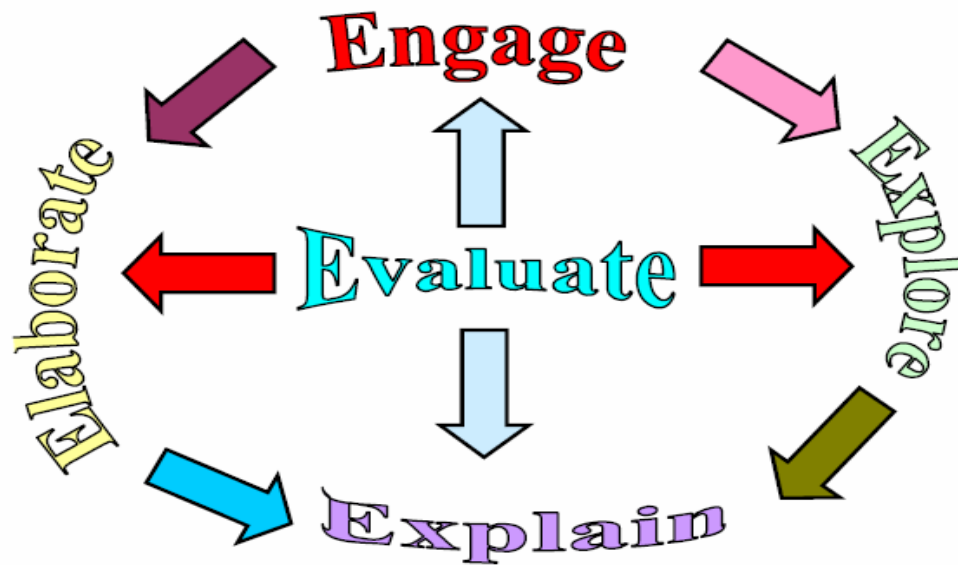
As Tezci and Gürol quoted (forementioned work) from Laney: "The use of technology in constructivist approach is effective in defining the problem, configuring the information, solving the problems, and developing high level thinking competences that include convenient solutions."

2.10. 5E Model

Numerous researches have been carried out on learning approach and constructivist philosophy. The researchers such as Jean Piaget, Eleanor Duckworth, George Hein and Howard

Gardner deeply investigated these ideas. In the leadership of Rodger Bybee, BSCS (Biological Science Curriculum Study) team developed a teaching model which they called 5E. In order to form 5E model, Bybee worked with the other education researchers. (<http://www.bscs.org>). According to these researches, the best way to connect students to learning is 5E Model. BSCS 5E Model developed in 1980's is the best of these programs. First of all, the students are made to participate in a short activity discussion, thus they are enabled to make connection among the conceptions in this model. Afterwards, the students develop the concepts and their common experiences with other conception. In the explanation, the teacher guides the students in developing a conception for the terms they are exploring. In the broadening-deepening stage, the students broaden the concepts they comprehend or apply the things they learn into new situations. In the evaluation, the students and the teachers, have the opportunity to test whether the conceptions are understood or not (<http://www.miamisci.org/ph/pintro5e.htm>).

5E Model is a method with parallel aspects to the contemporary theories related to how people learn and mostly planned for English education. It is a useful method that facilitates learning and creates opportunities in English education. It has five sections. These five sections aren't independent from each other.



In 5E Model, discussion of a subject was divided into five stages and sections were formed to explain to the students. Basic strategies in 5E model were listed below:

First of all, students should comprehend and list the terms he knows about the objects. They should see the terms related to the events, terms.

The students should be exposed to the conceptions in higher levels than they already have. For example, they should be exposed to problems, new situations, conflicts, paradoxes and puzzles.

The problems and situations that will challenge the students, but will be able to solve should be chosen.

The students should be allowed to tell their expressions or own conceptions to the other students.

While the students are struggling with the conceptions which they fall behind or conceptions they misunderstood, their first explanations will be accepted and then they will be suggested other expressions about the events they fail to understand. This will give the students and idea about the conceptions they don't understand and finally provide them their own expression.

5E Model is based on a constructivist interpretation. In this model, the students, reknow, relearn, are reorganized, think and alternate their first expressions which they had conceptualized. They do this through their interactions with their environments, class activities and their own experiences. The learning individuals interpret the conceptions and events they learn, they make their interpretations through the conceptions in their repertoires. For that reason, it is always possible to alternate the conceptions they learn or take them further, show them that their current knowledge is insufficient and change what they know.

5E Model is an education model based on Piaget's theorem. 5E Model is an education concept which is decisive, ambitious and constructivist. It is a practical and applicable model with structurally temporal stages that can be applied to constructivist approach. . it encourages experimental learning, it performs this through motivating and taking the attraction of the students. So long as the students are encouraged, they join the high level thinking process. However, the application of 5E Model doesn't mean that they will not instinctively and automatically deal with the content. It allows the teacher to develop practice in configuring the environment and it also allows the students to develop critical thinking based and analytical relationships between themselves and topics to be learned. In this context, 5E Model is a model assisting and organizing, configuring potential learning experiences systematically and regularly and divides into time. 5E Model is a framework for the teacher (Boddy, et al., 2003).

Here are our topics that form 5E model.

2.10.1 Engage

The purpose for the ENGAGE stage is to peak student interest and get them personally involved in the lesson, while pre-assessing prior understanding. During this experience, students first encounter and identify the instructional task. During the ENGAGE stage, students make connections between past and present learning experiences, setting the organizational ground work for upcoming activities. NASA eClips™ are designed to ENGAGE students. Through discussions, the videos may be

used to uncover students' prior understanding. The video format arouses students' curiosity and encourages them to ask their own questions.

2.10.2 Explore

The purpose for the EXPLORE stage is to get students involved in the topic; providing them with a chance to build their own understanding. In the EXPLORATION stage the students have the opportunity to get directly involved with phenomena and materials. As they work together in teams, students build a set of common experiences which prompts sharing and communicating. The teacher acts as a facilitator, providing materials and guiding the students' focus. The students' inquiry process drives the instruction during an exploration. Students are actively learning through inquiry-based science instruction and engineering challenges. Emphasis is placed on: Questioning, Data Analysis and Critical Thinking. NASA eClips™ help students EXPLORE new topics on their own. Through self-designed or guided exploration students make hypotheses, test their own predictions, and draw their own conclusions.

(<http://www.nasa.gov/audience/foreducators/nasaclips/5eteachingmodels/index.html>)

2.10.3 Explain

The purpose for the EXPLAIN stage is to provide students with an opportunity to communicate what they have learned so far and figure out what it means. EXPLAIN is the stage at which learners begin to communicate what they have learned. Language provides motivation for sequencing events into a logical format. Communication occurs between peers, with the facilitator, and through the reflective process. Once students build their own understanding, they may use NASA eClips™ to help summarize or EXPLAIN their own ideas. These segments introduce vocabulary in context and correct or redirect misconceptions.

(<http://www.nasa.gov/audience/foreducators/nasaclips/5eteachingmodels/index.html>)

2.10.4. Elaborate

The purpose for the EXTEND stage is to allow students to use their new knowledge and continue to explore its implications. At this stage students expand on the concepts they have learned, make connections to other related concepts, and apply their understandings to the world around them in new ways. NASA eClips™ segments help students EXTEND and apply what they learned to new and unfamiliar situations.

(<http://www.nasa.gov/audience/foreducators/nasaeclips/5eteachingmodels/index.html>.)

2.10.5 Evaluate

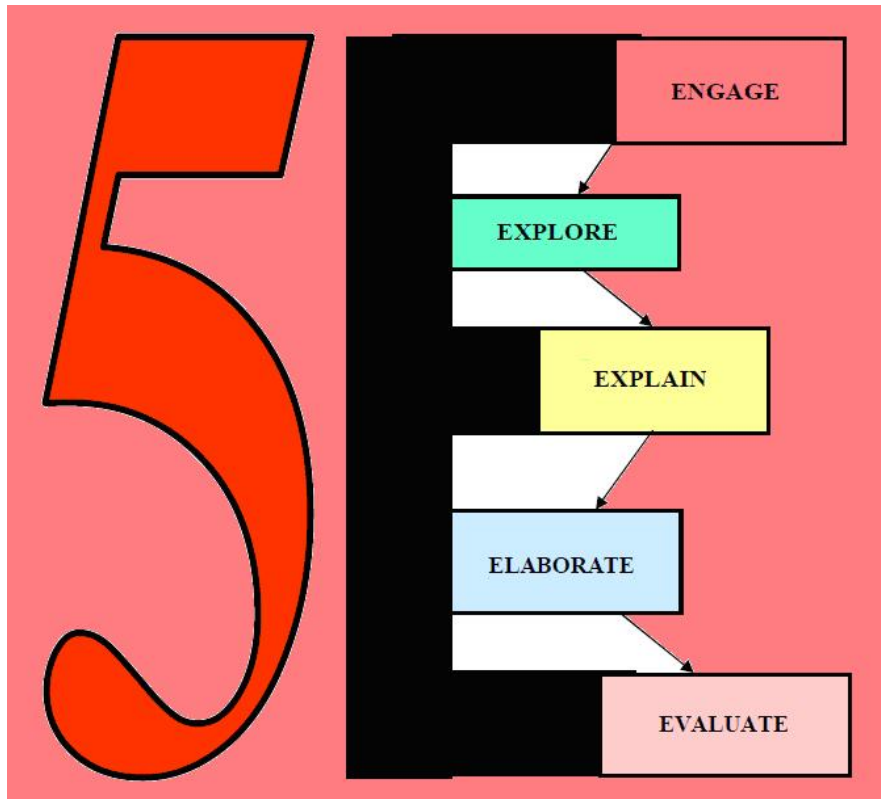
The purpose for the EVALUATION stage is for both students and teachers to determine how much learning and understanding has taken place. EVALUATE, the final “E”, is an on-going diagnostic process that allows the teacher to determine if the learner has attained understanding of concepts and knowledge. Evaluation and assessment can occur at all points along the continuum of the instructional process. Some of the tools that assist in this diagnostic process are: rubrics, teacher observation, student interviews, portfolios, project and problem-based learning products. Video segments can be used to determine students’ depth of understanding. Students will be excited to demonstrate their understanding through journals, drawings, models and performance tasks.

Beginnings stage to reveal the previous knowledge of the students and a final stage to assess the comprehension levels of the students were also added to 5E learning cycle. (Kıldan ve Temel, 2007: 49)

Table 3: The Aim and Type of Evaluation in Every Stage of 5E Model

Stages	The Aim of Evaluation	Type of Evaluation
Engage	Determining misunderstandings and activating the previous knowledge	Can be as group discussion, conversations, keeping a diary.
Explore	Finding how students work individually and in groups. Determining their way to solve the problem	It can be through observation of the student, deepening questions, discussions or written essays.
Explain	Evaluating conceptual comprehension.	It can be through formal tests, maps of concept, conversations, debates or solving new problems.
Elaborate	Evaluating the application of conceptual comprehension to new situations	It can be through applied works in the laboratory and solving new problems
Evaluate	Deciding the effectiveness of the education	It can be through formal evaluation designed to determine whether teaching unit reached its targets or not.

(Kabapınar et al., 2003).



5E model that is commonly used in constructivist approach includes activities that provokes the curiosity to research, answers the expectations related to the topic and actively uses knowledge and competences. 5E model includes the students to the activity at every level; it also encourages the students to establish their own conceptions. 5E model is a linear process that aims the learning of a new concept or comprehension of the previously learned concept. In the studies related to 5E model, it was found that the model increased the success of the students, provide their conceptual development and changed their attitudes in a positive way (Bayar, 2005; Sağlam, 2006; Kör, 2006; Özsevgeç, Çepni & Özsevgeç, 2006; Özsevgeç, Aydın & Çepni, 2006).

Some literature researches give results that support this work. In a study, Sağlam (2006), found that student guiding material that was developed according to 5E model significantly increased the success and attitudes when compared to the controlled group. Moreover, it was seen that the experimental group students joined the activities through taking more responsibilities. In his study Kör (2006), he concluded that the guide and material he developed for 5.th grade students according to 5E model were

effective in the learning of new conceptions and eliminating the delusions and constructivism based teaching made students more active. (Özsevgeç, 2007: 143)

It was seen that the teaching of the content of guiding material according to 5E model and its application style had positive effects on the students and increased the participation of the students to the lesson. Moreover, it was also seen that the students performed group works and peer learning occurred. In Bayar's study (2005) it was determined that learning activities prepared according to 5E learning model enabled students to do the events one to one and developed collaborative learning among the students. Gürses (2006) found that cartoons, pictures, attractive activities and connections to the daily life which is included into the materials prepared according to 5E model increased the success of the students. At the same time, alternative evaluation techniques such as games, puzzles that are used in the evaluation stage attract the attention of the students and affected their learning positively. The results obtained from the studies of Bayar (2005) and Gürses (2006) support the results of this study. Despite the fact that an application for active learning was executed, the excitement, motivation and willingness at the beginning turned into vapidness by the time. The dynamism in the school environment caused students get bored. It is thought that our teacher centered education structure and the students aren't accustomed to an environment which the teacher isn't so active have been effective in this result. (Tuncay ÖZSEVGECİ – İnönü University) Accordingly, the things students should do and shouldn't do can be given as in the table. (Trowbridge, et al, 2000)

Table 4: What Students Should Do/Shouldn't Do According the 5E Model

Phases of 5E Model	The Students Should Do	The Students Shouldn't Do
Engage	Arouse necessary interest for the topic. For example, he should ask questions such as <i>Why did it happen like this? What do I know about this? What can I find related to this?</i>	Always ask for the correct answer and be insisting about this, show only one solution.
Explore	He should freely think within the limits of the activity, but should test hypothesis and assumptions, should form new hypothesis, alternative plans, should try and	Ask for other people to think deeply about the topic, but he won't think. Want to work solely without the cooperation of

	discuss with other friends, should record the observations and ideas, always avoid from judgement.	others or want to play with the available ideas and topic materials without any purpose in his mind.
Explain	Explain the solutions and answers to other friends as often as possible. Observe the explanations of the other students in a critical point of view, always interrogate the other explanations, try to understand and listen the explanations of the teacher, refer to previous activities, make recorded observations while some body explains	Make irrelevant explanations to the previous experiments or ideas and always tell meaningless, irrelevant experiments or give examples, always accept the ideas without any references and not listen to other relevant explanations
Elaborate	Apply new qualifications, new definitions, new explanations and competences into similar new events. Interrogate previous knowledge, answer questions, and use previous knowledge to make various decisions. Use previous knowledge to make experiments, make logical conclusions from the evidences. Record the observations and explanations; check whether every concept was understood by the friends.	Wander around aimlessly doing nothing, refuse any previous knowledge or evidence, accept the ideas without any references and conclude about them. Conclude solely through the qualifications of the teacher
Evaluate	Always answer open-ended questions using observations and evidences, show the conceptions and competences through previously accepted explanations, evaluating competences through using the internal change, development and knowledge. Ask relevant questions for future interrogations, encourage other friends.	Arrive at instant decisions, arrive at conclusions without any references or ignoring the previous explanations. Give only answers such as yes or no or express what they have memorized, accept their expressions as the answer and explain less, suggest new but irrelevant topics with his own words.

In the activities that will be executed according to 5E model, the things that teachers and students should do can be tabulated as following. (Ergin, 2006: 99)

2.11. 5E Model in English Teaching

In the modern English teaching, a meaningful thing may turn into meaningless in the future as a result of technological developments. The students should develop competences that they will benefit and shouldn't end up suffering harm. They need to fight with problems and challenges they are exposed to, besides creative and complicated thinking. These competences are called top level thinking competences too. They are sometimes called critical thinking abilities. He includes 5E model teaching and learning method that is based a constructivist philosophy into top level thinking abilities, because this model encourages exploring, interrogating and experiencing. He does it to reveal the ideas the students previously interpreted, the students are encouraged to share their experiences with others.

First of all, the students come up the task of learning, and they make connections between their past lives and present lives. Asking questions, defining a problem, expressing an interesting event draws that attention of the student and helps him to focus on his learning based task. In the following table, we can clearly see a presentation that includes 5E model and the one which doesn't

Table 6: What the Teacher Does in 5E Model Lessons

PHASE	What the Teacher Does That is:	
	Consistent with the 5E Model	Inconsistent with the 5E Model
ENGAGE	□ Creates interest □ Generates curiosity □ Raises questions □ Elicits responses that uncover what students know or think about the concept/subject	□ Explains concepts □ Provides definitions and answers □ States conclusions □ Provides premature answers to students' questions □ Lectures
EXPLORE	□ Encourages students to work together without direct instruction from the teacher □ Observes and listens to students as they interact □ Asks probing questions to	□ Provides answers □ Tells of explains how to work through the problem □ Tells students they are wrong □ Gives information or

	redirect students' investigations when necessary ☐ Provides time for students to puzzle through problems ☐ Acts as a consultant for students	facts that solve the problem ☐ Leads students stepby-step to a solution
EXPLAIN	☐ Encourages students to explain concepts and definition in their own words ☐ Asks for justification (evidence) and clarification from students ☐ Formally provides definitions, explanations, and new labels ☐ Uses students' previous experiences as the basis for explaining concepts	☐ Accepts explanations that have no justification ☐ Neglects to solicit students' explanations ☐ Introduces unrelated concepts or skills
ELABORATE	Expects students to use formal labels, definitions and explanations provided previously ☐ Encourages students to apply or extend concepts and skills in new situations ☐ Reminds students of alternative explanations ☐ Refers students to existing dataand evidence and asks "What do you already know?" ☐ "Why do you think.....?"	Provides definitive answers ☐ Tells students they are wrong ☐ Lectures ☐ Leads students stepby- step to a solution ☐ Explains how to work through the problem
EVALUATE	☐ Observes students as they apply new concepts and skills ☐ Assesses students' knowledge and/or skills ☐ Looks for evidence that	Tests vocabulary words, terms and isolated facts ☐ Introduces new ideas or concepts

	students have challenged their thinking or behaviors □ Allows students to assess their own learning and group process skills □ Asks open-ended questions, such as “Why do you think...?” “What evidence do you have?” “What do you know about x?” “How would you explain x?”	□ Creates ambiguity □ Promotes open-ended discussion unrelated to concept or skill
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(<http://txessrevolution.org/drupal/files/5Es.pdf>)

CHAPTER III

METHODOLOGY

3.1. Introduction

The goal of this study is to find out whether teaching tenses through constructivist approach based 5E model will result in better than teaching tenses through traditional techniques.

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

3.2. Research Design

The study was carried out at Abidin Saniye Erçal Primary school in the second term of the 2008-2009 year.

As seen in Table 1 research design, the materials used in this study were a pre-test, a post-test, two stories, two power point presentations and four worksheets. All the testing and teaching materials were prepared and conducted by the researcher himself throughout the study.

Table 7: Experimental Design

<u>Subjects</u>	<u>Pre-test</u>	<u>Sessions</u>	<u>Post-test</u>	
Experimental Group	- a grammar test - 40 grammar questions	Each session: - a story from the internet - a power point presentation - puppets	- a grammar test - 40 grammar questions	
Control Group	- a grammar test - 40 grammar questions	Each session: - two worksheets	- a grammar test - 40 grammar questions	

In order to test the hypotheses of the study, an experimental and a control group were formed. The experimental group (class 7A) was comprised of twenty-five students. Similarly, the control group (class 7B) was comprised of twenty-five students. The study started at the very beginning of the second term. Therefore, the subjects were at late elementary level after having studied in the first term *Spot on 7* coursebook.

Next, a pre-test was administered to both the experimental and the control group in order to determine their knowledge of the target tense. The pre-test was applied by the researcher in regular class hours on the first of March. The duration was forty minutes.

Prior to the experiment, four stories were selected. Within these stories , sixty five items were selected and turned into a multiple choice test having four options. To ensure the test's reliability, the test was piloted to fifty seventh-class students at Zeliha and Lütfi Kulluk Primary school. According to the results of the reliability test, the number of stories was reduced to two and the questions to forty. As a result, the test of simple past tense involving forty questions were formed and the same test was used as a pre-test, and post-test throughout the study (Appendix A).

Treatment materials were implemented in four sessions (one hour=40 minutes a day) on the same day for four consecutive weeks in March. It should also be noted that each session covered the same sets of grammatical items for each groups.

3.3. Subjects

The subjects for this study were fifty elementary students at Abidin Saniye Erçal Primary school during the second semester of 2008-2009 year.

The instruction is carried on March. Since the study required two classes- one experimental group and one control group- two classes were selected for the study. The classes had almost the same level. For that reason, they were selected as the subjects so as to carry out a feasible study. The classes were at the elementary level.

These students were between the ages of 15 to 16. They had similar social and educational backgrounds. They receive 4 hours of English per week at school.

There were 11 girls and 14 boys in the experimental group, whereas there were 9 girls and 16 boys in the control group.

The researcher conducted the study himself on class7A (experimental group) and class 7B(control group). Therefore, he could have the chance to claim the difference of the instruction in the experimental and the control group for the principle of objectivity.

3.4. Materials

The materials used in this study were a pre-test, a post-test, two short stories from the internet, two power point presentations, puppets and four worksheets.

The multiple choice test, which was used as pre-test, and post-test throughout the study, involved forty questions covering the target grammatical items(see Appendix A). Multiple choice test type was deliberately chosen since it is more appropriate to test the recognition aspect of knowledge of simple past tense.

The materials used with the experimental group during the teaching process were two short stories from the internet and two power point presentations. Biographical stories were thought to be appropriate for the study. The stories include: Mozart and Einstein. These stories and the power point presentations were chosen as their level were appropriate for the students and there were very useful new tense structures for the students. Also, the story, the power point presentation and puppets were funny and interesting, so they could motivate the students and make the lesson enjoyable. (Appendix F) The story activities are presented in Appendices B, and C.

The materials used with **the control group** during the teaching process were two worksheets (see Appendix D), one of which included ten isolated sentences covering the target structural items. The others included grammar exercises related to the target tense. The subjects in the control group were expected to change the

sentences into simple past tense and do the exercises with the help and the control of the teacher, who used mother tongue in both sessions in order to explain the meaning of the target structural items.

All the testing and teaching materials were prepared and conducted by the instructor himself throughout the study.

3.5. Data Collection Procedure

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

3.5.1. Before the Study

The experiment was carried out at Abidin Saniye Erçal Primary school in the second term of the 2008-2009 year. Of the two classes, class 7A and 7B were selected as the control group and experimental group.

For the preparation of the study the first task was the selection of the stories. After the selection of the stories, sixty five target grammatical items were selected and turned into a multiple choice vocabulary test. The test was piloted to 52 students to ensure the test's reliability. According to the results of the reliability test, a story was determined to use and the grammar test involving forty questions were formed. The same test was used as a pre-test, and post-test throughout the study (see Appendix A).

The next task of the study was to prepare ten isolated sentences and ten exercises in order to apply to the control group. These sentences had the same target grammatical items with the story.

The final task before the teaching process was applying the pre-test involving 40 questions that tests the target tense which is to be taught in the following week. It was applied to the both groups in regular class hours. The duration of the pre-test was forty minutes. The aim of the pre-test was to determine the subjects' knowledge of the target tense. It also formed baselines for the results of the post-test. The post-test followed the same content and procedure as the pre-test.

3.5.2. During the study

The teaching process took two weeks. It had two sessions for both the experimental and the control group. The duration of each session was 80 minutes. Each session covered the same sets of grammatical items for each groups.

3.5.2.1. Experimental group

In each session of experimental group (class7A) the instructor taught target tense through two stories, two power point presentation and puppet. The teaching methodology of target tense for the experimental group can be summerized as follows:

Pre-teaching stage:

- The teacher asks some warm-up questions about the subject of the stories to create a need and motivation on the side of the students to analyse the stories.
- The teacher shows some pictures to introduce the new subject

While-teaching stage:

- It lasts about eighty minutes.
- Students read the stories on the internet in groups twice and match the sentences with the pictures making use of the clues.
- They make roleplay activities by using puppets to bring variety and thus increase motivation.

- Then, they discuss their guesses within groups about the grammatical structure of the stories in discussion forums. They brainstorm their ideas about the end of the stories.

- They do exercises and then use the sentences in the speaking activities. During this activity the teacher tries the students to discuss among them and he encourages the students to find out their own answers by themselves.

- After that, the teacher checks the groups' answers and asks open-ended questions to the students with puppets.

- Then, the students are handed out the full form of the stories.

- In order to end the session, students and the teacher tell the stories to the class which provides grammar consolidation and makes students use the target grammatical items as well.

- At the end of the session, the teacher enables the students to make connections between what they have just learnt and their own lives.

This lesson plan was also applied to the other story in the other session.

3.5.2.2. Control group

In each session of the control group (class 7B), the instructor taught simple past tense in isolated sentences and exercises through two worksheets. According to the lesson plan, the teacher used only the mother tongue in each session. The teaching methodology of the simple past tense for the control group can be summerized as follows:

- The teacher teaches simple past tense by using traditional approach in mother tongue.

- The teacher distributes the worksheets.

- First of all, the students read the first sentence to see how the target tense is used in the target language.
- Secondly, the teacher translates and explains the target tense to convey the meaning in the mother tongue.
- Then, students translate the sentences and write them down.
- Thirdly, the teacher corrects the students' mistakes and asks them to write the correct sentences and tells them to learn these sentences by heart.
- The teacher asks the students to memorize the past form of the verbs.
- Then , the teacher asks the students to fill in the blanks with the given verb forms and correct the mistakes in the sentences.
- Finally, at the end of the session, the teacher asks the students to write their own sentences, and he controls them. He corrects the wrong sentences of the students without giving them opportunities to correct their own mistakes.

The same procedure was also followed in the other session as well (appendices D, E).

3.5.3. After the study

After the teaching process, three weeks after the pre-test, the students were required to take a post-test having the same questions with the pre-test to see whether there was a meaningful difference in teaching and learning the target tense between the experimental and the control group. In other words, the post test results of the groups were examined to see if the experimental group will score significantly higher than the control group.

CHAPTER 4

DATA ANALYSIS

4.1. Restatement of the Purpose

This study sought to discover whether there would be greater grammatical gains for the 7th grade students who were taught target tense through using 5E model based on the constructivist approach compared to the students who were taught the same target tense by using traditional ways.

To realize the purpose stated above, the scores of the students both in the experimental and the control groups were computed and analyzed. In the evaluation of the results the first step was calculating the number of the correct answers for the pre-test. In other words, according to the distribution of 50 target grammatical item within the test, the correct number out of 50 questions was calculated. Each correct answer was given '2' point. Therefore, the maximum score on the pre-test was 100 points. After having raw scores of the pre-test the same process was applied to the post-test since they included the same grammar test related to target tense (Appendix G).

On getting all the raw scores, the means and standard deviations for both groups on the pre-test, post-test were calculated. Next, the mean scores of the groups were compared by the application of Independent Sample tests. Independent Sample test was applied in order to compare and explore the differences within each group. All the results were compared at the '0, 05' level of significance. The software used for the data analysis was SPSS (Statistical Package for Social Sciences), version 10.00.

Consequently, the statistical analyses of this study were carried out in two stages; pre-test, and post-test. All the results were presented in detail in the following sections of this chapter.

4.2. Analysis of the Pre-test Scores

The pre-test was administered to the both groups on the same day. The table 2 in the following indicates the mean scores in the pre-test of the groups. The mean scores of the groups in the Pre-test were compared by using Independent Samples t-test as shown in Table 3. The Figure 1 shows the scores of the students in both groups in the graphic.

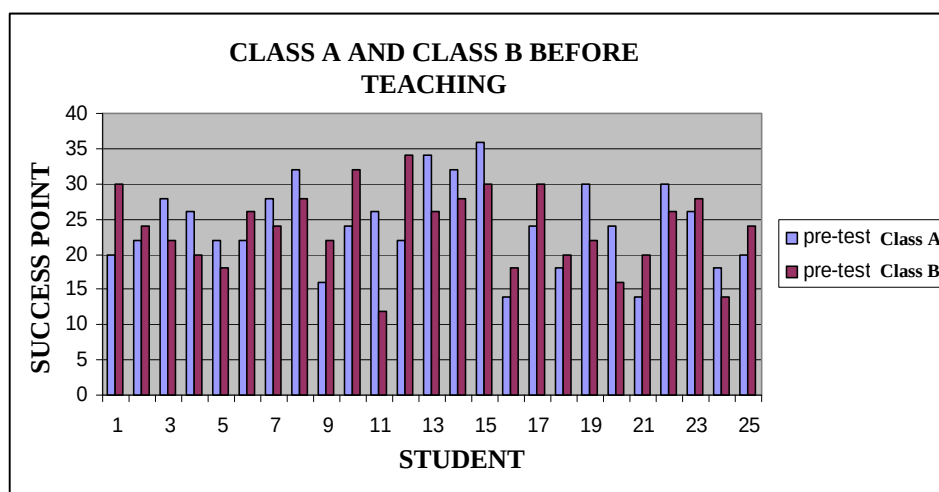
Table 8: Pre-test Mean Scores Of The Experimental And The Control Group

Group Statistics					
GROUPS		N	Mean	Std. Deviation	Std. Error Mean
Pretest	EXP:	25	24,3200	6,01886	1,20377
	CONT.	25	23,7600	5,66627	1,13325

Table 9: Independent Samples Results For Experimental And Control Group's Pre-test

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Pretest	Equal variances assumed	,071	,791	,339	48	,736	,56000	1,65328	-2,76414 3,88414
	Equal variances not assumed			,339	47,826	,736	,56000	1,65328	-2,76445 3,88445

Figure 1: Pre-test Scores Of Groups



4.3. Interpretations and Discussions of the Pre-test Results

The mean score of pre-test in the control group is 23,27 out of 50; the mean score of pre-test in the experimental group is 24,32 out of 50. Comparing the mean scores of the two groups through an independent samples t-test as shown in Table 3 we do not see a significant difference at a confidence level of .0.5. This means that the mean score of two groups are highly close. That is to say, there is not a significant difference between the pre-test scores of experimental and control groups.

The comparison of the mean scores of pre-tests of both experimental and control groups showed that they were more or less at the same level of proficiency in terms of tense knowledge. All students were asked to answer a Pre-test consisting of 50 questions in order to test the tense knowledge before the instruction. Those multiple-choice questions aimed to test whether the subjects had known the target vocabulary beforehand or not. When the scores were compared, the comparison showed that the groups were similar concerning their English target tense knowledge levels.

4.4. Analysis of the Post-test Scores

The post-test scores of the two groups were compared after the instruction. The post-test was administered to the same groups after the teaching process of the target tense. The mean score of the post-test received from both control and experimental groups showed in Table 4. The mean scores of the groups in the Post-test were compared by Independent Samples T-test and the results were shown in Table 5. The Figure 2 shows the scores of the students in both of the groups graphically.

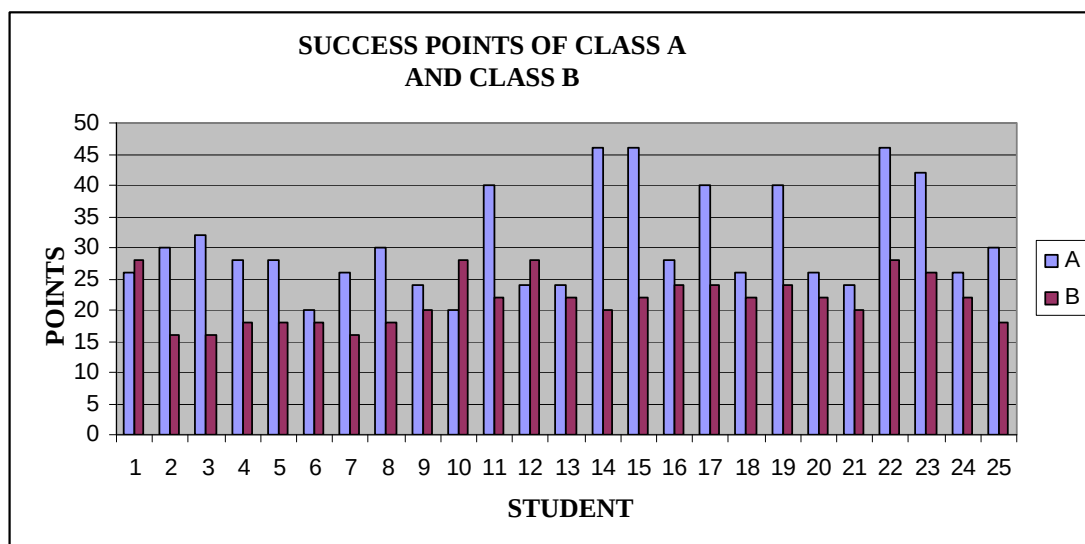
Table 10: Post-test Mean Scores Of The Experimental And The Control Group

Group Statistics					
grup		N	Mean	Std. Deviation	Std. Error Mean
puan	A	25	30,8800	8,24783	1,64957
	B	25	21,6000	3,91578	,78316

Table 11: Independent Samples Results For The Experimental And The Control Group's Post-test Mean Scores

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
puan	Equal variances assumed	13,283	,001	5,082	48	,000	9,28000	1,82603	5,60851 12,95149
	Equal variances not assumed			5,082	34,296	,000	9,28000	1,82603	5,57023 12,98977

Figure 2: Post test scores of groups



4.5. Interpretations and Discussions of the Post-test Results

The post-test mean score of the control group is 21,60 out of 50; while it is 30,88 out of 50 for the experimental group. The scores that are compared through an independent samples t-test as shown in Table 3 shows that the difference appears significant at a confidence level of .05. In other words, in terms of the mean post-test scores of the groups there is a significant difference.

After the instruction, however, the post-test scores revealed significant differences between the groups. The students in the experimental group did better than the students in the control group. When the scores are compared it is pointed out that the ones who were instructed the target tense through 5E model based on

Constructivist approach were more successful than those who were taught the target tense with traditional methods.

CHAPTER V

CONCLUSIONS

5.1. Introduction

This Chapter involves a discussion and interpretations of the results presented in the Chapter IV. It also includes a brief description of the pedagogical implications and suggestions for further studies.

5.2. Discussion

This study was mainly aimed to analyze grammar teaching and learning regarding 5E model based on Constructivist Approach. So, it was conducted to determine which method for grammar instruction was most beneficial: learning simple past tense through 5E model based on Constructivist Approach or through traditional techniques. Two groups, each including 25 students, were taught the same selected 50 grammatical items through different methods.

In order to implement this study a pre-test was administered to the groups before the instruction and the results were compared using Independence Sample Test. The analysis of the Pre-test scores of the groups indicated that there is not a significant difference between the experimental and the control groups, that is to say the groups were equal to be compared in terms of the target tense. In the learning process, students also made a great variety of activities. They participated actively in instruction. In this strategy, in the first phase of cycle called “engagement”, students are asked several questions. Here the purpose of teacher was to activate students’ prior knowledge. In the exploration phase, the teacher asked a question for students to explore the phenomena by themselves. In two phases, the teacher let the students to discuss with their friends. In this learning environment, students tried to make connections between the new concepts and the existing ones.

In the explanation phase, the students tried to make a connection between their existing knowledge and the target tense. They analyzed, interpreted, and predicted

information. By this way they constructed knowledge actively, instead of receiving it from the teacher passively. Teaching and learning was an interactive process that engaged the learners in constructing knowledge. In the elaboration part, students applied the newly learned concepts into new situations. Evaluation and assessment of students' knowledge is made through the instruction. In the evaluation phase students are asked several questions. So the teacher had an idea whether the students gained the simple past tense or not.

On the other hand, in the control group where traditionally designed grammar instruction was used. In the light of the results obtained from analysis, it can be concluded that traditional instruction is less effective than instruction based on 5E model. There may be some reasons. The traditional instruction was teacher –centered that is the teacher transferred his thoughts and meanings to the passive students. The teacher provided information without considering students' prior knowledge and checked whether students have acquired it or not. The students were not given any opportunity to develop their thinking , reasoning and communication skills. They only received the teacher's truth while he was teaching. On the other hand, in 5E model based instruction students were actively involved in the learning process and constructed their own knowledge. This might be caused the difference in the test scores .in traditional instruction versus 5E model based instruction.

After the instruction given to the groups in two different ways, the Post-test was administered to the groups. The results indicate that both groups performed better after instruction. However, the experimental group performed significantly better on the post- and the retention tests than the control group.

To summarize, the results indicated that the use of 5E model based on Constructivist Approach in teaching a new tense has a positive effect on the students' learning. Therefore, the findings of the study confirm the two hypothesis mentioned before. Namely, it has been statistically proven that there is a significant difference between the scores of the students who learnt the target tense through 5E model based on Constructivist Approach and the scores of the students who learnt the target tense in a traditional way. So, these results support the ideas discussed in review of

literature in that 5E model based on Constructivist Approach offers a great benefit in terms of grammar learning/teaching.

The results also indicated that when students are interactively engaged in tense learning through 5E model based on Constructivist Approach aided instruction rather than involved in traditional method, they learn more from the former. As the instructor observed, 5E model based on Constructivist Approach brought variety to the lesson and that variety ended in motivation which caused maximum participation. That atmosphere in the class was enjoyable both for the teacher and the students during the target tense teaching process. That is to say, 5E model based on Constructivist Approach has a greater influence on learning than traditional approach.

In short, this study showed that 5E model based on constructivist approach is an effective teaching strategy . On the contrary, traditional approach does not seem so effective in developing students' understanding of simple past tense. By using this teaching strategy, better acquisition of simple past tense could be observed. 5E model is useful not only improving achievement but also they help students construct their views about English.

Consequently, the results of this study has confirmed the validity of the researcher's assumptions that learning the target tense through 5E model based on Constructivist Approach is an effective strategy which positively contributes to the learning of the target tense.

5.3. Pedagogical Implications

Several pedagogical implications can be offered by the findings of this study to EFL teachers, teacher trainers, and curriculum designers. Since 5E model based on Constructivist Approach is a rich source of authentic input and communicative skills that all students who study a foreign language need, it provides a rich source of learner-centered teaching. Therefore, this study suggests that 5E model based on Constructivist Approach can be integrated into any language teaching syllabus, If teachers use different activities in the classroom with 5E model based on

Constructivist Approach, it will bring an extra quality to the teaching process. For this purpose, a lot of different grammar exercises can be used for the students who have different proficiency levels.

Students learning English as a second language need to do more than memorize the rules of the tenses. Therefore, teachers shouldn't stick to certain grammar teaching methods and activities. They should be familiarized with the current techniques and apply them in the class. That is, they should be open to innovations in the field and encourage the students to develop strategies for dealing with new tenses.

Students should be aware of the different learning strategies. The traditional teacher-centered techniques, preparing verb lists or other classical tense teaching methods should be given up since they create a kind of unwillingness on the part the students.

The teaching process should be learner-centered. The teacher should give students chances to communicate , participate in the activities and also discuss their experiences. They should be encouraged to participate in pair work and group work. So this causes students to have more positive attitudes towards English as a school subject.

The students should be encouraged to communicate in the lesson. They should be motivated to take part in the communicative activities such as role-plays and group works. They should be stimulated to use their bodies as communication tools. These activities increase their comprehension skills and enhance learning. As a result their understanding will be improved.

The visual materials such as power point presentations, internet, and puppets should be used in grammar teaching because of the fact that they include visual stimuli and visual source for the language.

Various techniques related to 5E model based Constuctivist Approach can be used together in grammar teaching. Because variety makes learning easier and faster,

helps for better and longer retention and enhances understanding. Therefore, the learning experience should include opportunities to explore, engage, explain, elaborate and evaluate.

5.4. Suggestions for Further Studies

This study was limited by several conditions; therefore, the following points can be beneficial for further studies:

- Due to the limited time, this study involved only twenty-five students in four weeks time. Further studies can be done in a longer time period and number of the students can be more than twenty-five in both of the groups in order to have better statistical results.

- This research was done on the late elementary level students at Abidin Saniye Erçal Primary school. Further researches can be extended to students of other levels so that the results of the study would be generalizable to a broader field instead of confined to a single language proficiency level.

- This study only focused on the grammatical aspect of the language. Thus, the communication aspect of the language can be taken into consideration in further researches. The students can be asked to talk and communicate by using their prior knowledge.

- The techniques for teaching tenses through 5E model based on Constructivist Approach can be further developed or new techniques can be used in further researches.

- The contribution of 5E model based on Constructivist Approach to learning and teaching pronunciation of words can be examined.

- Also, more than one school can be involved in further studies so that comparison of the results could be achieved.

5.5. Conclusion

As can be seen, there are many reasons for using 5E model based on Constructivist Approach.

5E model based on constructivist approach provides critical thinking and bringing up independent individuals and it puts forward questioning problem, solving and enterprising.

5E model, which is used mostly in constructivist approach, is comprised of the activities which arise the students't curiosities, answering their expectations about the subject and involving active usage of skills and knowledge.

5E model based on constructivist approach involves the students to the activities and encourages them to comprise their own concepts in every step.

It is a linear process which tries to teach the new concept or to try to explain the known concept deeply. 5E model based on constructivist approach increases the students ' success and provides conceptual developments and changes their attitudes towards English positively.

In conclusion, it is hoped that this study highlighted the importance of using 5E model based Constructivist Approach in the EFL/ESL classroom to aid the teaching of grammar.

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APPENDICES

Appendix A

Pre-test, Post-test

1- I at home last night.

- a) was b) were c) did d) am

2- She happy yesterday evening because her father was ill.

- a) weren't b) didn't c) isn't d) wasn't

3- Ahmet yesterday and his father so angry.

- a) smokes/ were b) smoked/ were c) smoked/ was d) smoked/ did

4- Mehmet and Hasan are here now. But they in Ankara yesterday.

- a) are b) was c) did d) were

5- I sleep last night so I am sleepy now.

- a- didn't b- wasn't c- weren't d- am not

6- Ayşe visited us

- a- tomorrow b- now c- always d- two days ago.

7- He a long letter to his grandfather last night.

- a- writes b- is writing c- wrote d- has written

8- Necla is 21 but she 20 last year.

- a- was b- does c- were d- is

9- Edi and Būdū can speak English very well because they to England last year.

- a- go b- went c- gone d- are going

10- Aliye was happy because she money from the lottery.

- a- won b- win c- wins d- did win

11- Did you lesson?

- a- studied b- study c- studying d- studies

12- When I was in my bed, I something strange

- a- feel b- fell c- felt d- am feeling

13- he invite you to his party?

- a- Did b- Was c- Does d- Is

14- When I her , She sad.

- a- see/ were b- saw/ is c- saw/ was d- see/ was

15- Once upon a time there a little old man.

- a- were b- did c- is d- was

16- Atatürk in 1881.

- a- dies b- die c- dying d- died

17- On July 20th, 1969, three American astronauts on the Moon for the first time in history

- a- land b- landed c- lands d- are landing

18- A- Where..... you two hours ago?

B- I at hospital then.

- a- was/ were b- were/ were c- did/ was d- were/ was

19- I study lesson. Instead , I football.

- a- didn't/ played b- did/ play c- didn't/ play d- did/ played

20- Wolfgang Amadeus Mozart in 1756 in Salzburg, Austria, as the youngest of a very musical family.

- a- were born b- did born c- was born d- is born

21- She washed the dishes evening.

- a- last b- yesterday c- tomorrow d- ago

22- In 1913, Arthur Wynne from Liverpool the first crossword puzzle in the newspaper, New York World.

- a- published b- publish c- was publish d- did publish

23- Atatürk the founder and the first president of the Republic of Turkey.

- a- were b- was c- did d- didn't

24- Before he to school, he his homework.

- a- goes/ did b- went/does c- went/did d- go/ did

25- I a student 8 years

- a- was/ ago b- was/ before c- were/ ago d- did/ last

26- Bekir the house and then his friends.

- a- cleaned/ invited b- cleans/ invited c- clean/invite d- cleaned/ invite

27- She was 7 years old when she to school for the first time.

- a- went b- is going c- goes d- will go

28-- you play basketball when 15?

- a- Could / were you b- Can / you were
c- Could / you are d- Could / you were

38-Gönül is in Ankara now but she in Konya four years ago

- a- lived b- lives c- is living d- live

39- I don't like smoking now but years ago I smoking.

- a- like b- likes c- liked d- was liked

40- Okan didn't to work anymore.

- a- wanted b- want c- wants d- wanting

41- Mehmet his sister but she..... him.

- a- calls out/ wasn't heard b- called out/ hears c- call out/ didn't hear d-called out/ didn't hear

42- Where Cihan last weekend ?

- a-did/ go b- was/ go c- did/ went d-was/ went

43- The princess the frog and the frog..... a group.

- a-kisses/ turned into b- kissed/ turned into
c-will kiss/ turn into d- kissed/ turned into

44- When I the light, I..... afraid.

- a- saw/ was b- see/ were c- see/ was d-did see/ was

45-Hadise so ill during the Eurovision competition so she..... very badly.

- a- is/ sings b-was/ sings c-was/sang d-were/ sang

46- Neşet Ertaş was born in Kırşehir and to play saz there

- a- learns b-is learning c- will learn d- learnt

47-I amazed when I this flying craft above our heads

- a-was/saw b- were/see c-was/ did see d-were/saw

48- Girls long dresses a long time ago but today they usually short dresses.

a- wore/wore b-wore/wear c-wear/ wear d-wears/wear

49-Zeki the guitar loudly so our neighbours about him.

a-played/ complain b-play/ complained

c-played/complained d-plays/complained

50- I a student 8 years ago but now I a teacher.

a-am/was b-was/ was c-am/am d-was/am

Appendix B

Story 1

Mozart

Wolfgang Mozart was born in 1756 in Salzburg, Austria, as the youngest of a very musical family. His father was a musician.

When he was four, he could pick out tunes on the keyboard by himself. At the age of five, he could compose his own music. At the age of six, he could learn himself the violin. At the age of seven, he could play the organ but he was so small so he couldn't reach the foot pedals. He was a genius.

When Mozart was eight he could compose symphonies. At the age of eleven, he wrote his first opera. He never had to go to school. Instead, his father gave him lessons. Little Mozart could play any piece of music from notes without practising it first. He could write music faster than any other musician. He could write, while eating and talking.

Appendix C

Story 2

Einstein

Albert Einstein was born in 1879 in Ulm, Württemberg, Germany. His parents were worried because he couldn't speak until he was four and couldn't speak fluently in his own language until he was nine.

When he was five, his father showed him a pocket compass and this sparked his interest in science. As he grew, Albert built models and mechanical devices for fun and began to show a talent for mathematics. He could do well in Maths and Science classes, but he hated History, Language and Geography classes and taking exams.

He graduated with a teaching degree but couldn't find a job. Even as an adult, Albert Einstein couldn't take care of himself, and he couldn't learn how to drive a car.

Appendix D

Worksheet 1

Translations

- 1- One night, when I was in my bed, I felt something strange.
- 2- The little old man scattered some turnip seeds in his garden.
- 3- I liked drinking milk when I was a child but now I don't.
- 4- Isaac Newton discovered the law of gravity.
- 5-After I studied lesson, I went out to play football.
- 6- Osman lives in Konya now but a long time ago he lived in Yozgat.
- 7- Before Hasan washed the car, he called his father.
- 8- Why didn't you do your homework?
- 9- Once upon a time there was a little girl called Little Red Riding Hood and she lived at the edge of a wood with her family.
- 10- Atatürk was a graduate of Military School in 1905 as a captain.

Appendix E

Worksheet 2

MATCHING

1.drop	a.cried
2.turn	b.dropped
3.bring up	c-kissed
4.kiss	d-turned
5.cry	e-brought up
6.see	f-lived
7.take	g-married
8.marry	h-took
9.live	i-saw
10.break	j-broke

- | | |
|--------------------------------|---|
| a- When I saw the light | 1- When I saw this flying craft above our heads |
| b- When he heard the sad news | 2- I was afraid |
| c- I was amazed | 3- I started to cry |
| d- I could ride a bike | 4- I washed my face |
| e-After I woke up | 5- When I was 7 |
| f-They invited us to the party | 6- because she failed in the exam |
| g- Lale was very sad | 7- but this morning she got up late |
| h- She usually gets up early | 8- but we didn't go there |
| i-They called us | 9- when she fell down |
| j- She cried | 10- before they came |

FILL IN THE BLANKS

- 1- Milton Hershey.....(produce) the first milk chocolate bar in 1900.
- 2- In 1913, Arthur Wynne from Liverpool(publish) the first crossword puzzle in the newspaper. New York World.
- 3- Atatürk(be) a great leader.
- 4- Where(be) you yesterday?
- 5- Sam Wood was alone on Saturday evening because his parents(go) to Paris to spend the weekend.
- 6- I.....(can) swim when I was young.
- 7- Did Halil(see) his instructor last week?
- 8- They didn't.....(mend) the roof yesterday because it was raining.
- 9- Last week teenager Orhan's plans for a surprise party for his parents(go) seriously wrong.
- 10- A few weeks ago my friend(borrow) money from me and he didn't(pay) back.

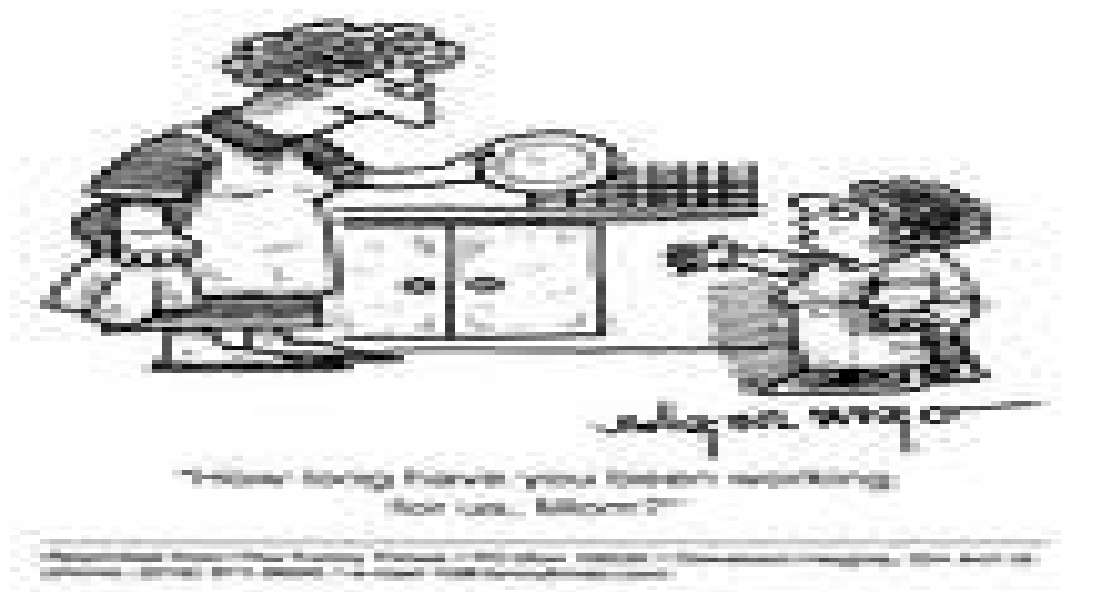
Appendix F

Power Point Presentation

Atatürk was a great leader



I went swimming yesterday



She washed the dishes three minutes ago.



After she brushed her teeth, she went to bed.



Ayşe and Ahmet got married years ago.



They were happy a long time ago.



Obama came to Turkey last month.



We played football just a few minutes ago.



Orhan watched tv yesterday evening



Mustafa played the saz yesterday.



Tom chased Jerry four hours ago



Tom caught Jerry one minute ago



He –man was a strong man when I was a child

Appendix G

Raw Scores of the Experimental and Control Group

<u>Experimental Group</u>			<u>Control Group</u>		
subjects	pre-test	post-test	subjects	pre-test	post-test
1	20	46	1	30	58
2	22	52	2	24	40
3	28	60	3	22	38
4	26	54	4	20	38
5	22	50	5	18	36
6	22	42	6	26	44
7	28	54	7	24	40
8	32	62	8	28	46
9	16	40	9	22	42
10	24	44	10	32	60
11	26	66	11	12	34
12	22	46	12	34	62
13	34	58	13	26	48
14	32	78	14	28	48
15	36	82	15	30	52
16	14	42	16	18	42
17	24	64	17	30	54
18	18	44	18	20	42
19	30	70	19	22	46
20	24	50	20	16	38
21	14	38	21	20	40
22	30	76	22	26	54
23	26	68	23	28	54
24	18	44	24	14	36
25	20	50	25	24	42

