THE EFFECTS OF TECHNOLOGY INTEGRATION IN TASK-BASED LANGUAGE TEACHING ON VOCABULARY AND WRITING SKILLS

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DECLARATION OF ORIGINALITY

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ABSTRACT

The Effects of Technology Integration in Task-Based Language Teaching on Vocabulary and Writing Skills

This study explores the effects of technology integration on foreign language learning in a Task-Based Language Teaching (TBLT) approach, based on a scaffolding framework. The learners' perceptions of how the instructional design affected their own learning were also collected and analysed. The technology integrated instructional design was based on TBLT task design specifications, and scaffolding design principles recommended for educational software. The study was conducted in a real classroom setting with a total of 38 fifth grade students. While the experimental group followed a technology integrated TBLT syllabus, the control group received regular classroom instruction for five weeks. The language gains were compared via pre-test and post-test scores. The experimental group's blog writings were evaluated, and their feedback responses were also analysed. The results showed that the experimental group significantly outscored the control group in terms of language gains, and did not fall behind in vocabulary and grammar learning. There was a significant difference in both groups' performance from the pre- to post-test. The feedback obtained from the experimental group indicated that the implementation was well- received, and the learners felt that their learning improved. The findings provide support for technology integration in limited conditions with young learners at the beginner level. Recommendations and guidelines are offered for technology integrated TBLT employing the station rotation model.

ÖZET

Ortaokulda Teknolojiyle Bütünleşik Görev Temelli Yabancı Dil Öğretiminin İngilizce Dil Yeterliliğine Etkileri

Bu çalışmanın amacı teknolojiyle bütünleşik olarak tasarlanmış görev temelli dil öğretiminin İngilizce dil yeterliliğine etkisini araştırmak ve katılımcıların ders tasarımına ilişkin görüşlerini ortaya çıkarmaktır. Ünite planı, istasyon tekniği baz alınarak hazırlanmış ve teknolojik materyaller Nunan'ın (2004) görev tasarımı ve Quintana ve diğerlerinin (2004) öğretim materyali tasarımında yapı iskeleleri oluşturma ilkelerine dayandırılmıştır. Çalışma bir deney ve bir kontrol grubu olarak toplam 38 katılımcıyla uygulanmıştır. Deney grubu beş hafta boyunca teknolojiyle bütünleşik görev temelli etkinlikler ile öğrenirken, kontrol grubu da aynı süre zarfında olağan sınıf düzeni ve öğretmenin sağladığı ders materyalleri ile derse devam etmiştir. Araştırmanın sonunda yapılan test sonuçları karşılaştırıldığında, deney grubunun dil kazanımlarının kontrol grubundan daha yüksek olduğu saptanmış; ayrıca kelime edinimi ve dil bilgisi yapılarının öğrenilmesinin her iki grupta da aynı düzeyde ilerlediği, üstelik okuma ve yazma becerilerinin deney grubundaki öğrencilerde daha fazla geliştiği sonucuna ulaşılmıştır. Alınan dönütlerde deney grubu öğrencilerinin çalışma hakkındaki görüşlerinin olumlu yönde olduğu görülmüştür. Sonuç olarak, çalışma bulguları teknolojiyle bütünleşik yabancı dil öğretiminin başlangıç düzeyinde olan öğrencilerle ve sınırlı koşullarda bile yararlı olduğu görüşüne ulaşmıştır ve derslerinde istasyon tekniğinden ve teknolojiden faydalanmak isteyen öğretmenlere de önerilerde bulunulmuştur.

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CHAPTER 1

INTRODUCTION

Teaching and learning have become increasingly reliant on digital technology. Foreign language classrooms are no exception—foreign language has been one of the fields of teaching where technology has been relevant and widely utilized since the early 1950s. There is an abundance of educational software in language teaching; however, these are rarely grounded on robust pedagogical frameworks. Thus, the design of educational technology materials is still an urgent and important need in the field.

A quick review of the current methodologies adopted in the language classroom would reveal that there is a tendency for a partial application of the Task-Based Language Teaching approach. What is meant by partial application is that teachers try embedding tasks into their lessons, however this is not organized within a comprehensive lesson plan design taking TBLT methodology and principles into account. These tasks have been applied in the lesson as lesson activities without an aim to reach a certain ultimate goal aside from completing the task. The teachers design their lessons by allocating more space for task accomplishment and do not try to implement authentic tasks that would encourage the learners to use the target language in a meaningful way. Even though they name their activities as authentic tasks, it would be wrong to confirm their suitability to the task features proposed within TBLT methodology. An activity should be aligned with task design features which are heavily suggested in literature. Making learners accomplish a mission does not fulfil the task criteria alone.

Task-Based Language Teaching (TBLT) emphasizes using the target language to accomplish an authentic task that serves an actual language purpose. A genuine implementation of TBLT would provide learners a goal to reach, direct them to produce a language output and allow them use the real functions of language. As Krashen (1982) argues, second language acquisition takes place when learners are provided with meaningful activities and achievable goals.

The combination of well-designed tasks and appropriate integration of technology can offer various opportunities for meaningful language learning, and create new opportunities for learners to be able to achieve a purpose by using the target language. There are several studies conducted to integrate TBLT and technology, though they are not many in number, and generally focus on adult learners.

This study aims to bring TBLT and technology together in such a way that digital technology is integrated as a medium of achieving a task in a meaningful context, by carefully designed language activities, tasks and guidance of scaffolding principles.

1.1 Statement of the problem

The success of foreign language teaching is clearly dependent on both teaching methodologies and environmental factors, such as class size and availability of current technologies. However, the success rate of foreign language teaching in Turkey has always been a problematic issue since the teachers are generally observed to follow the traditional textbook-based methods and focus on grammar, due to large class sizes and lack of materials (Haznedar, 2010). Students do not have the chance to use the language outside of the classroom, and they use it for more educational purposes rather than communication. Most of the classes do not employ current

technologies, or just make limited use of technological tools as an aid for instruction. In terms of applying TBLT in language classes, as mentioned above, teachers tend to make use of tasks in their lessons, however these tasks do not confirm all the task design requirements. They carry some partial features of a good task design and what is applied in these lessons does not accord with TBLT methodology. Additionally, the situation for technology integration is similar in that some of technology integration attempts end up with using some software for visualization or playing language games with the aim of vocabulary teaching. Therefore, such a technology use does not make a good example of technology integration. However, with good planning and utilization of grounded language teaching methodologies, technology integrated language lesson in which learners are actively engaged and motivated to use language in order to reach a bigger audience can be successfully implemented.

1.2 Purpose of the study

The purpose of the study is to find out the effects of technology integrated task-based language learning with station rotation model on student learning, as measured by pre and post-test scores at the middle school level in a real classroom context. Another purpose is to examine the effects of technology integration in TBLT based on a scaffolding framework in a limited technology setting, and the fifth graders' perception and assessment of this approach as implemented in a station rotation model.

1.3 Significance of the study

In the field of foreign language teaching, the studies generally focus on technology aid under Computer Assisted Language Learning (CALL) framework, which aims to

propose criteria and guidelines for effective technology use. However, current approaches in educational technology focus on technology integration to enhance learning, which goes beyond using technology as mere adjunct or for delivery of instruction. Therefore, integrating technology within research-based guidelines, and based on a reliable language teaching model, (Task-Based Language Teaching) is expected to provide more effective learning. However, there are few studies that focus on tasks and appropriate technology integration.

This study will examine technology integrated tasks in five different stations in an actual classroom, implemented in a station rotation model in a limited technology context with young learners from low socioeconomic backgrounds. Such research has not been reported in the Turkish context before.

To ensure a genuine adoption of the TBLT model, the tasks in this study have been designed as a way of creating authentic activities and centring communicative skills, as recommended by Motteram and Thomas (2010). At the end of the study, the effects of technology integrated TBLT, and the learners' perceptions towards such instructional design will be unfolded and suggestions for technology integration based on this model will be identified and recommended.

CHAPTER 2

LITERATURE REVIEW

2.1 TBLT in teaching English as a foreign language

The most commonly used approaches in contemporary foreign language teaching seem to be the methodologies that primarily focus on the communicative proficiency in language and provide learners with enough space to use the language and authentic materials to work with to create a meaning making environment (Richards & Rodgers, 2001).

Among the foreign language education methodologies, Task-Based Language Teaching has become one of the well-known methods which attracted the attention of many instructors, educational planners, and researchers in the field. According to Branden, Bygate and Norris (2009), research has gathered much evidence on its effectiveness on language learning, and the number of educators who apply TBLT in their classes has increased worldwide. In the history of foreign language instruction, as the focus shifted towards more learner centred and teacher guided approaches, tasks have gained much importance, because they put the learners in a meaningful context to use the target language.

Language tasks that constitute the basis of this methodology are intended to create an environment that will provide learners with meaningful communication to support language learning and are of great importance in terms of language learning objectives. TBLT recognizes tasks as “the basic unit to describe three angles of the basic educational triangle: educational goal, pedagogic activity, and assessment” (Branden, Bygate and Norris, 2009, p. 5).

The most important key element in TBLT is enabling learners with tasks to negotiate meaning with each other. It means that learners should have a goal to reach at the end of the task, but the process is the most significant for learning, rather than the goal. The tasks should promote integration of the four language skills. Some examples of such tasks are "reading a map and giving directions, making a phone call, writing a letter and reading a set of instructions and assembling a toy" (Richards & Rodgers, 2001, p. 238), these provide opportunities for meaning making, as communication is the essence of language learning. Also, tasks are considered both as input and output of the target language (Richards & Rodgers, 2001), and they motivate learners to accomplish a final goal. Therefore, TBLT makes use of realia, such as newspapers, television and internet. In this way, learners could use and see the language in a daily context, rather than in a second or foreign language education context (Richards & Rodgers, 2001).

When it comes to the theoretical frameworks behind TBLT methodology, Estaire and Zanon's (1994) Schema Theory comes to the fore. The researchers (Estaire and Zanon, 1994) dwell on the question of how we learn, and they discuss the schema theory as a grounds to understanding classroom processes in language learning. Schemas are data blocks in our minds representing knowledge about the world. We process information by building schemas and these schemas are interrelated with each other, not as single entities in our minds (Schank & Abelson; 1977). Estaire and Zanon (1994) argued that if people learn and apply their knowledge by using schemas, this is also applicable to language learning. In other words, if people learn by categorizing and storing information as schemas, second language learning could be based on categorising and storing a second language in the human information processing system. Accordingly, tasks will be useful for this reason to develop

communicative competence, because tasks set to work the "procedural and instrumental knowledge" (Estaire and Zanon, 1994, p. 79), which, in terms of TBLT, tasks can be considered small learning units which help advance communicative competence. These language tasks create an opportunity to bring together the existing schemas and improve language skills as a whole. Thus, the tasks in TBLT activate the schemas and make learning possible.

Yule's studies of communicative effectiveness contribute to TBLT. Yule (1997) defines communicative effectiveness in two categories: referent and role taking. In the referent dimension, the learner should perceive what the input refers to, and should be able to differentiate referents to make a comment. In the role taking dimension, learners should recognize their role in communicating with a person, should bring their view to the conversation, and continue the talk meaningfully. In relation to TBLT, communicative effectiveness could be associated with tasks that need resolution and to solve a problem, where learners would need to negotiate successfully to reach their goals.

Ellis (2000) suggests three theoretical frameworks for TBLT emphasizing the significance of tasks. The first one is Long's Interaction Hypothesis (1983), which claims that language acquisition is more efficient when learners have a large amount of comprehensible input resulting from a communication failure. To make up for this gap, they provide lots of input and try to reconcile, where negotiation for meaning arises. Similarly, Pica, Kanagy, and Falodun (1993) state that TBLT has foundations back in the Interactionist theory, as it suggests that language learning occurs best when adequate input and a share of ideas are provided. Swain (1985, 1995) also highlights that the output may cause learners to realize their gaps between their knowledge and the input.

Furthermore, Ellis (2003) states that Skehan's Cognitive Approach (1998b) provides the basis for tasks, as he argues that second language learners have "exemplar-based system and rule-based system." (p. 120). The exemplar-based system consists of lexical words and chunks that are helpful for language production; and the rule-based system is necessary for producing accurate forms of language use. Skehan (1998b) suggests that tasks provide opportunity to create input and output for both of the systems, and that tasks may be beneficial by encouraging both fluency and accuracy. To summarize, Ellis (2003) states that tasks are useful in second language acquisition, and that Interaction Hypothesis, Cognitive Approach, and Communicative Effectiveness frameworks form the theoretical bases of the Task-Based Language Teaching method.

Similar to Ellis (2003), Nunan (2004) states the principles on which TBLT is built. These are scaffolding, task dependency, recycling, active learning, integration, reproduction to creation, and reflection. Nunan (2004)'s scaffolding principle emphasizes the need to provide learners with sufficient help when necessary so that they can develop the target skills. Task dependency asserts that tasks should proceed in a continuum with each other, i.e. each should be relevant and make a sense in a meaningful whole when brought together. The recycling principle recommends using a target form in different ways, so that learners are enabled to see how it operates in different situations. Active learning suggests that learners acquire the target skills best by performing the action. According to the integration principle, it is necessary to relate the target form with its role in communication and meaning. Reproduction to creation argues that learners should be motivated to create new language forms rather than reproducing the previous examples. Lastly, reflection maintains that

learners should be provided an environment where they can reflect on their own performances.

2.1.1 Design and implementation of TBLT

TBLT has been indorsed by educators widely because it views language learning holistically, rather than dividing it into discrete units. In holistic approaches, learners are directed to produce both verbal and written language. In TBLT, a goal for each task is predetermined and, in this process, learners need to combine different language skills to complete it. This leads teaching to become more learner centred as the progress is maintained by the learners. Lastly, it could be said that TBLT is more communication based since it promotes reciprocal understanding of each party. According to Nunan (2015), task-based language teaching is a way of applying the theories of communicative language teaching in practice, and it does not have only one definition. It may be actualized as different activities in the classroom, but what is fundamental is that priority should be given to meaning, and it must be possible for learners to associate with daily discourses. The main objective is to design an environment in which learners can achieve more than simple linguistic goals—goals that they can reach by using the language, such as paying bills, ordering food, or asking directions.

In this approach, learners learn the language by using it, not by focusing solely on functions or forms. Rather, it integrates form and function together to have efficient language use which also has a place in daily life activities. Form and function should involve an educational aim within a pedagogical activity, and there should be a way to assess it (Norris, 2009; Candlin, 2009). Thus, tasks in TBLT are the major components of instruction as they target the practice of real language

functions. According to Candlin (2009, p. 24), tasks should encourage "exploration by the learner, negotiation for meaning, interaction and interdependence among learners, providing comprehensible input and procedures, accommodating differentiation among learners, problematizing language, learning and classroom action and managing language learning." Similar criteria defining a well-designed task were listed in detail in the 1984 TESOL Convention held in Hawaii, which emphasized meaning, purpose, and negotiation as the defining characteristics of a language task, as well as the need to draw on the communicative needs of the learner (as cited in Branden, 2009). It can be inferred that a task could be defined as a group of diverse, problem offering activities that allow learners and teachers to collaborate and integrate present and new skills in search a goal (Candlin, 1987).

An important aspect of TBLT is to identify necessary and beneficial tasks that meet learners' needs, and also guide the learners' use of language, while serving a communicative purpose. According to Pica, Kanagy, and Falodun (1993, p. 10), "such activities are structured so that learners will talk, not for the sake of producing the language as an end itself, but as a means of sharing ideas and opinions, collaborating toward a single goal, or competing to achieve individual goals." It is possible to say that traditional language exercises would fall short of providing such an environment of language usage.

Pica, Kanagy, and Falodun (1993) recommend four types of activities that could constitute the bases of a task: jigsaw, information gap, problem solving, decision making, and opinion exchange. In jigsaw tasks, each participant has some information, but lacks some necessary information to complete the task, so that all learners should be engaged to share information with each other. Thus, each learner has "piece of a puzzle, which must be joined together" (Pica, Kanagy, Falodun;

1993, p. 19) to accomplish the goal. In information gap activities, the participants have missing information and fulfilling the task requires filling in the gaps. The problem solving tasks are defined as tasks that have "a single resolution of outcome" (Crookes, Gass, as cited in Pica, Kanagy, Falodun; 1993, p. 20) and decision making tasks are characterized as tasks having many alternatives, but participants need to decide on a single one. As for the opinion exchange tasks, they generally consist of discussion activities.

Similarly, Ellis (2000, p. 84) describes tasks as a "work plan" which involves input and instructions where meaning is primary. Ellis (2000) pointed out that former researchers (Estaire and Zanon 1994; Lee 2000; Prabhu 1987; Skehan 1996; Willis 1996 in Ellis, 2000) generally divided a task-based lesson into three phases. The first phase is pre-task phase where learners become ready for the task. During this phase the activities should "frame" what learners are going to come across the "during-task" phase (Lee, 2000, as cited in Ellis, 2000, p. 81)". The pre activities should form a framework for what they will be required to do, and which goals they will reach at the end, such as an advance organizer would. Pre-task activities may have the learners work on an activity similar to the during-task phase, for example, by observing an example of how to complete the task, or doing activities to activate their prior knowledge and help the performance of the main task, such as learning the meanings of new vocabulary (Skehan, 1996, in Ellis, 2000). Then learners would plan how to proceed in the during-task phase by themselves. They can choose what to focus on. The during-task phase focuses on the task requirements. Finally, in the post-task phase learners work on follow-up activities. According to Ellis (2000), there are three purposes of the post task phase: 1.repetition for the main task, 2. learners' reflection on their own work, and 3. focus on the compelling forms in the

task (If the post-task activities are designed to meet these purposes, the learning objectives would be strengthened.

Not only the task itself, but also the task process needs to be designed carefully in a task-based lesson. Ellis (2003) suggested five design features for task design. These are goal, input, condition, procedures, and predicted outcomes. The goal refers to the fact that a task should have a clear objective, and input emphasizes that learners should be provided with verbal or non-verbal information in the task. Condition is defined as whether the information is split or shared, while procedure is explained as the process in which the task is completed, individually, in pairs or as a group. Lastly, predicted outcomes are examined in two categories by Ellis (2003), called product and process. Product is the output of the task, and process is the final creation of learners, such as hypotheses generated after the task (Ellis, 2003). For example, a teacher should decide whether setting a time limit or giving the learners as much time as they ask for. Another point might be reaching a decision on whether providing input for the task, or not presenting any input but expecting output from the learners. Setting the task difficulty is also crucial for achieving the leaning objectives. As pointed out by Ellis (2000), defining clear goals, and informing learners about the reasons and outcomes of the task will help set the task difficulty.

Nunan (2004) differentiates tasks from exercises in terms of meaning, goal, and outcome. He states that an exercise is directed towards a language form which is thought necessary for communication; however, a task assumes that communication is a way to acquire required communicative skills (Widdowson, 1998b in Ellis, 2000). There is a goal which needs to be worked towards, the activity is outcome-evaluated, and there is a real-world relationship (Skehan, 1998a as cited in Nunan, 2004).

Nunan (2004) defines the concept or "task" in two different ways: "real world" or "target tasks," and "pedagogical tasks" (p. 25). He refers to target tasks as tasks carried out in the real world, but when they are moved into the classroom, they are called pedagogical tasks. Nunan (1989, 2004) also named six task components which need to be decided carefully, which are goals, input, activities, teacher and learner roles and setting. Goals are the end points where the task tries to take the learners. Input cover all of the resources that learners come across during the task, which could be written or oral. Activities refer to what the task requires learners to perform whereas teacher and learner roles specifies the performances that learners and teachers are going to show during the tasks. Setting means the environment in which the task will be performed. According to Nunan (2004, p. 59) task types can also be classified in terms of "cognitive, interpersonal, linguistic, affective, and creative tasks". Cognitive tasks refer to those used for "classifying, predicting, inducing, concept mapping" (Nunan, 2004, p. 59). Tasks that need co-operation and role-play could be named as interpersonal tasks. Linguistic tasks may cover activities which include conversational patters, summarizing, using context, and listening (Nunan, 2004). Affective tasks can be exemplified as personalizing, self-evaluating and reflecting tasks. Finally creative tasks are those that necessitate learners to brainstorm about the content (Nunan, 2004).

Designing and selecting tasks are crucial for creating syllabi and curricula, since contemporary language teaching approaches emphasize the importance of language output, which requires a meaningful combination of content, tasks, and learning procedures. For a robust TBLT instructional design Nunan (2004) proposes six separate steps, summarized in Table 1.

Table 1. Steps for Designing Tasks

Step 1: Schema building	Providing tasks for activating the prior knowledge and preparing the learner for the task
Step 2: Controlled practice	Providing learners with activities in which they will use the aimed language structures
Step 3: Authentic listening practice	Providing learners with realistic oral input
Step 4: Focus on linguistic elements	Preparing a series of tasks for the specific language target
Step 5: Provide freer practice	Providing activities in which learners can use the language unrestrictedly
Step 6: Introduce the pedagogical tasks	Providing the main task

Nunan, 2004, p.34

Willis and Willis (2007) state that language learners can express themselves even though they do not know necessary grammatical functions. They can make use of the words they already know. Thus vocabulary knowledge plays a significant role to communicate meaningfully; but it does not mean that grammar teaching has no place in TBLT. One of the main goals of TBLT is to help learners acquire an adequate level of grammar (Willis & Willis, 2007), since appropriate use of grammatical structures is necessary for successful communication. The authors discuss Nunan (1989), Willis (1996), Skehan (1989), and Bachmann and Palmer's (1996) definitions of task, and they conclude that tasks should primarily have a meaning focus, and provide learners with a language goal. They also emphasize that learners should be interested in the task so that they could maintain their attention

and be active participants. Similar to Nunan (1989) and Skehan (1998), Willis and Willis (2007) also emphasize the importance of meaning; but in addition to that, they underline that there must be an outcome of the process, and deciding whether the process has reached its aim is completed by examining this outcome. Besides, completion of the task is a must. The task should be performed in its entirety. Lastly, the tasks should be related to "real world activities" (p. 13) in order to help developing communicative competence. This means using words frequently in daily language, having conversations similar to everyday language, such as agreeing, disagreeing, explaining, and elaborating (Willis and Willis, 2007), and having tasks which carry possibility to take place in the future.

Furthermore, Willis and Willis (2007) emphasized the intrinsic relationship of a series of tasks that comprise a task-based lesson. The introductory tasks called as "facilitating tasks" (Willis and Willis, 2007, p.25) should act as "priming," tasks that prepare the learners for the main task by providing the language input that would be useful during the main task process. After the priming task, there should be designed a preparation task with the aim of giving time for learners to build up their ideas. A teacher-led introduction, a reading text, an opinion survey, a group discussion, or providing necessary vocabulary could serve as facilitating tasks for priming and preparation. Then follows the target task, which is the main objective of the lesson and learners are expected to produce real language output and work for how to apply functions of language. This categorization of tasks is similar to the two types of tasks identified by Ellis (2003), as, pre-, during- and post-tasks.

It is clear that learners play an active role in TBLT, and that is why they should be open to use the language, and for the completion of a task, the focus on meaning is essential. TBLT has an important place in current language education

methodologies, because tasks generally cover similar requirements as in daily language. In this study, TBLT was chosen as the main language teaching framework after examining various methods and the needs of the participants,

2.2 Technology integration in EFL

It is necessary for the practitioners in the field of foreign language teaching to keep up with the current needs of learners and make use of new opportunities enabled by technology to meet these needs, by integrating technology to provide meaningful environments for genuine use of the target language. The studies in the EFL context highlight the need for identifying and planning instruction based on the learners' needs, introducing real-world scenarios, and providing opportunities for the learners to communicate using the language.

From a historical perspective, technology use has different periods in EFL classrooms, and approaches to technology have evolved over time. When computer technology first made its way into the language classroom, applications were basically developed for drill and practice, more readily associated with the behaviourist approach to learning, where repetition is most crucial for learning. More recently, technology have been used for more communicative, meaningful, and freer tasks that provide learners with greater space and opportunities to use the language.

The terms Computer Assisted Instruction (CAI), Computer Assisted Learning (CAL) and Computer Assisted Language Learning (CALL) have been coined to explain the process of technology use in instruction (Thomas, Reinders, Warschauer; 2012). Given the capabilities of the computer technologies back then, it is no surprise that the first examples of CALL programs were mainly drill and practice exercises. However, two decades later when the capabilities of technology had skyrocketed,

and communicative approach was prominent among language teachers, technology was still being used for drills (Thomas, Reinders, Warschauer; 2012). The CALL approach changed with a lot slower pace. At the end of the 1990's, computers came to be used more for communicative purposes, and foreign language software design also became more meaning-focused in time.

Learners come with diverse expectations, from a variety of educational and cultural backgrounds and with different motivations and are usually at different levels of engagement. Therefore current research on language teaching emphasizes the importance of choosing the most suitable methodology for a given profile of learners. As mentioned by Thomas and Reinders (2010), tasks turn out to be effective when learner needs are taken into account. Gonzalez and Lloret (2014) also emphasize the importance of paying attention to learner needs in designing tasks since they constitute a significant part in determining task features.

With the developments in technology, new resources and new materials that can be used both in and out of the classroom have been brought into language education. The twenty-first century language learners have different needs which cannot be met by using the methodologies put forward decades ago. Students who are in primary, secondary, or high schools are very familiar with technological devices, and this creates new ways of using a foreign language to communicate. Instead of just regarding these developments as a space to be filled, they can be made use of as new resources for language teaching frameworks (Gonzalez-Lloret & Ortega, 2014). Rather than considering technological devices as yet another requirements, their affordances should be aligned with the learning objectives for proper integration. Learning needs and objectives are crucial in making a plan for how to progress, and locating and employing appropriate tools that would lead to

these objectives in a meaningful environment should be the priority of instructors and instructional designers. Thus technology would be used to enhance learning rather than a mere assistant or an aid.

2.2.1 Technology integrated TBLT

As authenticity was found to be more effective in language teaching than materials designed for grammar instruction, technology has been recognized as a tool for real authentic language interactions (Thomas, Reinders, Warschauer; 2012) .

The studies on the use of technology in language teaching in the last decade have focused on the use Web 2.0 tools, such as “chats, blogs, wikis, synthetic immersive environments, virtual worlds, gaming environments” (Gonzalez-Lloret & Ortega, 2014, p.2). These tools provide opportunities to the learners to communicate, negotiate for meaning, create their own language products, and consequently help them to be more fluent in the target language.

With the widespread use of TBLT in teaching English as a second/foreign language, researchers have inclined towards the relationship between technology and TBLT classrooms. As mentioned before, tasks are defined as works aiming to reach a language goal (Ellis, 2000; Samuda, Bygate, Van der Branden, 2009). Tasks have productive features to communicate with other users of the language, to negotiate meaning with the help of the tasks (Müller-Hartmann & Ditfurth, 2010). Technology can provide many opportunities for learning in this regard, if integrated appropriately.

The use of technology specifically in the TBLT approach has been researched in studies that mostly focused on written and spoken communication skills, which evaluated how technology was put to use for accomplishing the tasks. Some CALL

researchers regard TBLT as a useful framework in technology integrated language learning design (Chapelle, 2003; Doughty and Long, 2003 in Gonzalez-Lloret & Ortega, 2014). Learners can use the tools to apply what they have learned to achieve the task goal. This idea is also supported by Chapelle (2003) quoted in Gonzalez-Lloret (2014). Chapelle (2003) and Gonzalez-Lloret (2014, p.9) propose to use the term "technology mediated TBLT" to better describe the relation between technology and TBLT design. They argue that this term would help to make a distinction between examples of good tasks and technology integration studies and conventional designs in which tasks are only transferred to online environments without corresponding to components of an efficient task design or tasks that are similar to language practice exercises (Gonzalez, Lloret, and Ortega 2014). Therefore, to rightly emphasize the fact that tasks should incorporate meaning focus, goal orientation, learner-centeredness, holism, reflective learning features, the researchers came up with such a term to refer to TBLT and technology integration studies.

While there is growing research on TBLT and technology integration, most of the existing research in the literature focuses on writing skills. Solares (2014) compared three classrooms where three different instructional techniques were used. The first group received task-based and technology mediated instruction, the second one received only task-based instruction, and the third group only textbook instruction. Technology mediated task-based group used multimedia materials such as audios, videos, blog writing and web-based posters. Task-based instruction group used paper and pencil materials, and textbook group was taught linguistic explanations and activities. The participants were 73 university students aged between 19 and 25. Data were collected in pre and post-test, and in a task-based

activity. A questionnaire and interviews were also conducted for qualitative data in the treatment group. The comparison of pre and post-test results showed that there was no significant difference between the groups, however, task contribution scores were slightly higher in the treatment group. However, the analysis of the qualitative data revealed that the participants were more motivated on tasks, and less worried about making mistakes in the two experimental groups (Solares, 2014).

In another study conducted by Oskoz and Elola in 2014, collaborative writing tasks were examined using wikis. There were 16 participants aged between 19 and 21, and data were collected through recorded chat interactions, tracked changes in wiki writings, and a final draft (Oskoz & Elola, 2014). The students wrote in two genres; expository and argumentative essays. According to the results, online chat among students and using wikis to collaborate increased peer scaffolding. Simultaneous chatting was also observed to have positively affected them to concentrate on the content and keep their attention on the task. Working on wikis enabled them to edit their grammar and vocabulary choices and centre upon their product. The genre of the task affected writing in that learners were found to be more focused on syntactic complexity in argumentative essay writing, and more focused on accuracy in expository writing (Oskoz & Elola, 2014).

Park (2010) carried out a study on computer assisted TBLT in a Korean secondary school with a group of 30 seventh grade students. He investigated the learners' performance on two different teaching approaches, and compared the results in terms of vocabulary, grammar, and reading comprehension scores. Data were collected from experimental and control groups with two task-based writing tests as pre and post- test, and a traditional grammar and reading comprehension test. The technology materials included online writing, e-pals and PowerPoint projects.

The results indicated that experimental group scored significantly higher in traditional grammar test. Their language skills showed improvement in tasks and pre and post-test results. Participants also commented that using tasks were effective and motivating (Park, 2010).

These studies were generally conducted with adult learners. There are few research studies on young learners and with low proficiency students. There seems to be a need for research conducted with varied student profiles, such as elementary students, and students with limited English skills.

2.2.2 Technology integrated TBLT in the Turkish context

Research on the use of technology in English Language Teaching in the Turkish context are generally conducted within the Computer Assisted Language Learning (CALL) methodology. However, with the recent developments in education such as the use of smart boards, tablets or online platforms, Turkish researchers have also increased their interest on technology integrated tasks and instructional design. Aydın and Yıldız (2014) carried out a study on the use of wikis in order to develop collaborative writing skills with 34 preparatory class students in a private university in Turkey. They investigated how the task type affected the number of form or meaning related changes and its effect on self or peer corrections, the number of correct editing, and the participants' opinions of wikis for group projects. The participants were required to complete three writing tasks on wikis, which were in argumentative, informative, and decision making formats. Based on the analyses of the wikis prepared by students, interviews, and questionnaires, it was found out that argumentative writing allowed for more peer-correction than the other tasks, while the informative format promoted self-correction. Wiki use was interpreted as directing learners to accurate use of grammatical structures nearly every time and

they focused on conveying meaning instead on being accurate on these tasks. Additionally, they reported that they enjoyed using wikis for language learning, and asserted that they showed improvements on writing skills.

Another study, conducted by Kırkgöz (2011) comprised two dimensions, tasks and blended learning. The participants were first year students at the department of teaching EFL in a public university, and the course was on speaking skills development. Technology integration was accomplished in a blended learning design, where students were assigned video recording tasks after the class. The lesson time was dedicated to task-based activities for speaking skills, and an extra class hour was provided for giving feedback to the students' video recordings which were captured outside class time. A speaking rubric including fluency, pronunciation, vocabulary, accuracy, and task accomplishments categories was prepared by the researcher to measure speaking scores. According to the analysis of the students' video scores demonstrated significant development in oral skills. The results of the questionnaire which focused on their views on such teaching designs revealed that the students had positive attitudes towards video recording tasks in language development. The research also emphasized the importance of video capturing for language learning, because it allows self-feedback, and may yield self-correction.

Ozdener and Satar (2008) studied the use of Computer-Mediated Communication (CMC) in developing communication skills of students of teaching English who were enrolled in distance education programs in Open Education Faculty of Eskişehir Anadolu University. As these programs basically relied on text-based materials and lecture videos, the students lacked an environment to communicate with each other in the target language. Therefore, the researchers designed instruction so that the students worked in pairs and made use of

synchronous CMC tools to chat with each other to complete a variety of language tasks. The analysis of online chat records revealed that most of the conversations were carried on in English, however the researchers did not measure the accuracy of these chat logs. The surveys on attitudes towards CMC tools found out that the students expressed that they enjoyed talking with a classmate, and reported that this prevented the anxiety that would have occurred had they been required to talk with a stranger. Therefore, the researchers strongly recommended using CMC tools to improve speaking skills, especially for students with low proficiency, in distance education programs. They also suggested that CMC may make up for the insufficient class time spent on such activities in traditional classrooms.

As a final comment on this subject, technology integration studies in task-based instruction are not very common in the Turkish context. Most of the existing studies do not claim a solid language teaching framework as a basis. Rather, they utilize the necessary activities, and do not always stick to the principles offered in the literature. In addition, technology in these studies is not usually an integral part of the instructional design—its use seems to be more of an ad hoc. This study attempts to adhere closely to the Task-Based Language Teaching framework while integrating technology based on scaffolding principles to enhance learning.

2.3 Station rotation model in blended learning

Blended learning is a widely preferred and relatively effective model of integrating technology into learning and teaching in balance. According to Singh (2003, p. 52), blended learning could be described as merging “multiple delivery media that are designed to complement each other”. Horn and Staker (2014) defines blended learning as a program where the learner has control over the process, such as pace, or

direction to follow even if control is limited. As for blended learning in language teaching, pioneers such as Sharma and Barret (2007, as cited in Whittaker, 2013) offer a similar definition with an emphasis on language teaching with proper use of technology and face to face classroom practices. Dudeney and Hockly (2007, as cited in Whittaker, 2013) state that the technology can be both online and offline.

Horn and Staker (2014) specify the models of blended learning as flex model, a la carte model, enriched virtual model, and rotational model. Flex model refers to the models dependent on online learning. It is a self-paced learning and face-to-face teacher help is offered. A la carte model is similar to flex model in that it also has an online platform to follow some courses, but students continue attending a face to face learning environment besides the online courses. Enriched virtual model requires learners to follow a course mostly online, and learners meet face-to-face from time to time (Horn & Staker, 2014).

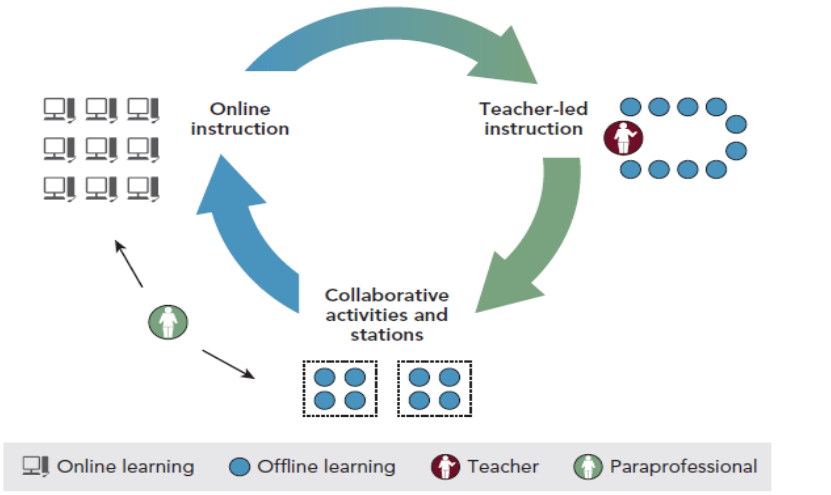


Figure 1. Station rotation model

Horn and Staker, 2014

In the rotation model students rotate around a number of work stations of both online and paper and pen tasks. The model has four sub models; lab rotation, flipped

classroom, individual rotation, and station rotation (Horn & Staker, 2014). In lab rotation, students spend some of the class time in the classroom and the rest of the time in the computer lab for online learning. In a flipped classroom, students study the target subjects outside the classroom via short video lessons prepared by the teacher, and they work on projects in the classroom with teacher guidance using what they have learnt in the video. In the individual rotation model students follow an individualized plan specialized according to their needs. Finally, the station rotation model, refers to a classroom where students rotate through a number of work stations and complete all the tasks. The lessons start and end with whole group discussion to introduce and summarize the subject. These stations might be technology integrated, involving certain amount of teacher instruction, and individual or group work activities (Horn & Staker, 2014).

For foreign language teaching, Graham (2004, as cited in Whittaker) has found several advantages of blended learning; "improved pedagogy, increased access, and increased cost/effectiveness" (p. 14). In terms of improved pedagogy, Whittaker (2013) indicates that technology offers different ways for a subject to be introduced, making the course as effective as possible. Along with this, language learners might need to proceed at their own pace, which blended learning can allow with more flexibility than a regular classroom.

2.3.1 Research on Station- Rotation Model

One of the oldest blended learning programs in the U.S. is the Scholastic's READ 180 program, which was used over ten years (Horn & Staker, 2014). It starts with a classroom discussion, and continues in a cycle of three stations, one small group receives direct instruction using paper based materials, while students interact with

the READ 180 software at the individual learning station, and with books or audio books at the modelled and independent reading station. This program reached statistically significant results over the years in reading achievement and comprehension according to "a government-run database that provides research analysis about what works in education to improve student outcomes" (Horn & Staker, 2014, p. 39).

Butzin (2014) examined the effects of another blended learning project that adopted the station rotation model: the Project CHILD (Computers Helping Instruction and Learning Development), where learning stations of reading, writing, and mathematics were used in grades two and five. All three skills were offered in the same classroom, where a teacher is responsible for each subject. Three groups were formed according to their grades from two to five. These groups of students proceeded along the three stations during the sessions. The stations both included technology use, textbook-based and hands-on activities. The technology station had three computers with the software developed suitably for learning objectives. Each teacher was responsible for their own subject areas and they worked together with each group at least one hour per day. The project was carried out over the course of three years. When the test scores of the students in the experimental school were compared to that of the students in the control school, it was found that the Project CHILD students obtained higher scores on all test types, namely, reading comprehension, and mathematics computation and application.

The station rotation model have been also used in high schools. For example, in the Alliance Technology and Math Science High School (ATAMS), applied the station rotation model successfully at the ninth and tenth grade levels (Bernatek, Cohen, Hanlon, Wilka, 2012). The instructional model was designed such that one

teacher was guiding the process, while another teacher was teaching in more of a lecture format. The process employed two teachers, one of them was in the ATAM school classroom, guiding the process, and another teacher was actually not in this classroom. She was connected through video conferencing tool since she was teaching different students in fact. Some students were watching this lecture as face-to-face instruction. As the class was divided into three different sections, one section included four stations allocated for group work, another section was spared for individual learning from an online software on 16 computers, and one section for this video conferencing lecture. Teacher-led, online, and collaborative learning stations were held at the same time for 48 students in five different courses. The results of a state-wide standardized test for academic achievement showed that, the ATAMS students obtained higher scores than most of the other schools in the state (Bernatek, Cohen, Hanlon, Wilka, 2012).

The station rotation model has also been employed by language arts teachers without the technology aid. There are several studies that focused on the use of learning stations in language arts classes, especially for developing reading skills. Although these courses are designed for students whose mother tongue is already English, there are substantial design and implementation guidelines for second language education teachers. For example, Diller (2003) suggests that the stations might be focused on language skills, and reading, writing, and speaking stations may employ a variety of instructional materials and media. In addition to these, the author suggests drama, poetry, computer, and game work stations for language studies.

Similarly, Ford and Opitz (2002) offer several guidelines for designing learning stations. These involve first analysing learner needs, and providing help to the students in the centers following the curriculum objectives, maintaining student

motivation in the activities by defining reachable goals, and forming a manageable classroom process.

Click (2004) improved Ford and Opitz (2002)'s guidelines, and adapted them for a second language course in a French immersion school in the U.S. She advocated the use of work stations in language learning as they are feasible for creating meaningful contexts. She also suggested some useful tasks for the work stations, such as interviewing, finding differences, following directions, solving problems.

To conclude, blended learning as implemented in the form of station rotation model is a productive and practical method to integrate the evolving technology into the classroom practice to enhance learning by providing various opportunities and engaging alternatives for learning. Instructors and instructional designers should pay attention to the guidelines suggested by different researchers to create an effective learning environment.

The station rotation model was selected as the most appropriate model for this study in terms of its affordances in technology integration and group work. Five technology integrated stations were designed, each of which the students were required to visit to finish all the tasks, then they were expected to write blog posts to jointly prepare a weblog. The study can be classified as synchronous physical format consisting of hands-on workshops.

2.4 Scaffolding design framework

This study aims to bring different frameworks together and the instructional design of the computer-based tasks were developed based on Quintana et al. (2004)'s scaffolding design guidelines for learning software in science inquiry.

The concept of scaffolding has deep roots in education, and it has gained much attention from educators as it embodies crucial principles in teaching and learning. The concept of Zone of Proximal Development (ZPD) (Vygotsky, 1978) shaped the contemporary educational practice, and many researchers such as Jerome Bruner, David Wood and Gail Ross contributed to scaffolding framework. Briefly, scaffolding refers to providing teacher or peer help and guidance for learners in accomplishing a complex task. In this way, learners will improve their competencies, and the amount of scaffolding will decrease gradually as the learner improves sufficiently to accomplish it on their own.

Scaffolding is also important in language learning and teaching. There are many practices in language teaching to provide scaffolding. Gibbons (2002) proposes ways to scaffold learning in language classrooms. She suggests that collaborative group work help in peer scaffolding and language teacher should integrate these kinds of activities into the lessons. The author also defines guidelines for teachers to be careful in choosing the appropriate group work in that tasks should "have clear outcomes and be cognitively appropriate to the learners" (Gibbons, 2002, p.24 and 25).

There are also other ways to provide scaffolding in language teaching, such as proceeding step by step, and having pre-activities that prepare the learners for the main task. She also mentions that giving enough time is important for completing the task, and learners should be guided to work collaboratively in groups (Gibbons, 2002).

Studies conducted for integrating technology-based scaffolding to improve learning are not abundant, but there are quite significant works on how to scaffold science inquiry. Reiser, Tabak, Smith, Steinmuller, Sandoval, and Leone (2001)

designed a scaffolded learning setting BGuILE for biology teaching and they argue that teaching should be contextualized within the content, and arise new opportunities to apply the knowledge learners gain. Technology can offer new ways for rich resources and various useful tools for scientific research. Reiser (2001) propose design guidelines for technology-based scientific inquiry instruction, such as incorporating cause and effect relationship explanations, activities to practise main research task, various visualizations of the content and structure, and "ongoing reflections about the process" (p. 277) during the study. These guidelines were designed for inquiry in the science class, however, some of them also hold for language learning. Preparing pre-activities to make the main task familiar, having multiple representations, allowing learners space to reflect on their own work would enrich the language classroom as well and enhance language learning.

In another research by Sharma and Hannafin (2007), it is suggested that scaffolding in technological tools can be based on two design aspects "cognitive and interface design" (p.33) which were adapted from Saye and Brush's (2002) idea of hard and soft scaffolds. As explained by Sharma and Hannafin (2007), hard scaffolds are the scaffolds provided by the tool, and they have fixed functions and generally provide help on the surface, while soft scaffolds are primarily given by a more able peer or an expert and can be adjusted to the learner needs or performances. The authors offer guidelines for improved scaffolding in software by bringing hard and soft scaffolding features together, in addition to Quintana's et al. (2004) principles for scaffolded software for science inquiry. The first guideline is based on emphasizing cognitive processes more explicitly. To achieve this, the tool should allow learners to work iteratively and provide different sources for the same goal, emphasize the target structures, and provide metacognition. Additionally, to manage

suitable representations, software should include features for diverse illustrations to strengthen learning by different resources.

Puntembekar and Hübscher (2005) also discuss the scaffolding concept with its benefits, and point out some features that have been relatively ignored. They argue that the scaffolding idea has developed much beyond what it originally referred to, and technology brought new insights to scaffolding. Within the recent approaches to scaffolding, the researchers suggest that lesson designers should take learners' different levels of learning and progress into account, and make arrangements accordingly. Furthermore, they emphasize that the most essential role falls on to teachers' responsibility, which is organizing all the software and classroom setting in harmony to support collaborative learning with useful tools. Therefore, one could infer that scaffolding is not only limited with teacher guidance or technology-based tools. The classroom setting, the learners, all the materials whether technological or not, altogether constitute a scaffolded learning environment.

Another study by Tabak (2004) gives a different point of view to scaffolding in technology-based learning environments. The author (Tabak, 2004) mentions the term "distributed scaffolding" proposed by Puntembekar and Kolodner (1998) to describe the type of scaffolding which was designed to gather various scaffolds in a well-planned sequence. She widens this term by offering a division of this scaffolding into two categories, which are differentiated scaffolds and redundant scaffolds. She defines differentiated scaffolds as combining various kind of support each serving a different need, while redundant scaffolds aim to combine different scaffolds to serve for a certain need. In addition to differentiated and redundant scaffolding concepts, she proposes "synergistic scaffolds" (p. 318). By synergistic

scaffold, she tries to combine these two scaffold types together and intends to address the need with various scaffolds complementing each other and thereby creating integrity within the guidance provided. These elements are not repetitive and distant from one another. Instead, they aim to improve one skill by providing different resources and forming a unity. Thus, they complete one another like pieces of a puzzle.

In addition to these studies, Kim and Hannafin (2011) reviewed how to scaffold problem-solving skills in technology-based classrooms. Problems are approached in the classroom as in conducting an inquiry. The researchers emphasize the importance of knowing the necessary steps to take when analysing a problem and they recognize the unity of scaffolds provided by peers, teacher, and technological tools altogether. The study proposes that scaffolding the learning process enhances with the help of diverse demonstrations that the tool provides and ability to change variables to see different results. They conclude that successful balancing and efficient connection between the constituents are significant for effective scaffolding.

In their research on scaffolding science inquiry, Dijk and Lazonder (2016) focused on the effects of peer scaffolding as well as the use of technology scaffolds. They worked with two groups, one group made use of a scaffolding tool to do an inquiry to create concept maps whereas the second group did not. Both groups were allowed to review their peers' work during the study. According to the analysis, the products of experimental group had higher quality than the control group. The tool helped learners to organize, prepare, and focus better on the task and create a more elaborated product. However, the researchers emphasize that the key to reach satisfying results with a scaffolding tool lies in the fact that success is dependent on the learners' competence for efficient use. Therefore, they suggest more practice or

more teacher guidance be offered to inexperienced or low achieving learners for proper use of scaffolding software.

Üstünel and Toker (2017) carried out a science project with middle school students in Turkey to teach them science inquiry. It lasted for four weeks, a total of 22 class hours. They made use of the well-known online science inquiry platform WISE and the argumentation tool, SenseMaker. The tools which were equipped with such scaffolds as sentence starters, question prompts and hints helped learners to follow a scientific route to understand a certain subject matter, and they provided sufficient scaffold along with teacher support. At the end of the study, the students improved their argumentation skills, and had an increasing enthusiasm towards the project. Üstünel and Toker (2017) claim that tools also helped learners to apply critical thinking and come up with grounded explanations for the scientific concepts they were studying. As a result, one might infer that technological scaffolds along with teacher guidance are useful for improving scientific thinking and researching skills, and also for efficient learning of complex subjects.

In their guidelines for scaffolding software, Quintana et al. (2004) underlines the importance of scaffolding provided in learning software, and argued that each scaffold should be designed based on the proposed guidelines so that learners are provided with appropriate and sufficient scaffolding. Quintana et al. (2004) identified three areas that needed scaffolding for learning science inquiry, sense making, process management, and articulation and reflection. They proposed a scaffolding framework, with seven guidelines to help learners in these three major processes

Sense making refers to the process in which learners form hypotheses, make comparisons and observations, analyse the results and draw conclusions. However, the learners can face with struggles related to task complexity. Here the software can

provide help by “using representations and language that bridge learners’ understanding, organizing tools around the semantics of the discipline and using representations that learners can inspect in different ways to reveal important properties of underlying data” (Quintana et al., 2004, p. 345). The software can provide scaffolds by building a bridge between what learner already knows and make these links more visible with “visual organizers” (Quintana et al., 2004, p. 345). It can also provide descriptions of the concepts, and offer guidance during the process.

Process management means the procedure of planning and making decisions. In this process, learners may encounter some problems in planning what steps they should take and which alternatives might yield the best. Therefore, the software should “provide structure for complex tasks and functionality, embed expert guidance, and automatically handle non-salient routine tasks” as specified by Quintana et al. (2004, p. 366). These guidelines suggest that software should assist learners to decide the relevant next steps, and also ease the burden of accomplishing some non-relevant tasks by having them done by the software itself.

Lastly, scaffolding should help the process of articulation and reflection. This refers to the process of making conclusions and inferences from the analysis. Learners can have difficulty in articulation and reflection process, such as not being able to competently explain their ideas and making sufficient conclusions. Accordingly, software should help in “facilitating ongoing articulation and reflection during the investigation” (Quintana et al., 2004, p. 345).

Even though Quintana et al. (2004)’s work addresses science inquiry, the guidelines for software are also compatible with language learning software. Sense making, process management, and articulation and reflection processes also take place in language learning. Principles for providing learners with useful scaffolds for

these processes, such as providing visual and conceptual organizers, activating prior knowledge, making the strategies explicit, enabling multiple views of the same data, embedding expert guidance; and guiding in planning and monitoring the work are useful in language teaching. In other words, these guidelines could be interpreted as relevant to Gibbons' (2002) suggestions of scaffolding language learning, such as creating a meaningful context for language use, making the level cognitively appropriate, "building semantic web of current knowledge" (p.62), and using multiple ways of media to teach (Gibbons, 2002). The sense making period can be regarded as the period in which learners try to figure out the concepts, realize underlying connections between the facts and make reasoning to reach a conclusion. Process management and articulation are also crucial in language learning, where learners try to make decisions to produce their own works orally or in written form. Even if in different forms than in scientific inquiry, these three processes are also valid for language learning, especially in classes where the learners take active role in the learning process. Therefore, Quintana et al.'s (2004) scaffolding guidelines inquiry software are also informative for language teaching, and would provide proper guidance in instructional design for language learning.

Overall, the studies in scaffolding in educational software and Quintana et al. (2004)'s guidelines for scaffolding framework for software design put forward practical and useful guidelines to take into account in the design process for educators. These provide a credible framework to rely on when making design decisions in educational software design and will be addressed in this study as well.

Another area of research that is not unequivocal, is the support provided throughout the tasks in the form of glossaries—whether these should be in the learner's mother tongue or in the target language. The benefits of using monolingual

dictionaries have been acknowledged by many researchers in EFL, and they argue that mother tongue should be excluded in language learning classrooms to promote L2 comprehension. However, the role of mother tongue in second language acquisition has also attracted attention of some researchers who claim that the help provided in L1 could produce better results depending on the learner's language level, and the lesson activities. By taking these two important arguments into account, both of them were applied in this study depending on the requirements of lesson activity or task.

2.5 Research questions

The specific research questions of the study were as follows:

1. To what extent do the experimental group and control group differ in terms of language gains, as measured in the pre and post-tests?
    1.1. Is there a significant difference between the experimental and control group in terms of grammar use in the post test?
    1.2. Is there a significant difference between the experimental and control groups in the vocabulary, reading, and writing components of the post-test?
2. What are the learning gains that result from the implementation of a technology-integrated TBLT instructional design?
    2.1. Is there a significant improvement in the grammar scores of the experimental group from the pre- to the post-test?
    2.2. Is there a significant improvement in the vocabulary, reading, and writing scores of the experimental group?
3. What are the participants' perceptions of the design features of the technology integrated TBLT regarding their own learning?

CHAPTER 3

METHODOLOGY

This chapter focuses on the design and data collection procedures. The instructional design and hypotheses of the study, data collection, and data analysis are explained in further detail.

3.1 Design of the study

This study was a mixed methods study, with a quasi-experimental pre-test post-test design. Intact groups formed by the school administration at the beginning of the semester were chosen randomly as treatment and control groups so as not to interfere with the classroom atmosphere (Creswell, 2012). These participants were normally in different classes, but they were grouped together for the afterschool program's class by the school administration. At the beginning of the study, a pre-test for both of the groups and a pilot session for the treatment group were implemented. The study was planned to last five weeks, nine sessions in total. Each session lasted 80 minutes. The students' learning processes during the tasks and activities were continually observed, and student feedback was requested per each three sessions. At the end of the study, a post-test was given to both of the groups. In addition to the test scores, language products of the experimental group such as their responses during the activities, and writings on their blogs were examined. Thus, both quantitative and qualitative data were collected during the study and analysed in order to answer the research questions.

The dependent variable of the study was the learners' overall scores on pre and post-tests, and the tasks. The independent variable was the instructional method.

The experimental group participated in technology integrated task-based activities in a station rotation model, while the control group continued with regular classroom instruction, mostly based on the worksheets covering the lesson objectives.

3.1.1 Instructional design

This study was based on Task-Based Language Teaching and the scaffolding design framework for educational software. The TBLT design was integrated with technology to enhance learning through scaffolding. There were two reasons for technology integration: 1. to create an environment of learning where the learners will need to use language in order to accomplish an everyday task, such as writing a blog, and 2. to scaffold learners so that they can achieve a notch higher than they normally would. The "Animal Shelter" theme selected from the curriculum of the 5th grades English lesson covered animals' vocabulary along with developing skills on "Present Continuous Tense" usage to describe what people or animals are doing at the moment. The objectives of the study complied with the curriculum objectives and this unit was specifically selected because the afterschool program aimed to provide extra support on school subjects and in the time period in which the study was planned to take place, students were going to cover this unit. The theme was also considered as open for technological support in that introducing animals and telling current actions were practical and advantageous to represent with various media.

The main task was to prepare an informative blog about endangered animals. Due to its usability and user-friendly interface, "Blogger" tool was selected. Consequently, the ultimate products of the study were five blogs prepared by the learners collaboratively in groups. The blogs were expected to include four posts on endangered species, which included the reasons why the animals become

endangered, the different examples of endangered, extinct, or vulnerable animals, and precautions against extinction. The groups worked both collaboratively and cooperatively because each group member had a responsibility to complete their own part in writing. They needed to work individually to accomplish teamwork. The blog writings were supported via paper-based scaffolds such as sentence starters or directive questions to answer. The participants completed the task first on paper, then copied them to the blogs.

Before the students embarked on the task of creating a blog, there was a preparatory stage, which was more teaching focused. The learners needed to practice how to form sentences, gather information, and reach necessary resources for writing about endangered animals before starting the blogs. Classroom activities were designed around a station rotation model during this stage. Each session had 3-4 different activities or tasks, one of which was reading an interactive story book as well as listening and grammar practice activities. The e-materials used in these stations were designed and developed by the researcher herself.

The students worked at the stations which were designed to help them to accomplish the objectives step by step. Each activity served for its own objective and also would lead one step further to the main task of the project. To exemplify, the first session consisted of five tasks, respectively, focusing on vocabulary, grammar, reading and listening skills and one chart filling task. In each task, students completed some questions and they gathered some information to write on the chart. At the end of the session, after the groups had visited each station, they were expected to note down every missing information on the chart and complete the task. The other three session followed a similar design and the theme started with familiar topics, which was animals living at the zoo, and animals living in the shelters, and

then continued with more specific topics such as wild animals and endangered species.

The grammar focus was Present Continuous Tense. These activities in which the participants made use of the language functions that they had learned can be considered as an example for integration of language form and function (Willis and Willis, 2007). The language input was more intensive in the station-based period but, gradually, the tasks grew into obtaining more learner output.

The activities and tasks were prepared based on the principles for designing TBLT, suggested by Candlin, (1987) such as providing attention to meaning, purpose, negotiation and relevant data, drawing objectives from communicative needs of learners, allowing different routes and media, involving learning contributions, challenging but not risky, requiring input from all learners, defining a problem in the beginning, involving language use in solving the problem, providing metacognition and feedback.

Each task was evaluated according to Nunan's sequence of designing pedagogical tasks; namely, schema building, providing controlled practice and authentic listening practice, focusing on linguistic elements, providing freer practice and introducing the pedagogical tasks in addition to Ellis's five criteria for a task design, which are planning goals, input, condition, procedure, and predicted outcomes. Commonly available computer software such as spreadsheets, search engines, word processors were also embedded into tasks to enable learners to reach and gather the target information needed to complete the tasks. Additionally, pen and paper materials were used depending on the task.

In terms of Ellis's definition of a task, which is mainly a work plan (2000), the ultimate goal defined for the unit was creating a weblog, which involved

language input depending on the activity, collecting and sharing of information in small groups, and finally creating the weblog. Ellis (2000) also states that task-based lessons should be designed in three phases. The stages of the study could be divided into such phases; sessions from one to four covering pre-task activities, 5; sessions from five to eight covering during task activities, and session nine as a post-task activity.

The instructional design also took into consideration the steps proposed by Nunan (2004) (see Table 2). The first step suggests using tasks to help schema building, activating prior knowledge, and preparing the learning for the task (Nunan, 2004). The station rotation stage of this study focused on common vocabulary knowledge on animals, and aimed to teach or remind vocabulary items. Additionally, the activities at this first stage were intended to provide controlled practice as advocated by Nunan (2004). In all of these activities, the students were expected to use the target structures. Nunan's Step 3 is about providing authentic listening practice, which was included in the first, third and fourth sessions of the implementation. Step 4, focusing on linguistic elements was addressed in the first four sessions to teach Present Continuous Tense. Step 5 proposes providing space for freer practice, which was allowed in the writing activities to some extent. Nunan's last step finally introduces the main task, which was actually carried out in the second stage (sessions 5-8) of this study. Thus this study can be considered a genuine instance of TBLT design, with appropriate features and various activities that result in a final output in the end. The syllabus of the experimental group can be found in Appendix A.

Table 2. The match between the instructional design and Nunan's 6 steps in TBLT

Nunan (2004)'s steps	**Instructional design features and components of the study**
Step 1: Schema building	Activities conducted during the station rotation period
Step 2: Controlled practice	Grammar and writing activities in the station rotation period
Step 3: Authentic listening practice	Listening activities in the station rotation period
Step 4: Focus on linguistic elements	Division of the study in three periods and providing the necessary related activities and tasks
Step 5: Provide freer practice	Blog writing task and speaking activity
Step 6: Introduce the pedagogical tasks	Completing the blog task in three steps

3.2 Participants

The study was conducted in two fifth grade classrooms in a public school in Istanbul, where the researcher works as an English language teacher. Thus, the study made use of convenience sampling (Creswell, 2012). The participants were 38 fifth graders, who attended an afterschool program offered by the school upon the request of their parents. There were 14 female and five male students in the experimental group; while the control group had 11 female and eight male students. Each group had 19 participants in total, with 10-11 years of age.

The majority of the participants were from low socioeconomic backgrounds, and they were not familiar with using technology for learning purposes. They were not familiar with internet search, or simply typing in English, as they had very limited knowledge of the target language. Some of the participants did not have computers at home, and some who had home computers, did not have internet

access. Thus, the activities and tools use in the implementation were quite new for them.

The Ministry of Education defines the English level of fifth graders as A1, according to The Common European Framework of Reference for Languages. The students were beginner learners, and it can be assumed that they were motivated learners, since the participants in both of the groups had enrolled in the afterschool English lessons voluntarily.

3.3 Implementation

Before the study, the applications to the Institutional Review Board and Ethics Committee of Boğaziçi University were completed. The students' parents were informed and their approval to participate in the study were secured. The study lasted five weeks, two sessions each week. Each session consisted of two lesson hours. According to the yearly plan, the unit takes four weeks, so the study was compatible with the official procedure. The participants were free to leave the study upon their wish. A pre-test was carried out in both the experimental and control groups before the treatment. A post-test was conducted both in the experimental and control groups after the treatment. These tests focused on different language abilities and included reading comprehension, writing, grammar questions on Present Continuous Tense and vocabulary about animals.

The research environment was set up by the researcher at the beginning of each session. In the beginning of the study, participants were informed that they were going to prepare weblogs with the aim of providing a reliable source about endangered animals for children around the world who have limited English language skills. Thus, the students were expected to build language skills as they

accomplished a task compatible with functions of language, while they gained familiarity with the topic. Technology was integrated into the TBLT design for using the foreign language to reach audiences outside of the class. In the beginning of each session, the participants were informed what they were going to do and learn, and the reasons why they needed to complete the tasks to allow them form a mental framework of the study. Additionally, instructions were introduced by the teacher orally first and they were also written both in English and Turkish and attached to the stations for each activity. The teacher also visited each group and provided guidance when necessary.

The study period was carried out in two stages, the first stage covering sessions one to four focused on providing language input and organized on learning stations, thus named as station rotation model stage. During this stage, station rotation model was used to organize the instruction in the classroom. Since there were only six laptops available for use in stations, the implementation was structured accordingly. Each session in station rotation model stage included five work stations, each one focusing on a different skill; reading, writing, learning new vocabulary, acquiring necessary grammar functions and listening. These activities were intended as preparation activities for writing blog posts to introduce the topic and procedures to the learners. The students visited the stations as a group. During these sessions the students received the necessary input and instructions for the procedures. In the work stations, the students were provided with hard copy handouts reproduced from the interactive questions and exercises in the software. They were expected to work individually at this point, and write their answers on the hard copy handouts. This procedure was intended for the collection of individual answers for each question, since the students worked in pairs at the computers. The participants worked with

different peers in each session as the group members changed during the station rotation stage. There was a time limit for each group to complete the task, and they proceeded from station to station in a certain route to prevent any conflict. In cases when a group could not finish, the waiting groups were directed to the extra station in which they were offered extra activities such as playing a matching game, but this was encountered rarely, the groups generally finished their tasks simultaneously.

The second stage in the implementation was blog preparation. This stage lasted four sessions—the sessions 5-8 were dedicated to blog writing. The participants did not move around the stations in this period. They worked in five groups, and each group worked collaboratively on one computer to complete the given tasks. The group members stayed the same for the rest of the implementation. Each of these sessions started with a pre activity which aimed to prepare the learners for writing, and introduced them with the necessary information as well as providing space for the teacher to guide them. They first completed the task on paper, and then they took turns to write their parts in the blog posts. Thus, the blog writing task was done both individually and collaboratively, as they discussed what to write, and helped each other when they needed to check spelling or add a picture or other media to the blog post. The last session was spared for a speaking task to wrap up the unit and give a chance for oral production. In this activity the participants talked about endangered species, the reasons of extinction, and precautions against extinction. Each participant was provided a paper mask of their endangered animal, which they were asked to colour. One of the group members became a reporter and asked questions to the other members about their endangered animal. Each group's performance was video recorded and these records were evaluated according to a speaking activity evaluation rubric.

At the end of the third, sixth, and ninth sessions, the researcher also collected the participants' comments about classroom activities and tasks via short open-ended feedback questions. These questions were: 1. What was difficult about this task? 2. What was fun about it? 3. What do you think you have learned? 4. What can be changed for improvement?" The questions were asked in Turkish so that the students could provide satisfactory answers (Appendix B).

While the experimental group was working on various activities and tasks in the learning stations, the control group focused on the same learning objectives and target grammar structures, but without technology-integrated TBLT, and the theme was limited with common animal names. They followed regular classroom activities for five weeks, mainly based on the worksheets provided by the teacher (see Appendix C for the control group's syllabus). They received regular form focused instruction and explicit grammar teaching. Both groups were taught by the same teacher who was the researcher herself.

3.3.1 E- materials

3.3.1.1 Interactive story books during the station rotation model stage

During the station rotation model stage, the technology integrated activities developed based on the guidelines for task design and scaffolding principles were used. Each session consisted of five different activities focusing on a different language skill, but all designed around the same theme, such as zoo animals or endangered species. Two types of materials were used: interactive story books and technology-based activities, all of which were designed and developed by the researcher. The interactive storybooks were developed in Articulate Storyline.

Productivity software such as MS PowerPoint, Excel, and Word, or videos were also used depending on the objectives of the activity.

The first three sessions included one interactive story book each, entitled, respectively, *At the Zoo*, *At the Shelter*, and *A Mysterious Walk in the Forest*, all written and designed by the researcher. The e-books provided multiple opportunities for noticing the target vocabulary and grammar structures, and thus were intended to help comprehension for the ultimate goal of the study, which was blog writing.

In designing all the activities, the scaffolding guidelines proposed by Quintana et al. (2004) were taken into consideration, and necessary scaffolds were embedded in the interactive storybooks and blog writing. The scaffolds showed variance depending on the requirements of the activity.

The learners were introduced to a great deal of new vocabulary, and therefore visuals were used to help them understand word meanings in the activities during the first four sessions. For example, glossaries in L2 were added as hotspots in the interactive story books. The target vocabulary items were highlighted as clickable hotspots in blue each time they appeared. When students came across a word in blue, they noticed that they should click on it, and when they did so, they would receive a scaffold to help them learn the meaning of the word. A pop up would open with the word's definition or a picture, if the word was the name of an object (see Figure 2 for a screenshot). Additionally, audio was also added to the glossary along with pictures if it enhanced meaning, such as for mimetic words, e.g. the verb *bark*. In such a case, learners could click and hear the sound of a dog barking. Almost all the e-books included a number of interactive questions to check vocabulary, grammar, or comprehension levels. The questions came in various formats to provide interaction:

drag and drop, multiple choice, matching, true or false, type the response, and pick the relevant option (Figure 3).

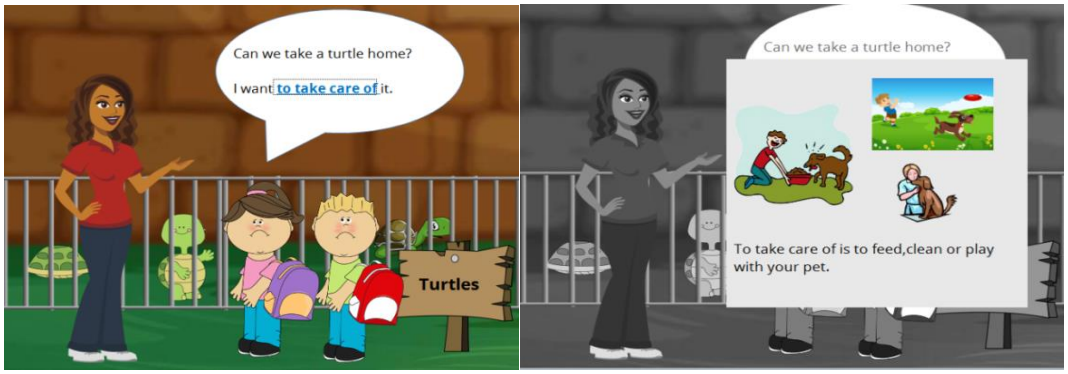


Figure 2. A screenshot from "at the zoo" interactive story book

In each item, the user had two chances to respond. If the user could not answer in their first attempt, a hint was provided. If the second attempt was still incorrect, the correct option or response was shown (see Figure 4).

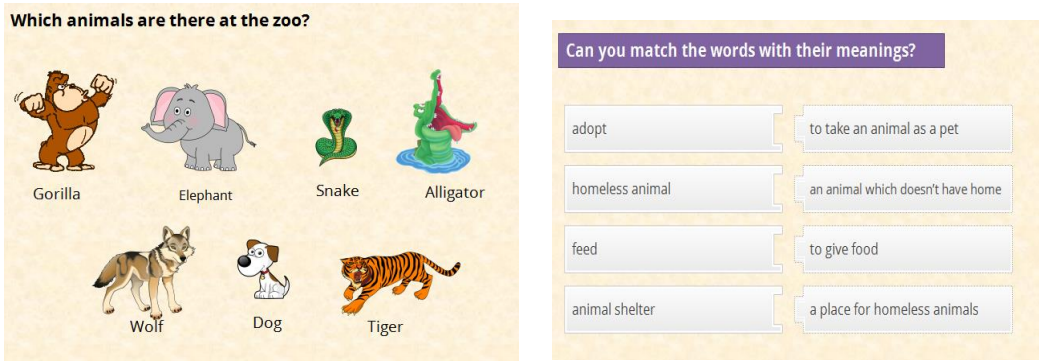


Figure 3. Examples of types of interactive questions in the storybooks

Grammatical functions such as the auxiliary verbs and suffixes were emphasized in bold to help the students notice the inflections. Direct explanations were provided when they could not give the correct option in the second trial. The

feedback given by the software included clarifications of the topic such as "Remember, you need to use "is" if the subject is "he/she/it".

Figure 4. Examples of feedback provided in the interactive storybooks

Therefore, the interactive story books provided grammar teaching both directly and indirectly. Additionally, the target grammar structures were written in bold to increase noticing (Figure 5).

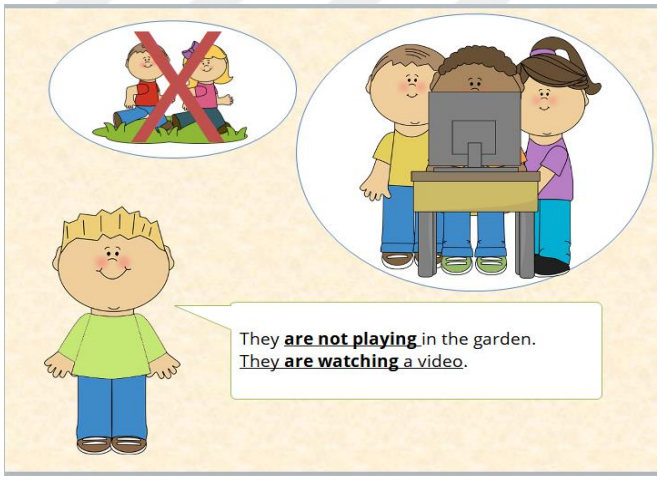


Figure 5. Representation of target structures

The listening activity involved listening to a story recorded by the researcher and embedded in the e-book in Articulate Storyline, in which activity the students responded interactive questions in the tool after listening. The students could control

the interaction by using the relevant buttons for pausing, replaying or stopping. They were free to continue or stop when they could not catch a word. They could also do this in word listing activity while watching a video.

3.3.1.2 Weblog writing stage

The tasks related to blog postings consisted of three steps. In the first step, they were given specific information about the topic of the session. The weblog preparation sessions started with pre-tasks, such as watching a video about the topic, or PowerPoint slides covering information about the sessions' theme. To help with relevant content and vocabulary usage, these pre-task activities covered the necessary information and suitable pictures or definitions of some terms to give them ideas.

The unknown words in these videos or slides were provided as a printed list of words with their meanings in Turkish. A review of literature on the use of the mother tongue for glossary definitions revealed that in certain cases the use of L1 could be beneficial. These words were hard to visualize and if the definitions were given in English, it would be a waste of time to have the students search and spend time on figuring out what each meant. The students' limited English level and efficient time management were major concerns. In addition, considering the scaffolding guidelines for educational software, which recommend automatically handling non-salient routine tasks, Turkish glossary was provided.

For blog writing, the second step was that the participants were required to complete the information on the worksheet, which presented sentence starters and gave some ideas on what to write about. Scaffolding seemed to be mostly needed in forming grammatically correct sentences. Thus, the participants were given prompts on how to start a sentence after the first introductory blog session. These prompts

were similar to fill in the blanks exercises provided in printed handouts, a format the students were familiar with. The first part of the sentence was given and the students were asked to appropriately complete the sentence first on paper, and then type the whole sentence in their blog entry. To decrease spelling mistakes, they were asked to complete the task on paper first, and then copy it to their blog. Teacher help was readily available throughout these steps. Lastly, the students were expected publish these short posts online. These steps were repeated in the 6th, 7th, and 8th sessions, so each group had three blog posts at the end of the study.

In the control group, the objectives were the same as the experimental group, but the station rotation model was not applied. There was no use of technology integrated activities and tasks in the control group. Group work was not involved in any activities and the class work were mainly based on grammar practice and vocabulary learning.

3.4 Data collection instruments

A language skills test on reading, writing, and grammar was employed as the pre-test and post-test. Additionally, data were collected via the blog entries of the students in the experimental group. They were also asked to give feedback throughout the implementation. The feedback questions and the test are attached as Appendix B and Appendix D.

Language skills pre-test and post-test focused on the animals theme and Present Continuous Tense as the grammatical structure. The items in the test were prepared in line with 5th Grade English Lesson Yearly Plan offered by the Ministry of National Education. The test consisted of five separate parts intending to assess grammar, vocabulary, reading, and writing skills. The section on grammar included

ten multiple choice questions on Present Continuous Tense. In the vocabulary section, the participants were requested to match ten animal pictures with their names. The reading section consisted of a short text with five comprehension questions. In the writing section, the students were requested to write three simple facts about their favourite animal such as its diet and habitat, and they were asked to describe a picture by answering five questions.

The students' individual answers written in the print handouts replicating the questions in the e-books were collected and scored. Their speaking activity records were also scored individually. In addition, their blog entries were saved as group work. Finally, the students' feedback comments about the study were employed as data sources for analysis. The feedback questions asked in the first feedback sheet were "What was difficult for you to complete the tasks? Have you ever felt that you had trouble following the activities?, What do you enjoy the most in the study?, What do you think you have learned?, Is there anything which should be changed in this study in your opinion?, If there is, can you explain them?". In the second feedback sheet, they were asked "What is your opinion of the study?, What has been the hardest part for you so far?, What has been the most enjoyable part for you considering the previous sessions?, What do you think you have learned in this study?". As for the third feedback, the questions were "What have you learned in this study?, Write three words that you remember., Which activity did you like the most? Why?, Which activity did not you like or not enjoy doing? , What are the benefits and drawbacks of this study?".

3.5 Data scoring

3.5.1 Language test

The language test consisted of five sections with varying scores. In the vocabulary section, there were 10 vocabulary items and each item was worth two points, 20 points in total. Each comprehension question in the reading section was worth three points, one point for spelling, content, and grammar each, so that the total point was 15. There were two writing sections. The accuracy and fluency of student writing in the first section were evaluated in terms of four criteria: content, spelling, grammar, and coherence. Content, spelling, and grammar were scored three points each, but coherence was worth one point. The total score in this section was 10. The second writing section included a picture and five questions, each worth three points, so the total score was 15 in this part. The section on grammar consisted of 10 multiple choice questions, each worth one point, with a total of 10 points. The overall maximum score the students could get on the test was 70.

The study was carried out in a real classroom setting, as more of an exploratory study, rather than experimental. No standardized tests were used to measure language proficiency. The primary purpose was to develop technology-based materials within a TBLT approach that could be put to use in limited technology settings with young learners at the beginner level. The syllabus, interactive storybooks, and other teaching and learning materials were equipped with specific elements that carried characteristics of TBLT, station rotation model, and scaffolding design principles. To test whether these components would prove useful, the participants' language gains were assessed with a customized test that had a similar format to their regular English exams, and also compatible with the goals of the study. Therefore, the main concern in carrying out this study was to find out

whether these exploratory features affect language learning, and if so, in what ways, rather than conducting an experiment with a standardized test.

3.5.2 Weblog posts

For the evaluation of the blog postings, a writing rubric was adapted from Brown (2000) (see Appendix E). The original version of the rubric included five criteria: content, organization, accuracy, vocabulary, and spelling and punctuation. The organization criterion was omitted because the students' writings were too limited to evaluate in terms of organization. Also, accuracy was renamed as grammatical accuracy to focus on grammatical correctness. Each group posted three entries during the study, which were evaluated with this rubric to see whether there was any progress from the first to the last posting. Each category had five levels, from the highest 5, to the lowest 1. The maximum score was 20.

3.5.3 Speaking activity records

Students' speaking activity records were evaluated using a Speaking Rubric prepared by Toth, 2010 (see Appendix F), which assesses the level of enthusiasm, preparedness and organization, clearness of speech and knowledge of content. Each part had four levels and the maximum score was 16. The rubric was adapted to exclude the eye contact criterion, because in the speaking activity, the participants wore masks, and therefore they were not able to make eye contact with the audience. These evaluation rubrics were chosen because they aligned well with the task requirements.

3.5.4 Data gathered from station rotation stage activities

The data from student work as part of the tasks conducted during the study were also collected and scored and they were evaluated in terms of how much it was completed.

The answer keys for the activities such as reading, vocabulary and grammar activities in the first four sessions were prepared beforehand. The students' answer sheets were compiled, and each correct answer scored one. The responses in the tasks were evaluated in terms of the number of correct answers. Because not all participants were able to attend all of the sessions, the total number of correct answers was turned into percentages, and these percentages were compared to determine a success rate for the first four sessions.

The students read the e-books in pairs, since there were 6 laptops available for the study. Their typing skills were very low, and there was limited time to complete the activities, since they needed to move around the stations. Therefore, the students were asked to respond to the Articulate questions on paper. These responses were evaluated by counting the number of correct answers. As each session had different number of questions, the percentage of correct answers were used for descriptive analysis. The mean scores were calculated for comparison.

3.5.5 Feedback questionnaires

Lastly, the students' responses to the feedback questionnaires collected at the end of every third session were collected and tallied. The answers were grouped, and the most frequent answers were counted.

3.6 Data analysis

The data from the pre- and post-tests were checked for normality of distribution. Repeated measures ANOVA was employed to compare the experimental groups' mean post-test scores with that of the control group.

The data from student work were analysed in terms of the percentages of correct answers. The analysis was done after the missing scores were excluded and each participant was assessed in terms of an individual total score, and percentages were calculated. Thus, it was possible to see the range of progress from the highest to the lowest.

The data from the feedback sheets were analysed by reviewing and coding the general patterns in students' answers and focusing on the frequent comments. Then, these patterns were interpreted in terms of the possible reasons behind them.

The writing part in the pre-test and post-test, and the weblog entries were scored by an independent rater, who is also an English teacher, in order to ensure the reliability of the scores. The majority of the scoring by the two raters was identical. For those scores that did not match, the two raters reviewed their scoring together and through negotiation came to an agreement on all of the scores.

CHAPTER 4

FINDINGS

4.1 Tests

The scores of the pre- and post-tests were checked for normality with Shapiro-Wilk test since the sample size was less than 50 participants (N=38). The results showed that the pre-test scores were normally distributed for both groups, as can be seen in Table 3.

Table 3. Distribution of Scores at Pre and Post-test for Experimental and Control Groups

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental group						
PRE_TOTAL	.111	19	.200*	.955	19	.134
POSTTOTAL	.122	19	.167	.944	19	.058
Control group						
PRE_TOTAL	.100	19	.200*	.978	19	.922
POSTTOTAL	.156	19	.200*	.935	19	.214

An independent samples t-test was conducted to compare the pre-test scores of the participants in the two groups. According to this analysis, there was no significant difference between the experimental group (M = 26.4 SD = 10.9) and the control group (M =28.3, SD =11.9) t (36) = -.53, p = .599; as shown in Table 4. Thus the two groups did not vary in terms of previous knowledge at the beginning of the study.

Table 4. Independent Samples T-test for Pre-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
PRE_ TOTAL	Equal variances assumed	.122	.729	-.53	36	.599	-1.973	3.7207	-9.519	5.572

The descriptive statistics showed that the mean scores of the experimental group were higher than the control group (see Table 5). However, the experimental group's post test scores did not pass the test of normally. Data transformation did not work, either.

Table 5. Descriptive Statistics for the Two Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre-Total	Experimental	19	26.421	10.9940	2.5222
	Control	19	28.395	11.9229	2.7353
Post-Total	Experimental	19	51.947	6.3067	1.4469
	Control	19	35.342	11.9269	2.7362

Nonetheless, both of the groups had the same number of participants, therefore it was possible to use repeated measures mixed ANOVA to check whether the instructional method made a difference in language gains. According to the analysis, Mauchly's test demonstrated that the assumption of sphericity was met, which indicated that the variances were equal. There was a significant difference

between the experimental and control group in terms of instructional method (F (1, 36) = 35.6668, $p < 0.001$) as shown in Table 6.

Table 6. Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Time	Sphericity Assumed	5009.066	1	5009.066	108.969	.000
Time * Group	Sphericity Assumed	1639.592	1	1639.592	35.668	.000

When the subtest scores that target learning gains in specific skills, such as vocabulary, reading, grammar, and writing were considered, the students in the experimental group scored higher in each subtest than the control group students. The descriptive statistics for the subtests can be found in Table 7.

The repeated measures ANOVA showed a main effect of instruction type on the subtest scores, $F(4, 144)= 4.603$, $p = 0.002$, which means the experimental group showed significant difference in terms of language gains compared to the control group, as measured in pre and post-test. The means of the subtests can be found in Table 8.

Table 7. Descriptive Statistics for the Five Subtests

	Group	Mean	Std. Deviation	N
PRE_Vocabulary	Experimental	14.316	5.3857	19
	Control	15.053	5.3070	19
	Total	14.684	5.2869	38
PRE_Reading	Experimental	2.342	1.7325	19
	Control	2.789	2.1494	19
	Total	2.566	1.9388	38
PRE_Grammar	Experimental	3.316	2.9824	19
	Control	3.947	2.3446	19
	Total	3.632	2.6653	38
PRE_Writing1	Experimental	2.947	1.3529	19
	Control	2.816	2.6152	19
	Total	2.882	2.0548	38
PRE_Writing2	Experimental	3.500	3.4116	19
	Control	3.789	4.3535	19
	Total	3.645	3.8606	38
POST_Vocabulary	Experimental	20.000	.0000	19
	Control	17.895	4.8292	19
	Total	18.947	3.5332	38
POST_Reading	Experimental	10.421	2.8928	19
	Control	4.184	2.9684	19
	Total	7.303	4.2831	38
POST_Grammar	Experimental	4.658	2.7841	19
	Control	4.526	2.5684	19
	Total	4.592	2.6428	38
POST_Writing1	Experimental	6.737	2.3533	19
	Control	3.526	2.7207	19
	Total	5.132	2.9903	38
POST_Writing2	Experimental	10.132	2.6710	19
	Control	5.211	4.3151	19
	Total	7.671	4.3298	38

Table 8. Subtests and Instructional Group Interactions

Group	Subtests	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Experimental group	Vocabulary	17.158	.875	15.384	18.932
	Reading	6.382	.454	5.461	7.302
	Writing 1	3.987	.544	2.884	5.089
	Grammar	4.842	.470	3.889	5.795
	Writing 2	6.816	.701	5.394	8.238
Control group	Vocabulary	16.474	.875	14.700	18.248
	Reading	3.487	.454	2.567	4.407
	Writing 1	4.237	.544	3.134	5.339
	Grammar	3.171	.470	2.218	4.124
	Writing 2	4.500	.701	3.078	5.922

4.2 Student work at the stations

This section reports the analyses on the data collected during the station rotation sessions, in order to find out the possible effects of the technology integrated TBLT design on the participants' learning.

The mean scores of each participant in the first four sessions were analysed to see who improved the most.

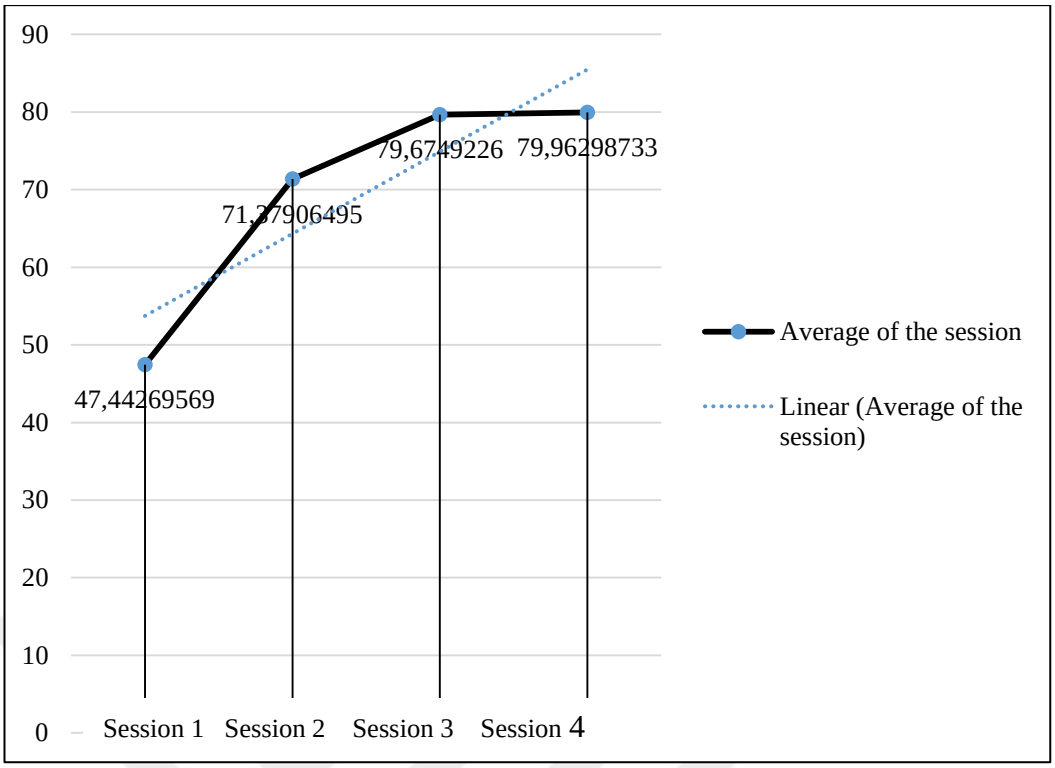


Figure 6. Means of station based period

Figure 6 shows that there is an increase in the means of the total scores of each session. It is notable that the average in the first session was 47.44% (N=19), but in the second session it increased to 71.37%. The progress after the second session is more gradual, but there still an increase in the scores. The fourth session had the highest scores, with an average of 79.96% success rate, though a minor increase from the previous session.

Each student's scores from the first two sessions were added up and compared to the total scores from the third and fourth sessions, to detect any differences in the students' performances from the beginning to the end of this first stage of the study, where at least one station included a reading task.

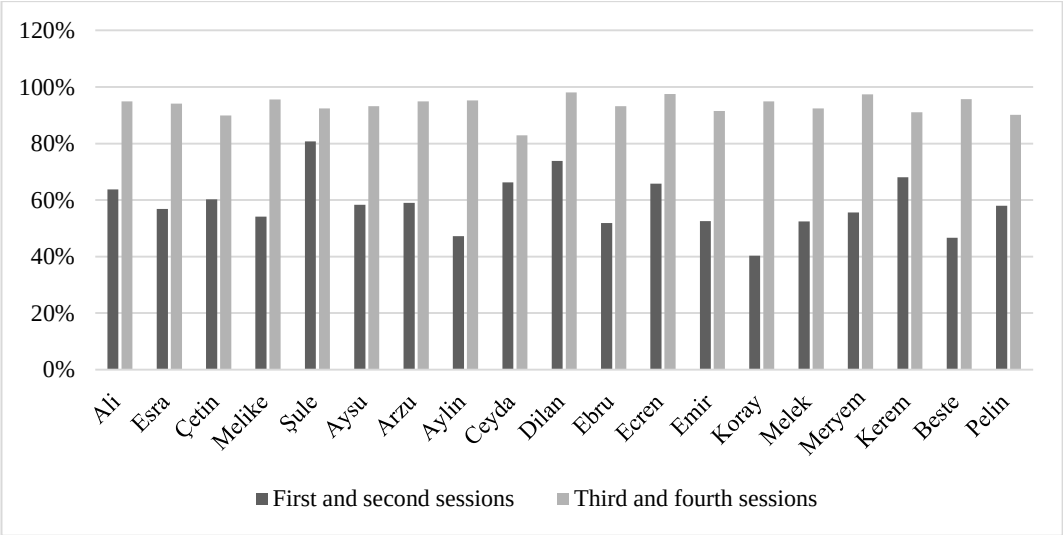


Figure 7. The comparison of the first and last two reading sessions

A considerable increase could be observed when the percentages were compared. The success rate ranged from 40% - 83% for first and second sessions, while it increased to 83% - 98% for the third and fourth sessions. As seen in Figure 7, all students showed progress. However, Aylin, Koray, and Beste ranked the top three in progress whereas Şule, Ceyda, and Kerem showed the least progress. No decrease from the beginning to the fourth session was observed in the study.

4.3 Blog posts and speaking activity scores

The first blog post about endangered and extinct animals was published in the fifth session. The task required the students to write without providing any help. Writing in a foreign language was difficult for these participants, because they were inexperienced in writing, and they ended up using Google Translate or copying from websites. Therefore these very first posts were excluded from the analysis, even though they were scored according to the rubric. Figure 8 presents a sample blog entry from the eighth session.

Figure 8. An example from a blog post

As for the entries posted in the sessions 6-8, Group 1 (blog 1) ranked the highest whereas Group 4 (blog 4) had the lowest average (see Table 9). Group 1 was followed by Group 5, but there was a very slight difference between their scores. Besides, Group 4 showed the least difference between the first and last post; while Group 5 and Group 1 had the biggest difference as they increased by four points. The increase is observable in each group from the first to the last post in the total scores. When the criteria were evaluated separately, it was seen that content criterion received the highest score 61; and it was followed by vocabulary which was 60; spelling which was 53; and accuracy which was 50. Therefore, the groups were also ranked according to the scores from each criterion, but they were equal in content except Group 5 which scored higher. The vocabulary criterion was ranked from Group 1 and 5 equally and followed by Group 2, Group 3 and Group 4. In the accuracy criterion, Group 5 was followed by Group 3, Group 1 and Group 2 and 4. As for the spelling, Group 1 received the highest score and the rank continued with Group 3, Group 5, Group 4 and Group 2. The maximum score of each criterion was 75. The URLs of the groups' blogs can be found in Appendix G.

Table 9. Weblog Scores

		Content	Accuracy	Vocabulary	Spelling	Total (Max= 20)	Average
Weblog 1 (Kerem, Çetin, Melike, Pelin)	Post 1	3	3	4	4	14	15.667
	Post 2	4	3	4	4	15	
	Post 3	5	4	5	4	18	
Weblog 2 (Aylin, Beste, Meryem, Ceyda)	Post 1	4	2	3	4	13	14.3333
	Post 2	4	3	4	3	14	
	Post 3	4	4	5	3	16	
Weblog 3 (Arzu, Dilan, Aysu)	Post 1	3	3	4	4	14	15.3333
	Post 2	4	4	4	4	16	
	Post 3	5	4	4	3	16	
Weblog 4 (Koray, Elif, Şule, Melek)	Post 1	4	3	3	3	13	13.6667
	Post 2	4	3	4	3	14	
	Post 3	4	3	3	4	14	
Weblog 5 (Esra, Ecren, Emir, Ali)	Post 1	4	3	4	3	14	15.66667
	Post 2	4	4	4	3	15	
	Post 3	5	4	5	4	18	
Total score (Max=75)		61	50	60	53		

The scores from the speaking activity are found in Table 10, which shows that five students received the highest score in the speaking activity, 15 out of 16. The lowest score was 11/16, which was received by only two students. The average of the scores was 13.17. The enthusiasm category outscored the other categories while clear speech received the lowest points. Knowledge of the content and preparedness categories were equal to each other.

Table 10. Speaking Activity Scores

		Enthusiasm	Preparedness	Clear Speech	Knowledge of the Content	Total (Max=16)
	Kerem	4	4	3	4	15
Group 1	Melike	3	3	3	3	12
	Çetin	3	3	3	4	13
Group 2	Aylin	4	3	3	3	13
	Ceyda	3	3	3	3	12
	Meryem	3	3	2	3	11
Group 3	Aysu	3	3	2	3	11
	Arzu	4	4	3	4	15
	Dilan	4	4	3	4	15
Group 4	Koray	3	4	4	4	15
	Ebru	3	3	3	4	13
	Şule	3	4	3	3	13
	Melek	4	4	3	4	15
Group 5	Esra	4	3	2	3	12
	Ali	4	3	3	3	13
	Emir	3	3	3	3	12
	Ecren	4	4	3	3	14
Total		59	58	49	58	Average= 13.17

4.4 Student feedback

The feedback sheet in the third session included four questions. The most frequent response to the first question was “I did not experience any difficulty,” given by 15 participants. One participant commented that he had trouble remembering the pictures in the vocabulary task, and another noted that she had difficulty in reading and understanding the stories. One other participant expressed that she did not have any problems because she overcame every struggle together with the other members of the group.

In response to the second question about what they enjoyed the most, 10 participants commented that they enjoyed learning on the computer and using technology the most. Second common answer was that improving foreign language skills. Four participants commented that they liked the group work most, and one participant wrote that the tasks were easy to follow.

When asked what they thought they learned, most of the students (10/19) said that they improved their vocabulary skills. One student said she was learning English, and, one noted that she was learning how to make sentences in English.

The final question was about aspects that needed change. Twelve participants responded that there was nothing to be changed in the implementation. One participant wrote that the tasks could be improved, and one participant commented that each student can have a certain station to work instead of having to visit each station. There was one participant who said that it was better than traditional classroom environment, and lastly, one participant noted that it was not good to work with students that they were not friends with.

The second feedback sheet was distributed in the sixth session. It included four open-ended questions. The most common answer by 13 participants to the first

question about what they thought about the implementation was “it is great.” The second common answer (by five participants) was “it is fun.” The other comments included that it was exciting for them, makes them happy, and makes learning easier. There was also one comment that it was hard to type when there’s only one computer.

In response to the question about the difficulty they were having, eight participants reported that they had no difficulty. Three said that it was hard to form sentences. There were also two comments about the difficulty of typing a blog posting. Two others said that they had trouble in finding suitable vocabulary for the context. One participant said that she could not get on well with her group members. Lastly, one participant reported that it was difficult to work on the same computer as a group, it would be better if everyone had a separate computer.

The most frequent answer (5/19) to the most enjoyable aspect was building their own weblog. There were two second most common answers, doing online research and publishing their own entries, and learning English. Three participants reported that they enjoyed everything, and one participant said that it was fun that other people could read their posts online, and finally, one comment mentioned working together as a group was the most enjoyable aspect.

The most frequent response (8/19) to the question that asked the participants what they learned was vocabulary. The next frequent answer was that they learned about the extinct and endangered animals, and the causes for it. The students also said they learned animal vocabulary, and two participants said they were learning how to form sentences. There was one last comment: “I have learned everything”.

Finally, the last and more comprehensive feedback was carried out at the end of the study. The answers to the first question about learning was: new vocabulary

items, working as a group, and gaining information about endangered animals , and the animal names that they were confused about before. The most prevalent vocabulary item written by 15 participants was “endangered animals”. The second ones were “sea otter,” and “grizzly bear”. The third common vocabulary items were “white-handed gibbon, animal, and rabbit”. The answers also included “extinct, should, panda, puppy” (each of them individually written by two participants). Additionally, other answers were “polar bear, do, can, real, danger, animal shelter, zoo, habitat, cat, tiger, turtle, kitten, generation, nature and restaurant” vocabulary items.

Nine participants reported that they liked making masks and recording a video (speaking activity) the most. The second most liked activity was preparing a weblog, mentioned by six participants. Four participants said that they liked using and learning with a computer and the last comment was answering the comprehension questions on the e-books.

Fourteen participants wrote “none”, in response to the question about what they did not like doing. Two participants indicated that they did not enjoy copying their pieces of writing to their blog posts from the worksheet. One answer mentioned the difficulty of finding the meanings of unfamiliar words, and lastly, one commented that he did not like moving around the stations.

As for the benefits and drawbacks, the students said the most beneficial part was that they were learning English (6/19). Four participants reported that everything was useful, and three reported that they learned new vocabulary, and two participants said that creating a blog was the most beneficial part. The other answers included working as a team, learning about endangered animals, and getting information about animals’ diets and habitats. In terms of drawbacks, nine participants said that there

was no drawback in the study. Two participants reported that they sometimes argued with their group mates. The other answers were the spelling of some words, having to write the blog posts on paper first, and moving around the stations.

CHAPTER 5

DISCUSSION

The purpose of this study was to find out whether technology integrated task-based language instruction makes a difference in the participants' language gains, and about the participants' perceptions of the extent to which such an implementation is useful for them. In this chapter, a comprehensive discussion of the study findings is presented, and each research question is answered according to these findings.

This research sought answers to three main research questions concerning the difference between the experimental and control group students' language gains, to what extent the experimental group differ in terms of language gains in post test scores, and lastly, how the technology enhanced TBLT design was perceived by the learners. Along with Ellis's (2000) argument of tasks having different phases, Nunan's recommendation to follow a syllabus involving sequential steps constituted two of the foundational bases of the design. The findings demonstrated that both groups showed progress, but there was a significant difference between the post-test scores of the experimental and control groups. The design of the study and the feedback from the learners' also revealed some crucial points for a good technology integrated language learning class. As one of the few studies integrating TBLT and technology, this study has confirmed the positive findings about technology integration in TBLT, and allowed to draw conclusions about such instructional design in a Turkish public school context with limited opportunities for technology integration. The large increase in the learners' scores from the pre to post-test went beyond the expectations of the researcher, who was familiar with the students' performance and the school's conditions, as a teacher employed full time at the school.

Research in TBLT and technology integration implicate the benefits of bringing them together to design a more meaning focused language class, making use of real-world language, relevant for daily life and the learner's needs and interests (Long, 2015). Technology can offer great deal of affordances in this regard by providing a space for language use, being adjustable to learner profiles and enabling teachers to emphasize learning objectives repeatedly. This study constituted an example of how tasks and technology integration enhances learning, and it has also revealed learners' attitudes towards this kind of instructional design. One of the implications of this study is the need for providing help through sufficient scaffolds. As proposed by various researchers such as Sharma & Hannafin (2007), and Quintana et al. (2004), tools used in lessons should allow learners to see a concept from various points of view, and link previous knowledge to the newly introduced material. The help of visuals, definitions, handling of routine tasks before the lesson and providing guidance during the lesson are considered important language scaffolds in teaching EFL (Gibbons, 2002). The arguments favouring scaffolding in EFL research overlap with the recommendations of Quintana et al. (2004) for technology integrated learning environments. They both argue for the advantages of providing the necessary guidance either by a teacher or a tool, depending on the lesson process. The results of this study showed the benefit of designing tasks with these design features. Embedding visuals, L2 glossaries, and playing sounds, giving learners a second try, and providing informative feedback when an answer is incorrect proved to be helpful in this study. Additionally, emphasizing the target grammatical functions seems to ease grammar learning, and allow learners to make their own inferences. Control buttons on listening activities allowed learners to regulate the process themselves by pausing or replaying. Station rotation with

various activities on different language skills centred upon the same theme, such as zoo animals, wilds animals, and the concept of endangered species helped learners to see the content from different perspectives, and provided opportunities for multiple types of practice. Pre-tasks in weblog preparation sessions also provided help to activate prior knowledge.

The fact that the tasks should mix form and function together to enhance learning (Norris 2009; Candlin, 2009) is underlined many times in the literature. On the basis of what has been proposed in earlier works of the pioneers in TBLT such as Nunan, Willis & Willis, and Ellis; this study can be claimed to have integrated form and function efficiently as indicated by the learners' success. Their scores make it possible to infer that collaboration and interaction on certain tasks positively affected their performances. Throughout the study, they became better at handling the situations within the group, or problems arising from technical issues. Thus, the integration of several task features offered by Candlin (1987) yielded good results consistent with the literature.

5.1 The effects of the technology integrated activities and tasks

The finding that the experimental group significantly outperformed the control group in the total post test scores showed that the type of instruction affected the learning process, which is consistent with the literature. That the participants in the experimental group improved their language skills compared to their initial status can be linked to having a major learning goal. They were going to prepare a weblog and they needed to search the web for relevant information. Thus, one could claim that this motive helped them to improve their reading skills. The fact that their own piece of writing would appear on the internet, open to everyone with Internet access made

them more enthusiastic about participating in the learning activities, and they paid more attention to the tasks. It is emphasized in the literature that learning a foreign language with tasks eases the burden of language learning, and provides a way to use the language to reach an aim (Richards & Rodgers, 2001). Thus, the weblog preparation task provided such a purpose for learning, and helped create the necessary environment to apply the knowledge the students acquired in the activities. The aim of writing posts was meaningful enough to encourage them to use their knowledge of English even though they were not experienced in preparing a piece of writing in a foreign language.

The positive impact of technology should be noted, since the students relied on technology in most of the classroom activities and the blog post writing tasks. As pointed out in the literature by different authors, such as Gonzalez-Lloret & Ortega, (2014), Müller-Hartmann & Ditfurth (2010), technology-based tasks enhance foreign language learning. The blogging activity allowed learners not only to check and edit their work, but also to reach a certain audience. In other words, the fact that their work was not limited to classroom use encouraged the participants to improve their skills to express themselves better in the target language.

Researchers claim that tasks create a suitable environment to use the language as a means to an end, rather than an end in itself (Norris, Bygate, & Van den Branden, 2009). Creating a blog was a continuous process in which the participants had to produce a final output. Therefore, they searched the web in English, even if they had limited language skills, and they tried to form correct sentences to be understandable and clear. Apparently, this process helped and motivated them to improve their skills by offering a meaning making environment (Richards & Rodgers, 2001) through an authentic way of communication. They made definitions,

gave examples, explained causes about the subject in their blogs—daily activities needed when language speakers are asked to clarify a topic. Creating a blog is a common, convenient, and effective way of stating one's opinion on the Web, and it is quite widespread among teens. Thus, it is possible to claim that the study made use of realia to specify daily usage of the target language, and the participants might consider preparing a weblog on any topic in English in their future lives for several purposes (Willis & Willis, 2007).

As for the comparison of subtests, the fact that the groups did not have significant difference between vocabulary and grammar scores shows that the participants in the experimental group could achieve similar results even though they were not provided with explicit grammar and vocabulary instruction by the teacher. They learnt and practiced these target structures with the help of the technology-based activities. These results indicated that the experimental group participants did not fall behind the control group who received form focused instruction. Moreover, they outperformed the control group in reading and writing, which are actually complex skills that require more time to improve. Even though the control group participants were instructed in accurate grammar usage and vocabulary, they did not achieve a superior performance in any of these subtests. Therefore, it is important to emphasize that having no significance between vocabulary and grammar scores is actually a positive indication that the instructional design enabled learners to learn through inferences and reach an equal level to their peers in the control group, while developing more in productive skills, such as reading comprehension and writing.

5.2 Success rate during the station rotation stage of the study

The fact that the lowest means were recorded on the first session could be attributed to the participants' unfamiliarity with such a classroom setting. It was observed that they had difficulty in managing group work, keeping up with the time limit, and understanding the instructions. It should also be noted that each group missed one of the activities because they ran out of time, accordingly this resulted in low scores. The increase in the percentage scores in the second session indicates that the students learned what they needed to do and took action regarding the requirements of the activities. It could be inferred that they had trouble figuring out how to use the tools and software in the activities. The scores of the third and fourth sessions were slightly higher than the second session, as they gained much familiarity with the process, and their group work and technology skills seemed to improve. That the highest score was achieved at the fourth session might be because the process was clear to each participant, and they understood the aim of the implementation much better over time. It is noteworthy that each student showed progress and got higher scores in the third and fourth sessions. In contrast to the change in content, task types and target skills were similar in each task. Even so, their scores kept increasing through the sessions.

The students' progress on tasks confirms previous research in the literature that argued bringing different skills together in a lesson improves learning, as particularly emphasized by Richards & Rodgers (2001). The learners' skills on the forms and functions of the language have developed during the study as seen in test and activity scores. Candlin (2004) also puts forward that group work helps learning because "interdependence and interaction among group members" (p. 24) generate a

strong motivation to continue and do their best. This seems to hold for the current study as well.

Embedding glossary in L2 seems to have helped, comparing the post-test scores in the research group. Although the study did not aim to examine the effects of the glossary usage for language learning, it showed that using the target language works even for students with limited L2.

5.3 The evaluation of blog posts and student feedback

The first session which provided no scaffolding for the blog posting task resulted in the students' heavy use of Google Translate, because they were very inexperienced in writing, and lacked the necessary knowledge to answer the questions properly without any support even if they were advised not to do so. That all the groups obtained similar scores without scaffolding shows that they had gone through similar problems. These results confirmed the need for sentence starters, pre-tasks for writing, and list for necessary vocabulary. When scaffolding was introduced, there was a stark increase in their ability to form sentences. This finding points out the importance of integrating scaffolds into each component of a task.

Accuracy in writing seems to be the most difficult skill, since all of the groups got the lowest points in this criterion. Wrong word choice and incorrect collocation usages were observed before embedding scaffolding features in the blog post. When the groups are compared, it could be inferred that the groups varied in terms of progress in accuracy of writing. That the Group 1, 2, 3 and 5 showed gradual improvement in each session could be interpreted as a meaningful increase. The scaffolds must have contributed to this increase. Because Group 4 sustained the same score in each post, it could be assumed that this group did not benefit from the

study as expected. That none of the groups got the highest score in this criterion might indicate that they still lacked necessary grammatical knowledge, but continued learning. It can be inferred that scaffolding was beneficial for improving accuracy since the groups showed progress, nonetheless.

The scores on content were also low in the first blog post, which might be because the students gave relevant answers to the questions, but they could not come up with suitable examples. It was clear in their posts that the students became more familiar with the task and the topic, and wrote more coherent pieces in each session. Providing pre activities in each session positively affected the development of content knowledge. Another explanation for this increase might be that their interest increased as they spent more time working on tasks, and also their knowledge on the topic may have broadened. Group 5 was the only group that received the maximum score. The reason why they outscored others could be related to their group work skills, their enthusiasm about the implementation, and their ability to search the web and come up with more relevant information.

Vocabulary building seems to have benefitted greatly from scaffolding and technology integrated tasks, since it holds the second highest scores after the content criterion. Vocabulary scaffolding features proved to be helpful for the members of Group 2 and 3. Group 1 seems to have benefitted the most from the implementation, considering that they finished the study with a posting full of different vocabulary items. Their progress was reflected on their scores, and it can be concluded that scaffolding features helped them noticeably.

The comparison of the spelling scores of the 5th session and the rest of the sessions shows that mistakes decreased in number and this paved the way for an increase in spelling scores for Groups 1, 4 and 5. The decline in the scores of Group

2 and 3 might be linked with having a time limit to finish the activity, and also their insufficient attention to typing. It was also observed in the study that the participants were eager to use different media in their weblog posts, and so they hurried up to complete the writing part as soon as possible and spent some time on adding images or YouTube videos. Scaffolding in spelling seems to have helped Group 4 and 5 considering the rise in their posts in the last session. The fact that the scores of Group 1 did not demonstrate much change in this criterion indicates that they might have difficulties in typing, and should focus more on error free typing. It could be argued that scaffolds on spelling should be strengthened. The overall scores achieved by the groups for the blog postings indicate that the scaffolding features helped learners to improve and apply their language skills better.

The results of the speaking activity showed that it encouraged the participants to speak in English even though there was one speaking activity during the study. It could be inferred that they became eager to speak at the end of the study as their enthusiasm scores were the highest. The scores they got in the criteria on preparedness and knowledge of content imply that the activities in the previous sessions helped the students to get ready for speaking about the topic and gave them ideas on what to talk about. However, they still needed more assistance on clear and fluent speech.

As for student feedback, the most common comment was that they encountered no difficulty during the implementation. This might be attributed to Gibbon (2002)'s argument that proceeding step by step allows the learners to cope with difficulties. The pre-tasks helped the learners to get ready for the main task, as was suggested by Gibbons (2002). This feedback also supports the idea that learners tend to be less anxious to make mistakes in technology integrated activities, as argued by Solares

(2004). Therefore, it could be said that technology use motivated the students to actively participate in the tasks. That more than half of the participants wrote that nothing needed to be changed indicates that they enjoyed the design of the technology-based activities. This might be due to the fact that it was the first time they participated in such a technology-based language learning class. Many students made such comments as "I liked being recorded the most" and "I liked creating a blog the most". Moreover, they were aware that their English improved, and they were enjoying it. As it was emphasized in the literature, language learning does not happen only by instruction; learners need some space in which they can experiment with what they learn (Krashen, 1982), without feeling the pressure of correctly completing exercises and drills. Therefore, the students' comments indicate that they were engaged in the work, and had the motivation to continue, similar to Park's study (2010) in which the findings showed that the tasks were motivating. Additionally, the students pointed out that they specifically liked creating blogs, and the idea of having an audience on the internet. A student commented: "I liked the idea that other people could read our writing". It is argued in technology integrated TBLT research that learners should carry out tasks similar to daily life activities, and task language should reach beyond the classroom (Nunan, 1989).

The students' responses to the feedback questions also revealed that they were able to monitor their learning process, and they seemed to be aware of the objectives of the activities, rather than just practicing some grammatical functions because they were asked to do so. The students most frequently noted the target vocabulary as the new words they were learning, such as "endangered, extinct, white-handed gibbon, grizzly bear, sea otter" One student commented: "I am learning extinct, and endangered animals and the reasons why they become endangered."

The speaking activity was also enjoyed the students, which is an indication that they began to feel ready for speaking in English, and they were feeling less anxious to speak in a foreign language. Thus tasks and technology helped them to change their attitudes towards language learning, and they were less afraid to make mistakes.

Although the study setting and moving around the stations were relatively new for the students, it seems that group work was beneficial, which is again encouraging, especially given the age of the participants. The advantages of group work, as shown multiple times in the literature on language teaching (Ushioda, 1996; Slavin, 1988; Nichols and Miller, 1994 cited by Lan, Sun & Chung, 2006; Chappell, 2014; Johnson & Johnson, 1989 cited by Clark, Baker & Li, 2007) were evident in the students' comments on how group members solved problems. As one participant put it "we overcame the difficulties we encountered together." Collaboration in TBLT lessons is widely recommended (Candlin, 1987). Although group work helped students solve problems and deal with difficulties collaboratively, not everyone enjoyed working in groups, as was evident in two students' feedback about not liking to have to work with classmates they were not friends with. Because the participants were from different classrooms, they did not have enough time to get to know each other in the afterschool program. They had to compromise and agree on the distribution of work within the group. This might have affected their learning slightly.

To summarize, most of the comments about the implementation were positive, and showed that the participants were engaged in the work required, they were able to manage the group work, and they could also evaluate the learning process, and criticize some of the procedures. These indicate that the study contributed to the

learners' language skills and helped them gain a different viewpoint concerning language learning.

5.4 Limitations

A major limitation of the study was the lack of sufficient technological infrastructure. Let alone computer lab, the study setting did not have any computers accessible by students. This problem was handled by the researcher by bringing six laptops to each session. Additionally, the classroom setting was not equipped with adequate hardware such as plugs, extension cables, or internet connection. All these essential hardware besides the network connection was provided by the researcher herself. As they came from low income families, most of the participants did not have any computers or internet access at home, as a result of which they had low computer skills, and typing was sometimes a problem.

It should be noted that there were some conflicts among the group members caused by having one computer for each group, such as division of group work or taking turns to work on the computer. The insufficient number of computers created difficulty to work as a group. This obstacle was handled by having the learners take turns in each task.

Another limitation was the small number of participants. There were two groups in the study, and the arrangement of the classes allowed 38 participants maximum. The study might have yielded deeper insights about the nature of technology integration in TBLT and more robust findings, had it been possible to include more participants.

Speaking was the least covered of the four language skills in this study. More speaking activities could have been included, but this was not feasible because of the

participants' limited level of English, which created a feeling of anxiety for them at the beginning. Had the study lasted longer, the number of speaking activities could have been increased.

This study covered one unit in the 5th grade English curriculum for middle schools in Turkey. The yearly lesson plan according to the curriculum spares four weeks for each unit. Although the researcher allocated five weeks for the implementation, the intensity of the scaffolds in each activity and tasks were not adjusted as desired due to the time restrictions. More scaffolds could have been integrated into the activities and tasks, which would be withdrawn more gradually, and finally be removed altogether towards the end. If further studies cover more than one unit, the study may span over a longer time period, and the scaffolds can be organized accordingly.

Only one try out session was held before launching the study. The students could not complete all of the activities in the first session, because some groups could not manage their time in the beginning. These activities were covered in the next session; but holding more pilot sessions at the beginning might help learners gain more familiarity with the process. By this way, the risk of missing data and misunderstanding of the instructions might be prevented.

5.5 Implications for further research and instructional design

Based on the findings and the experience of working in limited conditions, several guidelines are recommended on instructional design and classroom management for further studies, and enthusiastic ELT teachers who are willing to employ a technology integrated TBLT syllabus.

In the design of technology integrated instructional materials, providing necessary scaffolds is of major importance. The significance of employing visuals, audios, L2 glossary, informative feedback, and hints in the tools are strongly recommended. In addition, providing prompts and sentence starters, proceeding step by step, and having pre-tasks to bridge prior knowledge should be made use of in further studies. It is important to organize these scaffolds so that they are relevant for the learners' needs, and the features of the task. There should be a good balance in the amount of scaffolds used, so as not to be too comprehensive or insufficient. It should not ease the work too much, and also should not challenge the students above their abilities. Therefore, it is crucial that teachers or instructional designers should be aware of the students' background knowledge and what is necessary to use to help them improve when designing technology integrated TBLT.

Student feedback is important for research as an ongoing process. Based on student comments, some arrangements were made during the study, such as changing group members. One surprising finding was that student feedback revealed that many young learners were also able to monitor their own learning, even though this study did not aim to examine this. Further studies can allow more student feedback on activities and tasks for process management, and the students' level of monitoring their own learning can also be closely investigated.

Another suggestion for ELT teachers is arranging work stations in their lessons. Station rotation model differs from regular group work in that there is a different activity in each work station. However, it is crucial to relate these activities to each other appropriately in a continuum. It can be noted that this decreases the feeling of monotonous learning. Instead of just coming to class and sitting for long periods, visiting each station may help create a sense of responsibility and arouse

curiosity towards the activities and tasks. Additionally, learning a subject by performing different activities allows learners to have more opportunities for practice. This is also more convenient and time saving for the teachers as well. Instead of restricting the lesson hour with a couple of activities, using work stations allows integrating multiple learning activities. Based on the researcher's observations, station rotation model can be recommended in order to increase student enthusiasm, and also to offer various activities around a shared objective in a limited time.

It would be better if the participants could use individual computers or at least two computers at each station while working collaboratively, however station rotation model proves to be efficient even in this kind of limited technology environments. In schools where teachers and students work with limited resources, and in less fortunate conditions, applying technology integrated lessons comes with many issues to address. However, the flexibility of technology tools and lesson design approaches allows for compensating these problems effectively, and thus enriches learning.

The benefits of technology integration in learning environments confirm the need for keeping up with the latest improvements, and responding to learner needs and interests. Instructional design carries a major importance for the type of studies that aim to direct learners to meaningful use of technology. Instructional design produced without being based on a proper teaching framework will lose its focus, and will inevitably end up using technology as an add-on, instead of an integrated medium of learning. To avoid such an outcome, the study was grounded on two important foundations: an established language teaching method, TBLT, and the scaffolding guidelines for learning software. Thus, an attempt was made to

appropriately integrate technology into the foreign language class to enhance learning. As a result, learners were able to take sufficient guidance during learning, use technology to reach necessary resources to create noteworthy language production. Therefore, for a successful implementation of technology integration, even in limited-technology conditions, the instructional design should be based on a solid model in the literature, and pave the way for self-monitoring and learner production.

APPENDIX A

SYLLABUS OF THE EXPERIMENTAL GROUP

In the pilot session, T talks about the fact that many sources on the Internet are in English, and that there is need for reliable sources for children with limited English. T will show the students the weblog about “tree octopus”-- endangered species hoax website (http://zapatopi.net/treeoctopus/). It’s quite possible to fall prey to such websites, so there really is need to create good sites for limited English people. The students will prepare a weblog to meet this need.

First session	April, 18; Station Rotation Period	
	Introduction	The teacher explains that the whole aim of the session is to fill out a schedule of the animals at the zoo. They are going to fill out an observation form in each task, and necessary information will be given in each station to complete the table. After the group visits each station, they will have completed the schedule. The teacher gives the instruction before the tasks, "You are an animal lover, so your aunt takes you to the zoo. She wants you to observe the animals, thus learn about animals and develop your observation skills. Your task is to wander around zoo all the session and make a chart of which animal is doing what. You need to study on each station as a group and complete the chart at the end of the session." After then, the teacher clarifies the activities that the students are going to complete and gives information about the stations and forms groups of four.
	Reading Station (2 laptops)	In this task, the students will read an e-book which focuses on "Present Continuous Tense" in pairs. The e-book is prepared on Articulate. It gives information about zoo animals and emphasizes "Present Continuous Tense" usage. The exercises will give information of the schedule that they need to complete. The teacher will provide guidance and help during the task.
	Vocabulary Station (One laptop)	In this task, the students will study vocabulary on the Articulate Vocabulary project which gives information about zoo animals and emphasizes "Present Continuous Tense" usage. The exercises will give information of the schedule that they need to complete. The teacher will provide guidance and help during the task.
	Listening Station (One laptop)	Students will listen a record about animals and complete some questions on paper. The questions will give information of the schedule that they need to complete. The teacher will provide guidance and help during the task.
	Mind Mapping Activity (No laptops)	Students will classify the animal pictures as wild, farm animals and pets and make a diagram. The teacher will guide and provide help when necessary.

	Extension Station, Writing Activity (No laptops)	For the groups that finish the task earlier, an extension task will be provided. In this task, a worksheet with animal pictures will be provided and they need to form sentences by looking at the pictures. T will guide and provide help when necessary.

Second Session	April, 22; Station Rotation Period	
	Introduction	In this session, the students will be able to be more familiar with animal vocabulary and negative form of Present Continuous Tense. The teacher explains the activities first and tells the students that the product of the session will be gathering information about animals to write blogs in the next sessions. The teacher will remind the students the tree octopus hoax website, they will get more familiar with the rationale behind the task. In each task, the information about animals is given, they gather information in each station and this might be a starter for the weblog task writing as it could give them ideas about what to write in the next sessions. Their writing will be kept for the next sessions.
	Grammar Station (One laptop)	The students will work on Articulate project for grammar skills and do some exercises. This time, they will focus on negative sentences and question form of "Present Continuous Tense". The exercises will focus on fun facts about animals. They need to take notes on paper. The teacher will provide guidance and help during the task.
	Reading Station (Two laptops)	The students will read "At the Shelter" story on Articulate in pairs. The teacher will provide guidance and help during the task.
	Writing Station (No laptops)	The students will be given names of many animals, they will make a cartoon using vocabulary and grammar they have used so far. They will write what they are doing. Just one cartoon will be prepared, each group will come and contribute to it, so it is going to be a cooperative class work.
	Grammar Station (One laptop)	The students will work on positive form of the target grammar structure on Articulate. The teacher will guide during the task.
	Reading Station (One laptop, one paper handout)	One pair will use PPT to sequence a jumbled text on family at a shelter. The other pair will do the same activity on paper, then they will change places and do it on the computer or on paper.
	Extension Station on Grammar	Groups that finish early will work on grammar with worksheets. The teacher will provide guidance and help during the task.

Third session	April, 25; Station Rotation Period	
	Introduction	The teacher explains the tasks first and tells that the students will be informed about endangered animals' concept, they will be more familiar with it at the end of the lesson as they need this information in their weblogs in the next sessions. The teacher will guide and help when necessary.
	Reading Station (One laptop)	The students will read "A mysterious walk in the forest" book, they will realize there is a decrease in the number of wild animals while wandering around the forest. The teacher will provide guidance and help during the task.
	Vocabulary Station (One laptop)	The students will be shown two pictures and asked to find the differences between them, they will take notes of the differences as an Articulate project. They will be asked to find and form correct sentences about the differences.
	Reading Station (No laptops)	The students will compare the statistical information about endangered species. They will analyse the numbers on handouts.
	Vocabulary Station (One laptop)	The students will search the net about "What "endangered" means". They will make a list of words using a dictionary or searching the web. They will try to come up with meaningful explanations about extinction. They can search in Turkish if necessary, but then they will come up with a list of (10) important keywords in English.
	Listening Station (One laptop)	The students will watch a video about endangered animals and try to remember as much words as possible about the topic. They will make a list of words while watching. https://www.youtube.com/watch?v=7k8CcAU2Lt0
	Reflection Station	Students will fill out the first feedback sheet about the process of the project.

Fourth session	April, 29; Station Rotation Period	
	Introduction	The teacher explains the tasks of the day and tells that they will gather information to start blogging. The objective of the day is to get more information about endangered species to prepare a blog that has reliable information (so that people with limited English do not fall prey to hoax sites such as "tree octopus"). The teacher will provide guidance and help when necessary.
	Reading Station, Searching for information (Two laptops)	The students will search the Konica Minolta website about endangered animals and try to find answers to the skimming questions. http://www.konicaminolta.com/kids/endangered_animals/about/01.html The questions are: • What are endangered animals? • Find three extinct animals. • Find three endangered animals. • What can we do to save endangered animals?
	Grammar Station (One laptop)	The students will focus on grammar and learn question form and time adverbs on "Present Continuous Tense", see examples of some endangered animals, match words with pictures on Articulate project.
	Reading Station (One laptop)	The students will form an endangered, vulnerable or extinct species table by searching information on the National Geographic Kids website. They are asked to gather information about the endangered status of 10 animals. They are: Giant Panda, Polar Bear, Sea Otter, White Handed Gibbon, Green Sea Turtle, Cheetah , Woolly Mammoth, African Elephant, T-Rex, Polar Bear
	Speaking Station, (No laptops)	The students will engage in an information gap activity, they will be given some cards and they will try to complete their cards by asking their peers' what the animal is doing.
	Listening Station, Watching a video (Two laptops)	Students will watch "10 Animals That May Go Extinct In The Next 10 Years" video and make a list of these animals names while watching. https://www.youtube.com/watch?v=VrokfZ6mD5A

	Extension Station	Groups that finish early will work on two things they remember from the video they have watched on listening station. They will be asked to write two thing they remember about the endangered animals in the video. Also, a grammar worksheet will be provided to practice. The teacher will provide guidance and help during the task.

Fifth session	May, 2; Blog Writing	
	Introduction	The teacher explains the tasks and tells that they will start blogging. Product of the session is the first blog post. They will write about endangered species. In this session, the groups do not need to change stations. Each station will do the same activities at the same time. The first two tasks will be completed in the first lesson, the second lesson will be spent on writing task as a group.
	Teacher introduction in the beginning	The students will be informed about what a weblog is, how to write a blog. The teacher shows examples and each group chooses an endangered animal to give information.
	Reading Task (One laptop)	The students will read a text about endangered animals and answer some comprehension questions on Articulate project.
	Writing Task (One laptop)	The students will start the framework of their blog. No scaffolds will be provided. They are expected to give information about endangered species in general.

Sixth session	May, 6; Repetition of the fifth session with scaffolds	
	Introduction	The teacher explains the tasks and tells that they will start blogging. Product of the session is the first blog post. They will write about endangered species. In this session, the groups do not need to change stations. Each station will do the same activities at the same time. The first two tasks will be completed in the first lesson, the second lesson will be spent on writing task as a group.
	Teacher introduction	Students will be informed about what a weblog is, how to write a blog. T shows examples and each group chooses an endangered animal to give information.
	Reading Task (One laptop)	Students will read a text about endangered animals and answer some comprehension questions on Articulate project.
	Writing Task (One laptop)	The students will start the framework of their blog, what they need to do will be given on paper as scaffolds such as the steps they need to follow to create it. They are expected to give information about endangered species in general.
	Reflection Station	Students will fill out the second feedback sheet about the process of the project.

Seventh session	May, 9; Blog Writing	
	Introduction	The teacher explains the tasks of the session. The tasks will proceed simultaneously in each station. They are expected to write a post about a specific endangered animal at the end of the session. These animals are "White - Handed Gibbon, Sea Otter, Green Sea Turtle, Polar Bear, and Giant Panda". In the beginning, each group will select an endangered animal. During the session, they need to gather information about their animals and take notes to write a blog post.
	Listening Task (One laptop)	The students will read a watch a video about their animals, they will have some questions and write the answers on paper.
	Reading Task (One laptop)	The students will read about the habitat and regular diet of their endangered species. They will be asked to choose the correct picture after the reading on Articulate.
	Reading and Writing Task (One laptop)	They will search the National Geographic to find any missing information about their animal and take notes to add them to the blog. What to look for will be given them as prompts and scaffolds on paper. The teacher will provide guidance and help during the task. http://kids.nationalgeographic.com/animals/giant-panda/#giant-panda-eating.jpg http://kids.nationalgeographic.com/animals/white-handed-gibbon/#gibbons-two-22355217.jpg http://kids.nationalgeographic.com/animals/sea-otter/#sea-otter-closeup2.jpg http://kids.nationalgeographic.com/animals/polar-bear/#polar-bear-cub-on-mom.jpg http://kids.nationalgeographic.com/animals/green-sea-turtle/#green-sea-turtle-closeup-underwater.jpg

Eighth session	May, 12; Blog Writing	
	Brainstorming Task (One laptop)	The students will brainstorm about what we can do to help them and write their solutions on a Word document.
	Reading and Listening Task (One laptop)	The students will read a passage about how to help them and watch a video about ways to help them and gain some background ideas for writing task.
	Writing Task (One laptops)	Students will write to the blog.

Ninth session	May, 16; Speaking Activity	
	Introduction	The teacher explains the students that they are going to talk about their endangered animal. The product of the session is video records.
	Drawing Activity (No laptops)	The students will start drawing a mask of their animal. They will use it in the speaking activity.
	Writing Activity (No laptops)	They will prepare answers for the interview questions provided by the teacher. The teacher will help the groups when they need.
	Speaking Activity (One Camera)	Groups will make their interviews in turns and the teacher will record them. Three students will role play and one of them will be the reporter to ask questions. So each student will answer one question about their selected animal.
	Uploading the videos to the blog	Students will upload their videos to the blog or on the computer if there is enough time left.

APPENDIX B

OPEN-ENDED FEEDBACK QUESTIONS

Feedback sheet 1

1. What was difficult for you to complete the tasks? Have you ever felt that you had trouble following the activities?

(Sence görevlerle ilgili zor olan şeyler neler? Herhangi bir zorluk yaşadığını hissettin mi?)

2. What do you enjoy the most in the study?

(Yapılan çalışmaların en eğlenceli yönü sence nedir?)

3. What do you think you have learned?

(Neler öğrendiğini düşünüyorsun?)

4. Is there anything which should be changed in this study in your opinion? If there is, can you explain them?

(Sence bu çalışmada değiştirilmesi gereken noktalar var mı? Varsa neler değiştirilmeli?)

Feedback sheet 2

1. What is your opinion of the study?

(Bu etkinlik için ne düşünüyorsun?)

2. What has been the hardest part for you so far?

(Sence bu etkinliğin en zor yanı nedir?)

3. What has been the most enjoyable part for you considering the previous sessions?

(Sence bu etkinliğin en eğlenceli yanı nedir?)

4. What do you think you have learned in this study?

(Bu çalışmada neler öğrendiğini düşünüyorsun?)

Feedback sheet 3

1. What have you learned in this study? Write three words that you remember.

(Bu çalışmada neler öğrendin? Bu çalışmada öğrendiğin ve aklında kalan üç İngilizce kelimeyi yaz.)

2. Which activity did you like the most? Why?

(En çok hangi etkinliği sevdin? Neden?)

3. Which activity did not you like or not enjoy doing?

(Hangi etkinliği sevmedin ya da yapmaktan hoşlanmadın?)

4. What are the benefits and drawbacks of this study?

(Sence bu çalışmanın olumlu ve olumsuz yanları nelerdir?)

APPENDIX C

SYLLABUS OF THE CONTROL GROUP

	Objectives	Activities
First session	• Describing what people/animals are doing now. • Making simple inquiries.	Lesson one - Speaking on animal names that they know before to activate their prior knowledge - A matching activity for learning animals vocabulary
		Lesson two - A short reading text about animal shelter and answering comprehension questions A True/False activity for the same text
Second session	• Comprehending the descriptions of what people are doing at the moment. • Making simple inquiries.	Lesson one - Teacher led instruction on affirmative form of Present Continuous Tense
		Lesson two - Drill and practice exercises on the target structure

	Objectives	Activities
Third session	• Using simple phrases and sentences to describe what other people are doing at the moment related to animals. • Making simple inquiries.	Lesson one - Teacher led instruction on negative form of Present Continuous Tense
		Lesson two - Drill and practice exercises - A True/ False activity with picture description sentences
Fourth Session	• Comprehending short, simple texts such as cartoons and stories about what people are doing at the moment. • Making simple inquiries.	Lesson one - Teacher led instruction on interrogative form of Present Continuous Tense
		Lesson two - A reading activity and answering comprehension questions - A guessing game in which students imitate an animal and others tell what the animal is and describe what it is doing
Fifth session	• Talking about what people are doing at the moment. • Making simple inquiries.	Lesson one - A selective listening activity and choosing the correct choice

	Objectives	Activities
		- True / False questions about the listening record
		Lesson two - A speaking game to guess who is doing what

The activities were taken from the book Wow English by Kurmay Publishing (2016) which is parallel to MEB curriculum.

APPENDIX D

PRE-TEST AND POST-TEST

NAME / SURNAME:

A) Match the animals with their names. (10 * 2 = 20 points)

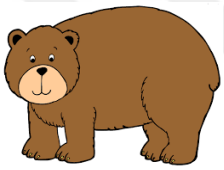
Cat - turtle - parrot - tiger - puppy - monkey - snake - lion - bear - rabbit





....




....

B. Read the text and answer the questions. (5* 3 = 15 points)

Hello, my name is Fiona.

I live in London. I love to visit the animals and we are at the zoo with my family now. I see some tigers. They are roaring very loudly. There are three lions, too, but they are sleeping. My brother John is watching the parrots at the moment and he is taking photos. My mother is feeding the monkeys. They love bananas. Where is my father? Oh, I see him. He is looking at two bears. They are walking inside the cage.

Do you love animals, too? You should visit the city zoo, they are wonderful!

Love,

Fiona

1. Where is Fiona?

_____

2. What are the tigers doing?

_____

3. How many lions are there?

_____

4. What is John doing?

_____

5. What does Fiona tell you to do?

_____

C. Write about your favourite animal. What is it? Where does it live? What does it eat? (10 points)

D. Circle the correct answer (10 * 1 =10 points)

1. Sally _____ the birds.

a) is feed

b) are feeding

c) am feeding

d) is feeding

2. What are the children _____?

a) do

b) does

c) doing

d) did

3. The dogs _____.

a) are barking

b) am barking

c) is barking

d) are bark

4. The cat _____ the tree.

a) is climb

b) are climbing

c) is climbing

d) am climbing

5. What is she doing?

a) She is feeding the cat.

b) She is walking the cat.

c) She is playing with the kitten.

d) She is bathing the kitten.

6. I _____ milk and _____ chocolate.

a) am drink / eat

b) am drinking / eating

c) am eating / drinking

d) is drinking / eating

7. Look at the birds! They _____.

a) are sing

b) is singing

c) is sing

d) am singing

8. What is she doing?

a) She is adopting the dog.

b) She is watering the plants.

c) She is walking the dog.

d) She is feeding the dog.

9. What is he doing?

a) He is riding a horse.

b) He is brushing the horse.

c) He is feeding the horse.

d) He is milking the cow

10. What is the dog doing?

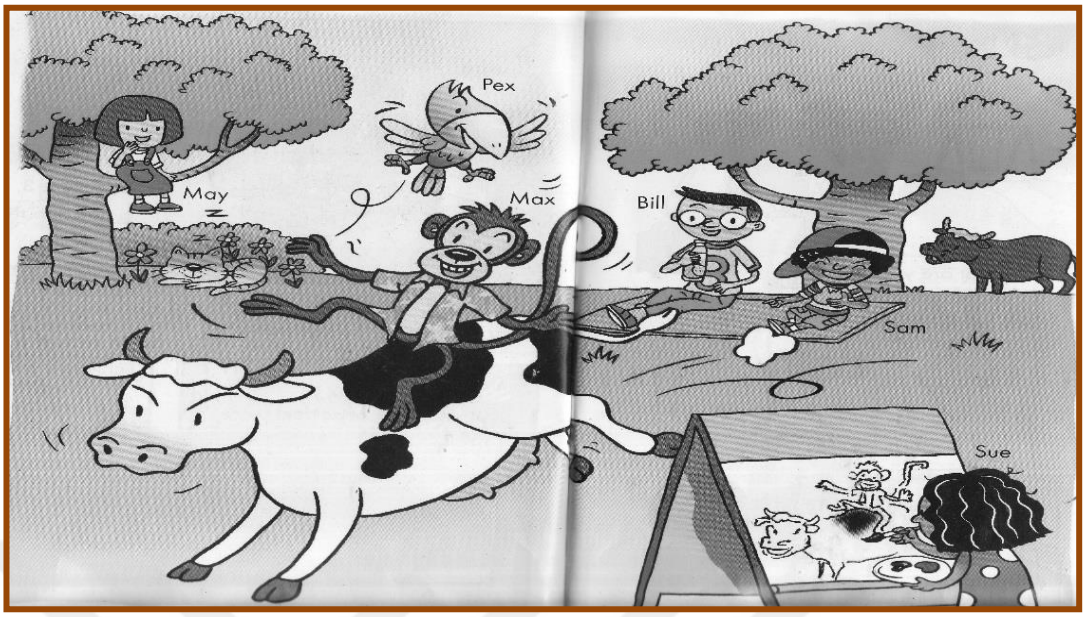
a) It is barking.

b) It is sleeping.

c) It is eating food.

d) It is bark

E. Look at the picture below and answer the questions. (5 * 3 = 15 points)



1. What is Bill doing?

Bill is drinking lemonade.

2. What is Sue doing?

_____

3. Who is riding a cow?

_____

4. What is Pex doing?

_____

5. Where is May sitting?

_____

6. Who is eating an apple?

_____

APPENDIX E

RUBRIC FOR WRITING ASSESSMENT

Content (5 pts)	Accuracy (5 pts)	Vocabulary (5 pts)	Spelling and Punctuation (5 pts)
The writing is clear and relevant. (5 pts)	The writing is completely accurate. (5 pts)	The writing is full of different vocabulary use. (5 pts)	There is no spelling and punctuation mistakes. (5 pts)
The writing is nearly clear and relevant. (4 pts)	The writing is almost accurate. (4 pts)	The writing has a great deal of different vocabulary use. (4 pts)	There are few spelling and punctuation mistakes. (4 pts)
The writing is moderately clear and relevant. (3 pts)	The writing is moderately accurate. (3 pts)	The writing has a moderate amount of different vocabulary use. (3 pts)	There are average number of spelling and punctuation mistakes. (3 pts)
The writing is somewhat clear and clear. (2 pts)	The writing is somewhat accurate. (2 pts)	The writing has different vocabulary use to some extent. (2 pts)	There are a lot of spelling and punctuation mistakes. (2 pts)
The writing is clear but not relevant. (1 pt)	The writing has many inaccurate usages. (1 pt)	The writing is repetitive in vocabulary use. (1 pt)	The writing is full of spelling and punctuation mistakes. (1 pt)

APPENDIX F

RUBRIC FOR SPEAKING ACTIVITY

Category	4	3	2	1
Enthusiasm	Very enthusiastic about the topic during the presentation.	Most of the time enthusiastic about the topic during the presentation.	Sometimes enthusiastic about the topic during the presentation.	Does not appear enthusiastic about the topic during the presentation.
Preparedness and Organization	Very prepared and organized during the presentation.	Most of the time prepared and organized during the presentation.	Somewhat prepared and organized for the presentation.	Does not appear to have prepared for the presentation.
Speaks Clearly	Speaks very clearly. Very easy for the audience to understand.	Most of the time speaks clearly. Easy for the audience to understand.	Sometimes speaks clearly. Sometimes easy for the audience to understand.	Does not speak clearly. Difficult for the audience to understand.
Knowledge of Content	Knowledge of recycling is very clear. Student shows full understanding of content during presentation.	Knowledge of recycling is clear most of the time during the presentation.	Knowledge of recycling is sometimes evident during the presentation.	Knowledge of recycling in not clear. Student does not show understanding during presentation.

APPENDIX G

URLS OF THE WEBLOGS

https://endangeredanimals110.blogspot.com.tr/

https://endangeredanimals120.blogspot.com.tr/

https://endangeredanimal130.blogspot.com.tr/

https://endangeredanimals140.blogspot.com.tr/

https://endangeredanimals150.blogspot.com.tr/

REFERENCES

Abelson, R. P., & Schank, R. C. (1977). *Scripts, plans, goals and understanding: An inquiry into human knowledge structures.* Hillsdale, New Jersey: Lawrence Erlbaum.

Aydin, Z., & Yıldız, S. (2014). Using wikis to promote collaborative EFL writing. *Language Learning & Technology, 18*(1), 160–180. Retrieved from http://llt.msu.edu/issues/february2014/aydinyildiz.pdf

Bernatek, B., Cohen, J., Hanlon, J., & Wilka, M. (2012). Blended learning in practice: Case studies from leading schools. *Michael & Susan Dell Foundation.* Retrieved from http://5a03f68e230384a218e0-938ec019df699e606c950a5614b999bd.r33.cf2.rackcdn.com/Blended_Learning_Kipp_083012. pdf.

Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). New York: Longman.

Butzin, S. M. (2001). Using instructional technology in transformed learning environments: An evaluation of project CHILD. *Journal of Research on Computing in Education*, 33(4), 367-373.

Bygate, M., Norris, J., & Van den Branden, K. (2009). Introducing task-based language teaching. In M. Bygate, J. Norris & K. van den Branden (Eds.), *Task-based language teaching: A reader* (pp. 15-19). Amsterdam: John Benjamins Publishing Company.

Candlin, C. (1987). Towards task-based language learning. In M. Bygate, K van den Branden & J. M. Norris (Eds.) *Task-based language teaching: A reader* (pp. 21-40). Amsterdam: John Benjamins Publishing Company.

Chappell, P. (2014). *Group work in the English language curriculum: Sociocultural and ecological perspectives on second language classroom learning.* Basingstoke: Palgrave Macmillan.

Clark, J., Baker, T., & Li, M. (2007). Student success: bridging the gap for Chinese students in collaborative learning, *Proceedings from the 2007 ISANA International Conference "Student success in international education"* (2007), Adelaide, Australia.

Click, J. (2004). Learning centers: meaningful contexts for language use in the primary immersion program. *The Bridge, (8)*2, 1-8.

Diller, D. (2003). *Literacy work stations: Making centers work*. Portland: Stenhouse Publishers.

Ellis, R. (2000). Task-based research and language pedagogy. *Language Teaching Research*, *4*(3), 193-220.

Ellis, R. (2006). The methodology of task-based teaching. *Asian EFL Journal*, *8*(3), 79-101.

Estaire, S., & Zanon, J. (1994). *Planning classwork: A task-based approach.* Oxford: Macmillan.

Falodun, J., Kanagy, R., & Pica, T. (1993). Choosing and using communication tasks for second language instruction. In M. Bygate, J. Norris & Van den Branden (Eds.), *Task-based language teaching: A reader* (pp. 171-192). Amsterdam: John Benjamins Publishing Company.

Ford, M. P., & Opitz, M. F. (2002). Using centers to engage children during guided reading time: Intensifying learning experiences away from the teacher. *The Reading Teacher*, *55*(8), 710-717.

González-Lloret, M., & Ortega, L. (Eds.). (2014). *Technology-mediated TBLT: Researching technology and tasks (Vol. 6).* Amsterdam: John Benjamins Publishing Company.

González-Lloret, M. (2014). The need for needs analysis in technology-mediated TBLT. In M. Gonzalez-Lloret & L. Ortega (Eds.) *Technology-mediated TBLT: Researching technology and tasks*, (pp. 23-50). Amsterdam: John Benjamins Publishing Company.

Haznedar, B. (2010, November). Türkiye'de yabancı dil eğitimi: Reformlar, yönelimler ve öğretmenlerimiz. Paper presented at the International Conference on New Trends in Education and Their Implications, Antalya, Turkey. Retrieved from http://www. iconte.org/FileUpload/ks59689/File/166. pdf.

Hannafin, M. J., & Sharma, P. (2007). Scaffolding in technology-enhanced learning environments. *Interactive Learning Environments*, *15*(1), 27-46.

Horn, M. B., & Staker, H. (2014). *Blended: Using disruptive innovation to improve schools*. Oxford: John Wiley & Sons.

Hubscher, R., & Puntambekar, S. (2005). Tools for scaffolding students in a complex learning environment: What have we gained and what have we missed?. *Educational Psychologist*, *40*(1), 1-12.

Kırkgöz, Y. (2011). A blended learning study on implementing video recorded speaking tasks in task-based classroom instruction. *TOJET: The Turkish Online Journal of Educational Technology*, *10*(4), 1-13.

Kim, M. C., & Hannafin, M. J. (2011). Scaffolding problem solving in technology enhanced learning environments (TELEs): Bridging research and theory with practice. *Computers & Education*, *56*(2), 403-417.

Krashen, S. D. (1982). Accounting for child-adult differences in second language rate and attainment. In S. D. Krashen, R. C. Scarcella, & M. H. Long, (Eds.), *Child-adult differences in second language acquisition*, (pp. 202–226) Rowley, MA: Newbury House.

Lan, Y.J., Sung, Y.T. & Chang, K.E. (2006). What makes collaborative early EFL reading effective? A mobile dynamic peer-assisted learning system. *Proceedings of IADIS International Conference "Mobile Learning*" *2006,* ed. Lan, Language learning and technology, 185-192.

Lazonder, A. W, &. Van Dijk, A. M. (2016). Scaffolding students' use of learner generated content in a technology-enhanced inquiry learning environment. *Interactive Learning Environments*, *24*(1), 194-204.

Long, M. (2015). *Second language acquisition and task-based language teaching.* Oxford: John Wiley & Sons.

Müller-Hartmann, A., & Ditfurth, M. S. V. (2010). Research on the use of technology in task-based language teaching. In M. Thomas & H. Reinders (Eds.), *Task-based language learning and teaching with technology* (pp. 17-40). London: Continuum.

Nikolov, M., & Curtain, H. (Eds.). (2000). *An early start: Young learners and modern languages in Europe and beyond*. Strasbourg: Council of Europe.

Nunan, D. (1989), *Designing tasks for the communicative classroom.* Cambridge: Cambridge University Press.

Nunan, D. (2004), *Task-based language teaching.* Cambridge: Cambridge University Press.

Nunan, D. (2015). *Teaching English to speakers of other languages: An introduction*. New York: Routledge.

Oskoz, A. & Elola, I. (2014). Promoting EFL collaborative writing through the use of Web 2.0 tools. In M. Gonzalez-Lloret & L. Ortega (Eds.), *Technology mediated TBLT: Researching technology and tasks* (pp. 115-147). Amsterdam: John Benjamins Publishing Company.

Ozdener, N., & Satar, H. M. (2008). Computer-mediated communication in foreign language education: Use of target language and learner perceptions. *TOJDE: Turkish Online Journal of Distance Education*, *9*(2), 1-16. Retrieved from: http://dergipark.ulakbim.gov.tr/tojde/article/view/5000102671/5000095767

Quintana, C., Reiser, B. J., Davis, E. A., Krajcik, J., Fretz, E., Duncan, R. G., & Soloway, E. (2004). A scaffolding design framework for software to support science inquiry. *The Journal of the Learning Sciences*, *13*(3), 337-386.

Reiser, B. J., Tabak, I., Sandoval, W. A., Smith, B. K., Steinmuller, F., & Leone, A. J. (2001). BGuILE: Strategic and conceptual scaffolds for scientific inquiry in biology classrooms. In S. M. Carver, D. Klahr (Eds.), *Cognition and*

instruction: Twenty-five years of progress (pp. 263-305). New Jersey: Lawrence Erlblaum.

Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching.* Cambridge: Cambridge University Press.

Singh, H. (2003). Building effective blended learning programs. *Educational Technology*, *43*(6), 51-54.

Skehan, P. (1996). A framework for the implementation of task-based instruction. *Applied Linguistics*, *17*(1), 38-62.

Solares M.E. (2014). Textbooks, tasks and technology: An action research study in a textbook bound EFL context. In L. Ortega & M. González-Lloret, *Technology- mediated TBLT: Researching technology and tasks* (pp.79-114). Philadelphia, PA: John Benjamins Publishing Company.

Tabak, I. (2004). Synergy: A complement to emerging patterns of distributed scaffolding. *The Journal of the Learning Sciences*, *13*(3), 305-335.

Thomas, M., & Reinders, H. (Eds.). (2010). *Task-based language learning and teaching with technology.* New York: Continuum.

Thomas, M., Reinders, H., & Warschauer, M. (Eds.). (2012). *Contemporary computer-assisted language learning*. London: Bloomsbury.

Tomlinson, B., & Whittaker, C. (2013). *Blended learning in English language teaching*. London: British Council.

Toth, S. (2010). Oral presentation rubric. Retrieved from https://wvde.state.wv.us/teach21/documents/OralPresentationRubricPrimary_000.doc

Üstunel, H. H., & Tokel, S. T. (2018). Distributed scaffolding: Synergy in technology-enhanced learning environments. *Technology, Knowledge and Learning*, *23*(1), 129-160.

Uygun, E. A. (2016). *Wow English practice book.* Ankara: Master Publishing.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge: Harvard University Press.

Willis, D., & Willis, J. (2007). *Doing task-based teaching.* Oxford: Oxford University Press.

Wilson, D., & Smilanich, E. M. (2005). *The other blended learning: A classroom-centered approach*. Oxford: John Wiley & Sons.

Yule, G. (1997). *Referential communication tasks*. Mahwah, NJ: Lawrence Erlbaum Associates.