

# Using Team-Based Learning in Teaching English to EFL Undergraduate Students: A Pilot Study Evaluation

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## ABSTRACT

Team Based Learning (TBL) is a method that has been introduced to provide students with both conceptual and procedural knowledge to foster critical and creative thinking skills while students work in high functioning teams. The study throws some light on the TBL approach in general and the researcher's pilot- experiment on using the TBL in teaching English to EFL (English as a Foreign Language) undergraduate students. The main aim of this pilot experiment is to assess the TBL's effects on student engagement, accountability, and satisfaction and to identify the problems faced in applying it and then, in the light of the findings, to propose suggestions about how to use the approach effectively. Forty (40) second-year undergraduate students of the Department of English/ Faculty of Humanities and Social Sciences of Koya University were involved in this experiment and its evaluation. These students were taught through student learning teams for two successive academic years (2017-2018 & 2018-2019) in the subject of English Reading Comprehension. Both quantitative and qualitative data were collected from the students about their TBL experience using questionnaires. The results of the evaluation revealed that the vast majority of the students preferred TBL to the traditional individual learning and that the TBL has more positive effects on the students' engagement in class activities and assignments. The findings also indicate that despite the positive effects and the students' satisfaction with the approach, there are problems and obstacles on the way of its application in the classroom, but that with the proper use of the approach most of these problems can be overcome. What is important about this evaluation is that it is student-centered as it shows the real opinions of the students who lived the experience.

**KEY WORDS:** EFL, Evaluation, Pilot-Experiment, Student-Centered, Team-Based Learning

## 1. INTRODUCTION:

### 1.1 The Problem

Teaching and learning a foreign language is by no means an easy task since it involves a range of basic skills such as listening, speaking, reading and writing. Learning, practicing and mastering such skills require

active participation and interaction on the part of the students, which cannot be achieved by adopting traditional teaching methods. These traditional methods are heavily based on spoon-feeding where the teacher acts as a knowledge dispenser while the students are passive recipients. In addition, traditional instructional methods result in poor information transfer, and lack of understanding and retention of knowledge. This model of pedagogy is no more acceptable in the modern classrooms, particularly at the level of university education where students have to be self-dependent and the role of the teacher needs to be minimized to the extent that the teacher should act as a facilitator rather than a preacher. To this end, there is need for pedagogies and strategies that put students at the heart of the learning process and enhance their active participation and interaction. One of these effective

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methods that have gained recent popularity is Team-Based Learning (TBL).

TBL is a pedagogical approach that promotes collaborative learning and student interaction and engagement with each other and with the content of the course. According to Michaelsen and Sweet (2008, p.1), "the primary learning objective in TBL is to go beyond simply covering content and focus on ensuring that students have the opportunity to practice using course concepts to solve problems".

Thus, instead of the whole class or individual students, TBL employs teams of students, who stay together throughout the course. Team members study and learn through peer interaction and cooperation.

Despite the effectiveness of the TBL approach and the recent popularity it has gained in disciplines such as medicine and business, TBL has not been widely applied in teaching English as a foreign language based on reviews of literature. The researcher's pilot experiment and its evaluation included in this study is an attempt to test the use of the approach in the field of teaching English to EFL undergraduate students. The study hypothesizes that TBL, if used properly, is a more effective method of teaching compared to the traditional lecture-based method.

This study consists of three main parts: The first part is the introduction, including, the problem, aim, scope and value of the study; the second part includes a general background about TBL; the researcher's pilot experiment and an evaluation of this pilot experiment; and finally, the conclusion, including some suggestions to improve the use of the TBL strategy. The study ends with the list of references and the appendix.

## 1.2 The Aim of The Study

The main aim of this study is to assess the students' satisfaction with TBL and the effectiveness of the TBL approach on the students' engagement with the course contents and also to identify the positive and negative aspects of the approach and in the light of this to come up with some suggestions that may help TBL users to use the strategy in a more effective way.

## 1.3 The Scope of The Study

The study limits itself to the opinions of (40) second-year undergraduate students of the Department of English/ Faculty of Humanities and Social Sciences of Koya University concerning the TBL approach. These students lived the experience of TBL in the subject of English Reading Comprehension throughout two successive academic years (2017-2018 & 2018-2019).

## 1.4 The Value of The Study

The study is of primary importance for teachers and trainers who use TBL in their classrooms or courses. The

outcomes of the study will help them improve the approach and make its application more effective. These benefits will, in turn, be transferred to the students and trainees who are taught and trained through TBL not only during their different education stages but also in their future careers since teamwork has become an active strategy in almost all job areas.

## 2. BACKGROUND TO THE TBL APPROACH

### 2.1 What is Team-Based Learning (TBL)?

The TBL approach was originated by Larry Michaelsen in the late 1970s at the University of Oklahoma business school. It first gained in popularity in medical education in the late 1990s after being piloted by Boyd Richards and colleagues at Baylor School of Medicine. Later, with financial support from the US Department of Education, the approach was introduced to the medical education world by holding a series of annual conferences on TBL and by presenting it at a large number of schools and professional meetings (McMahon, 2010). Since then, TBL has been adopted throughout health sciences and business curricula, and more recently, in teacher training (Samad et al. 2015).

Team-based learning (TBL) as defined by Haidet, Kubitz and McCormack (2014, p.303) is "an application-oriented teaching method that combines small- and large-group learning by incorporating multiple small groups into a large group setting". Walker and Zheng (2017, p.1) define it as "an instructional approach designed to combine the principles of Problem-Based Learning, Student-Centered Instruction, and Constructivism".

In a course using TBL, students are organized into permanent teams i.e., the team members stay together throughout the course and the content of the course is divided into major units or modules. Students are given assignment to prepare before attending the classroom. The classroom session, for each unit or module, starts with the Readiness Assurance Process (RAP). This process contains a short test over the main content and concepts included in the assigned materials. The students first complete the test individually, and later they do the same test as a team discussing and reaching a consensus on each question and are given immediate feedback on this by the instructor. Students are then given the chance to submit their appeals supported by evidence concerning their answers to the questions they got wrong. Finally, the instructor can give a mini-lecture clarifying any misunderstanding and/or answering any specific questions raised by the teams. The rest of the unit will be done through class activities and assignments, which students practice in teams (Parmelee and Michaelsen 2010). (See details of the TBL processes under 2.2. of this study).

The benefit of TBL as stated by Parmelee and Michaelson (2010) is that it gives chance to students to master the course contents while maintaining the main focus on the application of the concepts, and the students' learning processes. In TBL, according to the same source, the content and the applications of the course are designed in a way that student groups develop to become self-managed learning teams and this will enable the instructor to provide content expertise and at the same time monitor the learning endeavors of the whole class. According to Michaelsen (2002), as an instructional strategy, the TBL draws its strength and effectiveness from the fact that it helps build high degree of cohesiveness within a team and this will eventually lead to a variety of other positive outcomes.

Slavin (1990) suggests that TBL helps students acquire positive academic behavior and avoid negative ones because it provides a supportive learning environment, and helps team members especially the weaker ones, to acquire behaviors and attitudes that improve their academic performance. Similarly, Williams, Beard and Rymer (1991) state that TBL enhances students' interest and motivation and gives them the potential to learn from each other, and to gain multicultural experiences.

The advantages of TBL are claimed to include "improved attendance, increased pre-class preparation, better academic performance, and development of interpersonal and team skills" (Michaelsen & Sweet, 2008, p. 5). Moreover, by being involved in the process of constructive disagreement, students can become more open to each other's opinions and attitudes. This will enable them to develop good relations with each other and will also improve their decision-making and negotiating skills (Sharan, 1980). In this respect, Johnson and Johnson (1979, p. 56) state that "the interpersonal controversies, which lead to conceptual conflict and feelings of uncertainty; which lead to a search for additional information and experiences, ...seem to promote high quality problem-solving and decision-making".

Although TBL may look similar in some ways to cooperative or to collaborative learning, it is a more focused approach and it is especially applicable at higher education institutions. Unlike the other approaches, TBL nurtures positive group dynamics through enhancing better intra-group communication skills that helps to achieve a common goal (Samad et al., 2015). According to the same source, the effectiveness of TBL in the higher education level is due to the fact that it helps prepare undergraduate students for their future workplace since teamwork has gained increasing popularity in many professions.

McMahon (2010, p. 56) suggests that "TBL is best used as a course strategy rather than a rarely used deviation from didactic lecture". However, as further stated by

McMahon, TBL can be used "very effectively at any dosage". Thus, according to her, it can be successful if it is used as the only teaching method or as part of a hybrid of teaching methods or even if used only once in a course. The same source further adds that the more it is used by students and faculty, the easier its application will be. Eventually, less time will be spent on the process and more time will be given to content and its application (McMahon 2010).

## 2.2 Stages of TBL

A TBL sequence typically consists of three main stages. The three stages can take place within a single course meeting or distributed over several sessions. These three stages are: Student Preparation, Readiness Assurance, and Application (Walker and Zheng 2017; McMahon 2010).

### 2.2.1 Student Preparation

A course is organized into a number of major modules or units. Prior to the beginning of each module or unit, students are required to read ahead in the textbook on this material and/or provided with learning materials and resources to study individually before the TBL session. These preparatory materials can be newspaper articles, journal articles, textbook chapters, podcasts, PowerPoint slides, or instructional videos. Students must study these materials before coming to class to be prepared for the module activities (Sibley and Ostafichuk, 2014; McMahon, 2010; Walker and Zheng, 2017).

The specific amount of preparatory materials as stated by Sibley & Ostafichuk (2014) depends on the difficulty of the materials, the academic discipline, and the culture of the institution. Students should be given clear instructions by the instructor so that they fully understand the learning objectives and what is required of them. They should also be given enough time for preparation (McMahon, 2010).

### 2.2.2 Readiness Assurance Process (RAP)

The Readiness Assurance Process (RAP), as stated by Sibley and Ostafichuk (2014), is a five-stage process used at the beginning of each module in the course. Note that Sibley and Ostafichuk consider the first stage i.e., Student Preparation as part of the RAP process not as a separate stage as mentioned in the above division. However, the idea is the same. According to them, the RAP includes:

- a. Student Pre-class Preparation,
- b. Individual Readiness Assurance Test (IRAT),
- c. Team Readiness Assurance Test (TRAT),
- d. Appeals Process and
- e. Mini-Lecture/Clarification.

Sibley and Ostafichuk (2014) state that the RAP is designed to get the students ready for the upcoming sequence of activities. The purpose of the RAP, according to them, is to ensure that students understand the basic concepts, definitions, and foundational knowledge they need in order to begin the problem-solving process. It is not about testing.

Below is the explanation of each of the RAP stages:

**a. Student Pre-Class Preparation:**

(See 2.2.1. above)

**b. Individual Readiness Assurance Test (IRAT):**

The IRAT tests the individual student's accountability for the pre-class preparation. The test should focus on the foundational concepts and knowledge the students need to successfully begin the problem-solving stage; therefore, it is recommended that instructors avoid picky details, and focus only on the most important concepts. However, IRAT questions should be quite challenging (Sibley & Ostafichuk, 2014).

The IRAT is usually a multiple-choice test assessing knowledge gained from the learning resources provided by the instructor in the preparation stage. The IRAT usually consists of (10- 15) questions and students are given about (10) minutes to complete the test (McMahon, 2010). During the IRAT, students fill in an assessment form and, at the same time, copy their answers down on a separate sheet for later use (Walker and Zheng, 2017).

One of the advantages of IRAT is that it attracts the students' attention to the most important concepts of a module and helps them identify and admit the gaps in their knowledge and understanding of the concepts, which can be a good motivator for them to rethink their preparation strategy for next time (Sibley & Ostafichuk, 2014).

**c. Team Readiness Assurance Test (TRAT)**

As soon as students finish the IRAT, they proceed with the Team Readiness Assurance Test (TRAT). The TRAT is the same multiple-choice test, but students this time complete it with teammates that have been pre-assigned. During this, students discuss their answers of the IRAT with their teammates. The teams answer questions using a specially designed scratch-off answer card also called (IF-AT cards)<sup>1</sup>. (Walker and Zhen, 2017).

The TRAT stage gives the chance to the students to have group discussions on the questions and answers until they reach a consensus and this will help them generate deeper understanding about the answers to the questions. Using IF-AT cards (See Figure 1) is also another advantage since the teams receive immediate corrective feedback on each question, which enables

them to know the answer to all the questions (Sibley & Ostafichuk, 2014).

SCRATCH OFF COVERING TO EXPOSE ANSWER						
	A	B	C	D	E	Score
1.	★					4
2.					★	3
3.			★			4
4.				★		2
5.		★				4
6.				★		3
7.					★	4
8.		★				4
9.				★		3
10.		★				2
11.			★			4

Figure (1) The IF-AT Scratch-off Card  
From (Clair and Chihara, 2012, p.4)

**d. The Appeals Process**

Once the teams complete the TRAT, they are given the chance to submit appeals concerning ambiguous or incorrect questions and answers (Walker & Zheng, 2017). The teacher circulates around the room and encourages teams that may have any ambiguity or problem on the TRAT to submit their appeals. Appeals can only be submitted by teams and not by individual team members and to do that successfully, the teams have to raise a written request supported with evidence, for why a particular question or answer might be wrong (Sibley and Ostafichuk, 2014).

**e. Mini-Lecture/Clarification Outcomes**

By the end of the four previous stages, the students will have got enough feedback during the TRAT and also a good chance to clarify all misconceptions during the Appeals Process. Thus, in this stage students and teacher are clear about any remaining difficulties in relation to the course concepts. To resolve these, the teacher can give a short mini-lecture focusing on the aspects that students have not understood but not on things they already know (Sibley and Ostafichuk, 2014).

The RAP stage including all the four parts of the stage commonly takes about one hour. Therefore, the success of this stage mainly depends on the nature and number of questions. In general, about 10 minutes will be given to the IRAT, 20 minutes to the TRAT, 5-10 minutes to the Appeals Process, and 10-15 minutes to the instructor feedback [i.e., the mini-lecture] (McMahon, 2010).

**2.2.3 The Application Stage**

This stage is the most important one (McMahn 2010). It involves intra-team discussions and class discussions. In this stage, students will be provided with application exercises or assignments and they work together to solve



a common problem applying the knowledge they have learned during the other previous stages (Walker and Zheng, 2017). The same assignment is given to all the teams to work on during an allowed period of time. Later, all the teams work with the instructor in the large group (the class) to evaluate and discuss the question. This is done easily by using some simple rules called the Four S's. The Four S's mean that the team assignment should be: **significant** to the students, the **same** assignment should be used for all the students; the assignment should be designed to make a **specific** choice and should be reported **simultaneously** by all the teams (McMahon, 2010). Figure (2) outlines generally how time in one unit of a TBL course is organized:

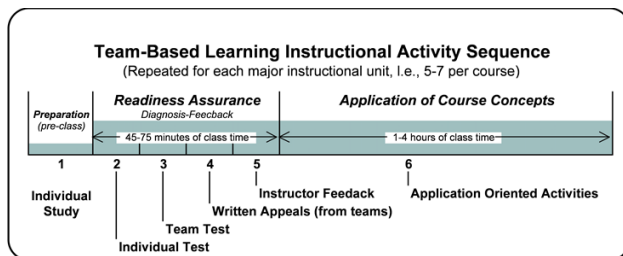


Figure (2) Stages of Team- Based Learning  
From (Michaelsen, Sweet and Parmelee, 2009, p. 1)

### 2.3 Principles of TBL

The TBL principles can be divided into four essential elements:

(Michaelsen, Sweet & Parmelee, 2009; Michaelsen, Davidson and Major, 2014; Clair and Chihara, 2012; McMahon, 2010; Walker and Zheng, 2017).

#### 2.3.1 Proper Team Formation and Management

Teams should be formed at the beginning of the course and members should stay permanently together throughout the course. (Walker & Zheng, 2017) and ensure that the teams achieve the following three important variables (Michaelsen, Sweet & Parmelee, 2009):

##### a. Distributing Member Resources:

In order for the learning teams to be maximally effective, they must have sufficient intellectual resources to accomplish the tasks assigned to them and there must be productive interaction among the team members. Since the primary objective of TBL is developing the students' creative thinking and problem-solving skills, students will have to face highly challenging assignments. Thus, the teams need to be fairly large (5-7 members), and there must be equal division of intellectual resources and responsibilities among them in a class (Michaelsen, Davidson and Major 2014).

The teams must also be as diverse as possible. Each team should contain a mix of students with different

personality characteristics and skills as well as demographic characteristics like gender, ethnicity, and so on. The aim here is to bring together a variety of skills, experience and perspectives to the teams (Michaelsen, Sweet, & Parmelee, 2009), which "can increase both quality and versatility" (Gardner and Jewler, 2012).

##### b. Minimizing Barriers to Group Cohesiveness-Avoiding Coalitions

Coalitions within team members should be avoided because they pose a threat to the overall development of a team. Teams made up of members with previously established relationships [e.g., friends, relatives, etc.] or with similar background factors such as nationality, culture or native language can become an obstacle on the way of the teams' progress and success (Michaelsen, Sweet, & Parmelee, 2009) because as stated by Gardner and Jewler (2012) having friends or classmates with similar interests and lifestyles in a team can distract the members from focusing on the learning task. Therefore, Michaelsen, Sweet & Parmelee (2009) argue that students should not be given the freedom to choose their team members by themselves because they will look for people who are close to them or with whom they have good relations and this will result in "the existence of potentially disruptive subgroup".

##### c. Time – A Key Factor in Team Development

In TBL students should stay in their teams for the entire course. This will help them develop into high-performing teams because when students work together over time, their groups become cohesive enough to become self-managed and effective learning teams. (Michaelsen, Sweet & Parmelee, 2009).

McMahon (2010) states that some teams or team members in a given team may not function properly at the beginning and this can cause disruption to either the team or to the whole class. However, this is a normal phenomenon because instructors should know the fact that the team building process goes through different stages (forming, storming, norming, and performing), but with time, the teams will often work themselves out without any intervention by the instructor. Such conflicts can be resolved by training the students on the TBL process and peer assessment and also by effective monitoring and feedback by the instructor. If these solutions are not helpful, the last resort will be to change the team composition (McMahon 2010).

#### 2.3.2 Accountability

TBL requires students to be accountable to both the instructor and their teammates for the quality and quantity of their individual work and their work as a team. Team members should feel accountable for

individual pre-class preparation because lack of preparation restricts both individual and team development. Team members should also feel accountable for contributing time and effort to teamwork and for high quality of their team performance. An effective way to assess team members' contribution is to occasionally involve the students in the assessment of their teammates because team members have enough information to accurately assess one another's contributions (Michaelsen, Sweet & Parmalee, 2009).

McMahon (2010) suggests that an immediate incentive to make students accountable for their learning is evaluating and grading the students' performance and according to the same source, this can be done by the students themselves using a relatively short list of specific questions, which the team members can answer about their teammates (McMahon 2010).

### 2.3.3 Provision of Immediate Feedback

Instructors should make sure that students receive regular feedback from him/her on their individual and team learning. Giving feedback can be done in different ways, for example through simultaneous answers to questions or immediate feedback to students during quizzes and group activities because it is not necessarily that the most articulate or confident student in a team is the one who can always give the right answer to questions (Clair & Chihara, 2012, p.2). Realizing this, the other less articulate or less confident students in the team become more assertive (Clair and Chihara, 2012 citing Michaelsen nd.) In addition, "the use of IF- AT answer sheets provides immediate feedback on both team members' understanding and teams' readiness for dealing with application problems" (Michaelsen, Davidson and Major, 2014, p. 75).

### 2.3.4 Team Assignments Must Promote Both Learning and Team Development

The effectiveness of learning teams, to a great extent, depends on the nature of the assignments in any setting. Therefore, well-designed assignments are of significant importance in TBL (Michaelsen, Davidson and Major, 2014, p. 68).

Assignments should be designed in a way that promotes group interaction. To this end assignments should involve teams in decision making about complex issues related to course concepts and ensure easy reporting of the decisions made by the teams because decision making will generate group discussions and make students share information and exchange views about the topic. Therefore, instructors should avoid assignments that require producing 'complex output such as a lengthy document' because this will limit group discussions and put pressure on the teams to

focus on finishing the task rather than on learning and it often leads to the division of the task among team members i.e., each one focusing on a part of the task rather than on the task as a whole. As a result, students will not work together and this will hinder the process of teamwork and team development (Michaelsen, Sweet & Parmalee, 2009).

### 2.4 Activities Team Members Can Do Together

Team members can collaborate on different inside - class and outside- class activities. Some of these activities according to Gardner and Jeweler (2012) are the following:

- **Sharing and comparing class notes with each other:** Students can do this immediately after class to make sure that they have not missed out any information.
- **Comparing ideas about assigned readings:** After completing a unit, team members can come together to compare their highlighted and margin notes to identify the most important information.
- **Doing library research:** Students who are unfamiliar with library research may experience 'library anxiety'. This feeling can be reduced when students visit the library in teams to find research resources and locate information.
- **Meeting with the instructor:** An effective learning strategy is visiting the instructor during office hours to ask for clarifications and other learning-related issues. However, some students are unassertive to do that alone. Thus, visiting the instructor as a team makes this easier for shy students and at the same time it gives the instructor the impression that the team do care about learning.
- **Reviewing exam results:** After receiving exam results, students team up and review their answers to the questions to find out the sources of their mistakes and identify a model answer that obtained maximum grade. This is a very useful procedure to avoid repeating the mistakes and improve performance for future tests and assignments (Gardner and Jeweler, 2012).

### 2.5 Team Versus Group

According to Nemeth (2018, p.1), the difference between a **group** and a **team** is the following:

A **group** consists of members who have individual responsibility and work for individual outcomes, the members work independently, therefore, the lifetime of a group is specified. On the other hand, a **team** consists of members who have co-dependent responsibilities, and work closely together to achieve a shared or a common goal and the team is collectively judged; therefore, the team's life ends after they have achieved their goal. As the saying goes: 'The team is more than the sum of its parts' (Nemeth, 2018, p.1).

To clarify the difference more, Nemeth (2018, p.1)

compares a group to "passengers on a flight" who are all on the same plane but each one has a different destination and goal. On the other hand, she compares a team to "the cabin crew on the plane" who, as a team, share one common goal which is: to ensure a safe and comfortable journey for the passengers.

## 2.6 Problems With TBL

Despite its advantages and positive aspects, TBL, if not applied effectively, can result in problems. Some of the main ones are:

### 2.6.1 Lack of Accountability for Individual Pre-Class Preparation

Lack of preparation hinders both individual learning and team development because when some team members do not feel accountable and come to class without preparation, they cannot make any contribution to group tasks and they do not learn and this will affect the team cohesiveness and success (Michaelsen, L., Sweet, M. & Parmalee, D. (2009).

Slavin (1991, p. 7) suggests that "without individual accountability, it is likely that one or two group members may do all the work, and if group members perceived to be low achievers to contribute ideas or ask for help, they may be ignored... In contrast, if the group's success depends on the individual learning of each group member, then group members are motivated to attempt to ensure that all group members master the material being studied".

### 2.6.2 Lack of Participation by Team Members:

Lack of participation by team members is one of the main problems hindering teamwork. This happens when one or more team members shirk responsibility by not participating fully, doing less than their share or none of the work. This is called "the free-loader or free-rider effect" by Slavin (1990 cited in Williams, Beard and Rymer 1991). To avoid interpersonal conflict, some students may try to 'go along' with a dominant personality or, those who lack self-confidence, may do some trivial tasks like data entry and this will result in some members being excluded from decision-making and substantive work. In any case, lack of full participation will have negative impact on team and individual development. (Burlson, Levine, and Samter 1984 cited in Williams, Beard and Rymer 1991).

### 2.6.3 Students' Attitudes and Willingness to Work in Teams

Despite the fact that many researchers stress the importance of teamwork, "there is growing evidence that some students find working in teams difficult, frustrating, time-consuming, and ineffective for their learning" (Lancellotti & Boyd, 2008, cited in Chad, 2012

p.129). The main reason for this is the issue of shared workload and responsibility.

Educators need to be aware of the fact that students who work in teams have to be "pulling their weight" i.e., to be working as hard as everyone else in the team, and be deserving of the grade given to the team as a whole (Lejk & Wyvill, 2001; Melles, 2004 in Chad, 2012, p. 129).

Similarly, Felps, Mitchell, and Byington (2006 cited in Chad, 2012, p. 129) refer to students with difficult behavior within teams as "bad apples" and they divide such behavior into three types: "withholding effort, possessing a negative mood or attitude, or violating interpersonal norms". Some students, simply do not like working in teams because of "their individualistic personality" (Wagner, 1995, in Chad, 2012 p.129) or because they dislike other people's ideas and the process of teamwork, and they often see others as inferior (Barr, Dixon, & Gassenheimer, 2005, in Chad, 2012 p.129).

## 2.7 Literature Review

The TBL method was originally developed by Michaelsen more than 20 years ago for use in business (Hashmi, 2014). Most of the research conducted on the effectiveness of TBL has been in medical and business contexts (Walker and Zheng, 2017). The following are example studies which all prove that TBL is a successful and effective teaching-learning strategy.

Vasan, DeFouw and Compton. (2011) conducted a study based on five years of data collection on student performance in TBL-based and lecture-based anatomy. The results showed that both the departmental and the National Board of Medical Examiners (NBME) subject examination scores for TBL-based anatomy were higher than those for lecture-based anatomy. The researchers also observed that TBL, had considerably improved the students' performance and increased their motivation and contribution within their learning teams (Vasan, DeFouw and Compton, 2011).

Another study by Rezaee, Moadeb and Shokrpour, compared team-based learning and lecture methods in teaching Hospital Organization and Management Course at the Management School of Shiraz University of Medical Sciences in 2014. The study was conducted on (25) 2<sup>nd</sup>- year undergraduate students of Management aiming at assessing the students' satisfaction with TBL. The results showed an improvement in test scores of the students after the TBL sessions compared to the test scores after lecture sessions. Also, the TBL group had significantly a higher amount of knowledge retention compared to the lecture group. Moreover, the majority of the respondents were more satisfied with TBL sessions compared to the ones held through lectures (Rezaee, Moadeb and Shokrpour, 2015).

A recent study aiming at evaluating the long-term impact of TBL was conducted by Zgheib et al. (2016) in which (102) medical students taught by TBL participated during two successive academic years: (2013-2014 and 2014-2015). The researchers found out that the students obtained higher marks on the TBL sessions and observed considerable improvement in the students' teamwork and communication skills and also in their professional and personal development overtime (Zgheib et al., 2016).

The use of TBL in the field of business has also proved successful. In a study carried out by Reinig et al. (2011), 137 students were examined for their attitude and satisfaction towards TBL in their accounting courses. The results showed the students' increased engagement with the course, increased motivation, better learning and higher grades. It also showed the students' satisfaction and improved teamwork skills. (Reinig, Horowitz and Whittenburg, 2011, p.29) A similar study was conducted by Chad (2012) who examined the first time use of TBL in a postgraduate marketing module in an Australian university. The author found that TBL had a positive influence on student engagement and offered opportunities for assisted learning (Chad, 2012).

An empirical research carried out by Stepanova (2017) on using team-based learning in a Business English course in Latvian Business College where (40) first-year students mastered their language skills and communicative competences through this approach, reveals that team-based learning in teaching Business English proved to be a successful tool and the majority of the students (82-100 %) gave a positive feedback. The research demonstrated that team-based learning gives more freedom and authorizes the students to be more responsible for their own learning (Stepanova, 2017).

Walker and Zheng, (2017) conducted a study to assess the implementation and effectiveness of TBL in in-service teacher training in a Singapore teaching institute where thirty in-service teachers participated. The research findings revealed that teachers generally considered TBL to be a positive experience, despite the need for improvement in some areas and they also found that the scores through TBL was significantly higher than individual scores (Walker and Zheng, 2017).

Finally, based on data from the past 23 years of using TBL, Parmelee and Michaelsen (2010, p118) argue that TBL "addresses several professional competencies that cannot be achieved or evaluated through lecture-based instruction". They also state that "teams will score higher than their own very best member 99.9% of the time and the most common outcome is that the worst team score will be higher than the highest individual score in an entire class" (Parmelee and Michaelsen unpublished, in Parmelee and Michaelsen 2010, p.119).

The results of the current study, although it did not fully apply the TBL principles and processes, are quite positive. They show a high level of student satisfaction with and interest in the approach. This indicates that proper application of TBL can prove successful in teaching English as a second or a foreign language especially at the university level.

### 3. METHODOLOGY

This section relates to the methodology of the pilot study. It includes the different procedures followed to carry out the study.

#### 3.1 Participants

The participants of this pilot experiment were (40) second-year undergraduate students (11 male and 29 female) of the Department of English/ Faculty of Humanities and Social Sciences/ Koya University who were taught through TBL in the subject of English Reading Comprehension. The students were taught English Reading Comprehension by the same instructor during their first academic year (2017-2018) and their second year (2018-2019).

#### 3.2 Team Forming

##### 3.2.1 Selection of Team Members

In selecting the team members, the instructor gave chance to the students to choose their teammates by themselves. Perhaps this is not the followed procedure according to the TBL principles, but the purpose behind this was to give them freedom to choose members with whom they felt comfortable and had easy access to, given the fact that some students were from different areas and cities outside Koya and lived-in student hostels while others lived in different parts of Koya. However, the students were given instructions that the teams should be, as much as possible, diverse in terms of gender, skills, interests, etc.

##### 3.2.2 Team Size and Number of Teams

Basically, the students divided themselves into teams of (4-6) students considering, as much as possible, gender balance<sup>2</sup> and other diversity factors. However, because of the number of students and the difference in the number of male and female students in the class, not all the teams were as balanced and diverse as desired. Even numbers were preferred so that the members would be able to work in pairs or equal groups if there was division of tasks. The number of teams in the second year was 6 teams of six members each and one team of four members = 40 students.

##### 3.2.3 Team Leaders

For each team, there was a team leader (TL). The team leader role rotated among the members so that everyone



would experience the role. With each new chapter/unit of the textbook, the teams changed their team leader. The team leader was supposed to supervise the team members and make sure that everyone would participate and feel accountable. The TL was also responsible for distributing assignments and dividing roles and tasks among his/her team and calling for team meetings when needed. The TL also served as a link between his/her team and the instructor notifying the instructor of problems within the team, and doing other tasks required by the instructor or by his/her team.

### 3.3 Managing Procedures

#### 3.3.1 Ground rules

After forming the teams, the instructor encouraged the students to develop some ground rules for the teams to follow. The purpose was to avoid and overcome misunderstandings and conflict among the team members. Examples of these were:

- Team members must sit together during lectures
- They must attend classes and team meetings regularly
- They must listen to and respect each other's opinions
- They must feel responsible and accountable for the success (or failure) of their team
- They must all actively participate in tasks and decisions made by the team
- They should be cooperative rather than competitive
- They must respect and obey the team leader and not to shirk their responsibility onto him/her or other team members.

#### 3.3.2 Activities That Team Members Did as A Team

The activities that the team members of each team (and sometimes all the teams) did together were the following:

1. **Inside-Class Activities** e.g., Reading and understanding (part of) the text together and then answering questions asked by the instructor, doing exercises inside their textbook and some additional exercises prepared by the instructor to make them better understand the topic, and participating in group discussions. The teams were given some time to read, understand, and discuss the text, identify the new vocabulary and guess or find the meanings of the new words, and then answer some related questions and do the related exercises as one team or in pairs.
2. **Outside-Class Activities** e.g., doing assignments, doing research and preparing presentations on topics related to the subjects assigned by the instructor, studying for exams and comparing exam results, sharing class notes, etc.

#### 3.3.3 The Instructor's Role

In addition to explaining and clarifying the main points of the topic, the instructor prepared exercises which the teams did in class and also assignments that each team did outside class where the team members were supposed to come together and do them together and then give one copy of the finished assignment to the instructor. The instructor would then check the assignments and give feedback to the students by going over the assignment in class focusing on the prominent mistakes made by the students so that every team would be aware of their mistakes and avoid repeating them in the future.

#### 3.3.4 Monitoring and Feedback

Monitoring was done by the instructor in general while teams worked inside the classroom and by giving the students instructions about effective teamwork and allocating some time to listen to the teams talking about their problems and achievements and then giving them feedback on their performance and encouraging them to follow the ground rules. Monitoring was also done via team leaders who reported back team problems to the instructor.

## 4. EVALUATION OF THE PILOT EXPERIMENT

At the end of the second academic year (2018-2019), an evaluation of the pilot experiment was conducted by the 40 students.

As mentioned earlier in this study, the study was just a quasi-pilot TBL experiment i.e., it did not fully apply the TBL principles and processes but was only intended to assess the students' satisfaction with the approach and the problems faced while applying it. However, it did include a lot of teamwork activities and team problem-solving tasks, which gave chance to the students to live the experience and identify the advantages and disadvantages of teamwork and the problems they faced while working in teams; and this enabled them to evaluate their experience by themselves and come up with suggestions about how to improve the approach.

### 4.1 Data Collection and Analysis

To achieve the aim of the study, both quantitative and qualitative data were collected from the students and analyzed to gain a comprehensive understanding of the effectiveness of TBL implementation in the above-mentioned course. Quantitative data were collected through closed-ended questions, while qualitative data were collected through open-ended questions where students had to express their opinions about different issues related to teamwork (See the appendix of this study).

The evaluation tools used were two types of questionnaires:

1. A general questionnaire filled in by the (40)

students. It included closed- ended and open-ended questions (See the appendix of this study).

- A second questionnaire was given to the team leaders to evaluate certain aspects of their team members including themselves, such as participation in team activities, meeting deadlines, accountability, effective interaction with team members and attitude, etc. For this evaluation a rating scale consisting of 1-5 grades was used for each item, where 5= Excellent 4= very good 3= good 2= weak and 1= very weak (See the appendix of this study).

The analysis of the data for questionnaire (1) was done by calculating the students' answers to the closed- ended questions and by categorizing the students' answers for the open-ended questions, then calculating the number of times each answer was repeated and working out the percentage for each category (See Tables 1-6 below).

For questionnaire (2), the analysis was done by calculating the number of students and the percentage under each rating scale for each item (See Table 7).

## 4.2 Results

### Questionnaire 1:

TABLE 1

Students' Preference of Teamwork vs. Individual Work

Total Number of Students	Teamwork vs. Individual Work	No. of Students	Percentage	Reasons, Times Repeated & Percentage
40	Teamwork	37	92.5%	<ul style="list-style-type: none"> <li>We help each other &amp; learn a lot from each other's ideas (11)= <b>27.5%</b></li> <li>We work more effectively and achieve more (16)= <b>40%</b></li> <li>We have better communication and interaction and are more assertive in teams (20)= <b>50%</b></li> <li>Teamwork makes things easy for us. We can solve problems and achieve difficult tasks together (11)= <b>27.5%</b></li> </ul>
	Individual work	3	7.5%	<ul style="list-style-type: none"> <li>Some members are very passive and do not participate in team activities (2)= <b>5%</b></li> <li>Some members do not feel accountable and shirk responsibility on the team leader (1)= <b>2.5%</b></li> </ul>

TABLE 2

Students' Attitudes towards Teamwork

Students' Attitudes	No. of Students	Percentage
Very boring and useless	0	0%
Very interesting and useful	33	82.5%
Good but not very effective	7	17.5%

TABLE 3

Was Your Team Successful or Unsuccessful?

Students' Opinions	No. of Students	Percentage	Reasons, Times Repeated & Percentage
Successful	37	92.5%	<ul style="list-style-type: none"> <li>We feel comfortable with each other, always work together, listen to each other, respect each other's opinions and support each other (34)= <b>85%</b></li> <li>Good team leader (15)= <b>37.5%</b></li> <li>We feel accountable and responsible and meet deadlines in doing assignments (12)= <b>30%</b></li> <li>Some team members do not attend classes regularly and some have low levels; therefore, they do not actively participate in team activities, and some shirk responsibility (8)= <b>20%</b></li> <li>Some members do not accept the other members' ideas even if correct and are unwilling to share information (2)= <b>5%</b></li> </ul>
Unsuccessful	3	7.5%	

TABLE 4

Problems Faced by the Teams

Problems	Times Repeated & Percentage
The seating organization of the classroom (the desks are fixed and students can't move them to sit in a circle while working together in class)	40 = <b>100%</b>
The students live in different places and cannot meet regularly outside college to do assignments and outside-class activities and hold discussions together	15 = <b>37.5%</b>
Lack of time and a suitable place to meet while at college	12 = <b>30%</b>
There is conflict and lack of agreement and trust among team members on different issues. Difficulty in making decisions	23 = <b>57.5%</b>
There is feeling of jealousy among team members.	4 = <b>10%</b>
Some take but don't give information	4 = <b>10%</b>
Some team leaders are not effective	4 = <b>10%</b>
Lack of cooperation, shirking responsibility, carelessness by some team members.	14 = <b>35%</b>
Some team members dominate the team and some are very noisy and talkative and do not let the others work	2 = <b>5%</b>

TABLE 5

Students' Suggestions to Improve Their Teams

Suggestions	Times Repeated & Percentage
Participation and feeling of responsibility by all team members	30 = <b>75%</b>
Good relations between team members, respect each other's opinions, accept differences within team and working for one shared goal	9 = <b>22.5%</b>
Being punctual, regular attendance to classes and team meetings and meeting deadlines in doing assignments	8 = <b>20%</b>
Holding more team meetings, more communication and collaboration, more sharing of information	13 = <b>32.5%</b>
Doing more outside class activities together e.g. going to the library, doing research, reading books, improving our English language	7 = <b>17.5%</b>
Being assertive and not feeling shy to express opinions and deliver presentations	3 = <b>7.5%</b>
Training team members and team leader, following ground rules	10 = <b>25%</b>
Regular follow up and monitoring by the teacher	2 = <b>5%</b>

TABLE 6  
Benefits Gained by Students from Teamwork

Benefits	Times Repeated & Percentage
Better communication, information sharing, better learning and more achievement	23 = <b>57.5%</b>
Enjoyed teamwork and developed teamwork and team leading skills	12 = <b>30%</b>
feel more confident and assertive/ no more shy to ask or answer questions within the team and with teachers	6 = <b>15%</b>
Closer friendships and more knowledge about each other	2 = <b>5%</b>
Learned new vocabulary and developed English language skills	5 = <b>12.5%</b>
Learned to work harder, feel responsibility and be punctual	11 = <b>27.5%</b>
Learned how to prepare and deliver presentations	3 = <b>7.5%</b>
We didn't get any benefits because our team was a top failure	2 = <b>5%</b>

**Questionnaire 2:**

Rating scale for each item: 5= Excellent 4= Very good 3= Good 2= Weak 1= Very weak

TABLE 7  
Benefits Gained by Students from Teamwork

Item	Excellent 5	Very Good 4	Good 3	Weak 2	Very weak 1
Active participation, information sharing, contribution to the team	17 = 42.5%	7 = 17.5%	9 = 22.5%	5 = 12.5%	2 = 5%
Time management and meeting deadlines	1 = 2.5%	17 = 42.5%	15 = 37.5%	6 = 15%	1 = 2.5%
Feeling of accountability and responsibility	18 = 45%	7 = 17.5%	12 = 30%	3 = 7.5%	0 = 0%
Effective interaction with team members and positive attitude	4 = 10%	22 = 55%	6 = 15%	8 = 20%	0 = 0%

**4.3 Discussion**

The results can be summarized as follows:

**Table (1)** proves that the majority of the students (92.5%) prefer teamwork and only (7.5%) prefer individual work. The reasons mentioned by the teamwork group prove that they are satisfied with the approach and that teamwork has very positive outcomes. For example, as mentioned by the students, it gives chance to the students for more interaction, communication and cooperation. It makes things easy for them, it helps them overcome their shyness and become assertive and able to express their opinion, it helps them do difficult tasks and solve problems. The

second group who prefer individual work are only a small minority and the problems they have mentioned, which include lack of participation and lack of feeling of responsibility and accountability by some team members are very normal and can be treated with some intervention by the instructor.

**Table (2)** shows that 82.5% find teamwork very interesting and useful, while 0% find it boring and useless. The 17.5%, who find it good but not very effective, are probably students who belong to ineffective teams, whose members do not feel team responsibility and accountability. In this situation, the instructor should try to find out the real reasons why this group thinks that teamwork is good but not very effective and then to find some solutions for the problems accordingly, such as by giving more training to the team members and by better monitoring these teams and giving them regular and timely feedback on their performance.

**Table (3)** reveals that 92.5% of the students agree that their teams were successful and from the reasons they have mentioned it can be observed that 85% of the answers relate the success of the teams to the team members' constant cooperation, support, effective communication, listening to and respecting each other's opinions. This proves that these teams are following the teamwork ground rules and have learned teamwork skills. 37.5% of the answers consider the team leader's effective role as a factor influencing the success of the team, which means that a good team leader can affect the way the team members work together besides,

30% of the answers relate the success of the teams to punctuality and meeting deadlines in doing assignments.

7.5% of the students said that their teams were unsuccessful and the main reasons for this, in their opinion, are lack of participation, shirking responsibility and lack of feeling of accountability by some members. As mentioned above, with more training and monitoring by the instructor, these problems can be solved.

**Table (4)** analyzes the data about the problems faced by the students while working in learning teams. One of the biggest problems mentioned by almost all the students is the seating organization of the classroom. Teamwork usually needs a suitable environment where students can feel comfortable and have the freedom to move and sit in a circle or semi-circle while working on a task or discussing something; however, in our case, the classroom desks are fixed to the ground and are very small-sized and uncomfortable, which restricts the movement of the team members and doesn't allow them to sit in a circle facing each other while working together. This problem needs the support of the department or the university to provide facilities that make the application of the approach possible.

A second problem as mentioned by 57.5% of the students is conflict and lack of agreement among team members, which make it difficult to come up with timely decisions about issues. However, it should be noted that conflict within a team is a normal and healthy phenomenon and it is one of the stages that all teams go through at the beginning and could be resolved with the passage of time. However, if it continues, the instructor and the team leader must try to find some solution to resolve it.

Another problem, which was contained in 37.5% of the answers, was that students lived in different places, hence, team members could not easily come together to accomplish tasks; and while at college, as mentioned by 30% of the students, they did not have enough time and a suitable place to meet to do their assignments together. However, part of this problem can be solved by using technology. For example, to solve this problem, some teams had developed chat groups on the internet to communicate while at home.

The problem of shirking responsibility, lack of cooperation and accountability and carelessness by some team members was considered a problem by 35% of the students; However, this problem is expected in teamwork because of difference in the team members' qualities, attitude, skills and experience and it can be minimized by giving the students more guidance and training on the principles of teamwork and then more monitoring and feedback by the instructor and team leaders.

The problem of negative attitude and behaviour e.g., jealousy and dominance, which are considered problem by 10% and 5% of the students respectively can also be solved by intervention from the instructor and team leaders as mentioned in the previous points above.

Finally, it seems that the team leaders have an effective role in leading and managing the teams. 10% of the students relate the failure of their teams to having ineffective team leaders. The best way to solve this problem is by training all the students on the team leader role and responsibilities since the role of team leader rotates among the members and also by giving the team leaders regular feedback on their performance by the instructor in order to encourage and reward the effective ones and to improve the performance of the ineffective ones.

**Table (5)** contains suggestions made by the students to improve their teams. The suggestions are very reasonable and the importance of making these suggestions lies in the fact that they show that the students have become aware of teamwork skills and rules and know where the problems lie and how they can be solved.

75% of the answers consider participation and feeling of responsibility by all team members as the main factor

for achieving successful teamwork. The other suggestions, including 32% who suggest more collaboration and communication within team members, 22.5% who suggest good relations, positive attitudes, respecting each other's opinions, etc. and 20% who suggest regular attendance and being punctual in meeting deadlines contribute to the main factor because once team members feel responsible, all these can be achieved automatically.

The other suggestions include doing more outside class activities together e.g., going to the library, doing research, reading books, improving their English language skills suggested by (17.5%) of the students; being assertive and not feeling shy to express opinions and deliver presentations suggested by (7.5%); training team members and team leaders and following ground rules mentioned by (25%) and finally regular follow up and monitoring by the instructor mentioned by (5%). This category indicates the importance of the roles of the instructor and the team leaders in encouraging the team members and involving them in different inside and outside classroom activities and assignments, and training and monitoring the teams and giving them regular and timely feedback.

**Table (6)** shows some of the benefits got by the team members from teamwork. (29) students (72.5%) answered positively; (2) students answered that they did not gain any benefit, while 9 students did not answer this question. However, the majority (the 72.5%) of the students mentioned that they gained some benefits out of their working as learning teams. The benefits they have mentioned show that teamwork has had significant influence on them, such as learning new things from each other, developing closer relationships with each other, learning teamwork and team leading skills, overcoming their shyness and becoming assertive, etc.

**Table (7)** shows the results of Questionnaire 2. The results reveal that the majority of the students have been rated under *excellent*, *very good* and *good* in the four items related to 1) active participation and contribution 2) time management and meeting deadlines 3) feeling of responsibility and accountability, and 4) positive attitude and interaction with team members; and only a minority have been rated under *weak* or *very weak*. This proves that the majority of the students are satisfied and actively engaged in teamwork. This satisfaction can still be increased by proper application of the strategy.

As indicated by the above results, the majority of the students were highly motivated and satisfied with the approach because, as they have mentioned, despite facilitating the learning process, the approach helped them improve their teamwork skills, their personal relationships, their level of accountability and punctuality, their way of thinking. It also helped them become assertive in expressing their ideas within the



team and with the instructor. The experience also helped them develop their peer assessment and evaluation skills. This proves the validity of the hypothesis which states that TBL, if used properly, is a more effective method of teaching compared to the traditional lecture-based method.

## 5. CONCLUSIONS

This pilot study was intended to test the success of TBL in an EFL classroom. Despite the fact that the study has not followed the full TBL principles and processes, the results obtained show that TBL is an effective and practical teaching/ learning strategy whether it is used alone or hybridized with other strategies. The experience has also helped to identify gaps and problems in applying the approach and to come up with some suggestions that contribute to its success and effectiveness. The following are some of these suggestions:

1. The approach should be applied holistically i.e., applying all its components; therefore, before applying it, users need to be aware of all its principles, processes and fundamentals.
2. Appropriate team formation in terms of size and diversity.
3. Training team members and team leaders in teamwork skills and rules. More support and encouragement should be given to weaker students and students who have negative attitude towards teamwork in order to make them well engaged in the process.
4. Regular and effective monitoring and evaluation of the teams and the team leaders and giving them regular and timely feedback on their performance. This can be done by the instructor and team leaders as well as through self-evaluation by team members.
5. Preparing well-designed assignments and problem-based tasks that make students think critically and creatively.
6. Provision of facilities e.g., suitable classroom, place for team meetings, etc. that make the application of the approach possible and easy.

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<sup>1</sup> The Immediate Feedback Assessment Technique, also known as the IF-AT, is an exciting and revolutionary new testing system that transforms traditional multiple-choice testing into an interactive learning opportunity for students and a more informative assessment opportunity for teachers. Students read the multiple-choice question and the series of answer options. They then select the rectangle (marked A, B, C, or D) corresponding to their answer choice and scratch off the thin, opaque covering. If the answer is correct, a star will appear somewhere within the rectangle, and the student will receive full credit. If the student selects an incorrect answer, the rectangle below the covering will be empty. The student is instructed to re-read the question and all of the remaining options, and to try again. If the second choice is correct, a star or symbol will appear beneath the covering, and the student can earn partial credit. For more information about IF-AT, visit: [https://www.uc.edu/content/dam/uc/ceit/docs/IF-A\\_Tinstructions.pdf](https://www.uc.edu/content/dam/uc/ceit/docs/IF-A_Tinstructions.pdf).

This type of "scratch-off" form is available from a variety of educational supply companies and can be found by simple internet searches using the key word "IF-AT forms" (McMahon, 2010).

<sup>2</sup> Gender balance was not possible since the number of male students was much smaller than the number of female students (11 male-29 female)