

*Team-Based Learning to Enhance Thai Undergraduate Learners' Achievement
Motivation in English Report Writing Course*

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Abstract

The Team-based Learning (TBL) is accepted as the innovative small group pedagogy that emphasized on students' deep learning. Moreover, TBL encourages learner's motivation higher than traditional didactics and also is appropriate to the needs of class size expansion. Therefore, this classroom action research aims to determine TBL implementation enhancement on the learners' achievement motive in English for Report Writing Course. The samples used in this study are purposively selected from 105 English for International Communication Undergraduate Students studying in Faculty of Liberal Arts, Rajamangala University of Technology Suvarnabhumi Ayutthaya, Thailand. The participants are divided into 10 groups according to the achievement scores on the English Report Writing pre-requisite courses: Essay Writing and Academic Writing Course. Each group consists of high, middle and low proficiency levels. Each group works together throughout the semester – 15 weeks. The study draws attention to the effects of TBL implementation on intermediate undergraduate learners' achievement motive including the effects on learning achievement levels of thinking: remembering, understanding, and applying. However, the learning achievement levels of thinking in analysing, evaluating, and creating of upper-intermediate undergraduate learners is significantly higher than the others. On this basis, it is recommended that TBL may not only be the effective choice of teaching methodology to implement in large language classes with differential learners' proficiency but also it could enhance the learners' achievement motive.

Keywords: Team-based Learning, TBL, Achievement Motive, Learning achievement

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Introduction

Appropriate classroom environment for learning is one of the essential factors to attain learning outcomes development of students in the 21st century. Likewise, it is valuable to encourage learners' motivation to be competent in their future lives with the suitable teaching approach. Team-based Learning (TBL) is accepted as the innovative small group pedagogy that emphasized on students' deep learning. A number of studies indicate that team-based learning plays a significant role in successful learning pedagogy (Dana, 2007; Wagner et al., 2008; Clark et al., 2008), learning outcomes development (Kuhne-Eversmann, Eversmann, and Fischer, 2008; Laverie, Madhavaram, and McDonald, 2008), and learning achievement (Letassy et al., 2008; Carmichael, 2009; Clark et al., 2008; Umble, E., Umble, M. and Artz, 2008; Johnson and Lee, 2008). Moreover, TBL encourages learner's motivation higher than traditional didactics and also is appropriate to the needs of class size expansion (Johnson and Lee, 2008; Clark et al., 2008).

Despite the benefits of TBL reported in previous research, there is no investigation in terms of the language learning environment. As a result, this study aims to examine the effects of TBL on the learners' achievement motive. Specially, the English for International Communication (EIC) Undergraduate Students in order to probe the effects of TBL on those learners' achievement motive taking up English for Report Writing Course. English for Report Writing Course is one of the challenging courses in the 2007 Rajamagala University of Technology Suvarnabumi, Bachelors of Arts (Major in English for International Communication) Curriculum. This course emphasises on problem-based learning, research-based learning, and critical thinking. Moreover, the challenging outcome of the writing process is writing a report. The way to increase learners' engagement on the difficult course is to encourage students' motivation. TBL is one such active learning method that encourages small group learning and is advantageous in its ability to promote problem solving, critical thinking, and interpersonal communication skills and also it is an effective instructional strategy for courses with large group of students and diverse writing proficiency (Clark et al., 2008). Given the benefits of TBL, this approach could be an appropriate instructional strategy that might enhance learning experience and outcomes of students in the course.

Literature review

As mentioned, most previous studies have indicated the effectiveness of TBL to enhance active learning and it plays a significant role in successful learning pedagogy, learning outcomes development, and learning achievement. The related literature will be reviewed as follows:

Team-Based Learning Strategy

According to Dana (2007), under TBL a course is divided into four to seven units. Each unit follows the same basic organization principle: individually assigned reading, take a Readiness Assessment Test (RAT) on the reading, retake the test with their teammates, and complete a series of team application exercises that allow the students individually and as a team to explore the more subtle implications of the concepts. This process is repeated for each unit in the course. Students are graded on both their individual and team performance.

Thus, TBL is a teaching strategy that represents a systematic, coherent approach to an entire course. Instead of using group activities periodically throughout a semester, TBL uses a semester-long student teams as the focal point around which all course activities are structured. An instructor who uses the TBL lectures a little, if at not all, throughout the semester. Hence, the instructor only act as a facilitator guiding the student teams in their learning in order to allow the students themselves to explore and learn the concepts.

The four key purposes of TBL are: 1) to increase students' understanding of substantive course content, (2) to enable students to use course content to solve problems and make decisions, (3) to develop students' team skills, and (4) to allow students to experience the value of team. An additional purpose is to increase both student and instructor satisfaction with the course.

The following model shows team-based learning strategy for each segment of a course.

Figure 1: Team-based learning strategy for each segment of a course

Preparation before class	In class				Post class context
	← 45-75 minutes →				1-4 hours of time in class
1	2 (15 mins.)	3 (15 mins.)	4	5	6
Self-directed learning (Do the assigned reading)	Take Individual RAT	Retake RAT with Team	Discuss the answers with teammates and class	Instructor grades students' performance individually and as a team with feedback	Activities involved applying the subject matter (This course focuses on writing a report)



Figure 2: EIC Students take Individual RAT in English for Report Writing Course.



Figure 3: EIC Students take Team RAT in English for Report Writing Course.



Figure 4: EIC Students discuss their answers to class after taking Team RAT.

Team-Based Learning vs. Learning Pedagogy

Dana (2007) implements TBL in an Introduction to Law Course at Montana State University College of Business. It is indicated that TBL is the appropriate approach to that course due to the effectiveness of Readiness Assessment Test (RAT) which promote student achievement, greater use of higher level reasoning and critical thinking skills. Wagner et al. (2008) conducted team based methods in developing approaches for achieving learner centered Information Systems curriculum outcomes. Active learning methods, including small group learning strategy, have become increasingly popular in modern curricula to increase students' participation in the learning process. One kind of small group learning, team-based learning, is a relatively new instructional strategy in health care education. Team-based learning is theoretically based and empirically grounded for ensuring the effectiveness of small groups working independently in classes with high student-to-faculty ratios (e.g., up to 200:1), without losing the benefits of faculty-led small groups with lower ratios

(e.g., 7:1). To explore the effectiveness of this learning pedagogy, Clark et al. (2008) evaluated students' level of engagement and attitudes toward the value of teams. Findings demonstrated that team-based learning is an effective teaching strategy for large groups of students.

Team-Based Learning vs. Learning Outcomes Development

Kuhne-Eversmann, Eversmann, and Fischer (2008) conducted team- and case-based learning to activate participants' learning and enhance sustainable knowledge to 159 physicians in Germany. To maintain a medical license, physicians are required to participate in high-quality continuing medical education (CME) – a regular training. The study was designed an interactive, team-based CME concept and was launched in a series of seminars on internal medicine. The group work was designed using team-based learning. Pre- and post-course knowledge tests and questionnaires were used to evaluate the knowledge, motivation, and expectations of the participants. The results represented that participants rated the interactivity and team-based discussion of the CME seminars as highly important reasons to participate and stated that the CME course was very instructional and the case discussions enhanced their learning. The majority of the participants stated that their expectations were met. The participants also obviously enhanced their learning outcomes. Moreover, Laverie, Madhavaram, and McDonald (2008) fostered a learning orientation by using team-based active learning for marketing classes. Based on the analysis of data collected from 246 marketing students, the results suggest learning orientation, based on team-based active learning, positively influences marketing program creativity and knowledge.

Team-Based Learning vs. Learning Achievement

Since 2008, instructional institutions and business organizations have been widely enhancing TBL to promote learning achievement and business competitions. In educational circumstance especially in Science, TBL is implemented in many courses such as an Endocrine Module and Introductory Biology (Letassy et al., 2008; Carmichael, 2009) to promote students' active learning. Comparing with traditional lecture-based approach, the studies confirm significantly higher students' learning achievement using TBL approach. Furthermore, many studies (Letassy et al., 2008; Clark, et al., 2008) concluded that TBL is an effective active-learning, instructional strategy for courses with large students-to-faculty ratios and distance education environment. In case of business competitions, The Edward Jones Company recently initiated financial sponsorship of team-based competitions in six undergraduate business core classes at Baylor University. Teams of students in each course competed for monetary awards ranging up to \$1,000 per team member under the project namely "The Edward Jones Challenge". The article suggests that team-based projects can be used to generate many positive learning outcomes for students. Students are encouraged to be creative, take ownership of the process, learn from each other, and have the opportunity to interact with business professionals (Umble, E., Umble, M.; and Artz, 2008). There is also implementing TBL to increase the effective performance in organizations. Johnson and Lee (2008) examined the effects of shared mental models on team and individual performance. The results indicated that each team's share mental model changed significantly over the time that subjects participated in TBL activities. The results also showed that the shared mental subcategories (team-related knowledge, skills, attitude, dynamicity, and environment) are strongly correlated to team and individual performance. It can be discussed that

individual's learning achievement derived from the effectiveness of TBL related to individual's achievement motivation.

Achievement Motivation

Motivation can be defined as the driving force behind all the actions of an individual. The influence of an individual's needs and desires both have a strong impact on the direction of their behavior. Motivation is based on emotions and achievement-related goals. There are different forms of motivation including extrinsic, intrinsic, physiological, and achievement motivation. There are also more negative forms of motivation. Achievement motivation can be defined as the need for success or the attainment of excellence. Individuals will satisfy their needs through different means, and are driven to succeed for varying reasons both internal and external (Rabideau, 2010).

According to Brunstein & Maier (2005), there are two motives directly involved in the prediction of behavior, implicit and explicit. A person with a strong implicit drive will feel pleasure from achieving a goal in the most efficient way. The increase in effort an overcoming the challenge by mastering the task satisfies the individual. However, the explicit motives are built around a person's self-image. This type of motivation shapes a person's behavior based on their own self-view and can influence their choices and responses from outside cues. In Theory of Needs, McClelland (1961) suggest that, regardless of our gender, culture, or age, we all have three motivating drivers, and one of this will be our dominant motivating driver. The theory focuses on three needs: achievement, power, and affiliation. Need for achievement consists of the drive to excel, to achieve in relation to a set of standards, and to strive to succeed. Need for power is the need to make others behave in a way that they would not have behaved otherwise. And need for affiliation contains the desire for friendly and close interpersonal relationships. The people who have a compelling drive to succeed, they are striving for personal achievement rather than the rewards of success per se. This drive is the achievement need. McClelland found that high achievers differentiate themselves from others by their desire to do things better.

Most theorists conceptualize individuals' performance achievement motivation in terms of positive and negative behaviors. As Butler (1999) proposed that achievement goals affect individuals' achievement-related attitudes and behaviors. Two different types of achievement-related attitudes include task-involvement and ego-involvement. Task-involvement is a motivational state in which a person's main goal is acquire skills and understanding whereas the main goal in ego-involvement is to demonstrate superior abilities. One example of an activity where someone strives to attain mastery and demonstrate superior ability is schoolwork. However, situational cues, such as the person's environment or surroundings, can affect the success of achieving a goal at any time. Studies confirm that a task-involvement activity more often results in challenging attributions and increasing effort (typically in activities providing an opportunity to learn and develop competence) than in an ego-involvement activity. It could be claimed that learning achievement presents learners' success and failure. High or low scores of learning achievement depended on many features such as individuals' responsibility toward their family and society, anxiety, self-concept, school system conditions, learning's habit and attitude, and teaching process, etc. However, achievement motivation is the main feature that stimulates individuals'

successful and encourage learners' learning progress (Surat Angulwirot, 1989 cited in Yoawaluk Wongpom, 2006).

Research questions and hypotheses

The purpose of this study is to investigate the effects of TBL on three groups of learners' achievement motive: high, middle and low proficiency EFL in English Report Writing Course. This study was designed to determine whether a statistically significant difference exists in the extent of achievement motive between higher, moderate and lower EIC students learning proficiency level when TBL is being implemented. The null hypothesis is stated as follows:

H₀: There is no significant difference in means of achievement motive scores of higher, moderate and lower EIC students learning proficiency level when TBL is implemented.

Methods

Subjects

Participants are purposively selected from 105 English for International Communication (EIC) Undergraduate Students who enroll in English Report Writing Course. The participants are divided into 10 groups according to the achievement scores on the English Report Writing prerequisite courses: Essay Writing and Academic Writing Course. Each group consists of high, middle and low proficiency levels. Each group need to work together throughout the semester – 15 weeks.

Instruments

1. Readiness Assessment Test (RAT)

Readiness Assessment Test (RAT) is designed and constructed directly from the learning objectives of the English Report Writing Course Syllabus. There are 5- subjective type of tests. The tests consisted of the levels of thinking skills such as: of knowledge, comprehension and application, analysis, evaluation, synthesis, and creativity (Bloom's Taxonomy cited in Anderson & Krathwohl, 2001). The RAT is an important instrument that is used to examine individual's learning progress and teams' learning efficiency. Learners need to be responsible for self-directed learning before attending the class. The RAT is given to the individual to examine their learning proficiency level after that the same RAT is given to the members of team. This method motivates the learners in analyzing and solving problems.

2. Achievement Test

Achievement Test is also a subjective type of tests and is used to evaluate individual's learning achievement in English Report Writing Course after TBL is being implemented. It is composed of the midterm and final examination covering up 4 lessons. It is designed and constructed directly from the learning objectives of the English Report Writing Course Syllabus and directly accorded with RAT content validity.

3. Achievement Motivation Assessment

The 3-category, Likert-type Achievement Motivation Assessment created from Motivational Needs Theory (McClelland, 1961) to measures learners' achievement

motivation after TBL is implemented. This instrument was developed and tested on 16 EIC students who did not enroll in English Report Writing Course before it is used in this study. It is established in terms of face and content validity by 3 experts. The reliability coefficient of this assessment is 0.81.

Data analysis

In this study, TBL instructional strategy is used to gather the information as follows:

Creating Team

TBL teams are created in the first week of the course and stay together throughout the semester. The 105 learners are divided into 10 groups according to their achievement scores on the English Report Writing prerequisite courses: Essay Writing and Academic Writing Course. Each group consists of high, middle and low proficiency levels.

RATs and Feedback

One of the keys to the success of TBL is the use of the RATs. At the beginning of each course unit, students do the assigned reading on their own and take both the individual and team closed-book RAT without the benefit of any lectures on the material. This method motivates the students' assistance in terms of analytical thinking and problem-solving. Then, the instructor grades the students' performance individually and as a team with continuous and rapid feedback (immediately or 1 week after the RATs is employed).

Grade Distribution

Figure 5: English Report Writing Course Grade Distribution

Component	Total Points	Weight, %
Four unit examinations¹	80	40
IRAT/TRAT²	40	40
Team Written Report	20	20

Abbreviations: IRAT = Individual Readiness Assessment Test

TRAT = Team Readiness Assessment Test

¹total points are 30 for midterm examination and 50 for final examination

²weight distribution is 20% for the IRAT and 20% for the TRAT

In order to test hypothesis, One-way ANOVA is used to compare the difference in mean achievement motive average total score of higher, moderate and lower EIC students learning proficiency level.

Results and Discussions

This study examined the hypothesis which relates to the extent of achievement motive between higher, moderate and lower EIC students learning proficiency level when TBL is implemented. The results of the study are as followings:

Table 1: Comparison of overall mean difference of achievement motive on EIC students' different learning proficiency level when TBL is implemented in English Report Writing Course

Achievement motive and Team-based Learning	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
English Report Writing Learning Proficiency Level	Between Groups	2	2.167	1.083	2.903	.060
	Within Groups	99	36.940	.373		
	Total	101	39.107			

* $p \leq .05$ (significant at 0.05 level)

Based upon the mean difference on the achievement motive between the higher, moderate and lower EIC students learning proficiency level in Table 1 ($p \leq 0.05$), null hypothesis is accepted. It is claimed that TBL approach is related to learners' achievement motivation in English Report Writing Course. This indicates that Team-based Learning affects learners' different proficiency level intrinsic motivation in terms of achievement-related attitudes and behaviors including progress in studying (Butler, 1999 and Rabideau, 2010). Furthermore, TBL approach responds to people's higher achievement motive in terms of challenging, organizing, planning, critical thinking, responsibility, and tolerance, etc. (McClelland, 1961; Guilford, 1959; Atkinson, 1964; Crandall, 1968 cited in Yoawaluk Wongpom, 2006).

Table 2: Comparison of the mean difference between 3-catergory of achievement motive and TBL on EIC students learning proficiency level in English Report Writing Course

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
1. The drive to excel						
1.1 Need to do more difficult assignment	Between Groups	2	6.751	3.376	6.873*	0.002
	Within Groups	99	48.622	0.491		
	Total	101	55.373			
1.2 Need to be a good learner	Between Groups	2	0.543	0.271	0.329	0.721
	Within Groups	98	80.883	0.825		
	Total	100	81.426			

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
1.3 Need to be praised from teachers and classmates when have good learning outcomes	Between Groups	2	1.170	0.585	0.461	0.632
	Within Groups	99	125.497	1.268		
	Total	101	126.667			
1.4 Satisfied when passing the test	Between Groups	2	0.699	0.350	0.314	0.732
	Within Groups	97	108.141	1.115		
	Total	99	108.840			
1.5 Believe that tolerance can make successful assignment	Between Groups	2	1.704	0.852	1.281	0.282
	Within Groups	99	65.874	0.665		
	Total	101	67.578			
1.6 Make arrangement to achieve assignment	Between Groups	2	1.319	0.659	0.759	0.471
	Within Groups	99	86.054	0.869		
	Total	101	87.373			
1.7 Follow up unfinished assignment to be able to submit on time	Between Groups	2	0.256	0.128	0.209	0.812
	Within Groups	99	60.763	0.614		
	Total	101	61.020			
1.8 Scores are important motivation	Between Groups	2	4.550	2.275	3.400*	0.037
	Within Groups	99	66.244	0.669		
	Total	101	70.794			

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
2. The drive to achieve in relation to a set of standards						
2.1 Enthusiastic to test after self-studying	Between Groups	2	2.405	1.202	1.901	0.155
	Within Groups	99	62.615	0.632		
	Total	101	65.020			
2.2 Challenged with difficult lessons	Between Groups	2	3.656	1.828	2.238	0.112
	Within Groups	99	80.863	0.817		
	Total	101	84.520			
2.3 Unwilling to attend class	Between Groups	2	11.232	5.616	5.565*	0.005
	Within Groups	99	99.915	1.009		
	Total	101	111.147			
2.4 Prefer self-directed learning	Between Groups	2	13.013	6.507	8.685*	.000
	Within Groups	99	74.163	0.749		
	Total	101	87.176			
2.5 Always ignore the difficult and boring assignment	Between Groups	2	5.463	2.732	3.440*	0.036
	Within Groups	99	78.615	0.794		
	Total	101	84.078			
2.6 Continuously following up the project and working to improve it.	Between Groups	2	0.482	0.241	0.302	0.740
	Within Groups	99	79.009	0.798		
	Total	101	79.490			

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
2.7 Challenged to give an opinion in the team when working	Between Groups	2	2.915	1.458	1.975	0.144
	Within Groups	98	72.332	0.738		
	Total	100	75.248			
2.8 Able to understand difficult lessons	Between Groups	2	1.238	0.619	10.050	0.354
	Within Groups	99	58.341	0.589		
	Total	101	59.578			
2.9 Challenged to do a difficult task in the team when working	Between Groups	2	5.422	2.711	4.299*	0.016
	Within Groups	99	62.422	0.631		
	Total	101	67.843			
3. The drive to strive to succeed						
3.1 Like to compete with better learners but never win	Between Groups	2	1.673	0.836	0.725	0.487
	Within Groups	99	114.141	1.153		
	Total	101	115.814			
3.2 Prefer to do more attempted assignment	Between Groups	2	2.822	1.411	3.061	0.051
	Within Groups	98	45.178	0.461		
	Total	100	48.000			
3.3 More motivated when receiving low grade	Between Groups	2	1.657	0.828	1.001	0.371
	Within Groups	99	81.922	0.827		
	Total	101	83.578			

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
3.4 Happy with successful assignment	Between Groups	2	4.137	2.069	2.055	0.134
	Within Groups	99	99.676	1.007		
	Total	101	103.814			
3.5 Immediately stop doing assignment when faced with difficulties	Between Groups	2	1.611	0.805	0.972	0.382
	Within Groups	96	79.561	0.829		
	Total	98				
3.6 Motivated to achieve the assignment even doing the wrong thing	Between Groups	2	3.067	1.533	2.016	0.139
	Within Groups	99	75.286	0.760		
	Total	101	78.353			
3.7 Need to get higher scores	Between Groups	2	1.023	0.512	1.035	0.359
	Within Groups	99	48.938	0.494		
	Total	101	49.961			
3.8 Always study lessons in advance	Between Groups	2	3.586	1.793	2.674	0.074
	Within Groups	98	65.721	0.671		
	Total	100	69.307			
3.9 Achieve assignment even if it is not preferred	Between Groups	2	0.226	0.113	0.189	0.828
	Within Groups	99	58.922	0.595		
	Total	101	59.147			

Achievement motive	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
3.10 Need a good grade after taking the test	Between Groups	2	3.928	1.964	3.916*	0.023
	Within Groups	98	49.161	0.502		
	Total	100	53.089			
3.11 Less motivated to do the assignment if there is no grade	Between Groups	2	5.203	2.601	2.737	0.070
	Within Groups	98	93.154	0.951		
	Total	100	98.356			
3.12 Prefer self-taught activities before attending the class	Between Groups	2	0.959	0.480	0.508	0.604
	Within Groups	99	93.560	0.945		
	Total	101	94.520			
3.13 Prefer teamwork due to improved grade	Between Groups	2	3.398	1.699	1.759	0.178
	Within Groups	99	95.622	0.966		
	Total	101	99.020			

* $p \leq .05$ (significant at 0.05 level)

According to Table 2, it is found that 7-item on the achievement motive, i.e. Need to do more difficult assignment, Scores are important motivation, Unwilling to attend class, Prefer self-directed learning, Always ignore the difficult and boring assignment, Challenged to do a difficult task in the team when working and Need a good grade after taking the test reported by the higher, moderate and lower learning proficiency EIC students is significantly related to TBL at 0.05 level. Therefore, Scheffe is used to test pair-wise difference on the achievement motive between the higher, moderate and lower EIC students learning proficiency level as shown in Table 3.

Table 3: Comparison the pair-wise difference on 3-category of achievement motive between the higher, moderate and lower EIC students learning proficiency level

Achievement Motive	Learning proficiency level		Higher	Moderate	Lower
The drive to excel					
		Mean	3.60	3.56	3.04
Need to do more difficult assignment	Higher	3.60	-	0.33	0.55
	Moderate	3.56	-0.33	-	0.51*
	Lower	3.04	-0.55	-0.51*	-
		Mean	3.90	4.16	3.69
Scores are important motivation	Higher	3.90	-	-0.26	0.20
	Moderate	4.16	0.26	-	0.47*
	Lower	3.69	-0.26	-0.47*	-
The drive to achieve in relation to a set of standards					
		Mean	2.50	1.93	2.67
Unwilling to attend class	Higher	2.50	-	0.56	-0.17
	Moderate	1.93	-0.56	-	-0.74*
	Lower	2.67	0.17	0.74*	-
		Mean	4.20	4.13	3.41
Prefer self-directed learning	Higher	4.20	-	0.66	0.78*
	Moderate	4.13	-0.66	-	0.71*
	Lower	3.41	-0.78*	-0.71*	-
		Mean	2.90	2.83	3.32
Always ignore the difficult and boring assignment	Higher	2.90	-	0.06	-0.42
	Moderate	2.83	-0.06	-	-0.48*
	Lower	3.32	0.42	0.48*	-
		Mean	2.70	2.96	2.45
Challenged to do a difficult task in the team when working	Higher	2.70	-	-0.26	0.24
	Moderate	2.96	0.26	-	0.51*
	Lower	2.45	-0.24	-0.51*	-0.51*
The drive to strive to succeed					
		Mean	4.20	4.60	4.16
Need a good grade after taking the test	Higher	4.20	-	-0.40	0.30
	Moderate	4.60	0.40	-	0.43*
	Lower	4.16	-0.30	-0.43*	-

* $p \leq .05$ (significant at 0.05 level)

Table 3 shows the comparison of pair-wise difference on 3-category of achievement motive between the higher, moderate and lower EIC students learning proficiency level. It indicates that there is significant relationship between TBL approach and achievement motive classified by students learning proficiency level as follows:

1. The moderate proficiency learners significantly need to do more difficult assignments than the lower proficiency learners at 0.05 level.
2. The moderate proficiency learners significantly take precedence over scores than the lower proficiency learners at 0.05 level.
3. The lower proficiency learners are more significantly unwilling to attend class than the moderate proficiency learners at 0.05 level.
4. There are 2 pair-wise significant differences at 0.05 level in terms of preferring self-directed. The higher and moderate proficiency learners more significantly prefer self-directed learning than the lower proficiency learners.
5. The lower proficiency learners always significantly ignore the difficult and boring assignment than the moderate proficiency learners at 0.05 level.
6. The moderate proficiency learners are significant challenged to do a difficult task in the team when working than the lower proficiency learners at 0.05 level.
7. The moderate proficiency learners significantly need better grade after taking the test than the lower proficiency learners at 0.05 level.

The comparison of pair-wise difference on achievement motive between the higher, moderate and lower EIC students' learning proficiency level indicates that the moderate proficiency learners have significantly higher achievement motivation than those who have higher and lower proficiency level in English learning at 0.05 level. This implies that the TBL strategy is the main feature that stimulates moderate proficiency learners' successful and encourage their learning progress (Surat Angulwirot, 1989 cited in Yoawaluk Wongpom, 2006) as following views. Firstly, moderate proficiency learners need to do more difficult assignments due to the main characteristic of the learners who are likely to be successful with challenging work, and dislike succeeding by chance (McClelland, 1961). TBL approach, especially, self-directed learning before classes, take individual RAT from the assigned reading after that retake the test with their teammates,; thus, the lessons and the RAT will be continually difficult, encourages their learning progress. Secondly, they are willing to attend classes which affect the individuals' learning achievement-related attitudes and behaviours (Butler, 1999). They believe that attending classes may help them to gain more knowledge and they also need to receive rapid feedback on their performance to improve their learning. Moreover, they would like to participate with their teammates all course activities. Thirdly, they prefer self-directed learning due to high responsibility for finding solutions to problems (McClelland, 1961). These groups of learners really prefer TBL approach since they think that they may assist team to be successful when Team RAT is retaken. Particularly, scores are important motivation to these learners. However, whether the scores received after test is high or low; they'd still likely to be successful as an individual and team. Furthermore, these learners are very tolerant even in doing the boring and difficult assignments. They are willing and able to achieve success on those assignments. Moreover, they are more challenged to do difficult assignments with the team than others due to competition. It is claimed that the characteristics of the Thai EFL moderate proficiency learners as mentioned consist of collaborative and participative learning style (Grasha. A; Riechmann. S; in Matthana Thammabuds, 2010).

Table 4: Comparison of the mean difference on each Individual and Team Readiness Assessment Test classified by learners' different learning proficiency level

Readiness Assessment Test	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
IRAT1	Between Groups	2	1.857	0.928	0.927	0.399
	Within Groups	102	102.200	1.002		
	Total	104	104.057			
IRAT2	Between Groups	2	0.850	0.425	1.735	0.182
	Within Groups	102	24.975	0.245		
	Total	104	25.825			
IRAT3	Between Groups	2	4.838	2.419	1.781	0.174
	Within Groups	102	138.535	1.358		
	Total	104	143.373			
IRAT4	Between Groups	2	0.098	0.049	0.107	0.899
	Within Groups	102	46.826	0.459		
	Total	104	46.924			
IRAT5	Between Groups	2	4.686	2.343	3.664*	0.029
	Within Groups	102	65.228	0.639		
	Total	104	69.914			
IRAT Total	Between Groups	2	25.708	12.854	2.575	0.081
	Within Groups	102	509.162	4.992		
	Total	104	534.870			

Readiness Assessment Test	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
TRAT1	Between Groups	2	4.413	2.207	2.877	0.061
	Within Groups	102	78.244	0.767		
	Total	104	82.657			
TRAT2	Between Groups	2	0.030	0.015	0.256	0.775
	Within Groups	102	6.032	0.059		
	Total	104	6.062			
TRAT3	Between Groups	2	0.066	0.033	0.344	0.710
	Within Groups	102	9.782	0.096		
	Total	104	9.848			
TRAT4	Between Groups	2	1.331	0.666	1.722	0.184
	Within Groups	102	39.431	0.387		
	Total	104	40.762			
TRAT5	Between Groups	2	12.297	6.148	3.983*	0.022
	Within Groups	102	157.465	1.544		
	Total	104	169.762			
TRAT Total	Between Groups	2	18.596	9.298	2.957	0.056
	Within Groups	102	320.704	3.144		
	Total	104	339.300			

IRAT stands for Individual Readiness Assessment Test
TRAT stands for Team Readiness Assessment Test

The comparisons of the mean difference on each Individual and Team Readiness Assessment Test scores classified by learners' different learning proficiency level show that there is no significantly different on students' learning outcomes when IRATs and TRATs are administered at 0.05 p-value except RATs No.5. Both IRATs and TRATs No.5 are found different on students' learning outcomes at 0.05 statistical significant level. Therefore, Scheffe is used to examine pair-wise difference on students' learning outcomes between learners' different learning proficiency level as shown in Table 5.

Table 5: Comparison of pair-wise difference on Individual and Team Readiness Assessment Test classified by learners' different learning proficiency level

Readiness Assessment Test	Learning proficiency level		Higher	Moderate	Lower
		Mean			
IRAT5 ¹	Higher	2.96	-	0.60	0.57*
	Moderate	2.36	-0.60	-	-0.02
	Lower	2.39	-0.57*	0.02	-
		Mean	2.96	2.36	2.39
TRAT5 ²	Higher	3.34	-	0.61	0.96*
	Moderate	2.72	-0.61	-	0.34
	Lower	2.37	-0.96*	-0.34	-
		Mean	3.34	2.72	2.37

* $p \leq .05$ (significant at 0.05 level)

¹Individual Readiness Assessment Test No.5

²Team Readiness Assessment Test No.5

As shown in Table 5, there is only one pair-wise significant difference at 0.05 level when Individual and Team Readiness Assessment Test are administered. It is shown that the higher proficiency learners reported more synthetic and analytic test scores than the lower proficiency learners.

Table 6: Comparison of the mean difference on achievement learning outcomes in English Report Writing Course classified by learners' learning proficiency level

Achievement Learning Outcomes	Source of variation	df	Sum of Squares	Mean Square	F	Sig.
Students learning proficiency level	Between Groups	2	1703.36	851.68		
	Within Groups	102	1865.26	18.28	46.57*	0.000
	Total	104	3568.63			

* $p \leq .05$ (significant at 0.05 level)

In Table 6, it represents that the learners who have different learning proficiency level have significantly different achievement learning outcomes in English Report Writing Course at 0.05 level.

Table 7: Comparison of pair-wise difference on achievement learning outcomes in English Report Writing Course classified by learners' learning proficiency level

Achievement Learning Outcomes	Learning proficiency level		Higher	Moderate	Lower
		Mean			
Achievement Test ¹	Higher	23.78	-	0.60*	11.23*
	Moderate	17.17	-0.60*	-	4.63*
	Lower	12.54	-11.23*	-4.63*	-

* $p \leq .05$ (significant at 0.05 level)

¹Four unit examination paper tests = 40%

Regarding the comparison of pair-wise difference on achievement learning outcomes in English Report Writing Course classified by the students' learning proficiency level, it presents that there are 3 pair-wise significant differences at 0.05 level, i.e. the higher proficiency learners have higher achievement test scores than both the moderate and lower proficiency learners whereas the moderate proficiency learners also have higher achievement test scores than the lower proficiency learners.

Based on the results presented in Tables 4-7, it is claimed that there is no significantly different on students' learning outcomes in English Report Writing Course when Individual Readiness Assessment Test and Team Readiness Assessment Test are administered with differential learners' proficiency at 0.05 p-value except the synthetic and analytic test. The results show that the higher proficiency learners have higher scores in those tests than the lower proficiency learners. Furthermore, there is significantly different in achievement learning outcomes between the three groups of learners at 0.05 level. It is found out that the average scores of achievement learning outcomes comparing with overall course grade of the higher proficiency learners is only 50 percent whereas those scores of the moderate and lower proficiency learners are lower than 50 percent. It is suggested that achievement motivation related to TBL approach implemented in English Report Writing Course may not directly affect to learners' achievement learning outcomes in the courses that stimulate critical thinking and synthesis. It is contrary to Dana (2007) and Clark (2008) findings which found that RAT could effectively promote learners' critical thinking. However, the average scores from the synthetic and analytic RAT indicate that there are higher scores from those tests when the higher and moderate proficiency learners take the Team Readiness Assessment Test. This argues that teamwork could reinforce individual learners' critical thinking skills, but it could not affect the overall achievement learning outcomes because the average scores of the lower proficiency learners are decreased. Nevertheless, this result contrasts with Sureerat Ungulwirot (1989) research (Sureerat Ungulwirot, 1989 cited in Yaowaruk Wongpom, 2006) which

confirms that motivation is important factor that encourages learners' achievement learning outcomes. In particular, TBL approach impacts Thai moderate proficiency learners' achievement motive with higher frequency in the drive to achieve in relation to a set of standards (McClelland, 1961). Besides, there are many factors that affect learning achievement such as anxiety, team collaboration, individuals' proficiency and critical thinking skill which requires a period of practicing. Moreover, learning style of Thai learners is different in each group of learners, i.e. the higher proficiency learners tend to be self-directed, the moderate proficiency learners are collaborative and participative while the lower proficiency learners are dependent on others (Grasha. A; Riechmann. S; in Matthana Thammabuds, 2010). This result shows the difference of Thai-Western learning style that effect on test results and achievement learning outcomes. For the reason that, the higher proficiency learners have high responsibility and tend to work on competition, they would have higher achievement motivation and achievement learning outcomes than others. Even if the teaching methodology stimulates their motivation, this group of learner inclines to have higher achievement learning outcomes than the other groups. Hence, TBL is the effective strategy that motivates them.

Conclusion and Recommendation

It is concluded that TBL is the appropriate didactic approach to encourage achievement motivation environment in language learning of learners with different proficiency level especially, Thai intermediate undergraduate learners. In addition to this, TBL affects learning achievement levels of thinking: remembering, understanding, and applying on each group of learners. However, the learning achievement levels of thinking in analysing, evaluating, and creating of Thai upper-intermediate undergraduate learners is significantly higher than the others. On the other hand, the achievement motivation occurred during TBL approach implementation may not affect the achievement learning outcomes of learners' who attended the courses that emphasize high analytic and synthetic ability. On this basis, it is recommended that TBL may not only be the effective choice of teaching methodology to be implemented in large language classes with differential proficiency level of the learners but also it could enhance to learners' achievement motive.

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