

## The Effect of Blended Learning Models on ESL Students' Self-Efficacy and Proficiency

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### ABSTRACT

*The Malaysian government has encouraged educational institutions to incorporate digital technology and internet resources in the classroom for the past decade. This call was materialised by incorporating various models of blended learning in institutions of higher learning. This was also a value-added method for ESL learners and instructors to enhance students' proficiency and self-efficacy in mastering listening, speaking, reading and writing skills. The objective of the present study is to ascertain the relationship between blended learning and students' self-efficacy in improving their proficiency in the English language. The respondents in this study are diploma-level college students in a public higher-learning institution. The study employed an experimental design involving control and experimental groups. Students in the experimental groups were exposed to a series of blended learning lessons, while students in the control group were taught using traditional lessons. Data was collected by administering the Learning English Self-Efficacy Survey and English Proficiency Test. Data analysis revealed a positive relationship between blended learning, self-efficacy in English language learning and proficiency.*

*Keywords: blended learning; self-efficacy; proficiency; ESL*

### INTRODUCTION

In recent years, the progress of information and communication technologies (ICTs) globally has dramatically impacted the teaching and learning of the English language. Integrating ICTs enhances learners' motivation through multimedia capabilities such as visual aids, audio, and videos. Overall, this has led to a practical approach known as e-learning and blended learning (BL). E-learning is a teaching method where the entire content and instructional materials are delivered through laptops, desktops and hand-held gadgets. In e-learning, the subject's content is not only taught through the internet but also delivered the subject effectively to the learner. In recent years, the widespread use of smartphones, the internet, and the lowering cost of technology may have fundamentally altered teaching and learning processes. Because of the rapid advancement and complexity of internet-based technologies, online learning platforms have emerged as a standard method for delivering instruction in most tertiary institutions (Poquet et al., 2015). Most higher education institutions in Malaysia have already developed and enforced e-learning in their courses as an alternative to the regular teaching and learning method (Haryani Harona et al., 2012).

Malaysia has transitioned from conventional teaching methods towards blended learning as they progress from absolute traditional to a combination of traditional and e-learning

approaches. In general, BL could be a teaching method combining the best of traditional classroom learning and comprehensive e-learning environments. Nevertheless, there are several blended learning models to choose. Quite often, instructors are left wondering about the suitability and effectiveness of these models in enhancing students' self-efficacy and proficiency in the English language classroom.

## RESEARCH OBJECTIVES AND QUESTIONS

This study examines the possible effects of utilising different BL models on students' English language self-efficacy and proficiency. Therefore, the study aims to seek answers to the following research questions:

1. What is the relationship between BL and students' reading, writing, listening and speaking self-efficacy?
2. What is the relationship between BL and students' reading, writing, and listening proficiency?

## LITERATURE REVIEW

### BLENDED LEARNING

Blended learning is a teaching and learning method that combines numerous digital educational techniques and technologies to provide an effective learning experience. Today, BL is frequently connected with a mixture of conventional and online learning activities for the most part. A regular blended learning method may comprise two or more techniques with different approaches.

BL began as mail-order courses in long-distance education over 150 years ago (Liashenko, 2019; Means. B., 2010). Despite its popularity, BL was considered convenient but of a lower standard than traditional learning (Liashenko, 2019; Means. B., 2010). Thus, higher education establishments that offered BL programs were seen to be of a lesser quality than those higher education institutions that offered traditional face-to-face or on-campus programs (Liashenko, 2019; Smith, 1987). BL has been proven to engender various advantages over online learning, and because of this, BL has appealed to an increasingly non-traditional student population (Ismail, 2020; Dziuban et al., 2007)). BL also provides instructor interaction and community support, which is crucial for student learning and retention. Blended education would continue to develop and expand because of the increasing need to offer flexible access to higher education and increasing competition among higher education institutions for students ( Poquet et al., 2015; Green, 2003)

According to Staker (2012), four types of BL models are used in classrooms, namely the Rotation, Flex, A La Carte, and Enriched Virtual.

1. Rotation Model – According to this model, students may alternate between online lessons and other traditional learning activities such as group discussions and face-to-face lectures. The teacher will determine when the students shift from online learning to conventional training and vice versa. The Rotation Model is further divided into four sub-models:

- a. Station Rotation – Students experience the rotation model within a contained classroom or group of classrooms.
  - b. Lab Rotation – Students will rotate between the classroom and the computer lab.
  - c. Flipped Classroom – Lessons are delivered online outside of regular school hours, and then they attend the scheduled traditional classroom session. In other words, the delivery of content and instruction is online.
  - d. Individual Rotation – The teacher decides on individual student rotation.
2. Flex Model – In this model, lessons are delivered online at school while homework is done online at home. The students learn according to their pace and needs. Instructors are available on hand in the classroom to assist and direct the students.
  3. A la carte Model – The students will learn entirely online with the teacher's attendance, also online. The students have the flexibility to learn either in school or outside of school hours
  4. Enriched Virtual Model – students will be taught using a traditional approach, and they are also free to complete the remaining coursework online. This model is different from the Flipped Classroom Model because, in this model, students' face-to-face learning with the teacher is not scheduled.

#### SELF-EFFICACY

Self-efficacy is entrenched within Bandura's social cognitive theory, which acknowledges self-efficacy as a self-examination inducing behaviour and internal mechanisms that exert perseverance against difficulties and authority of that behaviour (Bandura, 1993). According to Bandura, self-efficacy affects one's choices, goals, level of work and grit, resilience to adversity, susceptibility to stress and depression, and performance. In other words, self-efficacy is not looking at one's skills but one's ability. Self-efficacy directly affects whether the person works strategically or erratically and is optimistic or pessimistic (Bandura, 2006).

In addition, Bandura also clarified that people learn new behaviours through observing social examples and the repercussions of their deeds. Clearly, an individual's learning is shaped by the general public around him. Watching the people around them act and talk influences how these individuals act and talk. Bandura also explained that learners' self-efficacy also influenced individual academic achievement (Bandura, 1993).

One of the strengths of BL is the tendency to access and apply real-life or genuine models of knowledge, skills, and behaviours. This modelling experience is part of the four sources of self-efficacy. In the blended learning method, students will experience this modelling experience through videos, simulations and lectures (refer to FIGURE 2.3). In other words, teachers will enact the model of academic behaviours and cognitive processes that they want their students to learn. Using these models and materials inadvertently catches students' attention and retention of learning content (Ismail, 2020; DeWitz, 2009). The effective use of models provides students with numerous opportunities to practice and rehearse the behaviours or skills that they have observed. As a result, students' performance or enactive mastery in reading, speaking, listening, and writing improves. Enactive mastery or performance outcomes is another source of self-efficacy. In the blended learning method, instructional activities such as role-play, presentation and discussion will influence the students' performance (Lalima, 2017).

Verbal persuasion is the third source of self-efficacy. There are chances that the student's performance will be further improved if they are provided with verbal persuasions, such as feedback about their efforts that is specific, immediate, and insightful. Appropriate rewards and punishments can also motivate students to perform better. The students' emotional state or physiological arousal is the last source of self-efficacy. In the blended learning method, coaching, online/offline chat and online forums will influence students' performance and emotional state (Lalima, 2017). This discussion indicates the link between blended learning and Bandura's self-efficacy theory.

## RESEARCH DESIGN AND METHODOLOGY

The present study employs an experimental design involving control and experimental groups. This design is chosen because it is best suited to establish possible cause and effect relationships between the independent and dependent variables (Creswell, 2014). In this study, the independent variable is BL, while English language self-efficacy and the student's language proficiency are dependent variables. Data was collected from the control and experimental groups using questionnaires, pre-test and post-test.

Before starting the study, the researchers randomly assigned one class as the control group. The control group students were administered lessons through a traditional face-to-face learning approach for fourteen weeks.

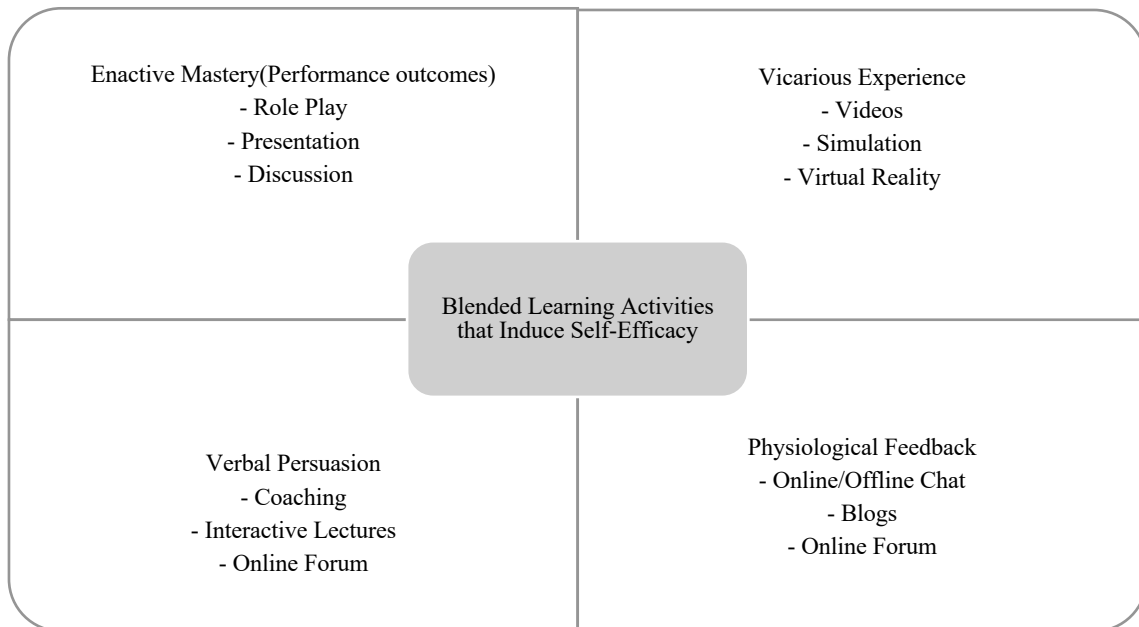


FIGURE 1. Blend Learning Activities That Can Influence Self-Efficacy

At the beginning and end of the study, the students in the control group were administered the survey on Learning English Self-Efficacy and the English Proficiency Test. Students spent approximately 4-5 minutes answering the questionnaire. Students were allocated 2 hours to complete the English Proficiency pre-test and post-test.

While two other classes were randomly assigned as the experimental groups – A and group B. They were exposed to learning English using a BL model for the next fourteen weeks. Experimental group A was taught using the Face-to-Face Driver Model, while experimental group B was conducted using the Flexi Driver Model group. At the beginning and end of this study, the students in the experimental groups were also administered the Learning English Self-Efficacy Survey and English Proficiency Test. In this BL environment, lessons were conducted through face-to-face sessions and online sessions. Online learning was supported by a Learning Management System developed using a Moodle platform and Web 2.0 applications and technologies.

#### POPULATION AND SAMPLING

The respondents in this research are diploma-level, college students. English language proficiency courses are compulsory in their programme of study. The college does not segregate students into different classes according to proficiency levels but allows them to choose their classes. As a consequence, classes constitute a mixture of varying proficiency levels.

The research sampling method utilised in this study is a purposive sampling method. The purposive sampling method was selected because the researcher chose to examine a particular group of people within the population. In this case, intact diploma students take English language proficiency classes. The study was conducted over fourteen weeks.

The sample of the population selected for this study is also representative of the population of diploma students undertaking programmes that have embedded English language proficiency courses. They consist of male and female students within the age range of 18 to 20 years old.

#### INSTRUMENTATION

Instruments include a questionnaire based on a 7-point Likert scale score and English proficiency tests for data collection.

The Survey of English Language Learning Self-Efficacy was used to gather data on students' self-efficacy in learning English. The survey was initially developed by Wang (2004) to gauge the English language learners' level of self-efficacy. The Questionnaire of English Self-Efficacy consists of 32 questions. Each question asks students to rate their abilities to complete specific English tasks in the four areas of listening, speaking, writing and reading. The researchers adapted questions 4 to 23 in the questionnaire to suit local conditions. QESE has been adapted to fit English language learning in China, Korea, Germany and the United States (Yongjin Zhu, 2020; Yilmaz-Soylu, 2008). This study applied modifications to the total number of items adapted from QESE.

The questionnaire used in this study was divided into two parts. In Part 1, the students will be asked about their demographic details. In Part 2 of the questionnaire, the students will be asked about their English self-efficacy. The scale is measured on a 7-point Likert scale rating from 1 (I cannot do it at all) to 7 (I can do it very well). Part 2 is further divided into four sections to measure the following constructs: listening (Items 4 till 8); speaking (Items 9 till 13); writing (Items 14 till 18); and reading (Items 19 till 23). There are twenty questions in Part 2, and all the questions are close-ended, requiring the respondents to pick the appropriate responses that are most relevant to them.

The second instrument used in this study is the English proficiency test. This test was designed to test all four English language skills: reading, speaking, listening, and writing and was used as a pre and post-test. This tool evaluates the student's English language academic achievement among the experimental groups by comparing their achievement with the control group. The difference between the five groups was analysed to conclude.

#### VALIDITY AND RELIABILITY

A pilot study was conducted using the English language Self-Efficacy questionnaire. The questionnaire was handed out to thirty-one students, and the data collected was tabulated using Cronbach's Alpha to test the inner consistency of the questionnaire. The calculated alpha for the survey was 0.981, indicating that the questionnaire has a high degree of internal consistency and validity.

#### FINDINGS

##### RESPONDENTS' DEMOGRAPHIC DETAILS

Ninety diploma-level respondents participated in this study. They were randomly assigned to the Control group, Face-to-Face Driver Model group, and Flexi Driver Model group. In the Control group, the participants were taught English using the traditional face-to-face learning method. Experimental group A was conducted using the Face-to-Face Driver Model, while experimental group B was taught using the Flex Driver Model. The Face-to-Face Driver model involves using a traditional face-to-face method and online learning. In contrast, the Flex Driver Model involves students learning online in the classroom, with the teacher acting as a facilitator.

In the Control group, female respondents outnumbered male respondents, accounting for 70 per cent against 30 per cent. In the Face-to-face Driver model group, female respondents also outnumbered male respondents, accounting for 76.7 per cent against 23.3 per cent. While in the Flex Driver model group, the male respondents slightly outnumbered female respondents, 17 per cent as against 13 per cent, contrary to the other two groups.

In the Control group, most of the respondents are from the age group of 18 to 20 years (73.3%) and 21-23 years (23.3%), and 3.3 per cent of respondents are from the age group of 24 years and above. In the Face-to-face Driver model group, most respondents are from 18 to 20 years (86.7%) and the age group of 21-23 years (13.3%). Moreover, in the Flex Driver model group, the majority of the respondents are 18 to 20 years (73.3%) and 21-23 years (13.3%), and 13.3 per cent of respondents from the age group of 24 years and above.

#### DATA ANALYSIS

Data from the pre and post-Learning English Self-Efficacy Questionnaire was analysed to ascertain normal distribution. The data from the pre-survey for the Control Group was normally distributed,  $W(30)=0.95$   $p=0.134$ . In addition, the Face-to-face Driver Model Group pre-survey data also showed that it was normally distributed,  $W(30)=0.94$ ,  $p=0.08$  and Flex Group data in the pre-questionnaire was also normally distributed,  $W(30)=0.95$ ,  $p=0.22$ . In the Shapiro-Wilk Test, if the Sig. value is greater than 0.05, the data is normal, and if it is less than 0.05, the data significantly deviate from a normal distribution.



Data analysis also indicates that the post-survey data for the Control Group was normally distributed,  $W(30)=0.94$ ,  $p=0.09$ . Face-to-face Driver Model Group post-survey data showed that it was normally distributed,  $W(30)=0.97$ ,  $p=0.456$ . The post-survey data of the Flex Group post-questionnaire was also normally distributed,  $W(30)=0.95$ ,  $p=0.26$ .

A normality test was also conducted on all data from pre and post-English proficiency tests. The pre-English comprehension test data for the Control Group was normally distributed,  $W(30)=0.95$ ,  $p=0.14$ . In addition, the Face-to-face Driver Model Group pre-test data also showed that it was normally distributed,  $W(30)=0.96$ ,  $p=0.32$  and Flex Group data in the pre-test was also normally distributed,  $W(30)=0.95$ ,  $p=0.19$ .

#### WHAT IS THE EFFECT OF THE BL MODELS ON THE STUDENTS' LEVEL OF SELF-EFFICACY IN READING, WRITING, LISTENING AND SPEAKING?

Question 19 to 23 in the reading section of the pre and post, Learning English Self-Efficacy questionnaire requires the respondents to state the extent of their ability concerning their reading skills. These data were then analysed using a one-way ANOVA. The results showed that there were no significant differences at  $p<0.05$  for the control and experimental groups' pre-reading self-efficacy [ $F(2, 87) = 0.68$ ,  $p = 0.51$ ]. The same data also showed that there is no significant difference at  $p<0.05$  for the control and experimental groups' post-reading self-efficacy [ $F(2, 87) = 2.63$ ,  $p = 0.08$ ].

Data analysis for questions 10 to 23 of the reading section indicated an improvement between the pre-test and post-test for all the groups' reading self-efficacy mean scores. Data analysis for the Control group showed an increase in the mean score from  $M=3.26$  to  $M=4.33$ . There was also an increase in the mean scores for the Face-to-face Driver group from  $M=3.17$  to  $M=4.91$ , and for the Flexi Driver group, there was an increase from  $M=2.98$  to  $M=4.42$ . The Face-to-face Driver Model group scored the highest mean score difference (Mean= 1.74), followed by the Flexi Driver group (Mean= 1.44) and finally, the control group (Mean= 1.07).

The control group T-test result recorded a significant difference in pre, and post-reading self-efficacy means score at  $t=-8.19$ ,  $p < 0.005$ . The face-to-face driver group was also significant at  $t=-7.43$ ,  $p < 0.005$ , and finally, the Flexi driver group was significant at  $t=-9.18$ ,  $p < 0.005$ . This indicates that the Face-to-face driver model was quite effective in improving the students' English reading self-efficacy.

Surprisingly, the T-test result of pre and post-reading self-efficacy is somewhat counterintuitive to the one-way ANOVA result of the same data. The post-reading self-efficacy one-way ANOVA analysis recorded no significant differences in all the groups. In contrast, the T-test analysis of the same data showed a significant difference in all the groups.

Next, data from Questions 14 to 18 in the writing section of the pre and post, Learning English Self-Efficacy questionnaire were analysed using one-way ANOVA and T-test. This procedure was conducted to see the effect of the blended learning models on the student's level of English writing self-efficacy. One-way ANOVA result showed that there were no significant differences at  $p<0.05$  for the control and experimental groups' pre-writing self-efficacy [ $F(2, 87) = 0.89$ ,  $p = 0.41$ ]. The same data also showed that there is a significant difference at  $p<0.05$  for the control and experimental groups post writing self-efficacy [ $F(2, 87) = 5.42$ ,  $p = 0.01$ ].

Since there was a significant difference between the groups on the post-writing self-efficacy, a Tukey post hoc test was conducted. The post hoc test shows a statistically significant difference in the students' level of post-writing self-efficacy between the control group and the

Flexi Driver Model group ( $p=0.04$ ). However, there is no significant difference between the control group and the Face-to-face Driver Model group ( $p=0.43$ ).

Further statistical analysis showed improvement in all the groups writing mean self-efficacy scores. The analysis indicated an increase from  $M=3.05$  to  $M=5.17$  ( $M=2.13$ ) and significant at  $t=-8.31$ ,  $p<0.005$  in the Control group, from  $M=2.71$  to  $M=4.83$  an increase of  $M=2.13$  and significant at  $t=-9.80$ ,  $p<0.005$  for the Face-to-face Drive group and finally, the Flexi Driver group recorded an increase from  $M=2.82$  to  $M=4.29$  ( $M=1.47$ ) and significant at  $t=-9.02$ ,  $p<0.005$ . The Face-to-face Driver and the Control group obtained the highest mean score difference of  $M=2.13$ , followed by the Flexi Driver group with  $M=1.47$ . This data indicates that both Face-to-face driver and traditional teaching methods effectively improve the students' English writing self-efficacy.

The T-test results correlate with the one-way ANOVA test conducted on pre and post-writing self-efficacy. The results from the T-test indicate that all the groups have significant improvement in their writing self-efficacy. The Flexi drive group has the slightest improvement in the mean score of the three groups. This reaffirms the one-way ANOVA results that only the Flexi driver model group has a significant statistical difference in their level of writing self-efficacy because it has the slightest mean improvement out of the three groups.

While data from Questions 4 to 8 in the listening section of the pre and post, Learning English Self-Efficacy questionnaire was analysed to see the effect of blended learning models on the student's level of English listening self-efficacy. One-way ANOVA result showed that there were no significant differences at  $p<0.05$  for the control and experimental groups' pre-listening self-efficacy [ $F(2, 87) = 1.06$ ,  $p = 0.35$ ], but there was a significant difference at  $p<0.05$  for the control and experimental groups post writing self-efficacy [ $F(2, 87) = 6.22$ ,  $p = 0.003$ ]

Since there was a significant difference between the groups on the post-listening self-efficacy, a Tukey post hoc test was conducted. There is a statistically significant difference in the student's level of post-listening self-efficacy between the control group and the Flexi Driver Model group  $p=0.002$  (refer to table 4.16). However, there is no significant difference between the control group and the Face-to-face Driver Model group  $p=0.117$ .

The t-test analysis on the pre and post-results of the Listening English self-efficacy survey found significant improvement in the mean score of all the groups' listening English self-efficacy levels. There were significant differences in the control group scores pre-listening self-efficacy survey ( $M=3.36$ ,  $SD=0.957$ ) and post-listening self-efficacy survey ( $M=5.43$ ,  $SD=0.992$ ) conditions;  $t=-9.65$ ,  $p<0.005$ , next, in the face-to-face driver model group score pre-listening self-efficacy survey ( $M=3.24$ ,  $SD=1.12$ ) and post-listening self-efficacy survey ( $M=4.89$ ,  $SD=1.04$ ) conditions;  $t=-1.65$ ,  $p<0.005$ , finally in the Flexi driver group score pre-listening self-efficacy survey ( $M=2.97$ ,  $SD=1.13$ ) and post-listening self-efficacy survey ( $M=4.48$ ,  $SD=1.09$ ) conditions;  $t=-7.98$ ,  $p<0.005$ .

These results suggested that teaching methods influence the students' level of English listening self-efficacy. In contrast with the other findings in reading and writing self-efficacy, the students from the control group showed the most significant improvement in their listening self-efficacy ( $M=2.06$ ). This indicated that the conventional teaching method is much more effective in teaching listening skills to diploma students.

The T-test results correlate with the pre and post-writing self-efficacy one-way ANOVA test results. The T-test results showed that all groups significantly improved their listening self-efficacy. The Flexi drive group has the slightest improvement in the mean score of the three groups. This data reaffirms the findings of the one-way ANOVA, which showed that the Flexi driver group



has a statistically significant difference in their listening self-efficacy as it has the slightest mean improvement of the three groups.

Finally, data from Questions 9 to 13 in the speaking section of the pre and post, Learning English Self-Efficacy questionnaire were analysed to see the effect of BL models on the students' level of English-speaking self-efficacy. One-way ANOVA result showed that there were no significant differences at  $p < 0.05$  for the control and experimental groups pre speaking self-efficacy [ $F(2, 87) = 0.14, p = 0.87$ ], but there is a significant difference at  $p < 0.05$  for the control and experimental groups post speaking self-efficacy [ $F(2, 87) = 5.13, p = 0.008$ ]

Since the post-speaking self-efficacy had a significant difference, a Tukey post hoc test was conducted. There is a statistically significant difference between the control group and the Flexi Driver Model group  $p = 0.006$  in the level of post-listening self-efficacy of the students. Nonetheless, there is no significant difference between the control group and the group  $p = 0.42$  of the face-to-face driver group.

Based on the t-test analysis of the pre and post-speaking English self-efficacy survey, the study found significant improvement in the mean score of all the groups' levels of speaking English self-efficacy. There were significant differences in the control group score in pre speaking self-efficacy survey ( $M = 3.10, SD = 0.89$ ) and post-speaking self-efficacy survey ( $M = 5.10, SD = 1.02$ ) conditions;  $t = -7.54, p < 0.005$ . Next, the face-to-face driver model group score pre-speaking self-efficacy survey ( $M = 2.98, SD = 0.96$ ) and post-speaking self-efficacy survey ( $M = 4.77, SD = 1.02$ ) conditions;  $t = -6.62, p < 0.005$ . Finally, the Flexi driver group score pre-speaking self-efficacy survey ( $M = 3.08, SD = 1.12$ ) and post-speaking self-efficacy survey ( $M = 4.26, SD = 1.03$ ) conditions;  $t = -8.33, p < 0.005$ .

These results suggested that all the teaching methods in this study influence the students' level of English-speaking self-efficacy. This finding is similar to the findings in listening English self-efficacy before, whereby the traditional model group students showed the most considerable improvement in their speaking self-efficacy ( $M = 1.993$ ). This indicated that the conventional teaching method is much more effective in teaching speaking to diploma students.

The T-test results correlate with the pre and post-writing self-efficacy one-way ANOVA test results. The T-test results showed that all groups significantly improved their speaking self-efficacy. The Flexi drive group has the slightest improvement in the mean score of the three groups. This reaffirms the findings of the one-way ANOVA, which showed that the Flexi driver group has a statistically significant difference in their listening self-efficacy as it has the slightest mean improvement of the three groups.

In short, from the findings above, we can conclude that the blended learning Face-to-face Drive model effectively improves the students' English reading and writing self-efficacy. At the same time, the conventional method of teaching is quite effective in improving the students' English listening and speaking self-efficacy.

#### WHAT IS THE EFFECT OF THE BLENDED LEARNING MODELS ON THE STUDENTS' LEVEL OF PROFICIENCY IN READING, WRITING, LISTENING AND SPEAKING?

In this section, students' marks from the reading section of the pre and post-English Test were analysed using a one-way ANOVA and T-test to see the effect of blended learning models on the student's level of English reading proficiency. Data analysis revealed that there were no significant differences at  $p < 0.05$  for the control and experimental groups' pre-reading test score [ $F(2, 87) = 2.07, p = 0.13$ ] and post-reading test scores [ $F(2, 87) = 0.75, p = 0.47$ ]. Since there was no

significant difference in the pre and post-reading test scores between the groups, no Tukey post hoc test was conducted.

T-test results indicate improvements in all the groups' pre and post-reading test mean scores. In the Control group, there is an increase in the mean score from  $M=75.67$  to  $M=81.93$ . There was also an increase in the mean score in the Face-to-face Driver group from  $M=73.33$  to  $M=83.23$  and the Flexi Driver group, an increase from  $M=73.50$  to  $M=82.33$ . The face-to-face driver Model group obtained the highest mean score difference of (Mean= 9.9), followed by the Flexi Driver group with (Mean= 8.83) and the control group (Mean= 6.27).

Data analysis shows that there were significant differences for all the groups. The control group T-test result recorded a significant difference in pre and post-reading test means score at  $t=-9.56$ ,  $p<0.005$ , the face-to-face driver group is also significant at  $t=-6.58$ ,  $p<0.005$ , and finally, the Flexi driver group is significant at  $t=-10.82$ ,  $p<0.005$ . The result showed that the Face-to-face driver model is quite effective in improving students' English reading self-efficacy because it had the biggest means score increase  $M=9.9$ .

Surprisingly, the T-test result of the post-reading test is somewhat counterintuitive to the one-way ANOVA result. The one-way ANOVA analysis of the pre and post-reading test recorded no significant differences in all the groups. In contrast, the T-test analysis of the same data showed a significant difference in all the groups.

Next, students' marks from the pre and post-English Test writing sections were analysed to see the effect of the blended learning models on the student's level of English writing proficiency. One-way ANOVA result showed that there were no significant differences at  $p<0.05$  for the control and experimental groups' pre-writing test [ $F(2, 87) = 0.75$ ,  $p = 0.48$ ]. The same table also showed that there is no significant difference at  $p<0.05$  for the control and experimental groups post-writing test [ $F(2, 87) = 0.85$ ,  $p=0.43$ ]. No Tukey post hoc test was conducted since there was no significant difference between the groups' pre and post-writing test scores.

Further statistical analysis showed improvement in all the group's writing test means scores. Data analysis showed there was an increase from  $M=48.47$  to  $M=56.17$  ( $M=7.7$ ) and significant at  $t=-8.98$ ,  $p<0.005$  in the Control group, from  $M=48.82$  to  $M=59.52$  an increase of  $M=10.70$  and significant at  $t=-7.38$ ,  $p<0.005$  for the Face-to-face Drive group and finally, the Flexi Driver group recorded an increase from  $M=51.55$  to  $M=56.97$  ( $M=5.42$ ) and significant at  $t=-5.72$ ,  $p<0.005$ . The face-to-face Driver group got the highest mean score difference of  $M=10.70$ . This data indicates that the Face-to-face driver model effectively improves the students' English writing proficiency. The T-test result of the pre and post-writing test is somewhat contrary to the one-way ANOVA result of the same test. The one-way ANOVA analysis of the pre and post-writing test recorded no significant differences in all the groups. In contrast, the T-test analysis of the same data showed a significant difference in all the groups.

Again, the students' marks from the listening section of the pre and post-English Tests were analysed to see the effect of the blended learning models on the student's level of English listening proficiency. One-way ANOVA result shows that there were no significant differences at  $p<0.05$  for the control and experimental groups' pre-listening proficiency [ $F(2, 87) = 1.20$ ,  $p = 0.31$ ], as well as no significant difference at  $p<0.05$  for the control and experimental groups post-listening proficiency [ $F(2, 87) = 1.22$ ,  $p = 0.30$ ]. No further Tukey post hoc test was conducted since there was no significant difference between the groups' pre and post-writing test scores.

The outcomes of the t-test analysis on the pre and post-result listening English test found significant improvement in the mean score of all the groups' listening English proficiency. There were significant differences in the control group score on the pre-listening test ( $M=73.78$ ,

SD=22.21) and post-listening test (M=90.11, SD=10.04) conditions;  $t=-3.71$ ,  $p<0.005$ , next, in the face-to-face driver model group score pre-listening self-efficacy survey (M=77.11, SD=9.42) and post-listening self-efficacy survey (M=87.44, SD=8.10) conditions;  $t=-6.61$ ,  $p<0.005$ , finally in the Flexi driver group score pre-listening self-efficacy survey (M=79.90, SD=11.08) and post-listening self-efficacy survey (M=90.67, SD=7.19) conditions;  $t=-7.23$ ,  $p<0.005$ . These results suggest that teaching methods influence the students' level of English listening proficiency. In contrast to the findings on reading and writing proficiency, the students from the control group showed the most significant improvement in their listening proficiency (M=16.33). This indicates that conventional teaching methods are more effective in teaching listening skills to the respondents.

The T-test result of the pre and post-listening test was then compared with the one-way ANOVA result of the same test. The one-way ANOVA analysis of the pre and post-writing test recorded no significant differences in all the groups. In contrast, the T-test analysis of the same data showed a significant difference in all the groups. In short, the difference in all the groups is not big enough to influence the result in the ANOVA analysis.

Finally, data from the speaking section of the pre and post-test were analysed to see the effect of blended learning models on the students' level of English-speaking proficiency. One-way ANOVA result showed that there were no significant differences at  $p<0.05$  for the control and experimental groups pre-speaking test [ $F(2, 87) = 1.27$ ,  $p = 0.29$ ]. Still, there was a significant difference at  $p<0.05$  for the control and experimental groups in the post-speaking test [ $F(2, 87) = 5.48$ ,  $p = 0.006$ ].

Since the post-speaking self-efficacy significantly differed, a Tukey post hoc test was conducted. There is a statistically significant difference between the control and face-to-face Driver groups  $p=0.005$  in the post-listening test. Nonetheless, there was no significant difference between the control and Flexi driver groups  $p=0.62$ .

Finally, the result of a T-test analysis based on the data gathered from the students' marks in the speaking section of the pre and post-English Tests indicated significant differences in the control group score on pre speaking test (M=69.05, SD=8.76) and post-speaking test (M=80.23, SD=3.80) conditions;  $t=-8.227$ ,  $p<0.005$ , next, in the face-to-face driver model group score pre speaking test (M=71.43, SD=3.10) and post speaking test (M=83.33, SD=3.91) conditions;  $t=-18.05$ ,  $p<0.005$ , finally in the Flexi driver group score pre speaking test (M=70.67, SD=4.31) and post-listening self-efficacy survey (M=81.13, SD=3.45) conditions;  $t=-11.30$ ,  $p<0.005$ .

These results suggest that teaching methods could influence the students' level of English-speaking proficiency. This finding is similar to the reading and writing proficiency finding, where students from the face-to-face driver group showed the most significant improvement in their speaking ability (M=11.90). This data indicates that the face-to-face driver teaching method is much more effective in teaching speaking skills to diploma students.

The T-test result of the pre and post-speaking test is then compared with the one-way ANOVA result of the same test. The one-way ANOVA analysis of the pre and post-speaking test recorded a significant difference in the post-speaking test for the face-to-face driver model group. At the same time, the T-test analysis of the same data also showed a significant difference in all the groups. Based on the finding, we can conclude that the post-speaking test for the face-to-face driver model group is much more significant than the control and Flexi driver groups. This shows that the Face-to-face Driver teaching model improves the students' English-speaking proficiency.

## DISCUSSION OF THE FINDINGS

This inquiry aimed to ascertain the effects of using specific BL models on the respondents' English language learning self-efficacy and proficiency in reading, writing, listening and speaking.

The outcome of this study indicates a significant improvement in the students' English self-efficacy in the pre and post-survey. Comparing the pre and post-intervention survey data between the groups showed a significant improvement in the students' English self-efficacy ( $p < 0.05$ ). This result suggested a positive correlation between BL teaching methods and the student's level of English language learning self-efficacy. This finding supports Yongjin Zhu's (2020) finding that students' English self-efficacy is connected to their language performance. In other words, as their English language performance improves, so will their English self-efficacy. The group taught using the BL face-to-face driver model showed the most significant improvement in the students' English self-efficacy level, obtaining the highest mean score difference (Mean = -1.91).

In addition, the students exposed to the blended learning teaching method performed better than those who did not. There is a significant statistical improvement ( $p < 0.05$ ) between the group's pre and post-English Test achievement favouring the two experimental groups taught using the blended learning models. Out of the two blended learning models, the students taught using the face-to-face driver model returned the highest mean score difference for improvement in their English self-efficacy level.

This study also showed that blended learning models significantly improved students' speaking, reading, writing and listening self-efficacy and proficiency. Blended learning models, especially the face-to-face driver model, significantly improved the students' reading and writing self-efficacy. At the same time, the traditional method significantly enhanced the students' level of speaking and listening self-efficacy. As for the student's level of English proficiency, blended learning models, especially the face-to-face driver model, improved the student's level of English reading, writing and speaking; in contrast, the traditional method significantly improved the students' English listening proficiency.

The following conclusions can be drawn from this study:

- a) Blended learning teaching methods could positively influence the students' English self-efficacy and proficiency, especially concerning the face-to-face driver model.
- b) Blended learning models effectively improve the student's level of English reading and writing self-efficacy and proficiency. Still, they may not effectively enhance students' English listening self-efficacy and proficiency.

The face-to-face driver model effectively improves the student's level of English reading and writing self-efficacy and proficiency because this model provides an appropriate blend of online learning and face-to-face teaching method that suit the student's learning needs. This model provides an avenue for effective interaction among students and between students and instructors. In other words, this model combines the right balance between online learning and traditional teaching methods that work in increasing the students reading and writing self-efficacy and proficiency. However, this model is ineffective in improving the students listening self-efficacy and proficiency. These findings indicate that the effectiveness of a blended learning method depends on the student's needs and requirements (Nikolaos Vernadakis, 2012; Ma'arop, 2016).

### LIMITATIONS OF THE STUDY

The information and data identified by this research were gained from students of one higher education establishment that represent the target population. As a result, the findings of this study could not be generalised to all private higher education institutions. In other words, the findings of this study could only be applied to a specific group of people who possess the same characteristics as the sampling population of this study.

The second limitation of this study is a lack of data on the effect of blended learning models on the students' English self-efficacy and proficiency, particularly among students of higher learning institutions in Malaysia. Over the past decade, most researchers in self-efficacy focused on the relationships between self-efficacy and other variables in language learning but not on the impact of various blended learning models on the students' English self-efficacy and proficiency.

### IMPLICATIONS OF THE STUDY

The findings of this study have many implications for the Malaysian higher education institution, English language instructors and students. Firstly, instructors should adopt blended learning teaching methods in their teaching. Currently, not all teaching staff in higher education institutions in Malaysia use blended teaching due to several reasons:

- a) Lack of training; as a result, teaching staff are unaware of the appropriate blended learning model, even when they are interested in applying blended learning in their teaching practices (Haryani Harona et al., 2012). In other words, they use a blended model in their teaching according to their understanding and experience.
- b) Lack of time (Ismail, 2020). Currently, teaching staff are burdened with a teaching load, plus added responsibilities
- c) Teachers prefer the traditional teaching method. The traditional method appeals to most teaching staff because they know what is required to achieve a successful learning experience (Kaurt, 2016). On the contrary, applying blended learning teaching methods would require moving away from their comfort zone.

These statements are further supported by a study conducted by Haryani Harona et al. (2012), where only 13% of the academicians tested adopted the blended learning approach. One of the reasons for the low adoption rate is due to lack of training or exposure to new technology and blended learning. Therefore, higher education institutions should invest in blended learning and further technical training or workshops to increase the adoption of blended learning (Haryani Harona et al., 2012). The heavy workload is another reason for the low adoption rate (Ismail, 2020). Implementing blended learning in classes already requires more time and effort than in regular classes. The heavy workload on lecturers hinders their adaptation to blended learning in their classes. Since the blended learning approach has proven to be quite effective in increasing the students' English self-efficacy and academic performance, higher education institutions should provide the necessary facilities, incentives, and training to encourage the lecturers to use blended learning in their teaching.

Secondly, successful implementation of blended learning should consider the student's needs. Various modules and courses require different blended learning models. As a result, to



meet the needs and preferences of the students, the other faculties need to tailor their courses and blended learning teaching models. Therefore, higher education institutions should focus on developing and improving mixed-learning teaching strategies to satisfy the student's needs.

As these findings demonstrate, how students feel about themselves and learning tasks differs markedly across situations. Highly motivated students in one domain may or may not be enthusiastic in other fields. Future studies should include important personality, task-related, and contextual variables that may facilitate or hinder the generalisation of motivational beliefs. Future studies should have a more diverse set of academic and non-academic domains.

## RECOMMENDATION FOR FUTURE RESEARCH

The present study focuses on only two blended learning models, the face-to-face driver model and the flex driver model. More exploratory studies on other blended learning models and their effect on students' English self-efficacy and proficiency are required to fill the gap. This will provide more insights into blended learning and the ideal models for English language learning. This valuable insight would be able to help and guide instructors and course designers in adopting and developing effective blended learning courses.

## CONCLUSION

Most higher education institutions are increasingly adopting blended learning over traditional or e-learning delivery modes for their programmes of study due to developments in learning technologies. Fewer classroom meetings will lessen higher education institutions' physical and financial demands while simultaneously enhancing student learning outcomes. With the expansion of learning tools and methodologies in the classroom, the role of the teacher will continue to evolve. The learner's position will also change, becoming more autonomous in their learning. Students will no longer be spoon-fed information by their teachers and will be more engaged in their learning. As a result, we must move away from the traditional educational paradigm.

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