

## Factors Influencing Secondary English as a Second Language Teachers' Intentions to Utilize Google Classroom for Instructions during the Covid-19 Pandemic

Mohd Haniff Mohd Tahir<sup>1</sup>, Mohamad Syafiq Ya Shak<sup>2</sup>, Airil Haimi Mohd Adnan<sup>2</sup>, Dianna Suzieanna Mohamad Shah<sup>2</sup>, Muhamad Fadzllah Zaini<sup>1</sup>, Loh Yoke Ling<sup>1</sup>, Shushma Devi Piaralal<sup>3</sup>

<sup>1</sup>Faculty of Languages and Communication  
Universiti Pendidikan Sultan Idris (UPSI), Perak, Malaysia

<sup>2</sup>Academy of Language Studies  
Universiti Teknologi MARA (UiTM) Perak Branch, Perak, Malaysia

<sup>3</sup>Department of English Language,  
Sekolah Menengah Kebangsaan Buntong, Perak, Malaysia

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### Abstract

Google Classroom (GC) is a technical innovation that allows English as a Second Language (ESL) teachers and students to meet remotely to create a more engaging teaching and learning experience. This study investigated factors influencing ESL teachers' intentions to utilize GC for instructions during the Covid-19 pandemic. An exploratory sequential technique was implemented as part of a mixed-methods research design. Eleven prior studies on educators' views toward the use of GC were evaluated for the qualitative data analysis. The data from these investigations were analysed and categorized into topics and categories. The findings revealed that ESL teachers had a positive attitude toward utilizing GC with their pupils. For the quantitative data analysis, a research survey was performed. Technical support, attitude, perceived ease of use, perceived usefulness, and technological knowledge were studied as factors that impacted ESL teachers' intentions to use GC. The sample includes 216 government secondary schools in the Kinta Selatan District of Perak. The outcomes of the study revealed that attitude, perceived usefulness, and technological knowledge all influenced the desire to use GC. The link between technical support and perceived ease of use, as well as the desire to use GC, was found to be negative. In linking the factors that determine GC intention, future research might incorporate a variety of moderating variables. The study's findings might assist educators to understand the challenges of online learning in Malaysian education, as well as how to overcome them.

**Keywords:** Covid-19 pandemic, Google Classroom, influencing factors, instructions, secondary ESL teachers

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## Introduction

Higher education institutions have utilized online Learning Management Systems (LMSs) to keep up with the changes in how education is offered throughout the world. LMSs are software systems that "supply content and facilitate learning, particularly as the primary means of online teaching and learning" (Kite, Schlub, Zhang, Choi, Craske, and Dickson (2020, p.183). LMSs are used for more than just delivering learning materials; they also provide a platform for students to connect with one another and with their instructors, as well as the ability to submit assignments online, check grades, receive instructor feedback, and download learning materials (Koh & Kan, 2020).

Some universities, like Universiti Teknologi MARA's "i-learn" and "U-Future" platforms, Universiti Pendidikan Sultan Idris' "myGuru," and Universiti Teknologi Petronas' "U-Campus," have built their learning management systems. Others have used well-known systems like Edmodo, Moodle, Blackboard Learn, and GC to create LMSs. These platforms have lately become the backbone of teaching and learning activities as a result of the Covid-19 outbreak, which has disrupted genuine classroom sessions around the world. ESL educators must be familiar with these platforms to guarantee that instructional materials are given consistently, as both their ESL educators and students are subjected to their own homes.

Since the start of the Covid-19 outbreak in March 2020, GC has doubled its active users, making it one of the most popular LMSs on the globe (De Vynck & Bergen, 2020). It's a Google Apps for Education feature that allows anybody with a Google account to create and take part in online learning platforms and courses. The first time it was introduced was in 2004. (Kumar & Barvell, 2019). It provides ESL instructors with a virtual platform to develop and share learning materials in a variety of formats, including photos, videos, and links, as well as monitoring and providing feedback on their students' activities and assessments. Students can also utilise GC to communicate with their ESL lecturers. Not only that, but the LMSs now incorporate a video conferencing capability, enabling live ESL teaching and learning sessions.

## Research Objectives

1. To investigate the link between technical support and the desire of ESL teachers to utilise GC.
2. To see if there is a link between ESL teachers' attitudes regarding technology and their intention to utilise GC.
3. To see if there is a link between Perceived Ease of Use (PEOU) and ESL teachers' intentions to utilise GC.
4. To investigate the link between Perceived Usefulness (PU) and the intention of ESL teachers to utilise GC.
5. To see if there is a link between ESL teachers' technological knowledge and their intention to utilise GC.
6. To find the most important factor in ESL teachers' intention to utilise GC among all the variables.

## Research Questions

1. What is the link between technical support and the intention of ESL teachers to use GC?
2. How is the link between ESL teachers' views about technology and their intention to utilise GC?
3. What is the link between PEOU and the intention of ESL teachers to utilise GC?

4. How is the link between PU and the intention of ESL teachers to utilise GC?
5. What is the link between ESL teachers' technological knowledge and their intention to use GC?
6. Among all the variables, what is the most important one in ESL teachers' intention to utilise GC?

### Research Hypotheses

- H<sub>1</sub> Technical supports positively influence the ESL teachers' intention to utilise GC.
- H<sub>2</sub> The views of ESL teachers regarding technology have a beneficial impact on ESL teachers' intentions to utilise GC.
- H<sub>3</sub> PEOU has a beneficial impact on ESL teachers' intention to use GC.
- H<sub>4</sub> The intention of ESL teachers to utilise GC is favourably influenced by PU.
- H<sub>5</sub> The technological knowledge of ESL teachers has a beneficial impact on their intention to utilise GC.
- H<sub>6</sub> Technical supports, ESL teachers' attitudes, PEOU, PU, and ESL teachers' technology knowledge all have a substantial impact on ESL teachers' intention to utilise GC.

### Literature Review

The popularity of GC has grown due to a variety of factors. To enrol in a course through GC, students only need to create a free Google account, and there is no ongoing membership charge (Inoue & Pengnate, 2018; Ventayen, Estira, De Guzman, Cabaluna, & Espinosa, 2018; Rajendram, 2019). Furthermore, because it has a simple and basic design and provides a one-stop resource centre for students, GC is simple to use (Alim, Linda, Gunawan, & Md Saad, 2019), allowing ESL instructors to better manage their classrooms (Apriyanti, Syarif, Ramadhan, Zaim, & Agustina, 2019; Sudarsana, Putra, Astawa, & Yogantara, 2019). GC also offers its clients flexibility (Mafa, 2018), since it is available at any time and from any location via a variety of devices, including its application on a smartphone or its website on a personal computer with internet connectivity.

GC also makes it simple to integrate with other Google Apps (Brown, 2018). Students in GC, for example, may finish their English tasks in the LMS rather than having to upload and re-upload them afterward. ESL teachers may now send grades and comments to their students directly using Google Docs. Students may also use Google Meet in GC to participate in live and virtual lessons through video conferencing, allowing them to converse directly with their ESL lecturers as if they were in physical classrooms. Google Forms, on the other hand, makes it simple to distribute examinations and quizzes to students, while Google Drive offers up to 15GB of free storage for students' English learning materials.

As previously said, GC has a lot of characteristics and benefits that may entice ESL teachers to use it in their classrooms. However, the beliefs of these ESL educators about how useful GC is for their pupils may impact their decision to employ it. It is fascinating to consider why ESL instructors' perspectives are so important in the teaching and learning process, given that they are founded on "experience and personality that assist them in their profession" (Donaghue, 2003, p. 344). This is because, according to Pajares (1992), their perception is defined as their personal beliefs about the curriculum, the subject they teach, the responsibility they hold, and their perspectives on students and the classroom, and this perception can serve as a foundation for their

attitudes and activities (Nurhayati, Tarjana, & Hersulastuti, 2018). According to Ramazani (2012), these ESL instructors' opinions and viewpoints give input for "reflection and discussion circles in the domains of teaching and learning" (p. 1749), potentially impacting the field of education.

### Theoretical Framework

To investigate the factors stated in this study, Davis (1989) advocated using the Technology Adoption Model (TAM) to assess technical support, attitude, PEOU, PU, and technological understanding. To utilise this model, the study looked at the direct association between PEOU and PU as external variables. At the same time, one's attitude toward technology will be a factor in deciding whether he or she will adopt GC. Because GC has just recently been introduced in primary and secondary public schools, determining whether ESL instructors intend to use it is critical. ESL instructors, students, and schools all have an impact on the efficiency of such technologies. Technological knowledge, technical support, PU, PEOU, and technological attitudes are all classed as independent factors. This research combines technology factors (technological knowledge, technical support, PEOU, PU, and attitudes toward technology) with the TAM to evaluate secondary school ESL teachers' willingness to accept GC. Figure One summarizes the framework for this research.

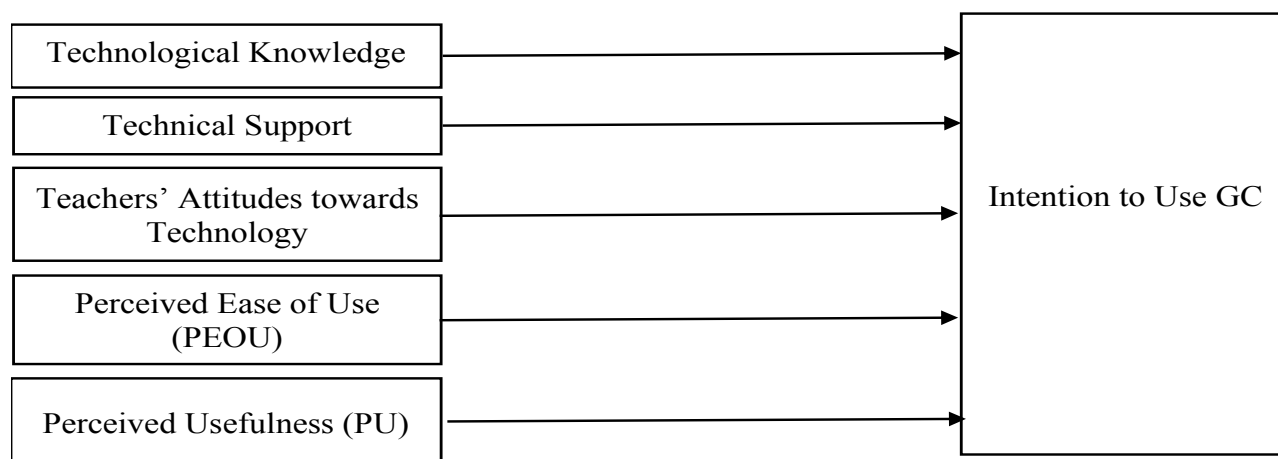


Figure 1. Research framework

### Methods

In terms of the qualitative data, the researchers employed content analysis by reviewing eleven prior studies that focused on GC and how its users, in this case, ESL instructors, perceived it. These studies were organised and classified using the qualitative software application, ATLAS.ti. It is a commonly used qualitative data analysis application that helps with data analysis.

The quantitative data, on the other hand, were obtained through a non-experimental technique, which was used since the researchers cannot modify the independent variable or assign the study's participants at random (Johnson & Christensen, 2008). A non-experimental technique, according to Creswell (2014), however, does not lead to a causal link. It aids in the description of data patterns and provides information on the connections between variables.

A self-administered questionnaire was utilised as the research technique in this study, and a survey was used to gather the data at a certain time point. A survey is a type of study in which a questionnaire is used to collect data from a group of individuals (Zikmund, Babin, Carr, & Griffin, 2013). The goal is to describe the study's dependent variable of interest and look at how it relates to the study's independent variables. Meanwhile, self-administered questionnaires provide respondents privacy while answering questions and allow them to complete them at their leisure and without the presence of the interviewer (Saunders, Lewis, & Thornhill, 2011).

The variables influencing secondary school ESL instructors' intentions to utilise GC in Kinta Selatan District's daily public secondary schools were studied using a series of questions, and this approach was suited for the research's descriptive and predictive purposes. As a result, this strategy is appropriate for this quantitative study, in which "questionnaires were used to provide answers from a relatively large number of groups" to answer the research questions and determine whether teachers are interested in using GC (Tahir, Albakri, Adnan, & Karim, 2020, p. 162).

### ***Participants***

The sample size should be representative of the population, according to Tahir and Mohtar (2016). The size of the population should be sufficient to obtain the required accuracy. The goal of this study is to investigate the elements that impact secondary school ESL instructors' intentions to use GC. The target population was designated as ESL teachers in government secondary schools in Kinta Selatan, Perak. There are 14 secondary schools in Kinta Selatan, with a total of 1103 teachers.

To perform this inquiry, convenience sampling was used. A non-probability sampling approach was used to choose the respondents. The participants were chosen based on their availability at the time and location given (Tahir, Albakri, Adnan, Shah, & Shaq, 2020). This approach is the most popular since it is inexpensive and does not require a list of demographic information. According to Krejcie and Morgan's (1970) table, a sample size of 278 persons is necessary for a total population of 1000 people. A representative sample, according to the debates, requires a specific proportion of the statistical population to duplicate the quality or feature being examined or assessed as nearly as feasible (Sekaran, 2006). The sample size for this study was 280 samples, which represented 28 percent of the total population of 1103 instructors (Krejcie & Morgan, 1970). With the help of school administrators, the questionnaires were provided to secondary school ESL educators in Kinta Selatan District.

### ***Research Instruments***

The researchers reviewed 11 prior studies on ESL educators' opinions toward the use of GC for the qualitative data. Using the ATLAS.ti Software, the selected studies for this review were evaluated and categorized into several themes and categories.

The researcher designed a five-point Likert Scale questionnaire as an instrument to gather the quantitative data for the study since it utilized a quantitative research technique to describe the relationship between variables. The questionnaire was tagged with a reference to the study's research framework. The participants were asked to rate how much they agreed with the items on



the list. The questionnaire's items were graded on a five-point Likert Scale, with one indicating "Strongly disagree" and five indicating "Strongly agree." The questions were written as statements, with the respondents indicating how much they agree or disagree with each one. The questionnaire for this study was divided into seven sections: (a) demographic characteristics of ESL instructors, (b) technical support, (c) attitudes of ESL teachers, (d) PU, (e) PEOU, (f) ESL teachers' intention to use GC, and (g) ESL teachers' technology knowledge. Part A collects information on gender, age, education level, teaching experience, teacher type, and GC usage frequency. In Section A, which consists of six (6) questions, the respondents must provide their background information. Section B collects information on the respondents' impressions of the help they obtain while using GC, whereas Section C collected the information on the respondents' opinions of GC usage. Sections D and E were designed to gather information on how they use GC in their teaching and learning. Section F is for obtaining information on their plans to utilise GC, whereas Section G is for determining their understanding of GC.

The demographic, technical support, attitudes toward technology, and desire to utilise factors in the questionnaire were taken from AlQudah (2014) and Amin (2008), and the survey contains six questions. Al-Alak and Alnawas's (2011) questionnaires were adjusted for the PU and PEOU. Finally, the technological knowledge variable was derived from Archambault and Barnett (2010). The questionnaires from these studies were retrieved and modified to meet the demands of the current study.

### ***Research Procedures***

The quantitative stage of the study began with the researchers performing a content analysis on previous GC-related studies, where the researchers reviewed eleven prior studies that investigated GC and how its users, in this case, ESL educators, perceived it. These studies were based on keywords such as 'GC', 'ESL', 'teachers', and 'perceptions'. Another keyword that the researchers intended to use was 'COVID-19.' However, because studies on the pandemic's impacts are still ongoing, and current research has mostly focused on students' views of GC uptake, searches for the keyword yielded relatively few results. After that, the studies selected for review were chosen based on the following criteria: (1) the participants in the studies had to be ESL educators; (2) the studies had to use GC as the LMSs in their English teaching and learning discussions; (3) the research findings had to be published in an article or conference papers; and (4) the surveys had to be finished in the last five years.

The quantitative data for this study was then collected using a survey-based technique that was designed to meet the study's objectives. To get access to the schools and ESL teachers, a letter of intent to conduct the study was sent to selected schools. A cover letter was appended to the survey form to inform the respondents about the study's subject. It is important to prevent the respondents from having any misgivings or suspicions regarding the poll. The enclosed letter's goal is to encourage and instruct the respondents to reply to the study's questions while guaranteeing them anonymity and confidentiality. The survey's aims were explained in the cover letter, which also underlined how essential the survey is. The researchers' email addresses and mobile phone numbers were also included in case any explanations about the questionnaire were required. The respondents were guaranteed complete anonymity, their honest opinions were appreciated, and the surveys were delivered to each school's management personally.

### ***Data Analysis***

In the content analysis stage of the study, the qualitative software tool ATLAS.ti was used to organise and analyse the information from the selected past studies on GC. The studies were imported into the software first. The information from the studies were then divided, classified, and annotated both inside and across documents, topics, and categories. The key themes that came from this method were the benefits of GC, the challenges of using GC, and proposals to improve GC. The themes were then divided into several categories.

Statistical Package for Social Science (SPSS) version 28 meanwhile was used to evaluate the data gathered from the surveys. The amount of variance in ESL instructors' intention to utilise GC that can be described by the abovementioned independent factors, as well as the relative importance of each in explaining the dependent variable, was determined using multiple regression analysis. Pallant (2016) claims that multiple regression may be used to investigate the connection between a continuous dependent variable and a large number of independent variables. To investigate the relationship between independent and dependent variables, the Pearson correlation was utilised to evaluate all the assumptions in this study.

### ***Descriptive Statistics***

Descriptive analysis was used to establish the profile of the respondents. The findings of this study would aid in detecting any response bias. The mean, standard deviation, maximum, and lowest values were considered in the study.

### ***Pearson Correlation***

According to Plackett (1983), the correlation coefficient's objective is to identify if two variables have a significant relationship. Karl Pearson's correlation coefficient, first reported in 1895, is the most often used correlation coefficient. When utilising Pearson's  $r$ , the correlation between any two variables will always be between  $-1$  and  $+1$ . Plackett's (1983) correlation value of 0 indicates that two variables have no positive or negative association. All the hypotheses in this study were analysed using Pearson correlation to indicate whether there was a positive or negative link between the study's independent and dependent variables.

### ***Multiple Regression Analysis***

Multiple regression is a set of methods for investigating the connection between a single continuous dependent variable and some independent variables, according to Pallant (2016). It may be used to answer a wide range of research questions and determine how effectively a set of variables can predict a certain result. In this study, multiple regression analysis was performed to evaluate the hypotheses and their relationship to the dependent variable. To test the hypotheses and explain the correlations between the independent and dependent variables, hierarchical regression analysis was utilised. The significance of the hypothesis was determined using the P-value; the lower the P-value, the greater the degree of importance. The R-Square method is used to figure out how much variance in the dependent variable can be explained by the independent variable.

**Findings****Content Analysis**

Eleven prior studies on ESL educators' perspectives on the use of GC were reviewed. Using the ATLAS.ti Software, the materials for this review were evaluated and categorized into several themes and categories. Table One summarizes the findings:

Table 1. *Content analysis of the reviewed studies*

| Author                                  | Design   | Participants   | Focus   | Main finding(s)  | Issue(s) raised  |
|---|--|--|---|--|--|
| Iftakhar (2016)                         | Qualitative (structured interviews; observation)                                       | 7 tertiary level educators                           | The general perception of the use of GC                 | GC makes learning more effective   | Plagiarizing is rampant in the students' assignments                     |
| Azhar & Iqbal (2018)                    | Qualitative (semi-structured interviews)   | 12 secondary school educators                        | The general perception of the use of GC                 | GC is merely a facilitation tool that can be used for document management and basic classroom management | GC does not provide a significant impact on teaching methodology         |
| Beaumont (2018)                         | Qualitative (Case study)   | Educators at a tertiary level institution            | The general perception of the use of GC                 | Educators offer positive feedback on the use of GC   | It is difficult to access learner analytics                              |
| Fitriningtyas, Umamah, & Sumardi (2019) | Qualitative (interview)  | 5 secondary school educators                         | GC as a media of learning History                       | GC could help in increasing the quality of History learning  | Some educators are still reluctant and afraid to use GC.                 |
| Harjanto & Sumarni (2019)               | Qualitative (interview)  | 7 Secondary school educators                         | The general perception of the use of GC                 | GC helps conduct their virtual classroom   | Need more time and exposure to maximize the features of GC               |
| Sidhu, Yean, Jean, & Abdelhai (2019)    | Mixed method: Quantitative (questionnaire)<br>Qualitative (semi-structured interviews) | 61 pre-service educators.<br>7 pre-service educators | Educators' knowledge and understanding of the use of GC | Pre-service educators have a positive perception of GC as they saw its potential benefits                | Educators should equip themselves with knowledge and understanding of GC |
| Kumar, Bervell, Osman (2020)            | Qualitative (interview)  | 3 Tertiary level educators                           | The general perception in teaching IT-related subjects  | Educators offer positive views of GC   | The safety of personal data. Participants authentication                 |
| Pratiwi (2020)                          | Qualitative (interview)  | 4 Secondary School educators                         | The general perception of the use of C                  | Educators prefer to use GC to organize digital learning  | Teacher's readiness to provide good technology-based                     |



|   |  |                                |  |  |  |
|---|--|--------------------------------|--|--|--|
| Rachma, Nurdiana, Ghofur (2020)           | Quantitative (closed questionnaire)  | 50 elementary school educators | Assessing learning outcomes by GC  | GC helps educators in the assessment of learning outcomes                                | Additional training to use GC for students                                       |
| Hussein, Ow, Ibrahim, Mahmoud (2020)      | Mixed method: Quantitative (questionnaire)<br><br>Qualitative (open-ended questions) | 120 tertiary level educators   | Educators' intention to reuse GC in the future after using it during the Covid-19 pandemic | Educators' satisfaction in using GC significantly influences their intention to reuse GC | Access to reliable and stable internet services could inhibit the adoption of GC |
| Tahir, Adnan, Piaralal, Shah, Shak (2021) | Quantitative (questionnaire)   | 103 secondary school educators | Factors influence-ng the use of GC during the Covid-19 pandemic                            | Educators feel positive about the use of GC.   | Equipment and connection remain the main issues in using GC                      |

The design, participants, focus, important findings, and issues given by the selected historical study are summarised in Table One. The majority of the past studies on ESL instructors' views on GC uptake were conducted using qualitative methods. ESL instructors from all levels of ESL instruction, from pre-service educators to those teaching at the elementary, secondary, and university levels, participated in these studies. Most of the studies focused on the ESL educators' general opinions toward the use of GC, with many of the findings indicating that GC is beneficial. Finally, aside from the availability of essential technological equipment and an internet connection, the ESL instructors' preparedness to utilise GC appears to be the most significant barrier to utilizing GC for their lessons

**Correlation Analysis**

The correlation analysis indicated a relationship between the dependent and independent variables, as shown in Table Two. With a significance level of 0.01 and a correlation coefficient of 0.69, ESL instructors' attitudes, perceived ease of use ( $r = 0.68$ ), perceived usefulness ( $r = 0.14$ ), and technological knowledge ( $r = 0.60$ ) were shown to be positively connected to the use of GC. Because there was no negative value, only positive correlations between the factors and ESL instructors' intention to utilise GC were found.

Table 2. *Pearson Correlations of the study's variables (N=216)*

|                         | Technical Support | Teachers' Attitude | Perceived Ease of Use | Perceived Usefulness | Technological Knowledge |
|-------------------------|-------------------|--------------------|-----------------------|----------------------|-------------------------|
| Technical support       | 1                 |                    |                       |                      |                         |
| Teachers' attitudes     | 0.53              | 1                  |                       |                      |                         |
| Perceived ease of use   | 0.41              | 0.78               | 1                     |                      |                         |
| Perceived usefulness    | 0.21              | 0.14               | 0.41                  | 1                    |                         |
| Technological Knowledge | 0.39              | 0.53               | 0.57                  | 0.24                 | 1                       |
| Intention to use        | 0.39              | 0.69               | 0.68                  | 0.14                 | 0.60                    |

**Descriptive Statistics**

The mean scores and standard deviations for the variables were calculated using descriptive statistics. A total of 216 appropriate instances were analysed for five independent variables and one dependent variable, as indicated in Table Three.

Table 3. *Descriptive Statistics (N=216) for all the main variables*

| Variables               | No of Items | Mean | Standard Deviation |
|-------------------------|-------------|------|--------------------|
| Technical support       | 5           | 3.16 | 0.672              |
| Teachers' attitude      | 3           | 3.50 | 0.843              |
| Perceived ease of use   | 5           | 3.24 | 0.755              |
| Perceived usefulness    | 5           | 3.15 | 0.570              |
| Technological knowledge | 11          | 3.01 | 0.800              |
| Intention to use        | 6           | 3.26 | 0.843              |

The average score appears to be more than 3.0 in every case. The mean for ESL teachers' attitudes, as shown in Table Three, was the highest, at 3.50. This means that ESL teachers should have a favourable attitude about their desire to use GC because it is essential in carrying out their daily activities in the classroom. The lowest mean is for technological expertise at 3.01. It can be implied that to encourage students to use GC, ESL teachers' technological knowledge has to be updated too.

The standard deviations of the five independent variables and one dependent variable ranged from 0.570 to 0.843. This implies that there is a significant degree of small variability in the data set. The variance value shows that the respondents' responses to the study's variables supplied in the questionnaire did not differ substantially from one another. This demonstrates that there are only slight inconsistencies among the responses.

**Hypothesis Testing**

Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, and H<sub>6</sub> were evaluated using multiple regression. This strategy was used to look at the direct link between independent and dependent variables to see which variable was the most important in deciding whether or not an ESL educator intends to apply GC in his or her practice. Table 4 shows the regression findings, and hypotheses 1–6 (H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, and H<sub>6</sub>) were examined to see if the dependent variable (intention to use) had a direct relationship with all of the independent variables (technical support, teachers' attitudes, PEOU, PU, and technological knowledge)

Table 4. *Multiple regressions used to examine the characteristics that influence ESL instructors' intention to use GC*

| Predictor Variable | Intention to Use |           |
|--------------------|------------------|-----------|
|                    | Beta             | t – value |
| Technical support  | -0.067           | -1.421    |

|                              |        |          |
|------------------------------|--------|----------|
| Teachers' attitude           | 0.403  | 5.628*** |
| Perceived ease of use (PEOU) | 0.303  | 4.321*** |
| Perceived usefulness (PU)    | 0.019  | 0.477    |
| Technological knowledge      | 0.278  | 5.601*** |
| F – value                    | 92.461 |          |
| Durbin Watson                | 1.949  |          |
| R square                     | 0.697  |          |
| Adjusted R square            | 0.689  |          |

Table Four displays the results of a multiple regression analysis that included all the independent factors (technical support, ESL teachers' attitudes, PEOU, PU, and ESL teachers' technological knowledge) as well as the dependent variable (ESL teachers' intention to utilise GC). The F value = 92.461 indicates that the ESL instructors' attitudes, PEOU, and technological knowledge are statistically significant, with a  $p < 0.001$  significance. With  $p > 0.001$  statistics, technical support, and PU are statistically insignificant. In nine cases, outliers were removed, and regression tests confirmed that the inference was correct, with an R square of 0.697. All the variables combined may explain 69.7% of the variance in intention to use GC. 0.68 is the modified R-value. The Durbin-Watson coefficient of 1.949 was within the permissible range of 1.5 to 2.5. The beta value (standardised coefficients) of technical support ( $= -0.067$ ) and the beta value for perceived usefulness (PU) ( $= 0.477$ ) are both adversely related to the ESL instructors' desire to adopt GC, as shown in Table Four. As a result, hypotheses H<sub>2</sub> and H<sub>5</sub> are ruled out. The ESL instructors' attitudes ( $= -0.403$ ), perceived usefulness (PEOU) ( $= -0.303$ ), and technological knowledge ( $= -0.278$ ) are all positively connected to their desire to utilise GC, implying that H<sub>1</sub>, H<sub>3</sub>, and H<sub>4</sub> are supported.

Table Five reveals that the tolerance was larger than 0.1, the variance inflation factor values were less than 10, and the condition limit indices were less than the safety limit of 30, implying that there were no worries about multicollinearity. The following research constructs were statistically significant at  $p > 0.001$  with 99.9% confidence levels, according to the regression analysis result.

Table 5. *Statistics of collinearity for factors influencing ESL instructors' intention to utilise GC*

| Model                        | Collinearity Statistics |       |
|------------------------------|-------------------------|-------|
|                              | Tolerance               | VIF   |
| Technical support            | 0.680                   | 1.471 |
| Teachers' attitudes          | 0.295                   | 3.394 |
| Perceived ease of use (PEOU) | 0.306                   | 3.270 |
| Perceived usefulness (PU)    | 0.904                   | 1.107 |
| Technological knowledge      | 0.612                   | 1.634 |

A bell shape histogram was used to confirm the samples' normality requirement, as shown in Figure Two, and the P-P plots indicated no hint of error normalcy.

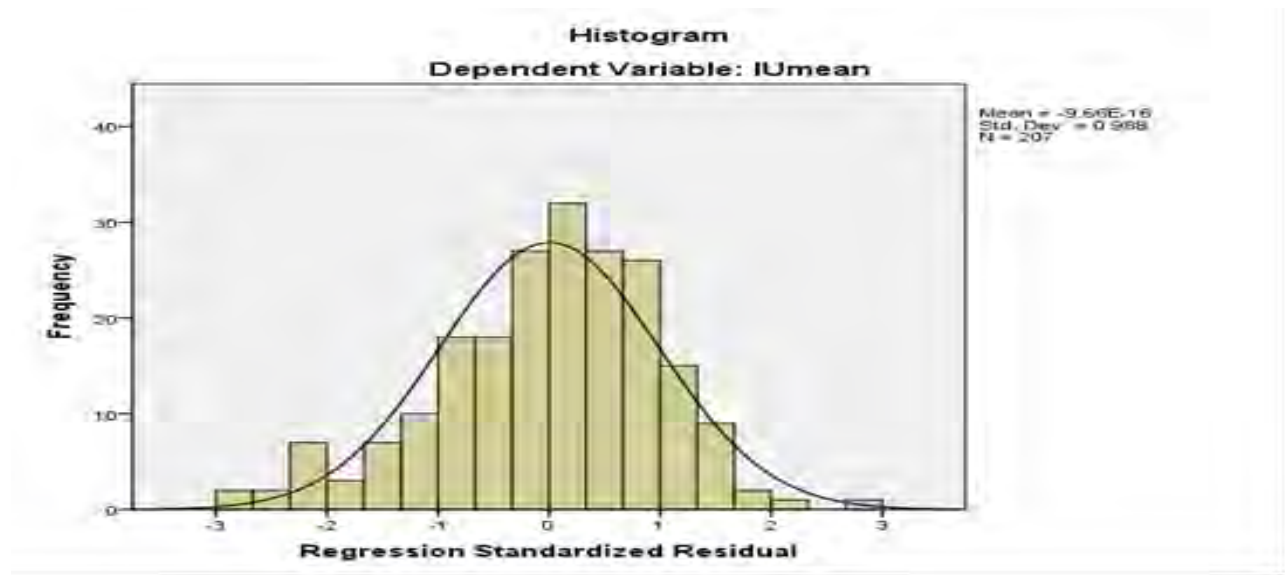


Figure 2. A histogram of the parameters influencing ESL instructors' intention to utilise GC

Among all the factors, a multi regression analysis was performed to discover the most relevant factor determining the ESL instructors' intention to utilise GC. According to the beta value from Table Six, the most important factor impacting the ESL instructors' intention to use GC is the ESL teachers' attitudes, which has a value of=0.369. Figure Three, on the other hand, presents the P–P Plot of the factors that influence the ESL instructors' intention to utilise GC.

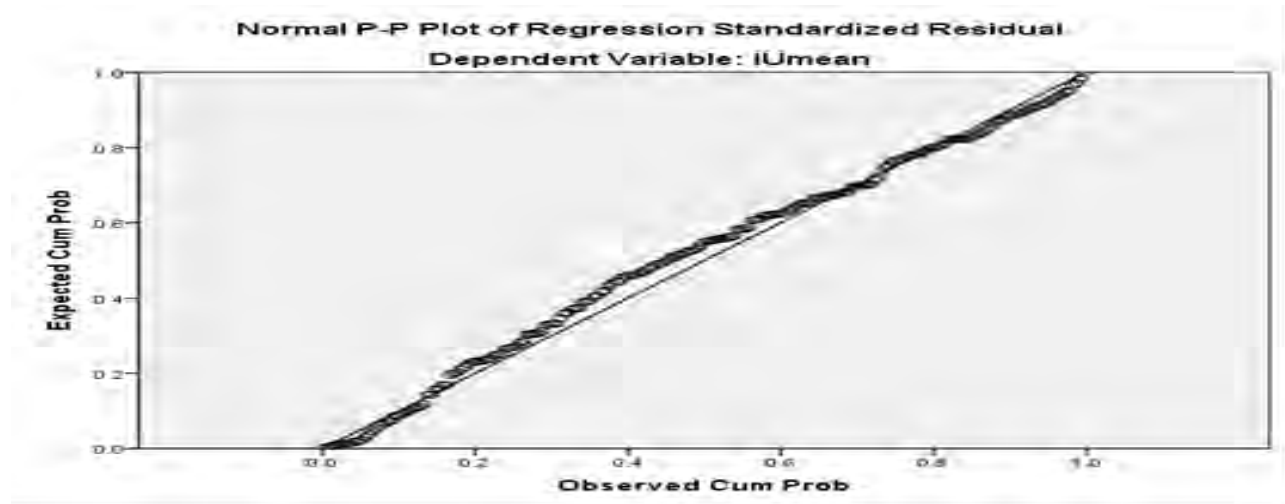


Figure 3. P–P Plot of the factors that influence ESL instructors' intention to utilise GC

Table 6. *Coefficients for factors influencing ESL instructors' intention to utilise GC that aren't standardised*

| Model                   | Unstandardized Coefficients |            |
|-------------------------|-----------------------------|------------|
|                         | B                           | Std. Error |
| Technical support       | -0.077                      | 0.054      |
| Teachers' attitudes     | 0.369                       | 0.066      |
| Perceived ease of use   | 0.314                       | 0.073      |
| Perceived usefulness    | 0.028                       | 0.058      |
| Technological knowledge | 0.275                       | 0.049      |

### Summary of Hypothesis

Six possibilities have been investigated in all. Three of them were approved, and the other two were turned down. The most important factor in H<sub>6</sub> has been found. The following is a summary of the hypothesis:

Table 7. *Hypothesis testing summary*

|                | Hypotheses  | Results  |
|----------------|---|----------|
| H <sub>1</sub> | Technical supports positively influence the ESL teachers' intention to utilise GC.  | Rejected |
| H <sub>2</sub> | The views of ESL teachers regarding technology have a beneficial impact on ESL teachers' intentions to utilise GC.  | Accepted |
| H <sub>3</sub> | PEOU has a beneficial impact on ESL teachers' intention to use GC.  | Rejected |
| H <sub>4</sub> | The intention of ESL teachers to utilise GC is favourably influenced by PU.   | Accepted |
| H <sub>5</sub> | The technological knowledge of ESL teachers has a beneficial impact on their intention to utilise GC.   | Accepted |
| H <sub>6</sub> | Technical supports, ESL teachers' attitudes, PEOU, PU, and ESL teachers' technology knowledge all have a substantial impact on ESL teachers' intention to utilise GC. | Rejected |

### Discussion

Based on the content analysis, it can be concluded that ESL educators in general think highly of GC because of its ease of use, flexibility, and ability to help ESL educators in managing their classes remotely and more efficiently, encouraging creativity and innovation, fostering collaboration, and improving educator-GC interaction. However, ESL teachers are hesitant to use GC in their classrooms because of its ugly design and interface, limited storage capacity, and safety and privacy concerns. Furthermore, several ESL teachers have expressed concerns about their readiness to employ GC, as well as their students' attention and academic dishonesty as the GC sessions progress. Nevertheless, these ESL teachers have great expectations for GC. After all, a challenge should always be welcomed because it aids in one's development. Finally, ESL educators from the reviewed studies made several recommendations that could help GC to provide a more meaningful experience to its users, especially in terms of providing extensive guidance on how to use GC, improving safety and privacy measures for student enrolment in GC, and more monitoring and communication features.

Our findings reveal some significant managerial implications in meeting the 21<sup>st</sup>-century educational demands. PEOU, ESL teachers' technological knowledge, and ESL teachers' attitudes are all important predictors of ESL educators' desire to use GC in everyday instructions. As a



result, school, district, state, and national administrations should define and prioritize the development of these educators' attitudes and knowledge. This step is necessary to encourage ESL instructors to utilise the GC effectively. Consequently, all stakeholders should pitch in to help ESL teachers to become more motivated to use technology to its maximum potential. The assistance or support provided should consider the challenges of constantly changing educational policies and classroom practices. The link between the components that define ESL teachers' purpose varies dynamically from time to time as a result of ongoing technological developments. To stay up with technological developments, administrators and lawmakers should encourage ESL educators to retain and develop a passion for technology.

Professional development is important in the lives of ESL instructors when it comes to technology in the classroom to make this happens. According to Alim, Linda, Gunawan, and Md Saad (2019), educators must engage in a significant professional development practice to build a world-class education system. Another reason for its relevance, according to Apriyanti, Syarif, Ramadhan, Zaim, and Agustina (2019), is that professional growth is about transformation and reinvention. It is an "indispensable vehicle" that ESL instructors employ in their daily teaching. Its goal is to improve our communication skills with children and their families, as well as our professional experience and enjoyment. It also aids ESL instructors in achieving their school-based objectives, as well as the MOE's district and state-level objectives (Sudarsana, Putra, Astawa, & Yogantara, 2019). Staff development seminars for instance should be held regularly to benefit all attendees. All of these objectives will be met in a fun, relevant, and professional manner. ESL instructors must participate in training, professional development, and other activities to equip themselves with a high level of information, particularly technological knowledge, to fulfill the needs of the "technology world" of the 21st century.

To help with this, the government should make a deliberate effort to increase the efficacy of ESL teachers, which would help pupils to learn even more. Because the government's major concern is the quality of school instructions, this step must be considered. For ESL instructors to create professional alliances to improve education systems in Malaysia, schools must have a good learning organization. A crucial component of the learning organization is creating a space where people may learn new things regularly. As a result, learning can help them to improve their performance and come up with new ideas. Another important component is curriculum development to meet the needs of the workforce in a knowledge-based economy. As a result, Malaysian schools need to grasp and fulfill those goals as soon as possible. Since everyone must perform successfully in their roles, schools act as a learning organization devoted to enhancing the learning capacity of ESL students and instructors.

Despite their positive attitudes, ESL teachers sometimes find it difficult to incorporate technology into their classroom practices. Few studies have stressed the need for ESL instructors to receive professional development to get them to use technology in their classes. Mafa (2018) for example investigated ESL teachers' views on the use of ICT with special education students and found that a large number of special education ESL instructors were enthusiastic about the technology. Simultaneously, the survey discovered that half of ESL teachers do not use ICT with their students since it is difficult to use ICT for educational purposes. To put it in another way, they have not been taught to use ICT with their pupils to deliver their courses, and as a result, they

require further professional development support. Despite having a positive attitude, Ribeiro, Moreira, and Almeida (2011) discovered that Portuguese ESL instructors had a low degree of ICT usage with special needs students owing to insufficient training. Ndibalema (2014), who studied ESL teachers' perspectives on ICT use in Tanzanian secondary schools, also emphasized the need for training. The majority of ESL instructors, according to the study, do not properly integrate ICT into their lessons. Despite their positive attitude toward the use of ICT, this might have occurred due to a lack of training in the use of ICT.

According to the findings of this study, ESL instructors' attitudes and perceived ease of usage impact their desire to utilize GC. Attitude acts as a personal belief, self-motivation, and self-satisfaction when ESL instructors build their desire to use GC. As a result, ESL teachers may be encouraged to use personal experiences to motivate students to use GC. In reality, factors like technical support, utility, and infrastructure availability might hinder this situation. Understanding ESL educators' attitudes in dealing with students of different origins, socioeconomic situations, and abilities are essential in today's educational system. As a result, authorities should assist in the creation of an environment in which ESL teachers may keep their good attitudes while providing exceptional service to their students. If ESL educators struggle in using GC, they may conclude that it is difficult to be used and acquire a dislike for it. Strategies and support mechanisms that provide favourable experiences for ESL teachers in using GC should be designed and executed to favourably affect ESL instructors' beliefs and attitudes. When ESL educators feel supported and have positive experiences using GC, they are more likely to have favourable opinions of the LMS, increasing their desire to utilise it in the future.

Not only that, but according to Nurhayati, Tarjana, and Hersulastuti (2018), effective ICT integration in educational institutions is mostly dependent on teachers and principals, who, owing to their limited ICT knowledge and abilities, require considerable professional development. As a result, in-service teacher training must be prioritized by both teachers and principals. Furthermore, newly recruited teachers should get pre-service training before commencing regular sessions. This is to familiarize them with the important role of technology in educational settings, as well as to educate them on how to prepare and utilize ICT successfully. Ramazani (2012) also championed professional growth. ESL teachers must be given the skills they need to use technology successfully to assist their students to learn more effectively. This matter should be planned collaboratively, with inputs from ESL instructors and the requirements of a school. This will assist ESL instructors in learning how to use technology effectively in their practices. The acquisition of necessary knowledge and skills will be aided through training. Inoue and Pengnate (2018) then suggested that rather than a single event, training should be done through a series of experiences that keep ESL students and teachers up to date with the rapidly changing technology. Not only that, but ESL instructors should be allowed to experience utilising technology more practically during their teacher training programmes so that they may learn how to utilise technology to enhance their classroom activities (Ventayen, Estira, De Guzman, Cabaluna, & Espinosa, 2018).

Moreover, according to Rajendram (2019), the deployment of a complex system such as an LMS entails significant changes to organisational structure, human roles and duties, control and coordination systems, and work processes. As a result, ESL educators may believe that educational institutions should assist in the form of commitment and communication. Aside from commitment

and communication, providing the required infrastructure and training for the installation of an LMS like GC will hasten its acceptance. The presence of managerial support for GC will act as a motivation for adoption.

In a school setting, individuals may also be subjected to pressure from others to discourage them from using technology according to Wechsler (2003). Furthermore, because the concept of GC is not completely imagined and understood within the school environment, ESL educators may face demotivating school pressures, and as a result, ESL educators may resist altering their work routines because the benefits of the GC system are not well recognised. Therefore, to assist ESL educators in boosting the efficacy of employing GC, authorities should make GC handling training a priority for all ESL educators.

### **Conclusion**

Previous studies on ESL educators' perceptions of GC have concluded that the ease of use, flexibility, and ability to help ESL educators manage their classes remotely and more efficiently while encouraging creativity and innovation, nurturing collaboration, and instilling a better interaction between ESL educators and their students. However, owing to its ugly design and interface, low storage capacity, and safety and privacy issues, ESL teachers are hesitant to utilise GC in their classrooms. Not only that, but these ESL teachers have raised worries about their readiness to use GC, as well as their students' concentration and academic dishonesty as the GC sessions progress. Despite this, these ESL teachers remain upbeat about GC. Several recommendations made by the ESL educators involved in previous studies could help GC to provide a more meaningful experience to its users, particularly in terms of providing extensive guidance on how to use GC, improved safety and privacy measures for student enrolment in GC, and additional monitoring and communication features in the application.

According to the survey results, ESL instructors' attitudes, usefulness, and technological knowledge all had a substantial effect on their readiness to use GC. It was shown that technical support had a negative association with the perceived ease of use and desire to utilise GC. This study's findings also contribute to and enhance our understanding of the elements that influence the intention to utilise GC; nevertheless, further research is required to improve on this study and address its weaknesses. Consequently, it is expected that this research would provide a foundational understanding of the factors that impact the desire to use GC in Malaysia. A bigger sample of ESL educators and randomly selected samples would be useful and encouraged in future studies, which might result in a more inclusive outcome. The study should also be broadened to cover all Malaysian states, particularly Sabah and Sarawak. This will make it easier to extrapolate the conclusions of the study.

### **Recommendation for Future Research**

Future research might include a range of moderating variables to analyse the relationship between the variables that determine GC's usage intention. The gender and the personality of ESL educators could be two of these traits. As of this writing, a Movement Control Order (MCO) has been imposed due to the COVID-19 pandemic. All national and international public and commercial institutions were obliged to postpone all courses and seminars. Instead, beginning in April 2020, all teaching and learning sessions in all these institutions were completed using online

learning platforms. When conducting these online lessons, ESL educators have encountered several difficulties. As a result of this unique situation, the researchers believe that more studies should be conducted based on the experiences of these ESL educators. The findings of the study might be shared with interested parties and educators to help them understand the many obstacles of online learning approaches in the Malaysian education system and the best ways to overcome them.

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### **About the Authors**

**Mohd Haniff Mohd Tahir**, Ph.D., is a Senior Lecturer and internationally recognized researcher at the Faculty of Languages and Communication, Universiti Pendidikan Sultan Idris (UPSI), Malaysia. His focus area includes materials development and evaluation, interactive language teaching curriculum design, digital learning, and quantitative research related to ESL classrooms. Currently, he is exploring emerging ideas and concepts for vocabulary learning. ORCID ID <https://orcid.org/0000-0002-5411-1000>

**Mohamad Syafiq Ya Shak**, is a member of the Academy of Language Studies, Universiti Teknologi MARA (UiTM) Perak Branch, Malaysia. His research interests include material development and evaluation, digital learning, corpus-based studies, and media. He holds a Master of Education (TESL) and is currently pursuing his Ph.D. in Education (TESL), examining CEFR-aligned textbooks in Malaysian schools. ORCID ID: <https://orcid.org/0000-0002-4702-6633>

**Airil Haimi Mohd Adnan**, Ph.D., is a Senior Lecturer at the Academy of Language Studies (APB), Universiti Teknologi MARA (UiTM) Shah Alam and a Senior Principal Assistant Director at the Ministry of Higher Education, Malaysia. His focus areas include languages-in-use and educational technologies. As a linguist and multidisciplinary social scientist, he has authored many books and chapters, and hundreds of articles. ORCID ID <https://orcid.org/0000-0002-7916-5021>

**Dianna Suzieanna Mohamad Shah** lectures at the Academy of Language Studies (APB), Universiti Teknologi MARA (UiTM) Shah Alam and she is a university-wide Fellow for 360-degree and Video Learning with the Centre for Instructional Delivery and Learning Development (CIDL), UiTM. She holds a Master of Education (TESL) and is currently pursuing her Ph.D. in Education (TESL). ORCID ID <https://orcid.org/0000-0002-0367-1577>

**Muhamad Fadzllah Zaini**, Ph.D., is a Senior Lecturer at the Faculty of Languages and Communication, Universiti Pendidikan Sultan Idris (UPSI), Malaysia. His areas of specialization are Corpus Linguistics, Computer Linguistics, and Machine Learning. He is active in industry

grant research and international associations related to the Digital Humanities, Leaner Corpora Association, and IEEE.

ORCID ID <https://orcid.org/0000-0001-8760-4912>

**Loh Yoke Lin**, Ph.D., is a Senior Lecturer at the Faculty of Languages and Communication, Universiti Pendidikan Sultan Idris (UPSI), Malaysia. Her area of research includes studies on broadcasting and production, visual literacy, and documentary films.

ORCID ID <https://orcid.org/0000-0003-3873-3253>

**Shushma Devi Piaralal**, Ed.D., is a member of the English Language Department, Sekolah Menengah Kebangsaan Buntong, Malaysia. She teaches and coaches high school learners for the past 20 years in technology and English language. Her research interests include ESL learning and teaching and the usage of technology in education.

### References

- Al-Alak, B. A., & Alnawas, I. A. (2011). Measuring the acceptance and adoption of e-learning by academic staff. *Knowledge Management & E-Learning: An International Journal*, 3(2), 201-221.
- Alim, N., Linda, W., Gunawan, F., & Md Saad, M. S. (2019). The effectiveness of Google Classroom as an instructional media: A case of State Islamic Institute of Kendari, Indonesia. *Humanities & Social Sciences Reviews*, 7(2), 240-246.  
<https://doi.org/10.18510/hssr.2019.7227>
- AlQudah, A. A. (2014). Accepting Moodle by academic staff at the University of Jordan: Applying and extending TAM in technical support factors. *European scientific journal*, 10(18), 183- 200.
- Amin, H. (2008). Factors affecting the intentions of customers in Malaysia to use mobile Phone credit cards. *Management Research News*, 31(7), 493-503.
- Apriyanti, D., Syarif, H., Ramadhan, S., Zaim, M., & Agustina, A. (2019). Technology-based Google classroom in English business writing class. *Proceedings of the Seventh International Conference on Languages and Arts (ICLA 2018)*, 301, 689–694.  
<https://doi.org/10.2991/icla-18.2019.113>.
- Archambault, L. M., & Barnett, J. H. (2010). Revisiting technological pedagogical content knowledge: Exploring the TPACK framework. *Computers & Education*, 55(4), 1656-1662.
- Brown, M. C. (2018). Google Classroom for the online classroom: An assessment. *Distance Learning*. 15(3), 51-56.
- Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative* (4th ed.). England: Pearson Education Limited.
- Davis, F. D. (1989). PU, PEOU, and user acceptance of information technology. *MIS Quart.* 13(3) 319–339.
- De Vynck, G. & Bergen, M. (2020). Google Classroom users doubled as quarantines spread. Retrieved from <https://www.bloombergquint.com/business/google-widens-lead-in-education-market-as-students-rush-online>
- Donaghue, H. (2003). An instrument to elicit teachers' beliefs and assumptions. *ELT Journal*, 57(4), 344-351.



- Inoue, M., & Pengnate, W. (2018, May). Belief in foreign language learning and satisfaction with using Google classroom to submit online homework of undergraduate students. *5th International Conference on Business and Industrial Research Proceedings*, 618-621.
- Johnson, B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches*. (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Kite, J., Schlub, T. E., Zhang, Y., Choi, S., Craske, S., & Dickson, M. (2020). Exploring lecturer and student perceptions and use of a learning management system in a postgraduate public health environment. *E-Learning and Digital Media*, 17(3), 183–198.  
<https://doi.org/10.1177/2042753020909217>
- Koh, J. H. L., & Kan, R. Y. P. (2020). Perceptions of learning management system quality, satisfaction, and usage: Differences among students of the arts. *Australasian Journal of Educational Technology*, 36(3), 26-40.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities Robert. *Educational and Psychological Measurement*, 38(1), 607–610.
- Kumar, J. A., & Bervell, B. (2019). Google classroom for mobile learning in higher education: Modelling the initial perceptions of students. *Education and Information Technologies*, 24, 1793–1817. <https://doi.org/10.1007/s10639-018-09858-z>
- Mafa, K. R. (2018). Capabilities of Google Classroom as a teaching and learning tool in higher education. *International Journal of Science Technology & Engineering*, 5(5), 30-34.
- Ndibalema, P. (2014). Teachers' Attitudes towards the Use of Information Communication Technology (ICT) as a Pedagogical Tool in Secondary Schools in Tanzania: The Case of Kondo District. *International Journal of Education and Research*, 2, 1-16.
- Nurhayati, F. K., Tarjana, S. S., & Hersulastuti, H. (2018) Teachers' perceptions toward the implementation of 2013 Curriculum. *Proceedings of the 2nd English Language and Literature International Conference (ELLiC)*, 76-87. Retrieved from <https://jurnal.unimus.ac.id/index.php/ELLIC/article/download/3487/3343>
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*, 6th ed: Open University Press, Maidenhead.
- Plackett, R. L. (1983). Karl Pearson and the chi-squared test. *International Statistical Review/Revue Internationale de Statistique*, 3, 59-72.
- Rajaendram, R. (2019, June 29). Google Classroom gets nod. *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2019/06/29/google-classroom-gets-nod>
- Ramazani, M. (2012). Teachers' perceptions of using English textbooks for Iranian technical and vocational college students. *Procedia - Social and Behavioral Sciences*, 70, 1748- 1762.
- Ribeiro, J. M., Moreira, A., & Almeida, A. M. P. (2011). Stakeholders' perceptions of the use of ICT in the education of students with SEN. *International Journal of Technology Enhanced Learning*, 3(3), 242-254.
- Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research methods for business students*. India.
- Sekaran, U. (2006). *Research methods for business: A skill-building approach* (4th ed.). New York: John Wiley & Sons.

- Sudarsana, I. K., Putra, I. B. M. A., Astawa, I. N. T., & Yogantara, I. W. L. (2019). The use of Google Classroom in the learning process. *Journal of Physics: Conference Series*, 1175(1). <https://doi.org/10.1088/1742-6596/1175/1/012165>
- Tahir, M. H. M., Albakri, I. S. M. A., Adnan, A. H. M., & Karim, R. A. (2020). The effects of explicit vocabulary instructions on secondary ESL students' vocabulary learning. *3L: Language, Linguistics, Literature. The Southeast Asian Journal of English Language Studies*, 26 (2), 158-172.
- Tahir, M. H. M., Albakri, I. S. M. A., Adnan, A. H. M., Shah, D. S. M., & Shaq, M. S. Y. (2020). The application of Visual Vocabulary for ESL students' vocabulary learning. *Arab World English Journal*, 11 (2), 323-338.
- Tahir, M. H. M., & Mohtar, T. M. T. (2016). The effectiveness of using vocabulary exercises to teach vocabulary to ESL/EFL learners. *Pertanika Journal of Social Science and Humanities*, 24 (4), 1651-1669.
- Ventayen, R. J. M., Estira, K. L. A., De Guzman, M. J., Cabaluna, C. M., & Espinosa, N. N. (2018). Usability evaluation of Google Classroom: Basis for the adaptation of GSuite e-learning platform. *Asia Pacific Journal of Education, Arts, and Sciences*, 5(51), 47-51.
- Wechsler, D. (2003). *Wechsler Intelligence Scale for Children* (4<sup>th</sup> ed.). (WISC-IVCDN). Toronto, ON: The Psychological Corporation.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*. CENGAGE Learning Custom Publishing.