

Effect of Gallery Walk Flipped Classroom (GWFC) on English Language Acquisition among Diploma Learners

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ABSTRACT

This study aimed to investigate the Effect of Gallery Walk Flipped Classroom (GWFC) on English Language Acquisition among Diploma Learners. The study utilised a quasi-experimental design with pre- and post-tests to compare the performance of the experimental and control groups. The experimental group received GWFC treatment for four weeks, while the control groups received standard flipped and traditional teaching. Data were collected through pre- and post-tests. The results were analysed and compared using nonparametric tests because the sample size in each classroom was less than 30. Pre and post-test scores were collected as quantitative data to evaluate the learning achievement. The findings showed that the GWFC group outperformed the control group in English language acquisition, with GWFC learners scoring significantly higher than those in standard flipped classrooms (FC) and traditional classrooms (TC). There is a significant difference in the mean achievement scores before and after the treatment for the GWFC. The study concludes that the GWFC approach can effectively promote English language acquisition among diploma learners. The study recommends that educators consider implementing GWFC in their classrooms to enhance learners' English language acquisition. Thus, it can be said that GWFC instruction had a large effect on language acquisition among diploma learners. Implications, limitations, and directions for future research follow the findings.

Keywords: higher education, English language acquisition, flipped classroom, gallery walk, GWFC

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INTRODUCTION

The evolution of technology and the media-driven environment has made education more advanced and challenging. The increasing integration of technology-enhanced teaching strategies in today's learning environments promotes learners' learning to meet 21st-century learning 2). Instructors should be able to promote technology, pedagogy, and content knowledge (TPACK) effectively in both face-to-face and online classrooms. Appropriate incorporation of technology in their teaching fosters more positive attitudes among learners and maintains learner interest. These technology goals, through the concept of a flipped classroom, allow personalised learning to homogenised learning standards. As stated by Bergmann and Sams (20), personalised learning has become the latest approach to learning as electronic devices have become part of learners' free time. The integration of technology with traditional methods has also affected instructors' teaching. several pedagogical methods, including blended learning and the flipped classroom.

Blended learning combines in-class integrated activities and online learning outside class (Poon, 2014). Learners experience face-to-face activities learning in the traditional classroom and online learning outside the classroom. This shifts from teacher-centred instruction to learner-centred learning. In flipped classrooms, learners are more actively engaged in learning activities than in traditional classrooms (Bishop & Verleger, 2013). They learn independently using technology tools and the instructor as the facilitator. Learning becomes a Gallery Walk, a critical and collaborative online activity through the flipped classroom concept.

PROBLEM STATEMENT

In the traditional teaching method, the instructor delivers information, while learners are expected to take notes. As a result, learners find it difficult to retain information and engage in deep learning. With active learning, learners engage in collaborative activities and group participation that foster deep, meaningful learning. In a flipped classroom, they significantly reported more positive attitudes towards using video as a learning tool, perceived learning, and learning empowerment than high achievers (Nouri, 2016).

Learners lack the self-confidence to speak in English (Anwar, 2015). Their English language learning has not been maximized because they have not used the language in their daily routines. In the classroom, they were less focused, sleepy, shy about asking questions, and unfamiliar with how to use a dictionary. They assumed that learning English involved asking questions; thus, they lost interest. The flipped classroom supported learning English as a foreign language (EFL) (Su Ping et al., 2020). Learners had time to receive a foundation of knowledge and understand concepts before class. In addition, they had immediate feedback from the instructor and peers during class.

Puspitasari (2021) claimed that the Gallery Walk promotes learners' interest and enjoyment in learning English speaking skills. It promotes their interest in learning and enjoyment. They connect in several interactive ways. The Gallery Walk technique is intended to motivate learners to acquire new knowledge and actively improve their self-confidence in English, especially in speaking.

This study investigates the effect of gallery walks in a flipped classroom context on language acquisition among diploma learners. By addressing this gap in the literature, this study can contribute to a deeper understanding of how best to design and implement effective flipped classroom activities, ultimately improving the quality of education for learners. The study primarily focuses on significant differences in learning achievement among learners exposed to TC, FC, and GWFC.

Research Objectives

Based on the issues raised in the earlier discussion, the main purpose of this study is to investigate the effectiveness of the GWFC on language acquisition among diploma learners. The objectives of this study are:

- a) To identify the effects of the GWFC on language acquisition before and after the treatment.
- b) To compare the differences in language acquisition between TC, FC, and GWFC learners.

RESEARCH FRAMEWORK

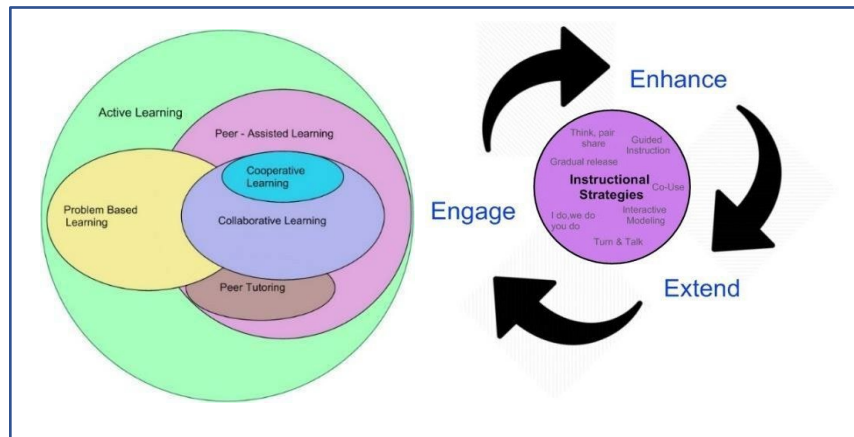
According to learning styles theories, individuals' unique learning styles, when matched with learning experiences, enhance academic achievement. Derived from Lewin, Dewey, and Piaget, Kolb's experiential learning theory further developed Kolb's model of learning styles. Kolb's four learning styles are given by the permutations of two embedded dimensions:

perception and processing in a universal learning cycle (Bishop & Verleger, 2013).

The Triple E Framework measures how technology can help instructors select tools and design learning experiences, thus further guiding learners to meet and exceed learning goals (Kolb, 2017). The framework is based on three factors that instructors need to clarify when using technology to advance lesson goals. As an engagement factor, technology allows learners to focus on the learning process. As an enhancement factor, technology allows learners to better understand concepts and ideas. Meanwhile, as the extension factor, technology allows learners to connect learning and their life experiences.

Figure 1:

Learner-Centered Learning Theories + Triple E Framework. Source: (Bishop & Verleger, 2013; Kolb, 2017)



It can be concluded that the effects of flipped classroom and gallery walk learning on language acquisition can be both positive and negative due to differences in learning strategies between users and non-users. When technology is integrated into the curriculum, it is most often for routine or lower-order tasks. Thus, the theoretical framework for this innovation is shown in Figure 1. Very few studies discussed the effect of GWFC on language acquisition.

LITERATURE REVIEW

Research has shown that gallery walks can be an effective activity to incorporate into the in-class portion of a flipped classroom. In a study by Strayer and Planchon (2018), learners in a flipped classroom were assigned to small groups and asked to create a poster or visual display summarizing the key concepts from the pre-class instructional materials. During class, the groups participated in a gallery walk to view and discuss each other's displays, providing feedback and asking questions to deepen their understanding of the material. The study found that the gallery walk activity effectively promoted learner engagement and collaborative learning. Learners reported that the activity helped them to clarify their understanding of the material and that they enjoyed the opportunity to interact with their peers and receive feedback on their work.

The theory of constructivism holds that learners construct knowledge rather than passively take in information (Vygotsky, 1978). A flipped classroom requires students to work in groups and, when combined with Gallery Walk learning, increases opportunities for discussion, engagement, and collaborative learning. Learning becomes an interactive, active process for learners through the teacher's guidance, and students' cognitive development is mediated by their social interactions. The combination of Gallery Walk learning and the flipped classroom resulted in learners acquiring knowledge through collaborative learning.

Lo and Hew (2017) investigated the use of gallery walks in a flipped-classroom context to promote critical-thinking skills. In this study, learners in a flipped classroom were assigned to small groups and asked to create a poster or visual display that presented arguments for and against a controversial issue. During class, the groups participated in a gallery walk to view and discuss each other's displays, using critical thinking to evaluate the arguments presented. Research on the use of gallery walks in a flipped classroom context in Malaysia is relatively limited. However, a few studies have investigated the effectiveness of this strategy in promoting learner engagement and learning outcomes in Malaysian classrooms.

Gallery walks were used as a learning activity in a flipped classroom for a group of Malaysian secondary school learners (Alias & Ali, 2019). The learners were asked to create posters summarising the key concepts from their pre-class learning materials. Then they participated in a gallery walk, viewing and discussing each other's posters. The results of the study showed that the gallery walk activity was effective in promoting learner engagement and collaboration and improving their understanding of the subject matter. The researchers also noted that the flipped classroom approach was well received by the learners, who reported enjoying taking ownership of their learning and engaging in meaningful discussions with their peers.

Another study by Mohamed, Rahman, Yahya, and Abdullah (2019) investigated the effectiveness of a flipped classroom approach incorporating gallery walks in a Malaysian university setting. Learners in statistics are incorporated into small groups and are asked to create posters summarising the key concepts from their pre-class instructional materials. During class, the participants engaged in a gallery walk to view and discuss each other's posters, providing feedback and asking questions to deepen their understanding of the material. The study results showed that the flipped classroom approach effectively promoted learner engagement and improved learning outcomes, with learners reporting increased motivation and a deeper understanding of the subject matter.

Overall, these studies suggest that gallery walks can be an effective learning activity to incorporate into a flipped classroom in Malaysia, promoting learner engagement, collaboration, and learning outcomes. Thus, the present study aims to investigate the effectiveness of the GWFC teaching method. The present study aims to improve education.

METHODOLOGY

This study investigated the effectiveness of the GWFC on language acquisition among diploma learners. A quasi-experimental research design involving the flipped classroom implementation, the collection and analysis of quantitative data was utilised to assess its effect on language acquisition in higher education. The participants were 66 learners enrolled in an English-language course at a private college. Each classroom was randomly assigned to one of three instructional methods: GWFC (N=22), FC (N=22), or TC (N=22). The groups' equivalence was examined based on participants' pre-test scores. At the end of this study, all participants in the two experimental groups and the control group were asked to complete the same post-test. Table 1 below indicates how the experiment was administered. The GWFC group was taught using the gallery walk flipped approach, in which learners watched online lecture videos before class and completed assignments during class through the gallery walk learning strategy. The FC group was taught using the standard flipped approach, where learners watched online lecture videos before class and completed assignments during class. The TC group was taught using the traditional lecture approach, in which learners were assigned work between lectures and completed it as homework to deepen their understanding.

Table 1:
Experiment Procedure

Treatment	Before	During	After
GWFC	View online instructional videos and refer to learning modules.	Present and view other groups' work under the instructor's supervision.	Solution slides have been posted for the learners' class discussion.
FC	View online instructional videos and refer to learning modules.	Complete the assignment individually.	Solution slides have been posted for the learners' class discussion.
TC		Listen to the lecture and take notes.	Complete the assignment individually.

FINDINGS AND DISCUSSION

Based on descriptive statistics, GWFC had the highest mean for language acquisition (29.64), followed by FC (25.21) and TC (19.56). However, Kruskal-Wallis's test failed to reveal if there is a statistically significant difference in language acquisition achievement across the three different treatments: TC, FC, and CFC. χ^2 (df=2, n= 63) = 10.005, $p = 0.128$. The

The GWFC group showed the highest language acquisition, while the TC group showed the lowest. There is a difference in language acquisition means among learners, TC, FC, and GWFC, but it is not significant.

A Wilcoxon Signed-Rank Test revealed a statistically significant difference in language acquisition means between the pre- and post-test scores for GWFC ($z = -4.017$, $p < 0.000$). There is a significant difference in the means of language acquisition between the pre- and post-test scores for GWFC. Results from the study showed a significant difference in English Language acquisition before and after the treatment for GWFC. Thus, GWFC learners were better able to prepare before class and had more opportunities to interact with the instructor and peers during class.

Table 2: Results on the Differences in Language Acquisition between TC, FC, and GWFC Learners.

#	Findings	Significance	Effect
1	GWFC shows score after is higher than the score before the treatment	$p = 0.000$	Significant
2	GWFC has the highest achievement mean; GWFC* = 29.64, FC** = 25.21, TC*** = 19.56	$p = 0.128$	Not significant
3	GWFC has a higher achievement mean than FC. GWFC = 17.64, TC = 14.65	$p = 0.377$	Not significant
4	GWFC has a higher achievement mean than TC. GWFC = 19.50, TC = 13.12	$p = 0.053$	Not significant
5	FC has a higher achievement mean than TC. FC = 19.56, TC = 15.44	$p = 0.231$	Not significant

The results in Table 2 showed low, moderate, and high levels of learning achievement among the participants. Learners in GWFC performed better than FC learners, which were better than TC learners. Better scores were achieved with GWFC compared with FC and TC. Thus, there is a significant difference in learning achievement between learners in a traditional classroom, flipped classroom, and GWFC, with a small effect size according to Cohen's (1988) criteria.

CONCLUSION

The GWFC greatly affected learning achievement among diploma learners. The combination of Learner-centered Learning Theory and Triple E framework has accelerated the language acquisition performance of high achievers. As supported by Chen et al. (2015), Foldnes (2016), and Zhang (2018), incorporating Gallery Walk learning into flipped classrooms positively affects learners' achievement, attitudes, and behaviour. Gallery Walk learning also enhances learning motivation, potential, and critical ability toward better academic performance (Ai, 2009).

GWFC has a large positive effect on learning. Quantitatively, learners show a significant difference in achievement means before and after the GWFC. Gallery Walk is a learner-centred learning technique that leads to improved achievement and teamwork. The learners respond more actively to the course materials than to a standard gallery walk. A significantly higher level of two-way participation among the learners was observed during the activity. The GWFC can serve as a guideline not only for future researchers but also for educators. As the results show, GWFC's innovation for learners is effective and offers

broad potential for further development.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest, financial or non-financial, that could have influenced the research, authorship, or publication of this manuscript.

AUTHOR CONTRIBUTION STATEMENT

Author 1: Conceptualization, methodology, investigation, formal analysis, writing—original draft preparation, project administration.

Author 2: Supervision, validation, writing, review and editing, visualization, and final approval of the manuscript.

All authors have read and agreed to the published version of the manuscript

ETHICS STATEMENT

This research was conducted in accordance with the ethical standards of KPTM Ipoh and in adherence to the principles of academic integrity and responsible research practices. As this study is a conceptual and qualitative paper based on documentary analysis, comparative ethical analysis, and secondary literature, it did not involve human participants, personal data collection, interviews, surveys, or experimental procedures. Therefore, formal ethical approval and informed consent were not required. All sources used in this study were properly cited, and the analysis was conducted solely for academic purposes.

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