



Proceedings of the 1st English Education International Conference (EEIC) in conjunction with the 2nd Reciprocal Graduate Research Symposium (RGRS) of the Consortium of Asia-Pacific Education Universities (CAPEU) between Sultan Idris Education University and Syiah Kuala University

November 12-13, 2016, Banda Aceh, Indonesia



STUDENTS' EXPERIENCES AND CHALLENGES OF LEARNING ENGLISH GRAMMAR THROUGH FLIPPED CLASSROOM AND GAMIFICATION

Amreet Kaur Jageer Singh* and Raja Nor Safinas Raja Harun

Sultan Idris Education University, Tanjung Malim, Perak, MALAYSIA

*Corresponding author: amreet@pbmpu.upsi.edu.my

Abstract

Over the past decades, practitioners from various disciplines have sought out to improve students' learning by employing the flipped classroom approach to learning. Many practitioners have seen immense increase in students learning by requiring students to gain exposure to learning prior attending the class, often online and in video format. Class time is then devoted to collaborative exercises, discussions, assignments and projects. With advances in technology, many online resources and applications allow students to access the materials at own pace, time, and place as well as to actively engage and participate in the learning process. Furthermore, considering of making the students learning experience more interesting and fun, thus, gamification strategy is integrated with the flipped classroom approach. However, to date, no study of this combination has been undertaken particularly in respect to English as a Second Language (ESL) in Malaysia and in an English Grammar course. Therefore, this study reports on students' experiences and challenges that they have been facing for 14 weeks of BIL1033 English Grammar 1 course. The participants in the study were 90 Diploma students taking BIL1033 course at Sultan Idris Education University, Perak, Malaysia. Data was collected by means of questionnaire, students' reflection journals, focus group interviews, and semester course evaluation. Results indicate that students really enjoy most of the English Grammar flipped lessons. They like to learn English Grammar via Kahoot and Quizziz. The class activities are full of fun and bring joy to learning. The findings from the students' reflection journals and focus group interviews also revealed that they are always excited to come to English Grammar class because of collaborative activities and games. Individual and team-based competitions encourage students to communicate with each other and engage them with the content through gaming elements. This study implies that a combination of both flipped classroom and gamification places the responsibility for learning English Grammar on the shoulders of students while giving them greater motivation to experiment knowledge that they have grasped in various other tasks.

Keywords: Students experiences, students learning, grammar, flipped classroom, gamification.

INTRODUCTION

Based on recent researches in education and language learning, the focus of English language courses at Malaysian higher education institutions have recently transformed from traditional teacher-centred approach in classroom to student-centred approach and self-paced learning outside of the classroom (Azwin Arif, Nor Yazi, Mohammad Musab, Mohd Shafeirul Zaman, Supyan Hussin & Mohamed Amin Embi, 2014; Leow & Neo, 2014). As the 21st century moves forward, the field of second language learning and instruction has become more technology oriented (Figueroa, 2015).

This is clearly seen in higher education where it is common to see students in class using technology tools such as laptops, smartphones or other handheld devices to engage in learning (Pullen, Swabey, Abadooz & Termit Kaur Ranjit Singh, 2015). With the continuous technological advancements, the development has gradually led to the emergence of various novel instructional approaches and strategies like blended learning, Bring Your Own Device (BYOD), mobile learning and distance learning. Current interests of many researchers are focused on flipped classroom and gamification (Mortensen, 2014; Dicheva & Dichev, 2016; Matsumoto, 2016a; Matsumoto, 2016b). To date, previous studies have looked at the impacts of flipped classroom and gamification on students' performances, attitudes and motivations in the EFL/ESL classroom. There are a limited numbers of researches on students' experiences and challenges in Malaysian ESL context. In addition, most of the researches conducted do not combine both flipped classroom and gamification approaches. Thus, the findings of this study would contribute to this particular field of knowledge. In this paper, we propose a novel instructional approach that combines elements of flipped classroom and gamification into BIL1033 English Grammar 1 course in one of the Malaysian public universities. Before presenting it, we briefly discuss about flipped classroom and gamification.

LITERATURE REVIEW

Flipped Classroom

Flipped classroom is defined in Bergmann and Sams (2012) as "that which is traditionally done in class is not done at home, and that which is traditionally done as homework is now completed in class" (p. 13). This approach leaves class time open for interactive and participatory activities. In essence, "flipping the classroom" means that students gain first exposure to the course materials prior to class, usually via reading or watching online lecture videos, and then use class time for practice, application exercises, discussion-based activities, team-based learning or other active learning techniques. In terms of Bloom's revised taxonomy by Anderson and Krathwohl (2001), students are practising lower levels of cognition (remembering and understanding) outside the class hour, and focusing on higher-level cognitive thinking activities in class, where they can refer directly to the instructor for guidance and feedback (Danker, 2015).

The theoretical foundations underpinning flipped classroom include student centred learning theories and methods such as active learning, experiential learning, collaborative learning, cooperative learning, task-based learning, problem based learning, inquiry based learning and peer assisted learning (Noora Hamdan, McKnight, McKnight & Arfstrom, 2013; Triantafyllou & Timcenko, 2015; Dicheva & Dichev, 2016). The student-centred learning theories provide the theoretical basis for the design of the in-class activities in flipped learning. Constructivism and collaborative learning stem from Piaget's theory of cognitive conflict (Piaget, 1967) and cooperative learning stems from the zone of proximal development theory of Vygotsky (1978).

In recent years, the flipped classroom approach has grown in popularity and has attracted much attention in the educational community. Many educators have begun to blend the flipped classroom approach into their traditional curriculum (Zamzani Zainuddin & Siti Hajar Halili, 2016). The overview of empirical studies related to flipped classroom by Noora Hamdan, McKnight, McKnight and Arfstrom, (2013), Bishop and Verleger (2013) and Yarbrow, Arfstrom, McKnight and McKnight (2014), concludes that students' learning has improved and students have perceived positive perceptions of the unique elements such as presentation of materials outside of the class and increase in active learning activities. However, studies related to flipped classroom in Malaysian ESL context are limited. In particular, so far no studies have focused on students' experiences and challenges of flipped classroom. Thus, this study will contribute to the field of the study.

Gamification

The term 'gamification' simply means the use of game design elements, game mechanics and game thinking techniques in non-game contexts to motivate participants (Rula, Fatma & Mazin, 2016). Previous studies show that games can improve students' engagement, motivation and academic attainment. Andharini (2016) shows that majority of the participants (aged 6-8 years) answered that they were engaged enough to explore all the options (83.33%) and only 16.67% felt bored when playing gamified learning activity. As for motivation, 76.67% of participants felt that it is important for them to do well at the given task, and 73.33% believed that the gamified learning

activity is interesting. Buckley and Doyle (2016) had similar findings in their experiment, where the study involving over 100 undergraduates demonstrated the power of gamification. The specific elements of game design such as leader boards and ranking systems were found extrinsically motivating the students and promoting a variety of positive learning outcomes. In another study, where gamification was used as the intervention, results suggest more “intrinsic motivation, proactivity, positive effect and deeper student engagement” (Barata, Gama, Jorge & Goncalves, 2013).

Gamification commonly employs game design elements such as points, levels, reward systems, ranks, incentives, badges and challenges to motivate students to learn in a perfect combination of fun and meaningful learning experience (Dicheva, Dichev, Agre & Angelova, 2015; Dabbagh, *et al.* 2016). In a gamified classroom, students work together to complete missions. This means that students are not only enjoying their classes more, but also taking more from the gamified curriculum as well. Although gamification is still a new concept, it has been adopted by many researchers in the marketing strategies (Wrona 2012; Conaway & Garay, 2014; Lucassen & Jansen, 2014). Little evidences or few studies are carried out in the field of education, particularly in ESL contexts. Due to the lack of data, the researchers conducted this study of combined approaches (flipped classroom and gamification) in BIL1033 English Grammar 1 course.

Research Objectives

The objectives of the research are:

1. To find out Diploma students' experiences of learning English grammar through flipped classroom and gamification.
2. To determine the challenges Diploma students face during the 14 weeks of BIL1033 English Grammar 1 course.

METHODOLOGY

The researchers used case-study methodology to discover the experiences and challenges of Diploma students from a teacher education university in Malaysia. According to Bogdan and Biklen (2007) a case study is a “detailed examination of one setting or a single subject, a single depository of documents, or one particular event” (p. 54). A case study is situated in authentic contexts that provide insights into complex events and environments. The researchers selected case-study methodology for this study, as both flipped classroom and gamification approaches were situated in an authentic learning environment involving complex events.

The participants for the study were 90 Diploma students (Semester 1). They were enrolled for a compulsory Diploma in English course known as BIL1033 English Grammar 1. They had completed their *Sijil Pelajaran Malaysia* (SPM) before applying for Diploma programme. In addition, focus group interviews were conducted with 20 voluntary BIL1033 Diploma students.

The research began by having the Diploma students attending a workshop on introduction of GrammarFlip, FoxType, Padlet, Kahoot and Quizziz. During this workshop, students had the opportunity to get themselves familiarised with the features of the above-mentioned learning platforms. The students created individual accounts for GrammarFlip. GrammarFlip is an interactive, online resource aimed at helping students of all abilities learn, practice, and master English grammar concepts. It covers sixty (60) grammar topics and exercises plus with instructional videos, PowerPoint slides and instant feedback. Furthermore, FoxType is a tool that can help students to analyse sentences, identify structures and provide suggestions. Padlet is also another interactive tool for collaboration whereby students were asked to complete written tasks by applying grammar components that they had learned for the particular weeks. Kahoot and Quizziz are free game-based learning platforms that make it fun to learn any subjects and languages for different devices and ages. Kahoot and Quizziz quizzes were used as formative assessments in the classroom.

For fourteen (14) weeks, the students watched the instructional video lessons and PowerPoint slides via GrammarFlip prior to class. They were also encouraged to browse the interactive websites and audio lectures so that they can gain first-exposure to learning materials related to grammar concepts. To help ensure student preparation for class, students were expected to complete worksheets in GrammarFlip. Class time was then spent on various English grammar activities and

games with some elements of gamification such as points, leader boards, player performance and rewards.

Students were required to write two reflective journals and respectively submit by Week 7 and Week 14. The data collection procedure ends with questionnaire, focus group interviews and semester course evaluation. All the data were analysed qualitatively.

The questionnaire was designed to find out students' perspective of learning English grammar through flipped classroom and gamification. The questions were divided into two parts: Part I and Part II. Part I included the participants' background information whereas Part II comprised 16 items on students' views about their experiences in learning English grammar through flipped classroom and gamification throughout the 14 weeks. The four-point Likert Scale was used to assist students in making their right choices (Strongly Disagree, Disagree, Agree, and Strongly Agree). Questionnaire was analysed through percentages and mean scores.

Students were required to write two (2) reflection journals throughout the fourteen (14) weeks. The first reflection journal was due during Week 7 and the second was during Week 14. Both reflection journals were basically about students' experiences and challenges faced inside and outside of the classroom while learning English grammar through flipped classroom and gamification. Several suggestions and recommendations were also highlighted in the reflection journals by the students. Researchers believe that reflection helps students to look critically at the links between theory and practice (Nickel, 2013; Williams & Ann Sylvia Sugumaran, 2015). All the reflection journals were collected and described descriptively.

Focus group interviews were conducted with 20 Diploma students during Week 14. These 20 students were selected based on their availability and voluntary participation. The researchers came up with eleven (11) open-ended interview questions. Some of the issues addressed during the focus group interviews were students' first impressions, feelings, experiences, preferences, challenges and recommendations of learning English grammar through flipped classroom and gamification. The participants' responses to the interview were audio-recorded. These interviews were transcribed into verbatim and they were analysed as qualitative data.

All the students were required to provide feedback about the lecturer and course by completing the course evaluation form online via MyGuru at the end of the semester (Week 14). Section 1 included ten (10) items on the descriptions of the lecturer whereas Section 2 comprised of four (4) items on course descriptions. Some spaces for suggestions were provided at the end of the evaluation form.

The questionnaire was given to 15 ESL Diploma students to check its clarity and determine its reliability. It was reliable at 0.947 Cronbach's Alpha. The questionnaire was reviewed by three experts who gave recommendations for improving the content validity of the questionnaire.

FINDINGS AND DISCUSSION

The data have yielded several findings and they are presented according to the following themes.

Positive Thinking and Perception

The results of the questionnaire indicated that the Diploma students were positive about learning English grammar through flipped classroom and gamification. A total number of 63 students (70%) strongly agreed that learning English grammar through flipped classroom and gamification is useful for them. Majority of the students also strongly agreed that learning English grammar through flipped classroom and gamification can make the lessons easier to understand (71%) and make them feel happy always (64%). Overall, 69 students (77%) really liked learning English grammar through flipped classroom and gamification. However, the challenging part for students was when they began to procrastinate on the online tasks. Those students who kept the online tasks pending regretted at the end. One of them was S8 who realised that procrastinating is a bad habit and thus students should avoid doing it. The following excerpt is the response of the S8 during the interview:

S8: The worst part is when you actually procrastinate...it's just online tasks. I can do it in my room later and the very last minute, when I looked at it...there are 30 topics. Everyone should stop procrastinating.

Adaptation to New Learning Styles

Majority of the respondents (97.8%) agreed that they have received sufficient training and guidance in learning English grammar through flipped classroom and gamification. A workshop on introduction of GrammarFlip, FoxType, Padlet, Kahoot and Quizziz was conducted by the teacher at the beginning of the semester. Here is an excerpt of S6 expressing first impression of using technology in the classroom:

S6: Well, for my first impression, when technology is introduced...I was very happy in a way that it shows advancement in teaching in universities...because where the world is keep on changing and it's very fast...with new technology and new things are appearing. It was an interesting experience because it was also my first time having technology being used in the classroom with more exposure to it.

Students' reflection journals and interview responses also supported the finding with the fact that Diploma students did not have much difficulty in getting themselves familiarised with the use of technology and the online platforms for English grammar course. It was quite easy for them to adapt to the changes of flipped classroom and gamification.

S3: No. For our generation, we are more toned towards technology. We already get used to it. We use technology day and night. This is much easier for us.

S7: Not at all. We are new generation!

Internet Connectivity and Mobile Access

Students' reflection journals, interview responses and semester course evaluation revealed that the challenges faced by the students were weak Wi-Fi signal in the campus and mobile phones being slow. Students could not complete Kahoot and Quizziz due to any Internet access in the midst of the quiz. In addition, some of the students also complained that their mobile phones were running slow. As a result, several students failed to complete the game as they were terminated earlier than other course mates.

S6: No Wi-Fi...signals suddenly cut off.

S9: During Kahoot, some of the classmates were complaining about their phones being lagging.

Active Learning, Collaboration and Communication

Overall, the class activities were full of fun and brought joy to learning. The findings from the students' reflection journals and focus group interviews also revealed that students were always excited to come to English Grammar class because of collaborative activities and games. Individual and team-based competitions encouraged students to communicate with each other and engaged them about the content through gaming elements. Similarly, questionnaire data showed that almost 69% of the respondents strongly agreed that learning English grammar through flipped classroom and gamification helped to increase engagement in class. During class time, the teacher was present to give prompt feedback on the individual and group work. Following are some of the views shared by students during focus group interviews:

S9: I always like game based learning because the students engage more and the knowledge gain through those games is more permanent...you can use in everyday life...you can explain to others. It also promotes healthy competitive among our classmates.

S14: In my opinion, it is a good progress because the advancement in technology is going very rapidly throughout the whole world. Flipping the classroom is actually good as it makes the students to be more active in the activities/presentations in the classroom. The more the students are involved with the whole lecture process, they will understand the topics better and in depth...and at the same time they are teaching themselves and teaching each other.

S17: *I would personally say that...it engages my interest in this lesson...it because the first one is the Kahoot...when we get something wrong, we tend we want to know what is my mistakes...so I tend to look at my notes and actually helps me to increase the my knowledge. Second one is the GrammarFlip, when we do something and we gain the award...just the badge...the ice-cream badge everything...it actually makes so much more fun. So I would say that it helps not only me but whole classmates...it engages us into something more fun lesson...not a boring...this is so much fun and exciting.*

Flexible Learning

When respondents were asked whether learning English grammar through flipped classroom and gamification make them learn in a more relaxing way or not, almost 79% strongly agreed, 20% agreed and 1% disagreed. Besides, 63% of the respondents strongly agreed that learning English grammar through flipped classroom and gamification made them feel comfortable. These results are in line with the interview responses.

S12: *It's exciting and much more relaxing to us. We don't feel stress when studying. We can do it when we want to and yeah, it encourages us ...it's much more relaxing.*

S14: *As I have been tied to the traditional way of learning everything, and what I felt when I met gamification and flipped classroom, I was like inhaling a new air...I was alive here. I was able to learn English grammar easily.*

S15: *It helps me to learn better because it's about learning at my own pace which is very easy for me because I know myself better and how fast I need to learn certain things. So having flipped classroom where we do more online learning, like through the site GrammarFlip, I learn certain topics slowly...certain topics...I just skip immediately or go through them fast.*

CONCLUSION

This study found that there are still challenges that need to be addressed in order to realise the expected benefits. These challenges include weak Wi-Fi signal in the campus, mobile phones being slow, competitiveness among students for scoring higher marks without reading the questions properly and procrastinating. Notwithstanding these limitations, it is becoming increasingly difficult to ignore the importance of flipped classroom and gamification approaches in widening access to, and improving the quality of education in higher education. Thus, it is recommended that higher institutions such as the one being studied should take a step forward to provide the whole campus with a strong Wi-Fi signal and high-speed Internet connection. As for teachers or instructors, it is encouraged to begin applying flipped classroom and gamification approaches into own courses at a smaller scale. Nowadays, educators should realise that students no longer prefer the traditional way of teaching and learning in the 21st century. The time for paradigm shift is here, thus it is better to explore new ways to redesign learning so that it is relevant to the growing challenges.

REFERENCES

- Anderson, L., & Krathwohl, D. A. (2001). *Taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.
- Andharini, D. C. (2016). Gamification approach to enhance students' engagement in studying language course. *Proceedings of the 3rd Bali International Seminar on Science & Technology (BISSTECH 2015), MATEC Web of Conferences, 58* (pp. 1-6). October 15-17, 2015, Bali, Indonesia.
- Azwin Arif, A. R., Nor Yazid, K., Mohammad Musab, A. A., Mohd Shafeirul Zaman, A. M., Supyan Hussin & Mohamed Amin Embi. (2014). Development of self-access internet based English module to support student centred learning (SCL) of engineering education. *Asian Social Science, 10*(7), 153-162.
- Barata, G., Gama, S., Jorge, J. A., & Goncalves, D. (2013). Improving participation and learning with gamification. *Proceedings of the First International Conference on Gameful Design, Research, and Applications (Gamification '13)* (pp. 10-17). New York, N. Y.: ACM.

- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. Washington, D. C.: International Society for Technology in Education.
- Bishop, J., & Verleger, M. (2013). The flipped classroom: A survey of the research. Paper presented at the 120th ASEE Annual Conference. June 23-26, Atlanta, G. A. Retrieved from <http://www.asee.org/public/conferences/20/papers/6219/download>
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods*. Upper Saddle River, N. J.: Pearson Education, Inc.
- Buckley, P., & Doyle, E. (2016) Gamification and student motivation. *Interactive Learning Environments*, 24(6), 1162-1175.
- Conaway, R., & Garay, M. C. (2014). Gamification and service marketing. *Springerplus*, 3(1), 653-664.
- Dabbagh, N., Benson, A. D., Denham, A., Joseph, R., Al-Freih, M., Zgheib, G., Fake, H., Guo, Z. (2016). *Learning technologies and globalization: Pedagogical frameworks and applications*. New York: Springer.
- Danker, B. (2015). Using flipped classroom approach to explore deep learning in large classrooms. *The IAFOR Journal of Education*, 3(1), 171-186.
- Dicheva, D., & Dichev, C. (2016). An active learning model employing flipped learning and gamification strategies. *Proceedings of the First International Workshop on Intelligent Mentoring Systems@ITS2016*. June 7-10, Zagreb, Croatia.
- Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in education: A systematic mapping study. *Educational Technology & Society*, 18(3), pp. 75–88.
- Figueroa, F. J. F. (2015). Using gamification to enhance second language learning. *Digital Education Review*, 27, 32-54.
- Leow, F. T., & Neo, M. (2014). Interactive multimedia learning: Innovating classroom education in a Malaysian university. *The Turkish Online Journal of Educational Technology*, 13(2), 99-110.
- Lucassen, G., & Jansen, S. (2014). Gamification in consumer marketing – future or fallacy? *Procedia - Social and Behavioral Sciences*, 148, 194-202.
- Matsumoto, T. (2016a). The flipped classroom experience of gamified. *Creative Education*, 7, 1475-1479.
- Matsumoto, T. (2016b). Motivation strategy using gamification. *Creative Education*, 7, 1480-1485.
- Mortensen, C. (2014). Improves student achievement through gamification and the flipped classroom. *2014 ADSA-ASAS Joint Annual Meeting*. July 20-24, Kansas City, Missouri.
- Nickel, J. (2013). Formative assessments and syntheses in reflection journals. *Transformative Dialogues: Teaching & Learning Journal*, 6(3), 1-16.
- Noora Hamdan, McKnight, P., McKnight, K., & Arfstrom, K. (2013). *The flipped learning model: A white paper based on the literature review titled a review of flipped learning*. New York: Flipped Learning Network.
- Piaget, J. (1967). *Biology and knowledge*. Chicago: University of Chicago Press.
- Pullen, D. J. F., Swabey, K. J. F., Abadoo, M., & Termit Kaur Ranjit Singh. (2015). Malaysian university students' use of mobile phones for study. *Australian Educational Computing*, 30(1), 1-14.
- Rula, A., Fatima, A., Mazin, A. (2016). Educational gamification vs. game based learning: Comparative study. *International Journal of Innovation, Management and Technology*, 7(4), 132-136.
- Triantafyllou, E., & Timcenko, O. (2015). Out of classroom instruction in the flipped classroom. *Learning and Collaboration Technologies*, 9192, 714-723.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, M. A.: Harvard University Press.
- Williams, S. J., & Ann Sylvia Sugumaran, M. (2015). Learning and self: An analysis of ESL student reflections from a social outreach project with a refugee community in Malaysia. *Journal of Interdisciplinary Research in Education*, 5(1), 91-107.
- Wrona, K. (2012). Gamification and games, their potential for application in marketing strategies. *Marketing of Scientific and Research Organizations*, 6, 93–105.
- Yarbro, J., Arfstrom, K., McKnight K., & McKnight, P. (2014). *White paper on the extension of a review of flipped learning*. New York: Flipped Learning Network.
- Zamzani Zainuddin & Siti Hajar Halili. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distributed Learning*, 17(3), 313-340.