

Improving English Proficiency: A Critical Review of Flipped Classroom with Social Network and Educational Games

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Abstract

A literature review was conducted to evaluate the utilization of flipped classroom with social network and educational games. The first depends on the subjectivity of the researcher to select relevant articles, while the second applies objective criteria. This article offers an approach to conducting a critical review by following the five steps of quantitative research. First, the research objective and research question were defined. Second, a meaningful sample of literature sources was found. Third, data were collected after applying exclusion filters from these sources. Fourth, descriptive statistics were used to analyse and report the results. Fifth, the implications of these results were discussed. The results of the critical review allowed the authors to identify several themes that were present in articulated conceptual frameworks. In addition, the review of the literature revealed information gaps. These shortcomings require further research in this area of the utilization of flipped classroom with social network and educational games.

Keywords: English, Online Games, Flipped Classroom, Educational Games, Proficiency, Social Network

Introduction

English language is the main language of the world. English is divided into English as first language and English as second language. According to a survey conducted by Ang (2021), Asian countries like Singapore, the Philippines, Malaysia, South Korea, and Hong Kong, China have higher proficiency level compared to other Asian countries which have rather lower proficiency of English. Recently, the whole world has been impacted with the Covid-19 pandemic that turned the education system into virtual learning. The virtual learning has incorporated flipped classroom, social network and educational games to work on improving English proficiency.

Our century's quick evolving technologies have an impact on all disciplines, including education and training. With the pace of technological development, educational conditions

also develop and various learning requirements appear. Compensating for the demands resulting from these changes is one of the main tasks of educational systems. Therefore, a competent education system must not limit learning and transform the traditional structure into a modern structure with technical skills (Bas, 2010). Since the changes in information and technology are so fast, education also keeps pace with it and develops further through innovative teaching methods (Akdemir, Bicer and Parmaksız, 2015). This change and change in the field of education eliminates the presence of a new strategy, which is the flipped classroom system in education (Toto and Nguyen, 2009). The flipped classroom approach, considered the most popular and active approach (Tucker, 2012), is a special type of blended learning (Strayer, 2012). According to Shujun (2022), flipped classroom's teaching and learning was the best way out to continue education without any pause.

Social networks are virtual learning environments that enable the highest level of communication between participants. Additionally, they are platforms for sharing online communication tools and can be great tools to improve the Flipped Classroom methodology (Duncan & Barczyk, 2016). Social networks are environments where social networking and social learning can flourish. The widespread use of social networking sites can become an optimal new educational media to engage learners (Betihavas et al., 2016) in improving English proficiency.

Educational games are online related educational games that are used to improve English proficiency. Educational games are usually used in post-test of a lesson to do a revision to check the understanding of learners on a particular topic. The increase in gaming in online learning environments is explained by the fact that digital educational games help develop the ability to solve problems, reading skills plus active and reflective thinking (Gee, 2003). Research has shown that the use of game components in online learning environments increases productivity, efficiency, motivation and participation by providing students with a flexible environment that requires collaborative problem-based learning; encourages active participation; and is student-centred (Boyle et al., 2011; Dicheva et al., 2015; Jo et al., 2018; Tsay et al., 2018). Gamification has become a favourite technique to increase student motivation by adding the fun of games as leader boards to the learning process (Jo et al., 2018). In addition, different design principles (e.g. purpose, freedom to fail, competition, collaboration) and game mechanics (e.g. avatars, badges, unlocking) encourage users to engage in learning activities (Landers and Callan, 2011; Losup and Epema, 2014).

The purpose of this critical review is to improve English proficiency through flipped classroom with social network and educational games. The review will analyse the methodology, findings and limitations of these studies and provide recommendations for future research and practice. The gap of the study will be reported and conceptual framework will be developed from the theoretical framework found from the critical review.

Critical Review

The use of the existing literature reviews as a foundation to advance knowledge in the chosen topic area is why literature reviews are regarded as an unquestionably crucial part of research. Reviews can also provide a forum for researchers to compile and recap prior work, describe current developments, assess, and synthesise various related studies in a field. This might make it possible to spot the literature's advantages and disadvantages, consistency and inconsistency patterns, as well as obvious conflicts (Mpofu, 2021). All this prompted the authors to organize literature reviews by making a critical review of articles related to the utilization of flipped classroom with social network and educational games.

Formulation of the Problem to be Addressed

The fundamental reason for conducting the current critical review is to analyse the knowledge of improving English proficiency level in flipped classroom through online educational games and social network. This aim is divided into three themes: 1) improving English proficiency in flipped classroom, 2) improving English proficiency in flipped classroom with social network and 3) improving English proficiency in flipped classroom with educational games.

Data Collection and Analysis

According to Popenoe et al (2021), every study of the literature should be thorough and focus on a narrow field of research. As a result, all relevant articles were thoroughly searched before being chosen based on significance. Keywords associated with the subject of English, proficiency, flipped classroom, social network and educational online games were used to search articles through the Scopus and ERIC databases and Google Scholar website.

First, all journals were limited within the time frame of 2019 to 2023 to allow more stable and newer researches that suit the current investigation. The current investigation mainly focuses on flipped classroom. Researches that are conducted before 2019 may not be reliable as technologies were not fully developed compared to this time frame.

Second, all fourteen articles that did not explicitly describe the peer review process were removed from the selection. However, one article that was not peer-reviewed is selected due to the content discussed in it. This decision was based on the opinion of Jefferson et al. that scientific information is considered appropriate only after peer review. Therefore, this second filter excluded all conference papers and book chapters. It is also noted that conference proceedings often present recent discoveries and can therefore be considered precursors to journal articles.

Third, articles that are not related to education were excluded. This critical review focuses in education element where it discusses on improving English proficiency. Non-educational articles may not be suitable to relate English to the technologies utilized.

Fourth, articles that are not related to English language were excluded as the discussion mainly focuses on improving English proficiency which talks only about English language. There are articles discussing about other languages. However, it is not suitable for this critical review.

Reporting of Results

A total of 15 journals were selected with all applied filters that directly focuses on the purpose of the study. The articles are categorized into their respective themes. However, it was identified that some articles are co-related with other themes in their discussions. Table 1 displays the frequency of articles related to the themes of improving English proficiency through flipped classroom with social network and educational games.

Table 1

Frequency of articles on the themes of improving English proficiency through flipped classroom with social network and educational games.

FLIPPED CLASSROOM	N	SOCIAL NETWORK	N	EDUCATIONAL GAMES	N
Reading Comprehension Skills	3	Effects of video length	1	Viability of AR game in WhatsApp	1
Self-regulation learning	3			Effects of Task-Based Instruction	1
Perceptions and Motivation	1			Impact of Online Games	1
Trends and effects of FC	4				
Total	11		1		3

Table 2

Gap Table of improving English proficiency through flipped classroom with social network and educational games

Column1	Author(s)	Year	Journal	E	S	SN	FC	EG	Country	Method(s)
1	Yu, Gao	2022	Sage Journals	/	/	/	/	/	China	Mixed design
2	Muntriakao, Poonpon	2022	Canadian Center of Science and Education	/	/	/	/	/	Thailand	Mixed design
3	Reflianto et al.	2021	European Journal of Educational Research	/	/	/	/	/	Indonesia	Quasi-experimental
4	Ilamid, Fateme, Maryam	2021	Procedia - Social and Behavioral Sciences	/	/	/	/	/	Iran	Experimental
5	Wang, Zhou	2022	Advances in Social Science, Education and Humanities Research	/	/	/	/	/	China	Case study
6	Khodabandeh	2023	Education and Information Technologies	/	/	/	/	/	Iran	Quasi-experimental
7	Zeng	2021	Wireless Communications and Mobile Computing	/	/	/	/	/	China	Case study
8	Girgin, Cabaroglu	2021	Cukurova University Journal of Faculty of Education	/	/	/	/	/	Turkey	Mixed design
9	Cevikbas, Kaiser	2022	Sustainability	/	/	/	/	/	Germany	Empirical research
10	Dincer, Polat	2022	Asian Journal of Distance Education	/	/	/	/	/	Europe	Mixed design
11	Choy, Norhayati, Mohd	2022	Arab World English Journal (AWEJ) 2nd Special Issue on Covid 19 Challenges January 2022	/	/	/	/	/	Malaysia	Mixed design
12	Feny, Zelvya, Latifatul	2021	International Journal of Research on English Teaching and Applied Linguistics	/	/	/	/	/	Malaysia	Quasi-experimental
13	Tzu, Yun, Che	2023	Asian-Pacific Journal of Second and Foreign Language Education	/	/	/	/	/	Thailand	Quasi-experimental
14	Ghaida	2022	World Journal of English Language	/	/	/	/	/	Saudi Arabia	Experimental
15	Berlinda, Achmad	2021	Journal of Language Teaching and Literature	/	/	/	/	/	Indonesia	Qualitative

Note: E = Eric Journals; S = SCOPUS; SN = Social Network; FC = Flipped Classroom; EG = Educational Games

The first finding in this reported critical review is related to lack of articles that deal with all three criterions of the current research; flipped classroom, social network and educational games. Relatively, articles reported in the findings that based on two criterions are 60% of all articles, 13% that are based on one criterion and remaining of 27% are based on three criterions. This clearly shows a gap in the current knowledge of improving English proficiency in flipped classroom with two different themes.

Articles were almost equally divided between the two technologies with research on social network (SN) for 67% and educational games (EG) for 40%. Surprisingly, the vast bulk of articles reports on improving English proficiency through flipped classroom.

From the three themes, educational games were the least investigated theme that combines with flipped classroom. This shows that a gap of study in this research. Another gap that is found in this research is, there is no peer-reviewed research that combines all three themes together in the recent years. Based on the review of articles collected, a conceptual framework around the was developed as in Figure 1 around the three main variables of the study with the dependent variable being improving English Proficiency.

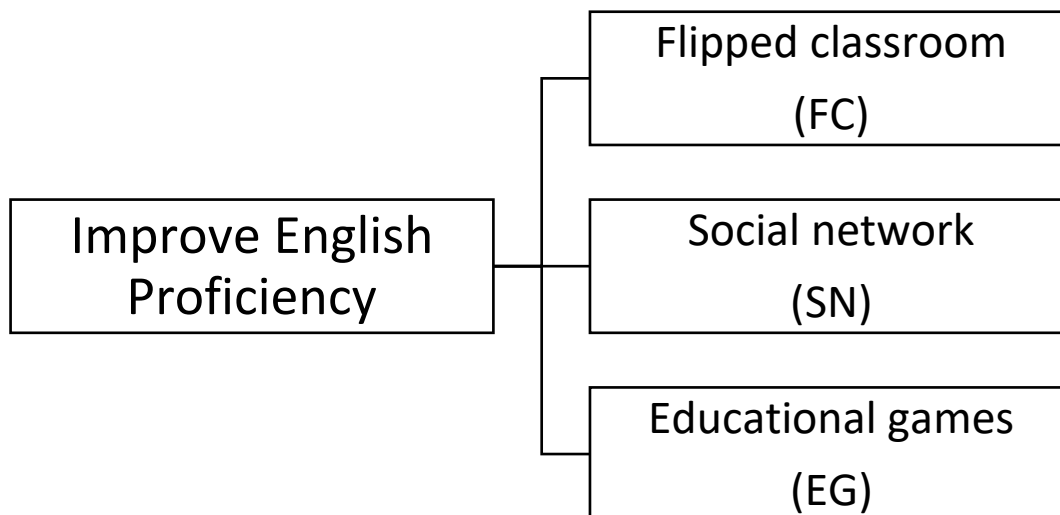


Figure 1. Conceptual Framework of the Study on Factors Contributing to English Proficiency

Way Forward

Based on the gaps found in this critical review, we proceed to developing an instrument as provided in Appendix 1 to measure the enhancement of English proficiency: 1) in flipped classroom, 2) proficiency in flipped classroom with social network and 3) in flipped classroom with educational games. The instrument consists of questionnaire related to this critical review and was content validated by education expert. A pilot test and reliability test will be conducted to ensure that this instrument is valid and reliable.

Conclusion

The main result of the critical review was the discovery of two gaps in the literature. These were (i) the absence of flipped classroom with both social network and educational games combined in an article, (ii) the absence of peer-reviewed articles on flipped classroom with both social network and educational games and (iii) to improve the questionnaire instrument to look more professionalised. Even if one information gap would be a sufficient basis for conducting a study, the accumulation of two increases the need for additional studies. The identification of these gaps paved the way for further research on this topic, particularly where further research is needed on improving English proficiency by using flipped classroom with social network and educational games that will provide proven results.

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References

- Ang, J. (2021). Asian countries with the highest and lowest English proficiency. *Human Resources Online*. <https://www.humanresourcesonline.net/asian-countries-with-the-highest-and-lowest-english-proficiency>
- Akdemir, O., Bicer, D., & Parmaksız, R. S. (2015). Prospective teachers information and communication technology metaphors. *World Journal on Educational Technology*, 7(1), 9-21.
- Bambang, S. (2020). *Teaching English as a Foreign Language*. Yogyakarta: Graha Ilmu
- Bas, S. (2010). Effects of Multiple Intelligences Instruction Strategy on Students' Achievement Levels and Attitudes Towards English Lesson. *Cypriot Journal of Educational Sciences*, 5, 167-180.
- Betihavas, V., Bridgman, H., Kornhaber, R., Cross, M. (2016). The evidence for "flipping out": a systematic review of the flipped classroom in nursing education. *Nurse Education Today* 38, 15–21. doi: 10.1016/j.nedt.2015.12.010
- Boyle, E., Connolly, T. M., Hailey, T. (2011). The role of psychology in understanding the impact of computer games. *Entertainment Computing*, 2(2), 69–74.
- Dicheva, D., Dichev, C., Agre, G., Angelova, G. (2015). Gamification in education: A systematic mapping study. *Educational Technology & Society*, 18(3), 1–14.
- Duncan, D., Barczyk, C. (2016) "Facebook's Effect on Learning in Higher Education: An Empirical Investigation," *Information Systems Education Journal*, vol. 14, no. 3, pp. 14–28
- Gee J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment*, 1(1), 20–20.
- Guzzo, R. A., S. E. Jackson, R.A. Katzell (1987) Meta-analysis analysis. *Research in Organizational Behavior*, 1987. 9: p. 407-442.
- Jo, J., Jun, H., Lim, H. (2018). A comparative study on gamification of the flipped classroom in engineering education to enhance the effects of learning. *Computer Applications in Engineering Education*, 26(5), 1626–1640.
- Landers, R. N., Callan, R. C. (2011). Casual social games as serious games: The psychology of gamification in undergraduate education and employee training. In Ma M., Oikonomou A., Jain L. C. (Eds.), *Serious games and edutainment applications* (pp. 399–424). Springer.
- Losup, A., Epema, D. (2014). An experience report on using gamification in technical higher education. In *SIGCSE '14 proceedings of the 45th ACM technical symposium on computer science education* (pp. 27–32). <https://doi.org/10.1145/2538862.2538899>
- Popenoe, R., Eklof, A. L., Stenwall, E. & Jervaeus, A. (2021). A practical guide to data analysis in general literature reviews. *Nordic Journal of Nursing Research*.
- Shujun, H. (2022). Flipped classroom: Challenges and benefits of using social media in English language teaching and learning, *Frontiers in Psychology*. doi:10.3389/fpsyg.2022.996294
- Strayer, J. F. (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research*, 15(2), 171–193.
- Toto, R., & Nguyen, H. (2009). Flipping the work design in an industrial engineering course. ASEE/IEEE Frontiers in Education Conference. San Antonio, TX

Tsay C. H. H., Kofinas A., Luo J. (2018). Enhancing student learning experience with technology-mediated gamification: An empirical study. *Computers & Education*, 121, 1–17.

Tucker, B. (2012). The flipped classroom. *Education Next*, 12(1), 82-83.