



Flipping EFL Classes in Higher Education: A systematic Review

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Review Article

Abstract

Flipped learning as an innovative method has recently been widely used in EFL classes. Although there is an abundance of individual studies, there remains a need for systematic reviews to better understand this approach. This systematic review aimed to examine the advantages and challenges of flipped learning in tertiary level EFL classes via reviewing and analysing 27 articles indexed in EBSCOhost, ERIC, and WOS databases carried out between 2020 – 2022, which is the period after the breakout of the coronavirus pandemic. Identification, screening, eligibility, and inclusion steps are followed during the article selection process and the selected articles are analysed via content analysis. The findings of the study showed that the main advantages of flipped learning are improving language skills, fostering learning outcomes, self-regulated learning, engagement, flexibility, motivation, interaction, outside class learning, technology-based learning and increasing practice time. The main challenges are additional workload, need for instructor's lecture and insufficient quality of lecture videos. Type of technology used for flipping and themes of the studies were also identified.

Keywords: flipped learning, flipped class, higher education, instructional design, English as a Foreign Language (EFL)

1. Introduction

With the innovative idea of incorporating technology assisted learning into classroom teaching to enhance student engagement and performance outcomes, flipped learning (hereafter FL) has become a prominent pedagogical approach in higher education within the last ten years (Bredow et al, 2021). FL approach can simply be defined as the presentation of reverse ordered instructional activities where instruction is given via an online component outside classrooms and meaningful practice is carried out in classrooms (Bergmann & Sams, 2012; Lo et al., 2018). The idea behind FL is making more time for higher order thinking activities such as discussions, projects, presentations, problem-solving tasks by enabling students to cover course input before class time via watching videos or doing some reading etc.

As a learner-centred active learning approach, FL has been utilized in English language teaching in many EFL settings (Lin, & Hwang, 2018; Wang & Wright, 2018; Zou & Xie, 2019, Turan & Akdag-Cimen, 2020; Rad et al., 2021). Language learning demands a considerable amount of time and effort from

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learners; however, time spent in language classrooms is limited. With the affordances of FL in ELT, students can not only study lecture materials in a time and place of their own choosing, within their own pace, but also obtain more opportunities to benefit from engaging activities in classrooms (Lai & Hwang, 2016; Chen et al., 2017). FL enhances performance outcomes of students (Rad et al., 2021), fosters interactive and dynamic learning (Chuang et al., 2018), learner autonomy (Han, 2015), and motivation (Chen et al., 2017) in EFL classes.

Although the literature focusing on the use of FL is growing, there is a need for extensive research regarding the application of FL in English language teaching. The present body of systematic review of research in literature within the field (Shahnama et al. 2021; Turan & Akdag-Cimen, 2020) is scarce. There are almost no systematic reviews which specifically focus on flipping EFL classes in higher education. The current study aims to examine the advantages and challenges of FL in tertiary level EFL classes via reviewing and analysing previous up to date research indexed in specific databases carried out between 2020 – 2022. This systematic review will bring about new insights for policymakers and teachers who plan to integrate a novel approach like FL into their curriculum. It will suggest new topics to study for researchers interested in FL.

2. Literature Review

2.1. Flipped Learning

Flipped learning is a pedagogical approach where learners get direct instruction outside the classroom with the help of educational technologies, and they are exposed to meaningful, interactive, dynamic, and engaging activities that replace lectures within the classrooms (Flipped Learning Global Initiative, 2022). Instructors provide learners with video lectures, slides, podcasts, documents, and other materials on digital platforms such as learning management systems where these sources are organized in files for students' immediate access. While preparing with these sources, students deal with lower levels of cognitive processes ("LOTS – remembering, understanding, applying") based on the revised Bloom's taxonomy of educational objectives which is a six-category framework of critical thinking where FL has its roots. (Birgili & Demir, 2021; Bloom et al., 1956, Krathwohl, 2002). In this way, teachers and students can allocate the class time for co-engaging in higher order thinking activities in taxonomy ("HOTS – analysing, evaluating and creating").

Flipped learning is viewed as a sub-type of blended learning. Blended learning is known for incorporating both online and face-to-face learning approaches in one instructional design (Hoic-Bozic et al., 2009). Lately, adoption of blended learning approach has been on the rise since it combines the strengths of both face-to-face and online learning (Alrouji, 2020). Other affordances of blended learning can be listed as fostering learner autonomy, improving student performance, and increasing interaction through computer mediated communication (Yen et al., 2018).

Flipped learning as an instructional method was initially used by two high school chemistry teachers Jonathan Bergman and Aron Sams as a way of providing technology enhanced tools such as screencasts and podcasts for self-study before their chemistry lessons (Bergmann & Sams, 2012). They claimed that flipped chemistry classroom increased students' enthusiasm towards the course. Since then, many other fields have utilized the FL method. Lo and Hew (2020) used a research-based design to conclude that students in the flipped mathematics classroom performed significantly better than the traditional class in their post-test. They emphasized the effect of course design factors on the effectiveness of FL such as using gamification in online assignments, presenting complicated subjects in face-to-face classes, encouraging peer-interaction via problem-solving group activities. Hwang et al. (2021) used a quasi-experimental design to measure the effectiveness of the type of FL designs in an elementary science course. The results showed that the students in the concept map-guided problem-posing strategy for FL group outperformed both the conventional control group and the second experimental group using the

problem-posing strategy-based FL. Al Mamun et al. (2021) made a systematic review of FL research in engineering from 2013-2020. They emphasized that FL model was effective in dealing with the challenge of complex pedagogical applications in engineering education.

2.2. *Flipped Learning in EFL Classes*

A great deal of research regarding the use of FL in the field of English as a foreign language education (EFL) has been done. Several researchers have investigated the usefulness of FL model in EFL grammar instruction (Webb & Doman, 2016; Al Naabi, 2020; Bulut & Kocoglu, 2020; Rad, 2021). They suggest that this model strengthens students' grammar skills and has a positive impact on learners' understanding of English grammar. As a result of their explanatory sequential mixed-method study, Bulut & Kocoglu (2020) mentioned one affordance of pre-class component of flipping stating that recorded grammar lectures enabled students to watch the videos in the time and place of their own choosing by pausing or replaying. The researchers added that the online quizzes that were given as follow ups for the videos had also been helpful in learning grammatical structures before the lesson. In addition to grammar, Zarinfard et al. (2021) examined the impacts of FL strategy on promoting the vocabulary knowledge of EFL learners with a quasi-experimental design in comparison to traditional instruction. The participants' level of achievement measured via grammar and vocabulary pre-tests and post-tests revealed that the flipped group did significantly better than the control group with a larger effect size in the vocabulary component of the post-test.

Many researchers have investigated the effectiveness of flipping EFL writing courses and have come up with flipped group students' increased writing performances and positive perceptions towards the model (Abedi et al., 2019; Zou & Xie, 2019; Fathi & Rahimi, 2020; Arifani et al., 2020; Rad et al., 2021; Umutlu & Akpinar 2020; Alghasab, 2020; Challob, 2021; Altas & Mede 2021; Su Ping et al., 2020; Webb & Doman, 2020). Rad et al. (2021) used a mixed method design to investigate the usefulness of two different flipped classroom designs, "discussion-oriented" and "role-reversal", on EFL students' expository writing abilities. The results revealed that role reversal FL method, in which students created videos and engaged in collaborative writing activities, enhanced the expository writing skills of the EFL learners. Webb & Doman (2020) examined the effects of FL in writing classes on learner perceptions in three contexts, Columbia, the USA, and Macau. Their findings revealed that students of flipped classrooms had more positive attitudes towards the model over time. They concluded that flipping writing classrooms could be a useful method in differing contexts.

Many other studies have investigated the impact of FL model on the speaking skills of EFL learners and they suggest that flipped speaking instruction creates more opportunities to practice foreign language speaking skills which are not easy to improve (Li & Suwanthep, 2017; Roohani & Etemadfar, 2021; Abdullah et al., 2020; Chen & Hwang, 2020; Jiang et al., 2021; Chang & Lan, 2021). Lin and Mubarak (2021) made use of artificial intelligence (AI) technology in the form of AI chatbots both during the class time and outside to increase EFL students' speaking practice time. The results revealed that mind-map regulated AI based flipped speaking instruction has improved students' speaking performances.

Compared to speaking and writing skills, there seems to be a relatively smaller number of studies which use FL to improve reading and listening skills of EFL learners (Abaeian & Samadi, 2016; Etemadfar et al. 2020; Samah & Saka, 2016; Samiei and Ebadi, 2021). Samiei and Ebadi (2021) used a mixed-methods approach in exploring the effects of the WebQuest-supported FL on the EFL learners' inferential reading comprehension skills in an IELTS (an international English language proficiency exam) course. The results revealed that students communicated more deeply with the reading texts and fostered their critical thinking skills via flipped reading instruction. Etemadfar et al. (2020) investigated the effects of flipped classrooms on enhancing Iranian EFL learners' listening comprehension in an IELTS course. The flipped group used Telegram messaging application for communication and sharing audios and videos in English. Students were given the listening materials before the class and asked to participate in group discussions

regarding the topics in the materials. The results showed that flipped listening instruction had potential in terms of fostering students' both listening comprehension and critical thinking skills.

Not all the studies have yielded results in favour of FL and some challenges of this approach exist (Turan & Akdag-Cimen, 2020). Additional workload for students and instructors (Yang, 2017) and connection and technology use problems (Egbert et al., 2015) can be mentioned among these issues. Jalili et al. (2020) made use of mobile assisted technologies, namely Telegram and Socrative tools, for online interaction and formative assessment respectively to enhance the participants' EFL vocabulary knowledge. Yet, the results indicated that flipping was not beneficial for vocabulary instruction. The researchers claimed that this was because of insufficient training of teachers to manage flipped classes and many students were not very willing to get prepared for or take part in activities because they pondered the final grade was more significant than engagement. Although there have been such negative results related to flipping EFL classrooms, in general, previous research has yielded abundant positive outcomes about the effectiveness of FL in EFL contexts. The present study aimed to seek answers to the following research questions:

RQ1. What are the qualities (publication year, research design, country, participants, type of technology used, theme) of the studies on flipping EFL classes in higher education?

RQ2. What advantages of flipping EFL classes in higher education are discussed in the reviewed studies?

RQ3. What challenges of flipping EFL classes in higher education are discussed in the reviewed studies?

3. Methodology

3.1. Article Selection Process

Systematic literature review follows a detailed and highly organised path while including and excluding the articles to be reviewed (Kowalczyk & Truluck, 2013). This study uses the systematic literature review method based on the specific research questions following the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) 2020 guidelines. The PRISMA guidelines followed, the article "identification, screening, eligibility, and inclusion" steps, are as follows:

Stage 1: Identification Stage

The articles were selected depending on the predetermined standards. The databases used for the current systematic review were Education Resources Information Centre (ERIC), Web of Science (WOS) and Academic Search Ultimate (EBSCOhost) because they are among the comprehensive databases for the social sciences (Taylor et al., 2003). Since an up-to-date review was aimed, the articles were to be published between 2020 – 2022, which was the period after the breakout of the coronavirus disease (COVID-19) pandemic. Table 1 displays the keywords used to search the articles for the review through the abovementioned search engines. The focus of this stage was to list the articles that were about flipping EFL classes.

Table 1.

Keywords utilized to locate the articles to be reviewed.

| Databases | Keywords |
|-----------|---|
| WOS | (((((TS=(flipped classroom)) OR TS=(flipped class)) OR TS=(flipped learning)) OR TS=(flipped teaching)) OR TS=(flipped)) AND TS=(EFL) |
| ERIC | TITLE-ABS-KEY (("flipped learning" OR "flipped classroom" OR "flipped instruction" OR "flipped") AND ("EFL")). |
| EBSCOhost | SU flipped learning OR SU flipped classroom OR SU flipped class OR SU flipped instruction OR SU flipped AND EFL |

Next, inclusion and exclusion criteria were used to make sure that the articles selected for review are in line with the purposes of the current systematic review. If the full texts of the articles were unavailable, they were excluded. Table 2 displays inclusion and exclusion criteria for selecting studies to be reviewed.

Table 2.

Criteria for selecting studies.

| Inclusion Criteria | Exclusion Criteria |
|-----------------------------------|-----------------------------------|
| Journal Article | Not a journal article |
| Published in WOS, ERIC, EBSCOhost | Not published between 2020 – 2022 |
| Published between 2020 – 2022 | Not in English |
| In higher education | Not in higher education |
| In EFL contexts | Not in EFL contexts |
| About flipping classes | Not about flipping classes |

Stage 2: Screening Stage

Following the identification stage, the collected articles were screened. First, duplicates were extracted. To ensure that the rest of the articles were relevant to the purposes of the study, titles and abstracts were examined (Xiao and Watson, 2019).

Stage 3: Eligibility Stage

In addition to conforming to the other criteria for inclusion, only the articles with full texts were eligible for the study. Full texts of the selected articles were downloaded and filed.

Stage 4: Exclusion Stage

If full texts were not within reach, those articles were excluded since they would not add value to the review without detailed inspection and understanding of the studies. Moreover, systematic reviews, meta-analyses, book chapters, conference proceedings were excluded. Articles not published in English or not in years between 2020 – 2022 were removed. In line with the research question, articles which were not about flipping EFL classes in higher education were excluded. Eventually, 27 articles that conform to all the criteria were included in the systematic review. Figure 1 is the flow chart summarizing the article selection process.

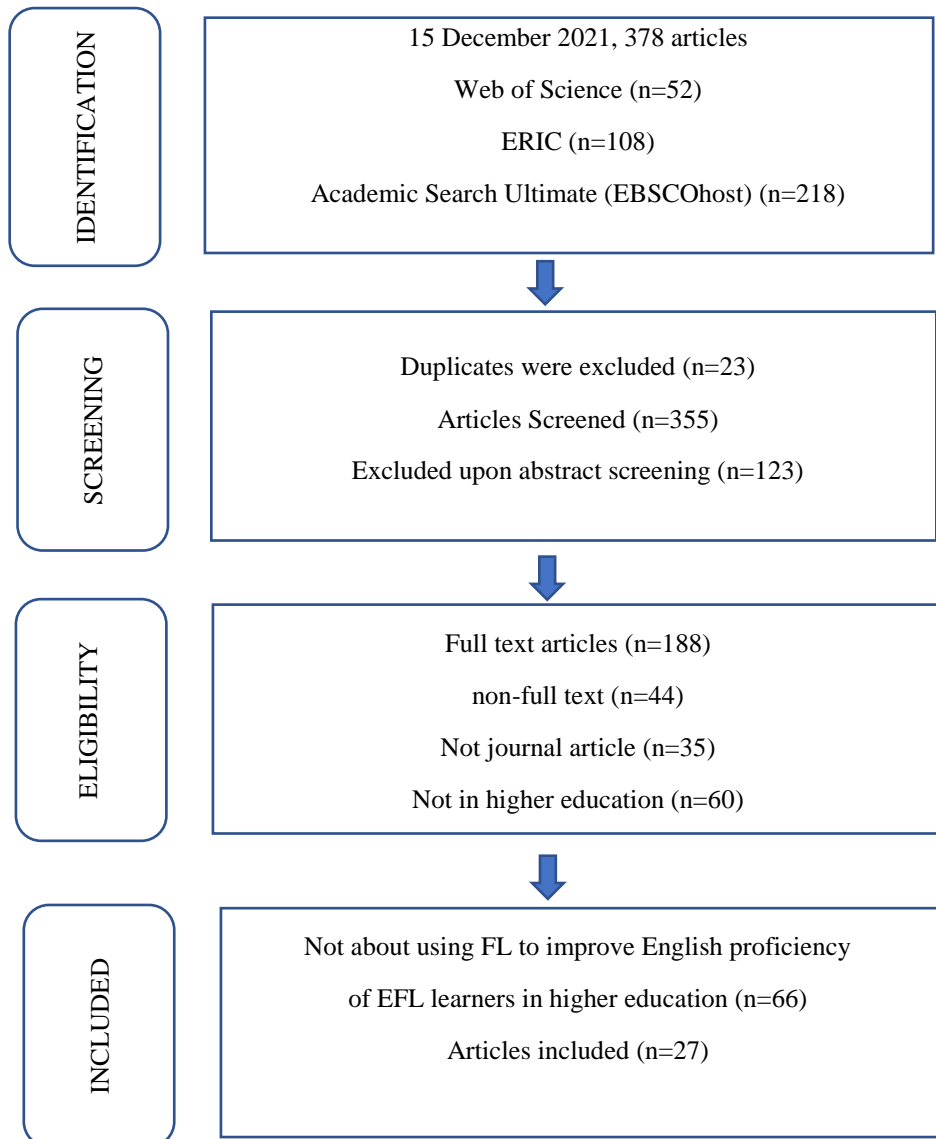


Figure 1. Article selection process for the present systematic review.

3.2. Data Analysis

In order to extract data from the studies, content analysis was carried out. Content analysis is a research method that enables researchers to draw replicable conclusions through analysing and quantifying verbal or visual data (Fraenkel & Wallen, 2000). Regarding the first research question, to identify the qualities of the reviewed articles the following data were coded: publication year, research design, country, participants, type of technology used, and theme(s) of the studies. For the second and third research questions, data were read, and each advantage and challenge of FL was labelled with a code as they emerged in the data. Data were re-read considering the meaning units. Based on these meaning units, themes and were identified (Graneheim & Lundman, 2004).

4. Results

4.1. Qualities of the reviewed studies on flipping EFL classes in higher education

Table 3.

Qualities of the reviewed studies (author, year, country, research design, number of participants and theme).

| No | Author(s) | Year | Country | Research Design | N | Theme(s) |
|-----|--------------------|-------|-----------|-----------------|-----|---------------------------------------|
| 1. | Abdullah et al. | 2020 | Oman | Mixed Methods | 27 | Speaking, anxiety |
| 2. | Akayoğlu | 2021 | Turkey | Mixed Methods | 58 | Perceptions |
| 3. | Alghasab | 2020 | Kuwait | Mixed Methods | 30 | Writing |
| 4. | Al-Naabi | 2020 | Oman | Mixed Methods | 28 | Grammar |
| 5. | Altas & Mede | 2021 | Turkey | Quantitative | 55 | Writing, achievement, self-regulation |
| 6. | Bulut & Kocoglu | 2020 | Turkey | Mixed Methods | 39 | Grammar, achievement |
| 7. | Challob | 2021 | Iraq | Qualitative | 15 | Writing, self-regulation |
| 8. | Chang & Lan | 2021 | China | Mixed Methods | 38 | Speaking |
| 9. | Chatta & Haque | 2020 | Saudi A. | Mixed Methods | 163 | Writing |
| 10. | Chen & Hwang | 2020 | Taiwan | Quantitative | 72 | Speaking |
| 11. | Chou | 2020 | Taiwan | Mixed Methods | 110 | Achievement, perceptions |
| 12. | Djamaa | 2020 | Algeria | Quantitative | 384 | Achievement |
| 13. | Fathi & Rahimi | 2020 | Iran | Quantitative | 51 | Writing |
| 14. | Ho | 2020 | China | Mixed Methods | 50 | Gamified learning, motivation |
| 15. | Husnawadi | 2021 | Indonesia | Mixed Methods | 30 | Perceptions, writing |
| 16. | Jiang et al. | 2021 | China | Quantitative | 160 | Speaking |
| 17. | Lin & Mubarak | 2021 | Taiwan | Quantitative | 50 | Speaking |
| 18. | Ma & Luo | 2021 | China | Mixed Methods | 471 | Perceptions |
| 19. | Öztürk & Çakıroğlu | 2021 | Turkey | Quantitative | 49 | Self-regulation, achievement |
| 20. | Su Ping et al. | 2020 | Malaysia | Qualitative | 18 | Writing, perceptions, self-regulation |
| 21. | Shih & Huang | 2020a | Taiwan | Qualitative | 63 | Metacognitive skills |
| 22. | Shih & Huang | 2020b | Taiwan | Qualitative | 8 | Metacognitive skills, grammar |
| 23. | Tsai | 2021 | Taiwan | Mixed Methods | 124 | Self-regulation |
| 24. | Umutlu & Akpınar | 2020 | Turkey | Quantitative | 127 | Writing, achievement |
| 25. | Wu et al. | 2021 | Taiwan | Mixed Methods | 48 | Reading, writing |
| 26. | Wu et al. | 2020 | Taiwan | Mixed Methods | 48 | Writing, motivation |
| 27. | Yoon & Kim | 2020 | Korea | Quantitative | 70 | Speaking |

Table 3 summarizes the qualities of the reviewed studies on flipping EFL classes in higher education in terms of publication year, research design, country, number of participants, and theme(s) of the studies. The present study reviewed 27 articles on flipping EFL classrooms in higher education selected through PRISMA guidelines and pre-determined inclusion criteria based on the investigated research questions. The cut-off date for article selection was December 15, 2021. Out of 27 studies, 16 of them were published in 2020, whereas 11 of them were published in 2021. This shows a moderate decrease in the number of studies in the related field. Table 4 displays the number of reviewed studies per publication year.

Table 4.

Number of the reviewed studies per publication year.

| Year of Publication | N |
|---------------------|----|
| 2020 | 16 |
| 2021 | 11 |

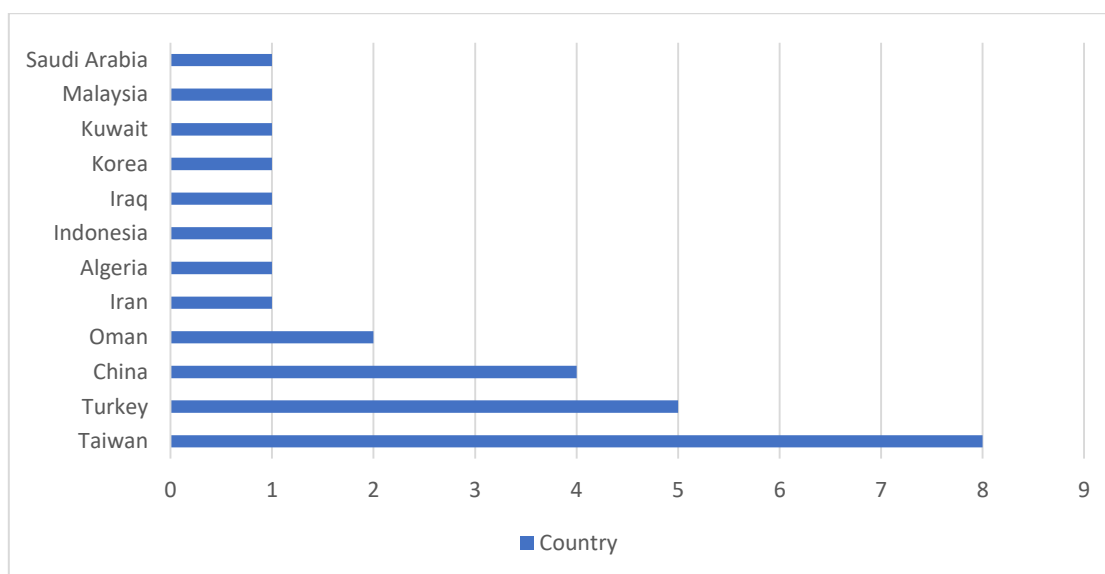
The reviewed articles were also categorized by the type of the research method used. Out of 27 studies, 9 of them used quantitative, 4 of them used qualitative and 14 of them used mixed methods research method designs. This distribution shows that most used research method is mixed methods, and the least commonly used type is qualitative research method. Table 5 displays the number of reviewed studies based on research design.

Table 5.

Number of the reviewed studies based on research design.

| Research Method | N |
|-----------------|----|
| Mixed Methods | 14 |
| Quantitative | 9 |
| Qualitative | 4 |

This systematic review investigates particularly the studies carried out in EFL classrooms in higher education institutions. The country settings of the reviewed studies differ geographically, mostly in Taiwan (n=8), Turkey (n=6), and China (n=4). This reveals that implementation of FL in EFL classrooms is not uncommon in higher education institutions located in Asia. Figure 2 displays the countries where the reviewed studies were carried out.

**Figure 2.** Countries where the reviewed studies were carried out

The participants of the reviewed studies were mostly undergraduate university students (n = 22) since the systematic review includes studies carried out in flipped EFL classrooms in higher education. A small number of the participants were pre-service teachers (n = 3) and graduate students (n = 2). Participants were at differing levels of English proficiency, yet they were all studying English as a foreign language. The age of the participants ranged between 18 – 26. Table 5 shows the educational level of the participants in the reviewed studies.

Table 6.

Educational background of the participants in the reviewed studies.

| Participant Types | N |
|--------------------------|----------|
| Undergraduate students | 22 |
| Pre-service teachers | 3 |
| Graduate students | 2 |

A range of technological tools were used by the reviewed studies. Table 6 shows the type and frequency of the technology used in flipping EFL classrooms in higher education. The most used type of technology was video lectures (n = 16). Among the videos there were TedTalks, which are presentation videos, teacher recorded videos, YouTube videos (some were edited and validated by teachers), question embedded videos made by EdPuzzle which is a video editing software. Learning Management Systems (LMS) (n = 15) were the second most common technology implemented in the reviewed studies. The LMS programs utilized in the studies were Moodle, Sakai, Edmodo, Blackboard, Unipus, Schoology, and Google classrooms. They were mainly used for communication, discussions, uploading digital materials, assignments, and lecture videos. Digital reading materials (n = 11) and online exercises and quizzes (n = 9) were also used quite commonly. Some technologies were preferred by researchers who focus on specific research areas. For instance, AI chatbot, automatic speech recognition technology, voice-recording technology were preferred by the studies focused on improving students' speaking skills; whereas collaborative writing tools and e-journals were preferred for flipped writing instruction. Table 7 summarizes the type and frequency of the technology used in flipping classes in the reviewed studies.

Table 7.

Frequency of the type of technology used in flipping classes.

| Type of technology | Frequency |
|---|------------------|
| Video lectures | 16 |
| Learner Management System (LMS) | 15 |
| Digital reading materials | 11 |
| Online exercises and quizzes | 9 |
| Power Point Presentations (PPT) | 9 |
| social network sites | 5 |
| online discussion / chatting tools | 5 |
| collaborative writing tools | 2 |
| Podcasts | 2 |
| Online messaging tools | 2 |
| Digital drawing software | 1 |
| WebQuests | 1 |
| E-journals | 1 |
| Digital gamified exercises | 1 |
| AI chatbots | 1 |
| Automatic speech recognition (ASR) technology | 1 |
| Mind mapping software | 1 |
| Learner Response System (LRS) | 1 |

The themes of the reviewed studies were analysed. The widely studied theme was writing (n =10), followed by speaking (n = 6), achievement (n = 6) and perceptions (n = 5) and self-regulation (n = 5). Table 8 displays the themes of the reviewed studies and their frequencies.

Table 8.

Frequency of the theme of the reviewed studies.

| Theme | Frequency |
|----------------------|-----------|
| Writing | 10 |
| Speaking | 6 |
| Achievement | 6 |
| Perceptions | 5 |
| Self-regulation | 5 |
| Grammar | 3 |
| Metacognitive skills | 2 |
| Motivation | 2 |
| Reading | 1 |
| Anxiety | 1 |
| Gamified learning | 1 |

4.2. Advantages of flipping EFL classes in higher education

Table 9 lists the advantages of flipping EFL classes in higher education, frequencies of these advantages among the reviewed studies and sample studies. According to the results, the most common advantage of FL in EFL classes is improving language skills (n = 17). Among the language skills while writing (n = 11) and speaking (n = 6) are widely studied, studies focusing on flipping grammar (n = 3), reading (n = 3) classes are fewer. Other major advantages of FL are fostering learning outcomes (n = 14), enhancing self-regulated learning (n = 11), increasing engagement (n = 11), increasing flexibility (n = 11).

Table 9.

Advantages of flipping EFL classes in higher education.

| Advantages | Frequency | Sample Study |
|-------------------------------------|-----------|---------------------------|
| Improving language skills | 17 | Öztürk & Çakıroğlu (2021) |
| writing (n = 10) | | Altas & Mede, 2021 |
| speaking (n = 5) | | Lin & Mubarak, 2021 |
| grammar (n = 3) | | Bulut & Kocoglu, 2020 |
| reading (n = 3) | | Wu et al., 2021 |
| Fostering learning outcomes | 14 | Umutlu & Akpınar (2020) |
| Enhancing self-regulated learning | 11 | Tsai, 2021 |
| Increasing engagement | 11 | Ho 2020 |
| Increasing flexibility | 11 | Shih & Huang 2020b |
| Enhancing motivation | 7 | Wu et al. 2020 |
| Enhancing interaction | 7 | Abdullah & Ismail (2020) |
| Increasing outside class learning | 7 | Abdullah et al. (2020) |
| Promoting technology-based learning | 7 | Chang & Lan 2021 |
| Increasing practice time | 7 | Lin & Mubarak 2021 |
| Increasing active learning | 5 | Bulut & Kocoglu, 2020 |
| Increasing pre-class preparation | 5 | Wu et al. 2021 |
| Increasing student satisfaction | 5 | Akayoğlu 2021 |
| Providing personalized learning | 5 | Chang & Lan 2021 |
| Decreasing anxiety | 5 | Chen & Hwang, 2020 |
| Fostering metacognitive skills | 2 | Shih & Huang (2020a) |

4.3. Challenges of flipping EFL classes in higher education

Table 10 lists the challenges of flipping EFL classes in higher education, frequencies of these drawbacks among the reviewed studies and sample studies. The most prominent challenge of FL is additional workload (n = 5). Other challenges are need for instructor's lecture (n = 2), insufficient quality of lecture videos (n = 2). It is also important to note that more than half of the reviewed articles did not investigate the challenges of FL.

Table 10.

Challenges of flipping EFL classes in higher education.

| Challenges of FL | Frequency | Sample Study |
|--|-----------|-----------------------|
| Additional workload | 5 | Ma & Luo (2021) |
| Need for instructor's lecture | 2 | Husnawadi (2021) |
| Insufficient quality of lecture videos | 2 | Al-Naabi (2020) |
| Being cognitively demanding | 1 | Husnawadi (2021) |
| Being time consuming | 1 | Yoon & Kim (2020) |
| Ineffectiveness | 1 | Su Ping et al. (2020) |

5. Discussion

The present systematic review investigated the advantages and challenges of FL in tertiary level EFL classes via reviewing and analyzing 27 articles indexed in specific databases carried out between 2020 – 2022. Initially, the qualities of the reviewed articles were examined in terms of publication year, research design, countries where studies are carried out, participants, type of technology used for flipping classes, and main theme(s) of the studies. Second, benefits of FL discussed in the reviewed studies, their frequencies and sample articles were identified. Third, challenges of FL discussed in the reviewed studies, their frequencies and sample articles were analyzed.

The initial research question revealed the qualities of the reviewed studies in terms of several aspects, each of which will be discussed respectively. First, the analysis of the publication years showed that more studies were published in 2020 compared to 2022, which shows that flipping EFL classes is no longer a rising trend in higher education. This result contradicts the finding of Turan & Çimen (2020) since they detected a rising trend in the implementation of FL in English language teaching between the years 2014 and 2020. This difference may be attributed to the fact that 2020 was the year the coronavirus pandemic started, and the universities had to rapidly transform their instructional designs. This decline may also be due to the challenges experienced in FL such as additional workload as identified by both the present study and other reviews in the field (Arslan, 2020; Turan & Çimen, 2020).

Second, the analysis of the research designs of the reviewed studies showed that most commonly used research design in flipping tertiary level EFL classes was mixed methods, which was followed by quantitative method. This shows a rising trend in favour of mixed methods research design in the related literature. This may be due to the affordance of mixed methods design in that it incorporates the strengths of both quantitative and qualitative methods (Creswell, 2014, p. 50). The preference for the quantitative methods can be explained by the need to compare traditional classrooms and flipped classrooms in terms

of many aspects such as learning outcomes, linguistic skills, engagement, or self-regulation of students. As observed by other reviews on FL (Bond, 2020; Santhanasamy & Md, 2022) there is a need for more qualitative research in FL since it is the least utilized research design in the field.

Third, the analysis of the countries where the reviewed studies carried out revealed that most of these countries were Asian. Considering that this systematic review included the studies carried out in EFL settings, this finding is meaningful. Taiwan was the prominent country in terms of the number of studies on FL that took place there. This result is in line with the previous studies (Bond, 2020; Turan & Çimen, 2020).

Fourth, the sample of the present systematic review was university students, most of whom were undergraduates. The previous reviews also show that university students comprise the bulk of the participants in the studies on FL (Arslan, 2020; Lo et al., 2017, Santhanasamy & Md, 2022). The reason for this may be that university students might be viewed as more likely to be autonomous compared to K-12 students. Another reason might be the convenience of reaching university students because

The types of technology used for flipping EFL classes were reviewed. The most common type of technology used by researchers was video lectures. This was also reported by previous reviews in the field (Bond, 2020; Lo et al., 2017). Some of these videos were developed or edited by the teachers (Umutlu & Akpınar, 2020; Al-Naabi, 2020) or taken from YouTube or TED-Ed which are video-sharing platforms (Fathi & Rahimi; 2020). Al-Naabi (2020) explained the reason for designing their own videos and stated that YouTube videos were not suitable for the level of their participants, or they included irrelevant or unclear exercises or examples. The other commonly used type of technology was LMS. Santhanasamy & Md (2022) came up with a similar finding and explained that LMS could help students access the digital class materials conveniently improving learners' self-regulation skills along the way. In addition, the analysis of the themes of the reviewed studies revealed that writing classes were the most flipped classes in EFL education. Learning writing is a challenging task for learners since learners need to possess lexical, syntactical, organizational and mechanical knowledge and abilities (Brown, 2007, p. 87). Especially writing in a foreign language is more demanding. Finding alternative ways via using technology, as in FL, to improve writing lessons may be the reason underlying this finding.

The second research question revealed the advantages of flipping EFL classes in higher education. One of the most common advantages of FL is improving language skills such as writing, speaking, reading, listening and grammar (Altas & Mede, 2021; Bulut & Kocoglu, 2020 Lin & Mubarak, 2021 Öztürk & Çakıroğlu, 2021; Wu et al., 2021). This finding has support from the previous research (Arslan, 2020; Buitrago & Díaz, 2017; Lo et al., 2017; Teng, 2017; Turan & Çimen, 2020). Among the language skills, improving writing skills is the most common benefit of FL. Quvanch & Kew (2020) systematically reviewed the articles published between 2010 – 2020 and found out that blended learning approach, which also includes FL approach, was effective in improving students' writing skills. The other language skill improved by FL is speaking. This finding is also supported by previous research. Santhanasamy & Md (2022) reviewed 39 studies between 2017 – 2020 on flipped English language classes and emphasized that FL improved speaking skills of students.

Two other advantages of flipping EFL classes is fostering learner outcomes and motivation (Alghasab, 2020; Altas & Mede, 2021; Chou, 2020; Djamaa, 2020; Öztürk & Çakıroğlu, 2021; Umutlu & Akpınar, 2020). The post-test results in these studies proved that students improved their achievement compared to their pre-test scores and improving their achievement may increase their motivation towards learning. Enhancing learner achievement was previously identified by Santhanasamy & Md (2022) and Turan and Çimen (2020) as an advantage of FL. Enhancing self-regulated learning is another advantage of FL (Altas

& Mede, 2021; Challob, 2021; Öztürk & Çakıroğlu, 2021; Su Ping et al., 2020; Tsai, 2021). This finding is parallel to three other advantages of FL, which are increasing outside class learning, pre-class preparation, flexibility, and personalized learning. While studying with the materials or on the projects assigned as outside classwork in FL in their own time and place, students learn to manage their own learning and become more self-regulated (Arslan, 2020). They can study the lectures and notes in their own pace, which enhances personalized learning. Other advantages of FL are increasing interaction, engagement, active learning, and practice time (Abdullah et al., 2020; Chang & Lan, 2021; Chen & Hwang, 2020; Ho, 2020; Lin & Mubarak, 2021; Umutlu & Akpınar, 2020). With the affordance of FL, class time can be used for practice and interaction instead of lectures. In this way, engagement of students increases because they can actively participate in class activities and communicate with their peers and teachers instead of listening to lectures passively. Besides, assignments also increase student engagement and interaction with materials or peers outside class (Arslan, 2020; Turan & Çimen, 2020). Promoting technology-based learning is listed as another benefit of FL (Chang & Lan, 2021). While flipping classes, integration of various types of technologies such as videoclips, LMS, online exercises and quizzes, chatbots promote technology-based learning. For instance, in the study by Jiang et al. (2021) students made use of automatic speech recognition technology to improve their speaking skills. Making use of technology to improve their speaking and finding more practice opportunities helped decrease the anxiety level of students. Decreasing anxiety as a benefit of FL is also supported by other studies (Abdullah et al., 2020, Lin & Mubarak, 2021; Santhanasamy and Md, 2022).

The third research question revealed challenges of FL in tertiary level EFL classes. Based on the reviewed studies, the main challenge of FL is additional workload. Umutlu & Akpınar (2020) and Al-Naabi (2020) emphasized the additional workload for teachers created by preparing videos. Ma & Luo (2021) mentioned the extra workload for students because of the need for pre-class preparation by watching videos or doing assignments. This finding is supported by the other reviews in the related literature (Arslan, 2020; Turan & Çimen, 2020). Although preparing videos take a lot of time, some students found watching lecture videos time-consuming (Su Ping et al.; 2020) and they complained about the insufficient quality of the videos (Al-Naabi; 2020). Husnawadi (2021) revealed that students found pre-class preparation cognitively demanding and they still needed instructor's lecture after watching the lecture videos. As a suggestion the researchers offered that instructors can summarize the main points in the video lectures for clarification and better understanding. The results of one study did not yield effective outcomes in terms of flipped learning (Yoon & Kim, 2020). In fact, no significant difference was found between the outcomes of flipped and traditional group. Finally, it should be noted that most of the reviewed studies did not discuss any challenges or simply mentioned one or two of them. This result is in line with the finding of Arslan (2020). There is a need for an in-depth discussion of the challenges of FL, carrying out more qualitative studies on flipping EFL might be a solution.

To sum up, although there are several challenges of FL, the advantages highly outweigh the challenges. Considering the immense amount of proof in favor of FL, it can be said that flipping EFL classes in higher education is an effective approach with many affordances.

6. Conclusion

Although there are numerous studies on FL in EFL classes higher education, there is a scarcity of systematic reviews that discuss the effectiveness of FL as an instructional design at a wider level. This study tried to address this gap by reviewing the studies published on flipping EFL classes in higher education between 2020 – 2022 to discuss the advantages and challenges of this approach. Considering the language skills investigated in the studies, writing and speaking were the most common skills. Future studies might focus on flipping EFL reading and listening classes. As the results revealed, the main advantages of FL were improving language skills, fostering learning outcomes, self-regulated learning,

engagement, flexibility, motivation, interaction, outside class learning, technology-based learning and increasing practice time. On the other hand, the main challenges were additional workload, need for instructor's lecture and insufficient quality of lecture videos. This study revealed that the challenges were not adequately discussed in the literature. Future studies might aim to identify the challenges of flipped learning in a wider sense.

This study was not without any limitations. It covered two years and investigated three databases. The systematic review could be widened to cover previous years and other databases for better understanding of the phenomenon. The context was limited to EFL classes in higher education. Therefore, similar studies conducted in other context could yield different results. Solutions to challenges of FL were not discussed, so, discussing solutions to challenges might help paint a whole picture.

To conclude, despite the listed limitations, I am of the opinion that this study contributes to the scarce literature of systematic reviews on flipping EFL classes in higher education by providing valuable insights into the current status of flipped learning, its benefits and challenges in EFL classes at tertiary level, and by guiding future research.

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