# A Flipped Learning Pedagogy: Strengths & Weaknesses

Dinachandra Chingakham

Suryadhep Teachers College, Rangsit University, Thailand
Corresponding author, E-mail: chingakham@yahoo.com

**Abstract**

This paper investigates the strengths and weaknesses of Flipped Learning. The paper reviews the contents of 71 studies and articles on Flipped Learning published in a period from 2010 to 2019. Flipped Learning pedagogy is a student-centered active learning approach, and it uses constructivism-learning theory based on hands-on practical learning. Flipped Learning pedagogy has accelerated its adoption among educators after 2011, and it is even growing faster after 2015. The teaching approach uses modern teaching technology. As the popularity of the method grows, there are more findings on the weakness of Flipped Learning as well. The strength of this teaching approach is suitable for urban and more developed countries where the technical support system is better. Flipped Learning gives benefits to nourish self-directed learning and active learning, create a social environment, collaborative and teamwork with more exposure to different teaching activities with the student-centered learning approach. However, a major weakness of the method is a decrease in achievement test scores from Flipped learning. It also decreases the learners' motivation over a period of time (Moran, 2018).

***Keywords:*** *Flipped Learning, Flipped Classroom, Strength and Weakness of Flipped Learning*

## 1. Introduction

Flipped Learning is interactive and active learning that instruction moves from the group learning space to the individual learning space where the instructor gives the learners a central point in teaching (Bergmann & Sams, 2014). Flipped Learning has become a hot topic in teaching methodology (Wang, An & Wright, 2018). The teaching method has grown from a term known as Flipped Classroom to a more refined and modernized term known as Flipped Learning where the two terms are used interchangeably according to Hwang & Lai (2017) because the two approaches are strikingly similar nature in teaching and learning even though other scholars defined the two as distinctive teaching approaches. The two terms and their execution in teaching and learning have a very similar approach. Flipped Learning has become more popular, and teachers have started picking up the new method in different countries around the world (Ozdamli & Asiksoy, 2016, p. 104). This teaching method has been used extensively in higher education than in lower education. This methodology is used in teaching almost all subject areas (Jeong, Gómez & Cañada, 2016; Yıldırım, 2017; Kurt, 2017; Alnuhayt, 2018); however, the method is used more preferably in STEM subjects -Science, Technology, Engineering, and Math (Lundin et al., 2018). Today, Flipped Learning is also used in teaching language. Flipped Learning is a promising approach in teaching EFL (Hsieh, Wu & Marek, 2017). Flipped learning gives positive perceptions to learners, which are confirmed in numerous studies (Al-Harbi & Alshumaimeri, 2016; Su-Young, & Suk-Jin, 2017; Afrilyasanti, Cahyono & Astuti, 2017; Kurt, 2017; Unal & Unal, 2017; Lin, Hwang, Fu & Chen, 2018). Achievement scores of students are argumentative as different findings show different results, some showing better scores and some others showing scores negatively. The teaching method results in better achievement scores among the students (Ginola et al., 2016; Gasmi & Ahmed, 2016; Sirakaya & Özdemir, 2018). There are definitely mixed reactions among the students and teachers on using Flipped Learning. Some scholars' findings suggested that Flipped Learning is not an effective teaching method (Mori and Omari, 2016; Yang, 2017; Jia, 2017; Song, 2019; McKie, 2019). Therefore, there are splitting opinions among scholars and students on the usage of Flipped Learning as a pedagogical approach. Flipped Learning is a teaching approach using modern technology (Hwang, Lai & Wang, 2015). The usage of technology has resulted in another matter of discussion, splitting into positive and negative views. A few studies have confirmed convincing pieces of evidence of distraction and harmful learning outcomes due to technology dependence on learning (McCoy, 2016; O'Brien, 2018; Eleanor, 2018). On the other hand, there are pieces of evidence too that the present generation kids who are known as

Generation-Z, and digital natives have benefited from using modern technology that the Flipped Learning method is relying on (Wong, 2016, p. 7; Wen-Chi et at, 2017, p. 142-157). Therefore, this paper is to investigate the strengths and weaknesses of the Flipped Learning methodology.

## 2. Objectives

The objective of this paper is to identify the strengths and weaknesses of Flipped Learning.

## 3. Flipped Learning

This section discusses the history and characteristics of Flipped Learning, roles of teachers and students in a Flipped Learning.

### *3.1 History of Flipped Learning*

The Flipped Learning methodology has originated from King's (1993) work "*From Sage on the Stage to Guide on the Side"*. The original basic concept was teaching outside the classroom and giving learners the central point of learning in the classroom where the teacher stays aside, giving scaffold, monitoring, and helping the learning process. When the concept of teaching out-of-classroom through video-recorded lectures began, there did not exist the term of Flipped Learning as we see today. Then, in 1997, Eric Mazur taught Physics lessons out-of-classroom with recorded video lectures at Harvard University. Baker started using the term *Classroom Flip* in 2000 at a presentation at the conference at Cedarville College for the first time (Baker, 2001). In 2000, Lage, Platt, and Treglia used a term called "*Inverting the Classroom"*. Since then, terms such as *Flipped Classroom* and *Inverted Classroom* have been used. Flipped Classroom is a commonly used term. The sudden growth of this teaching methodology has happened after 2011. One of the reasons for accelerating the growth of Flipped Classroom was the rapid growth of digital information and technology because the Flipped Learning approach uses modern technology as an essential component in teaching. In 2014, a new term, which is known as Flipped Learning, came into existence with a more refined definition (Bergmann, & Sams, 2012; 2014). The rapid growth of the Internet, computer, online, YouTube, and mobile technology has boosted the growth of Flipped Learning (Hwang, Lai, & Wang, 2015; Choe, & Seong, 2016). The growth of Flipped Learning and research studies has expanded more rapidly after 2015, along with the evolution of modern technology (Filiz, & Benzet, 2018; Shyr & Chen, 2018).

Bergmann and Sams (2014) were two chemistry teachers who gave a strong influence on the growth of Flipped Learning (Gasparič, 2017, p. 174). Salman Khan (2014) established Khan Academy online teaching that became very popular, giving another strong influence on the growth of Flipped Learning. In the past few years, it has become even more popular, and this teaching method reaches different parts of the world that was initially confined only in developed countries where technology development was concentrated (Ozdamli, & Asiksoy, 2016, p. 104). Flipped Learning stands out its popularity as a new teaching method (Heng, 2014; Yarbro, Arfstrom, McKnight, & McKnight, 2014; Abeysekera & Dawson, 2015; Lo, Lie & Hew, 2018; Tseng, Lin & Chen, 2018). Researchers had experimented the teaching method in the USA, but today, it is spreading to developing countries. Jonathan Bergmann and Errol St. Clair Smith launched the Flipped Learning Global Initiative on 27 June 2016 to train teachers, and this has brought another level of popularity in Flipped Learning (flglobal.org, 2016).

### *3.2 Characteristics of Flipped Learning*

Flipped Learning is based on constructivism learning theory (Ziling & Yeli, 2018). Constructivism learning theory was postulated by Jean Piaget (1896-1980). The learning theory describes that it is practical, hands-on, and real-world situation and knowledge is constructed through applying learners' experiences.

Learning tasks that are assigned as homework for a traditional method are assigned as classwork in a Flipped Learning approach. Unlike a traditional teaching method, Flipped Learning begins learning new knowledge from home before reaching the classroom, and it is known as pre-class learning. Pre-Class learning

promotes self-learning or autonomous learning using digital technologies (Abdelshaheed, 2017, p. 97) through the Internet, and task supposed to be homework in traditional learning is brought into the classroom. Therefore, a Flipped Learning is characterized by out-of-classroom learning as well as in-class lecture method (Temizyürek & Ünlü, 2015; Jenkins, 2017, p. 7). Thus, Flipped Learning is associated with blended learning, which is online out-of-classroom learning and face-to-face classroom learning.

Flipped Learning could be divided into two components: In-class and Out-of-Class learning (Hwang & Lai, 2017). Out-of-Class learning could also be divided into two, which are Pre-class and Post-class Activities (Unal & Unal, 2017, p. 147; Shih & Tsai, 2017, p. 36).

*3.2.1 Out-of-Class Learning Activities*

Out-Of-Classroom learning activities of Flipped Learning focus on self-directed learning (Zainuddin, 2017) that happens outside the classroom. They are divided into two as a. Pre-class Activity, and b. Post-class Activity.

**a. Pre-class Activity**

Students watch pre-recorded video lessons, read the resources, and take pre-class quizzes during pre-class activity (Overmyer & Yestness, 2016, p. 38; Abdelshaheed, 2017, p. 103; Jenkins et al., 2017, p. 7). Video lesson is a predominant learning activity in a Flipped Learning pre-class activity. It improves the knowledge of the students, and it gives a significantly higher proficiency and higher satisfaction in learning (Zhonggen, 2019). The activities help to acquire better knowledge and warm-up for in-class learning, and they are a good warm-up for full swing discussion in classroom learning (Houston, 2012; Afrilyasanti, Cahyono & Astuti, 2017; Hwang & Lai, 2017, p. 195). Thus, a pre-class activity makes the students ready for in-class learning.

There are criticisms for self-directed video watching in out-of-class learning. Some learners prefer having direct lectures rather than watching video independently, and there is an issue of demotivation when the same video is played due to boredom (Afrilyasanti et al., 2017, p. 482, 477)

**b. Post-class Activities**

It is the activities after the classroom learning. It involves giving and collecting feedback, taking quizzes, writing reflection and diary, etc. Even though it might not carry out all the activities mentioned above, it is a reinforcement of learning (Shih & Tsai, 2017, p. 36; Yean, 2019, p. 334) increasing the learning goal (Persky & McLaughlin, 2017, p. 6).

*3.2.2 In-Class Learning Activities*

In-class learning is face-to-face learning in the classroom. Various learning activities are set for a productive and enhancing time used to create an active learning environment. In-class learning activities are a combination of individual work, pair-work, collaborative teamwork, and presentation (Jeong, Gómez & Cañada, 2016, p. 750; Unal & Unal, 2017, p. 146, 157; Afrilyasanti, Cahyono & Astuti, 2017, p. 476). The Activities supposed to be homework for a traditional method are usually done in the classroom in Flipped Learning. In Flipped Learning, different learning activities such as individual work, pair-work, collaborative teamwork, student presentation, homework in class, peer feedback, reflection/feedback writing, diary writing, quiz, worksheet- solve problems, and others are created to bring multiple approaches of classroom learning.

*3.3 Roles of A Teacher*

The roles of teachers are making a video, making a quiz, sending learning resources, collecting and giving feedback to students, encouraging the students during pre-class, in-class, and post-class activities and managing a more conducive learning environment (Bergmann & Sams, 2012; 2014). Facilitating, managing to learn, and effective guiding the students are the duty of a teacher (Ziling & Yeli, 2018, p. 884). The teacher creates a conducive and student-centered learning environment which is suitable for the group, individual, and collaborative learning that could enhance students' learning to fit in different learning activities (Cukurbasi & Kiyici, 2018, p. 47).

*3.4 Roles of Students*

Self-directed learning is one of the most important focal points of Flipped Learning (Zainuddin et al., 2019; Zhang, 2017; Yıldırım, 2017; Jenkins et al., 2017, p. 11). Students should watch video lessons, read the assigned materials, take the quizzes from home and do the follow-up activities (Abdelshaheed, 2017, p. 104; Ziling & Yeli, 2018, p. 880). The roles of the students are to be active learners, active participant and to construct their own knowledge. In this methodology, students also take responsibility for learning by using discovery and exploratory learning approaches (Ziling & Yeli, 2018).

## 4. Findings

*4.1 Strengths and Weaknesses of Flipped Learning*

Flipped Learning has been seen as a winning teaching methodology by many; however, there are a number of weaknesses of this pedagogical implication. The approach has not been investigated properly when the growth of this approach began accelerated by 2013 (Hamdan et al., 2013). Despite the majority of the researchers' feedback as positive, there are serious warnings against the use of Flipped Learning as well (Smulian, 2019). There are advantages and disadvantages of Flipped Learning. They are shown in the following table

**Table 1** Strengths and Weaknesses of Flipped Learning

| Strengths | Weaknesses |
|---|---|
| ■ Student-centered<br>■ Active learning<br>■ Self-learning<br>■ Self-responsibility<br>■ Effective time management<br>■ Readiness increases<br>■ Replay of video<br>■ Flexible learning<br>■ Hands-on learning<br>■ Personalize learning<br>■ More time for special needs<br>■ Collaborative work<br>■ Problem-solving<br>■ Critical thinking<br>■ Learning styles | ■ Without computers and the Internet, it will not work well.<br>■ No immediate explanation when video lessons got issues of understanding.<br>■ Not all learners willing to watch video<br>■ Video production not attractive as professional multimedia makers<br>■ Digital divide and the social-economic gap are to be addressed<br>■ Much time is taken for teachers to prepare a lecture.<br>■ Technology and attention diversion<br>■ Affect achievement scores negatively<br>■ Motivation decrease over a period of time |

*4.1 Strengths of Flipped Learning*

There are numerous advantages of Flipped Learning over the traditional teaching method (Shih & Tsai, 2017, p. 32-46; Karaaslan & Çelebi, 2017, p. 644). It gives positive learning experiences (Lin & Hwang, 2018, p. 215; Suranakkharin, 2017; Shih & Tsai, 2017, p. 32-47). The approach is student-centered and active learning (Bergmann & Sams, 2014). The teaching approach trains the learners to have more self-responsibility and self-reliance in learning (Clark et al., 2018, p. 13; Abdelshaheed, 2017, p. 97; Ziling & Yeli, 2018, p. 886). It increases effective time management in a classroom (Davenport, 2018, p. 30). As the lecture videos are sent beforehand, learners are in readiness mode (Kozikoğlu, 2019, p. 859). Students can proceed at their

own learning pace as the video lecture can be replayed repeatedly and paused at any time. Flipped Learning gives more flexibility, and learning content is designed to be more personalized (Springen, 2013). The learning approach is hands-on and practical (Ziling & Yeli, 2018). It gives more time for special needs in the classroom (Thaichay & Sitthitikul, 2016). Flipped Learning increases social skills through collaborative teamwork (Afrilyasanti, Cahyono & Astuti, 2017, p. 476-484; Jeong, Gómez & Cañada, 2016, p. 747-758; Shih and Tsai, 2017, p. 33-49). Flipped Learning can improve problem-solving skills (Wen & Chun, 2017, p. 41) and critical thinking (Mohammed & Ahlam, 2018; Liu & Sukavatee, 2019). Flipped Learning addresses the difficulty of multiple learning styles in a single classroom (Uzunboylu et al., 2015)

*4.2 Weaknesses of Flipped Learning*

Recent study findings show a number of weaknesses of Flipped Learning. This teaching method depends on modern technology with an Internet connection. When there is no Internet connection, there will be no success in Flipped Learning (Halili, Abdul Razak & Zainuddin, 2014). Therefore, Flipped Learning is for urban school or more developed countries where technical supports are available. Flipped Learning is very much pushing the learners for self-learning and self-watching the video lecture, and learners are demotivated and discouraged when there came the issue of inability to understand the contents as no teacher is found to help in self-learning environment, which is the problem when using this method in lower education (Afrilyasanti et al., 2017, p. 482, 477). Not all learners enjoy self-watching video lectures (Soliman, 2016). Above all, the video made by the teachers could not be as interesting as the videos created by professional multimedia people (Correa, 2015). Another issue is the haves and have-nots of technology cause even a wider gap of the digital divide that gives advantages to only students having such technology (Springen, 2013). Teachers wasted lots of valuable time in an effort to create video and lecture in front of the computer (Thaichay & Sitthitikul, 2016). Recent studies confirmed the negative impacts of learning with technology due to distraction and attention diversion, which cause a severe impact on achievement test scores (Wexler, 2019; McKie, 2019). Such poor achievement scores due to Flipped Learning have surfaced from recent studies (Joshua & Terry, 2017; Su-Young & Suk-Jin, 2017, p. 69; Chi-Jen & Gwo-Jen, 2018, p. 216). Another adverse effect of Flipped Learning is a decrease in the motivation of learners over a period of time (Moran, 2018)

## 5. Conclusion and Recommendation

Flipped Learning is a teaching methodology using modern technology of digital devices, information, and technology through the Internet. It has its own strengths and weaknesses. It promotes social and collaborative teamwork learning skills, and it trains the learners to be more self-directed learning. As the present-day kids of Generation-Z become digital natives, learners are closely connected to technology and Flipped Learning seems to be the right choice because the integration of technology becomes stronger day by day. However, as far as achievement test score is concerned, Flipped learning is not a winner of a teaching approach (Joshua & Terry, 2017; Su-Young & Suk-Jin, 2017, p. 69). It is obvious from the findings that technology-based learning increases the distraction and attention diversion. However, varieties of learning activities and learning experiences build value-added skills that could not be measured through achievement test. In order to extract the best of Flipped Learning, one should look for the middle ground of using technology by not overusing it so that learning experiences and achievement test scores benefit from the approach.

## 6. References

Abdelshaheed, B. S. M. (2017). Using Flipped Learning Model in Teaching English Language among Female English Majors in Majmaah University. *English Language Teaching, 10*(11), 96–110.

Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1158001&site=eds-live&authtype=ip,uid

Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: Definition, rationale and a call for research. *Higher Education Research and Development, 34*(1), 1-14. https://doi.org/10.1080/07294360.2014.934336

Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P. (2017). Indonesian EFL Students' Perceptions on the Implementation of Flipped Classroom Model. *Journal of Language Teaching & Research, 8*(3), 476–484. https://doi.org/10.17507/jltr.0803.05

Al-Harbi, S. S., & Alshumaimeri, Y. A. (2016). The Flipped Classroom Impact in Grammar Class on EFL Saudi Secondary School Students' Performances and Attitudes. *English Language Teaching, 9*(10), 60–80. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1113506&site=eds-live

Alnuhayt, S. S. (2018). Investigating the Use of the Flipped Classroom Method in an EFL Vocabulary Course. *Journal Of Language Teaching & Research, 9*(2), 236-242. doi:10.17507/jltr.0902.03

Baker, J. W.(2000). *The Classroom Flip: Using Web course management tools to become the Guide by the Side* (pp. 9-17). In J. A. Chambers (Ed.), Selected papers from the 11th International Conference on College Teaching and Learning (2000),. Jacksonville, FL: Florida Community College at Jacksonville.

Bergmann, J., & Sams, A. (2012). *Flip your Classroom: Reach Every Student in Every Class Every Day*. Washington: International Society for Technology in Education.

Bergmann, J., & Sams, A. (2014). *Flipped Learning: Gateway to Student Engagement.* International Society for Technology in Education. Arlington, NA: ISTE/ASCD.

Choe, E., & Seong, M. (2016). A Case Study of the Flipped Classroom in a Korean University General English Course. *Journal of Pan-Pacific Association of Applied Linguistics, 20*(2), 71–93. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=125345049&site=eds-live

Clark, R., Kaw, A., Lou, Y., Scott, A., & Besterfield-Sacre, M. (2018). Evaluating Blended and Flipped Instruction in Numerical Methods at Multiple Engineering Schools. *International Journal for the Scholarship of Teaching and Learning, 12*(1). https://doi.org/10.20429/ijsotl.2018.120111

Correa, M. (2015). Flipping the Foreign Language Classroom and Critical Pedagogies: A (New) Old Trend. *Higher Education for the Future, 2*(2), 114-125. doi:10.1177/2347631115584122. Retrieved September 12, 2019, from https://www.researchgate.net/publication/281234169_Flipping_the_Foreign_Language_Classroom_and_Critical_Pedagogies_A_New_Old_Trend

Cukurbasi, B., & Kiyici, M. (2018). High School Students' Views on the PBL Activities Supported via Flipped Classroom and LEGO Practices. Journal of Educational Technology & Society, 21(2), 46–61. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=128981055&site=eds-live&authtype=ip,uid

Davenport, C. E. (2018). Evolution in Student Perceptions of a Flipped Classroom in a Computer Programming Course. Journal of College Science Teaching, 47(4), 30–35. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=128223499&site=eds-live&authtype=ip,uid

David, G., & Dameria, M. S. (2016). The Implementation of Flipped Classroom by Using Schoology in Speaking II Class of English Education Study Program of Teacher Training and Education Faculty of Bandar Lampung University. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbas&AN=edsbas.12BA5B72&site=eds-live

Eleanor, B. (2018, September 4). French students banned from using mobile phones in school. Retrieved December 27, 2019, from The Independent website: https://www.independent.co.uk/news/education/education-news/france-mobile-phone-ban-school-french-government-students-a8521961.html

Filiz, S. B., & Benzet, A. (2018). A Content Analysis of the Studies on the Use of Flipped Classrooms in Foreign Language Education. https://doi.org/10.5430/wje.v8n4p72

Flglobal.org. (2016). Flipped Learning Global Initiative. Flipped Learning Global Initiative: The Exchange. https://flglobal.org/

Gasmi, & Ahmed, A. (2016). An Exploratory Study of Students' Lived Experiences in a Blended-Flipped Writing Class (SSRN Scholarly Paper No. ID 2822993). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=2822993

Gasparič, R. P. (2017). Flipped Learning: Gateway to Student Engagement. CEPS Journal : Center for Educational Policy Studies Journal, 7(3), 173.

Halili, S.H. and Abdul Razak, R. and Zainuddin, Z. (2014) Enhancing collaborative learning in flipped classroom. In: International Conference on Science, Engineering and Built Environment, 24-27 Nov 2014, Bali, Indonesia.

Hamdan, N., McKnight, P., McKnight, K. & Arfstrom, K. M. (2013). Extension of a Review of Flipped Learning. Retrieved October 25, 2016 from http://flippedlearning.org/wpcontent/uploads/2016/07/Extension-of-FLipped-Learning-LIt-Review-June-2014.pdf.

Heng, N. M. (2014). Teaching Tip: The Flipped Classroom. Journal of Information Systems Education, 25(1), 7–11. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=99018389&site=eds-live

Houston, M. & Lin, L. (2012, March). Humanizing the Classroom by Flipping the Homework versus Lecture Equation. In Proceedings of SITE 2012--Society for Information Technology & Teacher Education International Conference (pp. 1177-1182). Association for the Advancement of Computing in Education (AACE).

Hsieh, J. S. C., Wu, W.-C. V., & Marek, M. W. (2017). Using the flipped classroom to enhance EFL learning. Computer Assisted Language Learning, 30(1–2), 1–21. https://doi.org/10.1080/09588221.2015.1111910

Hwang, G.-J., & Lai, C.-L. (2017). Facilitating and Bridging Out-Of-Class and In-Class Learning: An Interactive E-Book-Based Flipped Learning Approach for Math Courses. Educational Technology & Society, 20 (1), 184–197. . Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=120706113&site=eds-live&authtype=ip,uid

Hwang, G.-J., Lai, C.-L., & Wang, S.-Y. (2015). Seamless Flipped Learning: a mobile technology-enhanced flipped classroom with effective learning strategies. Journal of Computers in Education, 2(4), 449–473. https://doi.org/10.1007/s40692-015-0043-0

Jenkins, M., Bokosmaty, R., Brown, M., Browne, C., Gao, Q., Hanson, J., & Kupatadze, K. (2017). Enhancing the design and analysis of Flipped Learning strategies. Teaching & Learning Inquiry, 5(1). http://dx.doi.org/10.20343/teachlearninqu.5.1.6 Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbas&AN=edsbas.BC662EA6&site=eds-live

Jeong, J., González-Gómez, D., & Cañada-Cañada, F. (2016). Students' Perceptions and Emotions Toward Learning in a Flipped General Science Classroom. Journal of Science Education & Technology, 25(5), 747–758. https://doi.org/10.1007/s10956-016-9630-8

Jia, Z. (2017). To Flip or Not? Deciding on Whether to Use a Flipped Classroom Approach With of Higher-Level Second Language Students. Retrieved from http://dspace.library.uvic.ca/bitstream/handle/1828/10513/Jia_Zhuochao_MEd_2019.pdf?sequence=1&isAllowed=y.

Joshua C. Nwokeji, & Terry S. Holmes. (2017). The impact of learning styles on student performance in flipped pedagogy. FIE, 1. https://doi.org/10.1109/FIE.2017.8190522

Karaaslan, H., & Çelebi, H. (2017). ELT teacher education flipped classroom: An analysis of task challenge and student teachers' views and expectations. Journal of Language & Linguistics Studies, 13(2), 643–666. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=126127419&site=eds-live

King, A. (1993). From Sage on the Stage to Guide on the Side. College Teaching, 41(1), 30–35.
Kozikoğlu, İ. (2019). Analysis of the Studies Concerning Flipped Learning Model: A Comparative Meta-Synthesis Study. International Journal of Instruction, 12(1), 851–868. https://doi.org/10.29333/iji.2019.12155a
Kurt, G. (2017). Implementing the Flipped Classroom in Teacher Education: Evidence from Turkey. Journal Of Educational Technology & Society, 20(1), 211-221.
Lin C.-J., Hwang, G.-J., Fu, Q.-K., & Chen, J.-F. (2018). A Flipped Contextual Game-Based Learning Approach to Enhancing EFL Students' English Business Writing Performance and Reflective Behaviors. Journal of Educational Technology & Society, 21(3), 117. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.26458512&site=eds-live
Liu, I. W., & Sukavatee, P. (2019). The Effects of Debate Instruction Through a Flipped Learning Environment on Critical Thinking Skills of Thai High School Students. Scholar: Human Sciences, 11(1), 238.
Lo, C.K., Lie, C.W., & Hew, K.F. (2018). Applying 'First Principles of Instruction' as a Design theory of the flipped classroom: Findings from a collective study of four secondary schoolsubjects. Computers & Education, 118,150–165. https://doi.org/10.1016/j.compedu.2017.12.003
Lundin, M., Bergviken, R. A., Hillman, T., Lantz-Andersson, A., & Peterson, L. (2018). Higher education dominance and siloed knowledge: a systematic review of flipped classroom research. International Journal of Educational Technology in Higher Education, 15(1), 1. https://doi.org/10.1186/s41239-018-0101-6
Maureen J. L., Glenn J. P., & Michael, T. (2000), Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment, The Journal of Economic Education Vol. 31, No. 1 (Winter, 2000), pp. 30-43
Mazur, E. (1997). Peer instruction: A user's manual. Upper Saddle River, N.J: Prentice Hall.
McCoy, B. (2016). Digital Distractions in the Classroom Phase II: Student Classroom Use of Digital Devices for Non-Class Related Purposes. Faculty Publications, College of Journalism & Mass Communications. Retrieved from https://digitalcommons.unl.edu/journalismfacpub/90
McKie, A. (2019, August 13). Flipped classroom 'fails to improve student performance.' Times Higher Education (THE). https://www.timeshighereducation.com/news/flipped-classroom-fails-improve-student-performance
Mohammed, F., & Ahlam, Q. (2018). English Students' Attitudes Towards Using Flipped Classrooms in Language Learning at Hebron University. Research in English Language Pedagogy, (2), 275. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.75bc501089184838b872958753054380&site=eds-live
Moran, C. M. (2018). "Just Don't Bore Us to Death": Seventh Graders' Perceptions of Flipping a Technology-Mediated English Language Arts Unit. Middle Grades Review, 4(1). Retrieved from https://eric.ed.gov/?q=Flipped+English&ft=on&id=EJ1175686

Mori, Y., Omori, M., & Sato, K. (2016, December 1). The Impact of Flipped Online Kanji Instruction on Written Vocabulary Learning for Introductory and Intermediate Japanese Language Students. https://doi.org/10.1111/flan.12222
O'Brien, C. (2018). Technology can hurt students' learning, research shows. The Irish Times. https://www.irishtimes.com/news/education/technology-can-hurt-students-learning-research-shows-1.3385864?mode=amp
Overmyer, J & yestness, N., Clukey,L. (2016). First Experiences with "Flipping" a Class: Landing on Your Feet or Landing on Your Head. Proceedings of the 1st Annual Higher Education Flipped Learning Conference. (2016). 170.
Ozdamli, F., & Asiksoy, G. (2016). Flipped Classroom Approach. World Journal on Educational Technology: Current Issues, 8(2), 98–105.

Persky, A. M., & McLaughlin, J. E. (2017). The Flipped Classroom – From Theory to Practice in Health Professional Education. American Journal of Pharmaceutical Education, 81(6), 118. https://doi.org/10.5688/ajpe816118

Shih, W.-L., & Tsai, C.-Y. (2017). Students' perception of a flipped classroom approach to facilitating online project-based learning in marketing research courses. Australasian Journal of Educational Technology, 33(5). https://doi.org/10.14742/ajet.2884

Shyr, W.-J., & Chen, C.-H. (2018). Designing a technology-enhanced Flipped Learning system to facilitate students' self-regulation and performance. Journal of Computer Assisted Learning, 34(1), 53–62. https://doi.org/10.1111/jcal.12213

SIRAKAYA, D. A., & ÖZDEMİR, S. (2018). The Effect of a Flipped Classroom Model on Academic Achievement, Self-Directed Learning Readiness, Motivation And Retention. Malaysian Online Journal of Educational Technology, 6(1), 76–91.

Smulian, M. (2019, August 9). US researchers urge caution on "Flipped Learning." Tes. https://www.tes.com/news/us-researchers-urge-caution-flipped-learning

Soliman, N. A. (2016). Teaching English for Academic Purposes via the Flipped Learning Approach. Procedia - Social and Behavioral Sciences, 232, 122–129. https://doi.org/10.1016/j.sbspro.2016.10.036

Song, S. M. (2019). Can Flipped Learning be an alternative?: A critical review based on the essence of Flipped Learning. Journal of Learner-Centered Curriculum and Instruction, 19(6), 1387-1410.

Springen, K. (2013). Flipped. School Library Journal, 59(4), 23.

Suranakkharin, T. (2017). Using the Flipped Model to Foster Thai Learners' Second Language Collocation Knowledge. 3L: Southeast Asian Journal Of English Language Studies, 23(4), 1-20. doi:10.17576/3L-2017-2303-01

Su-Young, P., & Suk-Jin, D. (2017). The Effectiveness of the Flipped Learning using the Smart Device. Journal Of Digital Convergence, 15(4), 65-71. doi:10.14400/JDC.2017.15.4.65.

Temizyürek, F., & Ünlü, N. A. (2015). An example of using the technology as a material in language teaching: "Flipped Classroom". Bartın University Journal of Faculty of Education, 4(1), 64-72.

Thaichay, T., & Sitthitikul, P. (2016). Effects of the Flipped Classroom Instruction on Language Accuracy and Learning Environment: A Case Study of Thai EFL Upper-Secondary School Students. Rangsit Journal of Educational Studies © 2016 RANGSIT UNIVERSITY Thailand., 3(2), 35–64. https://doi.org/10.14456/rjes.2016.10

Unal, Z., & Unal, A. (2017). Comparison of Student Performance, Student Perception, and Teacher Satisfaction with Traditional versus Flipped Classroom Models. International Journal Of Instruction, 10(4), 145-164. doi:10.12973/iji.2017.1049a

Uzunboylu, H., & Karagözlü. (2015). Flipped classroom: A review of recent literature. Retrieved September 6, 2019, from ResearchGate website: https://www.researchgate.net/publication/296691410_Flipped_classroom_A_review_of_recent_literature

Wang, J., An, N., & Wright, C. (2018). Enhancing beginner learners' oral proficiency in a flipped Chinese foreign language classroom. Computer Assisted Language Learning, 1-32. doi:10.1080/09588221.2017.1417872

Wen- Chi, V. W., Scott, C. H. J., & Jie C. Y. (2017). Creating an Online Learning Community in a Flipped Classroom to Enhance EFL Learners' Oral Proficiency. Journal of Educational Technology & Society, 20(2), 142–157. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=122353866&site=eds-live&authtype=ip,uid

Wexler, N. (2019, 19December). How classroom technology is holding students back. Retrieved December 20, 2019, from MIT Technology Review website: https://www.technologyreview.com/s/614893/classroom-technology-holding-students-back-edtech-kids-education/

Wong, G. (2016). A New Wave of Innovation Using Mobile Learning Analytics for Flipped Classroom. 10.1007/978-981-10-0027-0_12.

Yang, C. C. R. (2017). An Investigation of the Use of the "Flipped Classroom" Pedagogy in Secondary English Language Classrooms. Journal of Information Technology Education: Innovations in Practice, 16, 1–20. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1126071&site=eds-live

Yarbro, J., Arfstrom, K. M., McKnight, K., & McKnight, P. (2014). Extension of a review of Flipped Learning. Retrieved from http://flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/Extension%20of%20Flipped%20Learning%20Lit%20Review%20June%202014.pdf

Yıldırım, G. (2017). A NEW LEARNING APPROACH: FLIPPED CLASSROOM AND ITS IMPACTS. Acta Didactica Napocensia, 10(2), 31-44.

Zainuddin, Z. (2017). First-Year College Students' Experiences in the EFL Flipped Classroom: A Case Study in Indonesia. International Journal of Instruction, 10(1), 133–150. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1125139&site=eds-live

Zhang, F. (2017). Quality-Improving Strategies of College English Teaching Based on Microlesson and Flipped Classroom. English Language Teaching, 10(5), 243–249.

Zhonggen, Y. (2019). Video lecturing in Clicker-assisted English flipped class. PLOS ONE, 14(10), e0224209. https://doi.org/10.1371/journal.pone.0224209

Ziling, X., & Yeli, S. (2018). Application of Constructivist Theory in Flipped Classroom -- Take College English Teaching as a Case Study. Theory & Practice in Language Studies, 8(7), 880. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=131493428&site=eds-live