



## A Literature Review On The Strengths And The Weaknesses Of Flipped Learning

Ruslina Tri Astuti<sup>1</sup>✉

<sup>1</sup>Madrasah Tsanawiyah Negeri 1 Yogyakarta, Indonesia

### ABSTRACT

**Purpose** – This literature review aims to examine the strengths and weaknesses of Flipped Learning. This article reviews the contents of several articles and studies on Flipped Learning published between 2016 and 2021. The idea behind this review is that Flipped Learning has received significant attention in education, especially in Indonesia, because of its focus on depressing Learning for students. Learning and in line with the two newest curricula named Curriculum 2013 and Curriculum Merdeka.

**Design/methods**– This research is a literature review. This review has been conducted as a systematic literature review based on the original guidelines as proposed by Kitchenham. In this case, the purpose of the review is to systematically review the literature (referred to as a secondary study) so that this study is classified as a tertiary literature review.

**Findings** – The findings of this review show that Flipped Learning uses constructivism learning theory based on hands-on Learning. This is one of the strengths of Flipped Learning. Flipped Learning pursues independent and active students very well because it eliminates traditional classes. Flipped Learning is suitable for active Learning that is instilled in students. However, several findings from this review also show that flipped Learning also reduces student motivation over time, and is one of the weaknesses of flipped Learning.

**Keywords:** Literature Review, Flipped Learning, Strength, Weakness.

### ABSTRAK

**Tujuan** – Tinjauan literatur ini bertujuan untuk menguji kekuatan dan kelemahan Flipped Learning. Tulisan ini mengulas isi dari beberapa artikel dan kajian tentang Flipped Learning yang diterbitkan antara tahun 2016 hingga 2021. Gagasan mendapatkan ulasan ini adalah bahwa Flipped Learning telah mendapat perhatian besar di dunia pendidikan, khususnya di Indonesia karena berfokus pada pembelajaran yang berpusat pada siswa. pembelajaran dan sejalan dengan dua kurikulum terbaru bernama Kurikulum 2013 dan Kurikulum Merdeka.

**Metode** – Penelitian ini merupakan kajian literatur. Studi ini telah dilakukan sebagai kajian literatur sistematis berdasarkan pedoman asli seperti yang diusulkan oleh Kitchenham. Dalam hal ini tujuan dari review adalah untuk mengkaji kajian pustaka secara sistematis (yang disebut sebagai kajian sekunder), sehingga kajian ini dikategorikan sebagai kajian pustaka tersier.

**Hasil** – Temuan dari ulasan ini menunjukkan bahwa Flipped Learning menggunakan teori pembelajaran konstruktivisme berdasarkan pembelajaran praktik langsung. Ini menjadi salah satu kekuatan dalam Flipped Learning. Dalam mengejar siswa yang mandiri dan aktif, Flipped Learning berjalan sangat baik karena membalikkan kelas tradisional. Flipped Learning cocok untuk pembelajaran aktif yang berpusat pada siswa. Namun, beberapa temuan dari review ini juga menunjukkan bahwa Flipped Learning juga menurunkan motivasi siswa dalam jangka waktu tertentu dan menjadi salah satu kelemahan dari Flipped Learning.

**Kata Kunci:** Flipped Learning, Kelemahan, Kelebihan.

✉ OPEN ACCESS **Contact:** ✉ [ruslinatriastuti@gmail.com](mailto:ruslinatriastuti@gmail.com)

### Introduction

Indonesia has recently applied at least two curriculums based on the constructivism-learning theory: Kurikulum 2013 and Kurikulum Merdeka. The purpose of both curriculums is to make the learning shift from teacher-centered to student-centered. Since the center of Learning is the students, an autonomous teaching-learning process is a must to hold. One of the teachers' concerns about this autonomous Learning is the learners' attitude.



Students are unwilling to participate in group work or discussions and timid to try new things. They become passive learners and have a low ability to solve problems. They depend on the teachers or their peers with advanced proficiency levels. Farrah and Qawasmeh (2018) stated the dependency of the learners due to the traditional teaching and Learning they had before. Therefore, there is a need to convert the traditional ones to modern ones. Flipped Learning is one of the modern student-centered strategies.

Flipped Learning has received massive attention, especially in Indonesia, as it focuses on student-centered Learning. This is in line with what the latest curriculums ask for. By applying Flipped Learning, teachers hope they can make their students active. The theory of Flipped Learning is entirely different from the traditional one. Therefore, a literature study on the strengths and weaknesses of Flipped Learning needs to be performed to cope with more understanding about it.

With advanced technology development, psychologists reviewed and challenged the most traditional teaching and Learning approaches substantively (Crouch & Mazur, 2001; King, 1993; Mazur, 1997). Using video as a pre-class learning activity creates a new teaching and Learning strategy. The word "Flipping Classroom" was then coined in the late 1990s (e.g., Baker, 2000). It soon became one of the prevalent issues in education (e.g., Bernard, 2015; Bishop & Verleger, 2013; Chua & Lateef, 2014; Giannakos, Krogstie, & Chrisochoides, 2014; O'Flaherty & Phillips, 2015; Zainuddin & Halili, 2016; Zuber, 2016).

The flipped classroom is also called the "inverted classroom" (Sahin, Cavlazogula, & Zeytuncu, 2015). As one type of flipped Learning flipped classroom also could enhance students' Learning (Dove & Dove, 2017; Gilboy, Heinrichs, & Pazzaglia, 2015; Gross, Marinari, Hoffman, DeSimone, & Burke, 2015; Isabel, Stefan, & Mikko, 2014; Roehl et al., 2013). Due to a more student-centered learning approach, students are free to interact with the learning context. According to Bishop and Verleger (2013), the flipped classroom is "an educational technique that consists of two parts: interactive group learning activities inside the classroom, and direct computer-based individual instruction outside the classroom" (para. 13).

Educators generally believe that flipped classrooms could enhance students' Learning (Dove & Dove, 2017; Gilboy, Heinrichs, & Pazzaglia, 2015; Gross, Marinari, Hoffman, DeSimone, & Burke, 2015; Isabel, Stefan, & Mikko, 2014; Roehl et al., 2013). A more student-centered learning approach allows students to interact with the learning context according to their own learning pace (Roehl et al., 2013). For instance, able students could skip the video and search for extra learning materials from the internet, while the lower achiever could study the content with repetition (Dove & Dove, 2017; Roehl et al., 2013). By shifting lectures to traditional lectures before class while the homework section is outside the classroom, more time in class can be completed in the classroom (Bergmann & Sams, 2012; Pierce & Fox, spent on explaining complex concepts or working on 2012; Roehl, Reddy, & Shannon 2013). More individual guidance and students' special education needs could be provided (Bishop & Verleger, 2013). Task value, critical thinking, and peer instruction could also be improved, although their duration may be short (Van Vliet, Winnips, & Brouwer, 2015).

However, the effect of the flipped classroom is still ambiguous. Although it is theoretically feasible, the pieces of evidence which support flipped classrooms could enhance student's academic performance and perceptions are still weak (Bernard, 2015; Bishop & Verleger, 2013; Chua & Lateef, 2014; Giannakos et al., 2014; Lelean & Edwards, 2020; O'Flaherty & Phillips, 2015; Ward, Knowlton, & Laney, 2018; Zainuddin & Halili, 2016; Zuber, 2016). Educators believe that inconsistent theoretical frameworks, methods, and in-class activities are the significant factors leading to such an unclear result (Lin & Hwang, 2018; Lo & Hew, 2017a; Zuber, 2016). To draw a more certain conclusion, an investigation of the flipped classroom's framework, methods, and in-class activities applied should be done (Giannakos et al., 2014 Kostaras, 2017; Zuber, 2016)

## Methods

This research is a literature review. This review has been conducted as a systematic literature review based on the original guidelines as proposed by Kitchenham. In this case, the purpose of the review is to systematically review the literature (which is referred to as a secondary study) so that this study is classified as a tertiary literature review. This literature review aims to examine the strengths and weaknesses of Flipped Learning. This article reviews the contents of several articles and studies on Flipped Learning published between 2016 and 2021. The idea behind this review is that Flipped Learning has received significant attention in education, especially in Indonesia, because of its focus on depressing Learning for students. Learning and in line with the two newest curricula named Curriculum 2013 and Curriculum Merdeka.

## **Result and Discussion**

### **3.1. Flipped Learning**

#### **3.1.1. Flipped Learning Definition**

Flipped Learning is a relatively new concept and model for teaching. It can be said as one of the modern methods. Despite traditional methods, modern methods tend to be more student-centered, constructivist, inquiry-based, and technology-based. The main differences between traditional and modern methods are their reliance on the learner/student or the teacher and the use of technology in the learning process. The biggest problem with traditional classes is that they allocate most of the classroom time to teach, lead the students to be passive listeners, and let them all alone with the burden of homework or assignments at home without anyone to ask or get help. Flipped classes do the exact opposite.

Demirel (2016), in other words, stated that the case for the former is that it takes the teacher as the center in the learning process. In addition, Hamdan & McKnight (2013) said that the traditional teacher-centered method takes the teacher as the 'sage on the stage. The teacher teaches, gives instructions, and explains the items, whereas the students sit still and are just expected to learn. The teacher is the core. The case is just the opposite of modern methods. They rely on students, take the learners as the core, and expect the teacher to lead the way. The students are the real doers in their learning process. One of the modern methods is Flipped Learning.

King (1993), in his work entitled "From Sage on the Stage to Guide on the Side," can be said as the starting point of the Flipped Learning (FL) emergence. The original basic concept of FL at that time was teaching outside the classroom and giving students the central point of learning in the classroom where the teacher stays aside, giving scaffold, monitoring, and helping the learning process. The flipped classroom is a pedagogical model that reverses the typical learning and homework elements. It inverts traditional teaching methods, delivering instruction outside class and moving homework into the classroom. Flipped Learning is a common term, though, in 2000, Lage, Plat, & Tregia in Chingakham (2020) used a term called "Inverting the Classroom." The sudden growth of this teaching-learning methodology happened after 2011 (Chingakham, 2020)

#### **3.1.2. Characteristics of Flipped Learning**

According to Ziling and Yeli (2018), Flipped Learning is based on the constructivist learning theory. Constructivism learning theory was suggested by Jean Piaget (1896-1980). Piaget in Chigakham (2020) stated that the learning theory describes practical, hands-on, and accurate word situations and knowledge s constructed through applying the learner's experience. Unlike traditional teaching methods, FL begins learning new knowledge from home before reaching the classroom, known as pre-class Learning. Pre-class Learning promotes self-learning or autonomous Learning using digital technologies (Abdelshaheed, 2017; 97) through the internet, and task supposed to be homework. Therefore, an FL is characterized by out-of-classroom Learning and in-class learning methods. Thus, FL is associated with blended

Learning, which is online out-of-classroom Learning and face-to-face classroom learning (Jenkins, 2017; 7).

### 3.1.3. The procedure of Flipped Learning

According to Lockwood (2014) in Safiyeh & Farrah (2020), the flipped learning approach means presenting the materials through pre-class input like recorded video lessons. Flipped Learning also gives students more time to practice their language in the classroom because they have to go to the classroom for some exercises and activities. Using flipped Learning involves facilitating student-student and student-teacher interactions besides enhancing students' engagement in the classroom, enabling motivation toward an in-depth comprehension of the learning materials (Basal, 2015; Choe & Seong, 2016). The approach helps students retain information for longer and develop positive attitudes toward learning (Nanclares & Rodríguez, 2016; Pudín, 2017). Like Lockwood (2014), Hwang & Lai (2017) state that FL can be divided into two steps. They are in-class and out-of-class Learning. In addition, out-of-class Learning could also be divided into two. They are pre-class activities and post-class activities.

### 3.1.4. Class Learning Activity

First. Out-of-Class Learning Activity Out-of-Classroom learning activities of Flipped Learning focus on self-directed Learning (Zainuddin, 2017) that happens outside the classroom. These activities are divided into pre-class and post-class activities.

Second. Pre-Class Activity, In the step of the pre-class activity, the students may watch pre-recorded video lessons, read the sources, or take pre-class quizzes (Overmyer & Yestness, 2016; 38). Watching video lessons is a principal learning activity in this step. It improves the students' knowledge and gives a significantly higher proficiency and satisfaction in Learning (Zhonggen, 2019). The activities help to acquire better knowledge and warm up for in-class Learning. In a nutshell, a pre-class activity prepares students for an in-class activity.

Third. Post-Class Activity, These activities are those done after classroom learning. This step involves giving and collecting feedback, taking quizzes, writing reflections, diaries, etc. even though it might not carry all the activities mentioned above, it is a reinforcement of Learning (Shih & Tsai, 2017; 36). It increases the result of the learning goal (Persky & McLaughlin, 2017; 6).

Fourth. In-Class Learning Activity In-class Learning is face-to-face learning in the classroom. Various learning activities can be set for the product and enhance time to create an active learning environment. In-class learning activities combine individual work, pair work, collaborative teamwork, and presentation (Afrilyasanti, Cahyono, & Astuti, 2017; 476).

## 3.2. Strengths of Flipped Learning

Some studies have investigated the use and effectiveness of Flipped Learning, including those in teaching English as a foreign language (EFL). However, it can be said that there is a lack of review studies that explore it. Al Harbi & Al Shumaimeri (2016), Thaichay & Sitthitikul (2016), and Webb & Doman (2016) have explored the effectiveness of FL in grammar courses. They conclude that FL enhances students' grammar performances and makes them more confident in using English grammar. In addition, Afrilyasanti et al. (2017), Gasmi & Thomas (2017), and Zhonggen & Guifang (2016) conclude that FL in writing courses bring about students' better academic achievements and their level of engagement. As for a flipped speaking course, FL helps students improve their oral English skills and enables them to be autonomous learners (Cheo & Seong, 2016; Li & Zang, 2016; Xin-Yue, 2016).

Several other studies have also found that FL encourages students to study at their own pace by taking responsibility for their Learning (Celebi et al., 2016; Chen et al., 2017; Yang, 2017). Chen et al. also concluded that using FL might effectively

promote active Learning and increase students' motivation and engagement levels. Flipped Learning, therefore, enables students to advance their learning of the lesson content before coming to class, making them fully engaged and more active due to effective participation in class discussions (Zainuddin, 2017).

As a result of processing the data of the articles and studies investigation, this paper identified some strengths of FL in the field of EFL. These strengths were arranged into three categories: students' gain, pedagogical contribution, and interaction (Table 1).

**Table 1.** The Strengths of FL in EFL

Categories	Sub-categories	Writers
Students gain	Improves language skills	Abaeian & Samadi, 2016
	Increases motivation	Adnan, 2017
	Engages students in the learning process	Ahmad, 2016; Zainuddin, 2017
	Provides positive attitudes	Amiryousefi, 2017
	Builds self-confidence	Engin & Donancy, 2016
	Encourages students to be autonomous	Cheo & Seong, 2016
Pedagogical contributions	Increases engagement level	Yang, 2017
	Provides self-paced Learning	Koroglu & Cakir, 2017
	Enables meaningful Learning	Choe & Seong, 2017
	Enables teacher to be a facilitator	Sun, 2017
	Enhances learning enjoyment	Doman & Webb, 2017
Interaction	Provides interaction opportunities	Zainuddin, 2017
	Student – student	Karimi & Hamzavi, 2017
	Student – teacher	Zhonggen & Guifang, 2017
	Student - material	

### 3.3. Weaknesses of Flipped Learning

Recent study findings show several weaknesses of Flipped Learning. This teaching method depends on modern technology with an internet connection. No internet connection will result in no success in FL (Halili, Razak, & Zainuddin, 2014). On the other hand, according to Afrilyasanti (2017; 477), FL is pushing the learners for self-learning and watch the video lecture. It makes the learners demotivated and discouraged when they are unable to understand the contents as no teacher. Furthermore, Thaichay & Sitthitikul (2016) found that teachers wasted lots of valuable time trying to create videos and other learning sources in front of the computer. Another adverse effect of FL is decreasing students' motivation over time (Moran, 2018).

One of the characteristics of FL is that everyone learns knowledge and skills at different paces. However, this mode of learning operation relies much on students' self-motivation. Some students are not as motivated as others, and this teaching method causes those less motivated students to get less done (Krueger, 2018). On the other hand, students in poor areas may not have the ability to possess the computers and the internet that FL requires, and this is problematic. This problem may impact the students in reviewing the learning materials given by the teacher (Abdelshaheed, 2017; Afrilyasanti et al., 2016).

Accordingly, as a result of processing the data of the articles and studies investigation, this paper also identified some weaknesses of FL in the field of EFL. These weaknesses can be seen in Table 2 below.

**Table 2.** The Weaknesses of FL in EFL

Categories	Sub-categories	Writers
Students' Side	Decreases students' motivation over some time	Moran, 2018



	It gives excessive workload for the students	Yang et al., 2017
	Demotivates students for the inability to understand the learning sources	Thaichay & Sitthitikul, 2016
Teacher's Side	Material preparation is time-consuming Creates workload for teachers	Gasmi, 2017 Han, 2016
Limited access to the internet	Gives difficulties in reviewing the learning content	Abdelshaheed, 2017; Afrilyasanti et al., 2016)

Even though Flipped Learning goes back to the early-mid 2000s, it does not have a long history, especially in teaching English as a Foreign Language /EFL (Bergmann & Sams, 2012). However, it is clear enough from the findings that demotivated students will get into trouble when the teacher uses FL. This technology-based learning increase may also demotivate the students when there is a lack of sufficient internet connection and, in the end, decrease their learning achievement (Su-Young & Suk-Jin, 2017).

## Conclusion

To sum up, reviewing some articles about Flipped Learning implementation shows its strengths and weaknesses. Flipped Learning is based on the constructivist idea and completely contrasts with what we know as traditional methods. As the present-day kids of Generation Z were born into an era of technology, the students need more time to interact using technology and actively participate in the learning process. Flipped Learning gives all in one. It can be said that FL takes the students as the core so they will be motivated and responsible for their Learning. Having this responsibility, the students will engage in the learning process and have the opportunity to learn independently. Data like this indicates that FL benefits learning and teaching experiences. In short, FL seems to be the right choice nowadays since technology integration becomes stronger daily.

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