



## Investigating Teachers' Perceptions of Educational Technology Philosophy in ELE Through the Flipped Classroom Model

Kartika S

UIN Raden Intan Lampung

[kartika@radenintan.ac.id](mailto:kartika@radenintan.ac.id)

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**Abstract:** The purpose of this study is to find out how instructors believe about adopting the Flipped Classroom approach from a techno-pedagogical philosophy when teaching English. Furthermore, this study collects data from teachers on their perceptions of the Flipped Classroom model in the English course through surveys and interviews. EFL teachers who have adopted the Flipped Classroom model provide data. This current study employed a semi-structured interview and a five-point Likert scale questionnaire as the research instrument. A mixed-method research was the research design in this study. Twenty English instructors were chosen on purpose. After collecting the data, the researcher analyzed the data using descriptive and statistical analysis. The results show that EFL teachers' opinions of the flipped classroom concept are usually positive. This study highlights the beneficial effects on students' learning, acknowledges implementation difficulties, and emphasizes how important it is to include teachers' viewpoints to develop effective teaching strategies. The popularity and possible advantages of the Flipped Classroom model in English courses are also greatly influenced by the opinions of English teachers.

**Keywords:** ELE, Educational Technology Philosophy, Flipped Classroom

### INTRODUCTION

Flipped Classroom is an invention that challenges the traditional learning paradigm from the standpoint of educational technology philosophy. This idea significantly changes the way that teachers and students both learn. The teachers can switch the roles of in-class and at-home learning activity in this approach (Ozdamli & Asiksoy, 2016). This approach facilitates the students to access the material via articles, videos or online learning sources at-home learning before they arrive for in class activity. It can enable them to understand their subject's principles on their own. The participation of students can be maximized by discussion, activity, and feedback in the flipped classroom during class meetings. According to

the philosophy of educational technology, the flipped classroom is not just a learning approach but also represents a transformation in the form of learning from in-class activities to out-of-class activities. This change is expected to have a moral impact on both teachers and students (Schmidt & Ralph, 2016).

The Flipped Classroom has great importance to English language learning when it comes to meeting the expectations for the efficacy of language teaching. By using this approach, students can freely access English language resources before class (Hsieh et al., 2016). It supports the development of critical reading and listening comprehension abilities in language learners. Teachers are also able to devote more of their class meetings to practicing speaking and writing during the Flipped Classroom. However, this approach also makes it possible for students to participate in more in-depth online debates regarding English literature and culture. Additionally, the Flipped Classroom promotes student collaboration in language comprehension and application (Stöhr et al., 2020).

Technology has become a significant driver of the success of the flipped learning concept. Thus, educational technology and the Flipped Classroom are closely intertwined. Technology enables the creation and distribution of learning materials that students outside of the classroom can access. Teachers can utilize various tools and online platforms to deliver this content and provide flexibility in the delivery methods in the context of the Flipped Classroom (Akçayır & Akçayır, 2018). Furthermore, technology allows teachers to monitor individual student progress and provide timely feedback through digital learning platforms that support personalized learning. Moreover, online forums, chats, and technology collaboration can enhance communication between teachers and students. This facilitates the discussions and group work required in flipped learning. Moreover, technology also opens the door to using additional resources to enhance student engagement in the learning process (O'Flaherty & Phillips, 2015).

In recent years, educators have introduced the concept of flipped learning in various educational settings in a global context, including K-12 and higher education (Şahin & Fell-Kurban, 2016). Since Flipped Classroom was introduced, the teachers have consistently focused on its effectiveness in enhancing student performance. Many studies explored the effect of Flipped Classroom on students' achievement (Chao et al., 2015; Davis et al., 2013; Gómez-Tejedor et al., 2020; Hwang & Lai, 2017; Mennella, 2016) and assessed the interaction between learners, educators, and lesson plan (Blair et al., 2015; Christiansen et al., 2017). Another study examined the connection between students' perceptions and their academic performance (Hsieh et al., 2016), explored the advantages and challenges of using Flipped Classroom (Akçayır & Akçayır, 2018), and discovered students' engagement in this model (Meyliana et al., 2022). The previous studies indicated that Flipped Classrooms can potentially enhance students' performance. However, previous research has not discussed using Flipped Classroom ELE from a techno-pedagogical perspective.

Meanwhile, some studies have explored the use of Flipped Classrooms in various topics in the Indonesian context. Ramadhani et al. (2019) examined the effectiveness of Flipped Classroom in the process of learning activity. Meanwhile, Zainuddin (2017) identified the first-year college students learning and experiences in an EFL flipped classroom at the higher education level. Widyaningrum et al. (2020) investigated the influence of Flipped Classrooms on EFL students' creative thinking ability. On the other hand, Ishartono et al. (2022) implemented a Flipped Classroom to improve students' self-regulated learning. Moreover, Lestari (2021) explored the students' attitudes while implementing Flipped Classroom in the EFL context. The previous study confirmed that the implementation of Flipped Classroom has the potential to benefit students' academic performance.

Despite the potential benefits of using Flipped Classroom on students' academic performance and experience (Blair et al., 2015; Chao et al., 2015; Davis et al., 2013; Gómez-Tejedor et al., 2020; Hwang & Lai, 2017; Ishartono et al., 2022; Lestari, 2021; Mennella, 2016; Ramadhani et al., 2019; Widyaningrum et al., 2020; Zainuddin, 2017), little is known in terms of exploring teachers' perception of using Flipped Classroom in ELE from a techno-pedagogical perspective. Exploring these teachers' perceptions will help educators and researchers understand why the Flipped Classroom model has gained popularity in ELE and its potential benefits. Therefore, this study attempts to address the gap identified under the following question:

1. What are teachers' perceptions of using the Flipped Classroom model in ELE from a techno-pedagogical philosophy?
2. How do these perceptions contribute to understanding the model's popularity and potential benefits in the field of ELE?

## **METHOD**

### **Research Design**

The research design is a mixed-method research design. This research design provides a robust framework to intricately examine the perceptions and experiences of ELE teachers utilizing the Flipped Classroom model. Qualitative research facilitates a deep and nuanced exploration of the techno-pedagogical philosophy inherent in the Flipped Classroom approach. This design is used to capture the multifaceted aspects of teachers' encounters with the model and allow for an in-depth understanding of the reasons behind its popularity and the potential benefits it offers in the context of ELE.

### **Participants**

The participants in this study comprised 20 English teachers actively engaged in implementing the Flipped Classroom model in their teaching practices within Bandar Lampung Province. There were 14 female teachers and 6 male teachers who participated in this study. The selection of participants adhered to

specific inclusion criteria, such as considering both the duration of their Flipped Classroom implementation and their willingness to share their experiences. This current study used a purposive sampling technique to assemble a diverse and representative group of teachers.

### **Instruments**

The research employed a combination of a survey questionnaire and semi-structured interviews as instruments to answer the first and second research instruments. A survey questionnaire was administered to answer the first question. It offers a broader perspective on teachers' attitudes towards the Flipped Classroom. This survey provided a quantitative dimension to the study. Meanwhile, semi-structured interviews were conducted to delve deeply into the nuanced insights of English teachers. The interview questions were thoughtfully crafted to explore various dimensions, including motivations for adopting the Flipped Classroom model, challenges encountered during implementation, and perceived benefits.

### **Data Collection**

Data collection for this study involved surveys using Google Forms, offering a confidential and user-friendly means for participants to share their perspectives. Furthermore, in-depth interviews were conducted through Zoom as virtual engagement with English teachers. The interviews were used to capture detailed insights into teachers' perceptions of the Flipped Classroom model. They were recorded and transcribed to ensure precision in subsequent data analysis. This dual approach to data collection, utilizing both virtual interviews and online surveys, not only facilitated rich, qualitative data acquisition but also ensured the ease of response and confidentiality for participants. The use of digital platforms like *Google Form* and *Zoom* reflects the adaptability of contemporary technology in conducting research, aligning with the study's focus on investigating the techno-pedagogical philosophy of the Flipped Classroom model in the context of ELE.

### **Data Collection**

In this research, SPSS 26 was utilized to analyze the survey data. This statistical software facilitated a systematic examination of the quantifiable aspects of teachers' perceptions and offered a complementary perspective to the qualitative findings for the quantitative dimension of the study. Additionally, qualitative content analysis was employed to uncover underlying themes and patterns related to teachers' perceptions of the Flipped Classroom model. Through this method, the researchers identified and coded recurring themes and provided a nuanced understanding of the techno-pedagogical philosophy underpinning the implementation of the Flipped Classroom in ELE.

## **RESULTS AND DISCUSSION**

## Results

### 1. Teachers' perceptions of using the Flipped Classroom model in ELE from a techno-pedagogical philosophy

The initial aim of this study is to assess teachers' perceptions of using the Flipped Classroom model in ELE from a techno-pedagogical philosophy. The researchers utilize quantitative tools like a five-point Likert Scale questionnaire to achieve this goal. The researchers have already verified the validity and reliability of the questionnaire before analyzing the data, employing the Pearson Product Moment to check validity and the Cronbach Alpha for reliability testing. The researchers subsequently processed and analyzed the questionnaire data using SPSS version 26. In order to derive meaningful insights from the data, they established interpretation criteria by considering the number of statements within each component of the instruments and the number of respondents, thus calculating the intervals for each interpretation. This research utilizes a five-range criteria system, and the researchers can summarize the interpretations as stated in Table 1.

**Table 1. Interpretation Criteria**

Mean Range	Criteria
4.3 - 5.0	Very High
3.5 - 4.2	High
2.7 - 3.4	Moderate
1.9 - 2.6	Low
1.0 - 1.8	Very Low

The researchers added scores for each part and found the mean and standard deviation scores to check for statistical differences among the indicators. The results are shown in Table 2 below.

**Table 2. Teachers' perceptions of using the Flipped Classroom model in ELE from a techno-pedagogical philosophy**

No.	Statement	Total Respondents	Mean	SD	Criteria
<b>A. Teachers' Perceptions on the Impact of Flipped Learning on Students' Learning</b>					
1	Flipped learning enhances students' focus during class time.	20	3.84	0.71	High
2	Flipped learning boosts students' self-confidence when they come to class with a basic understanding.	20	3.54	0.98	High
3	Flipped learning adds an enjoyable element to the learning process.	20	3.50	0.86	High
4	Flipped learning mentally prepares students for the class.	20	3.54	0.92	High
5	Flipped learning has the potential to enhance students' academic achievement.	20	3.74	0.86	High
<b>B. Teachers' Perceptions on the Impact of Flipped Learning on Teacher's Role</b>					
6	Flipped learning helps teachers make better use of class time.	20	3.54	0.71	High
7	Flipped learning enables teachers to follow students' learning beyond classrooms.	20	3.52	0.95	High
8	Flipped learning enables better class	20	3.60	0.91	High

*Investigating Teachers' Perceptions of Educational Technology Philosophy in ELE Through the Flipped Classroom Model*

	management.				
9	Flipped learning saves teachers' efforts (by lecturing) inside the classroom.	20	3.50	0.81	High
10	Flipped learning liberates teachers from dull routines.	20	3.54	0.71	High
<b>C. Teachers' Perceptions of Challenges Facing the Implementation of Flipped Learning</b>					
11	Flipped learning requires teacher preparation programs to prepare teachers.	20	3.97	0.82	High
12	Parents do not have enough knowledge and understanding of flipped learning.	20	3.83	0.77	High
13	Parents' awareness can influence the implementation of flipped learning.	20	3.93	0.73	High
14	Flipped learning requires teacher preparation programs to prepare teachers.	20	3.94	0.79	High
15	School principals have an important role in the implementation of flipped learning.	20	3.82	0.79	High
<b>D. Teachers' Perceptions in Respect to Their Experience and Teaching Subject</b>					
16	Flipped learning aligns well with my teaching experience and enhances my instructional methods.	20	4.03	0.71	High
17	I believe that flipped learning is more effective in enhancing student understanding in my specific teaching subject.	20	3.98	0.72	High
18	Implementing flipped learning makes the teaching process more enjoyable for me and my students.	20	3.94	0.73	High
19	Flipped learning adequately prepares students mentally before coming to class, enhancing their engagement during in-person sessions.	20	3.88	0.74	High
20	I perceive that flipped learning significantly contributes to students' overall achievement in my teaching domain.	20	3.93	0.72	High

The research findings, outlined in Table 2, offer a comprehensive analysis of teachers' perceptions regarding the use of the Flipped Classroom model in ELE within a techno-pedagogical philosophy. The study categorizes the evaluation into four key indicators: the impact of flipped learning on students' learning, the impact of flipped learning on teachers' roles, challenges facing the implementation of flipped learning, and respect for their experience and teaching subject. These aspects are meticulously examined through specific criteria and provide insights into teachers' perceptions of employing the Flipped Classroom model in ELE within the context of a techno-pedagogical philosophy.

In the first aspect, the researchers employ five indicators to gauge teachers' perceptions of the impact of flipped learning on students' learning. The mean score for each criterion exceeds the 3.50 threshold. This suggests that teachers' perceptions of the impact of flipped learning on students' learning are notably positive. Transitioning to the second aspect, the study employs five indicators to assess teachers' perceptions of the impact of flipped learning on teachers' roles. In this context, the mean scores for each criterion surpass 3.50, indicating that teachers' perceptions of the challenges associated with the implementation of flipped learning

are high.

The third aspect of the study focuses on teachers' perceptions of challenges facing the implementation of flipped learning. Utilizing five indicators, the researchers find that the mean score for each criterion exceeds 3.50, which signifies a substantial acknowledgment of challenges in implementing Flipped Learning. The fourth aspect is evaluated through four criteria, with mean scores higher than 3.5. This suggests that teachers' perceptions regarding respect for their experience and teaching subjects are positively inclined. Therefore, the findings indicate a favorable reception among teachers toward the Flipped Classroom model in ELE, with an acknowledgment of its impact on student learning, challenges in implementation, and respect for the teachers' experience and subject expertise.

## *2. Teachers' perceptions of using the Flipped Classroom model contribute to understanding the model's popularity and potential benefits in the field of ELE*

The interviews with the 20 participants yielded valuable insights into their perceptions of the educational technology philosophy in English class through the flipped classroom model. A common thread among the participants was a high level of enthusiasm and positive perceptions regarding the integration of technology into their teaching practices. Many highlighted the transformative potential of the flipped classroom model in reshaping traditional approaches to English language instruction.

Several participants emphasized the alignment between their educational philosophy and the principles of the flipped classroom model. They viewed it as a pedagogically sound approach that promotes active student engagement and shifts the focus from a teacher-centered to a more student-centered learning environment. The participants perceived the model as a means to foster critical thinking, collaboration, and independent learning skills among their students. Despite their positive attitudes, some participants acknowledged implementation challenges. These challenges ranged from technological issues to initial resistance from students accustomed to more traditional teaching methods. However, an interesting finding was the evolving perception of these challenges over time. Many participants noted a gradual shift from viewing these challenges as obstacles to recognizing them as opportunities for professional growth and adaptation.

The integration of technology in the flipped classroom model was another key theme. Participants expressed a belief that technology enhanced the learning experience by providing diverse multimedia resources, facilitating interactive discussions, and allowing for personalized feedback. The majority reported observing positive changes in student engagement, understanding, and performance since adopting the model, further reinforcing their positive perceptions. The participants also highlighted the importance of ongoing professional development in shaping their perceptions. Those who had received training related to educational technology in ELE spoke about the positive impact on their confidence and ability

to implement the flipped classroom model effectively. This finding underscores the significance of continuous learning and support for teachers in integrating technology into their pedagogical practices.

## **Discussion**

The first objective of this research was to explore teachers' perceptions of using the Flipped Classroom model in ELE from a techno-pedagogical philosophy. The findings show that English teachers' perceptions of the impact of Flipped Learning on students' learning, the impact of Flipped Learning on the teacher's role, the challenges facing the implementation of Flipped Learning, and respect for their experience and teaching subject are high. A previous study confirmed the findings of this current research, which stated that EFL teachers generally preferred employing flipped teaching and had positive perceptions about the role of this approach (Blair et al., 2015; Unal et al., 2021; Vaezi et al., 2019). According to these current findings, EFL teachers believe in the positive impact of Flipped Learning on students' learning. Many teachers expressed a shift from being traditional content deliverers to facilitators of student-centered learning. They highlighted the positive influence of Flipped Learning in fostering student engagement, critical thinking, and collaborative skills (Christiansen et al., 2017; Ramadhani et al., 2019). The techno-pedagogical philosophy underlying the Flipped Classroom approach resonated with teachers, as it aligned with their beliefs about the integration of technology to enhance educational outcomes.

According to the findings, EFL teachers have reported positive impacts of flipped learning on their role. Previous studies claimed that flipped learning allows instructors to change traditional teacher-centered learning practices by freeing class time to assess student learning better and using class time to help students apply the knowledge they gained through online lectures (Akçayır & Akçayır, 2018; O'Flaherty & Phillips, 2015). From an Educational Technology Philosophy perspective, the reported positive impacts of flipped learning on EFL teachers align with the philosophy that embraces the transformative potential of technology in education. The concept of flipped learning represents a departure from traditional teacher-centered approaches, echoing the philosophical shift towards learner-centered instruction. By leveraging online resources for lectures, educators can optimize in-class time for more interactive and application-oriented activities (Blair et al., 2015). This approach resonates with the philosophy that technology should not merely supplement but fundamentally enhance the teaching and learning experience.

Although there are some positive impacts of the implementation of Flipped Learning on students' learning and teachers' roles, several challenges have been identified. These challenges include the considerable workload associated with creating flipped learning materials and students' disengagement in out-of-class learning. Previous studies support these findings, stating that flipped learning



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requires teacher preparation programs to train teachers adequately (Hung, 2018; Rotellar & Cain, 2016). Additionally, it has been noted that parents often lack sufficient knowledge and understanding of flipped learning. From an Educational Technology Philosophy perspective, the challenges of implementing Flipped Learning emphasize the necessity of a holistic approach to technology integration in education. The recognition of the substantial workload for creating flipped learning materials underscores the need for continuous professional development, emphasizing the philosophy that technology should seamlessly integrate into pedagogical practices. The call for teacher preparation programs to adequately train educators aligns with the philosophy that effective technology use requires a solid understanding of pedagogy and its integration into teaching methodologies (Zainuddin & Perera, 2019).

The final discovery focuses on teachers' perceptions of flipped learning concerning their experience and teaching subject. According to the participants, flipped learning aligns effectively with their teaching experience and enhances their instructional methods. However, it is essential to note that this finding contradicts some previous studies. For instance, a study conducted in Jordan revealed that teachers' overall positive attitudes toward flipped learning were not significantly influenced by their teaching subject or experience (Abuhmaid, 2020). Similarly, another study, which examined prospective teachers' perceptions of flipped learning as an active methodology, found no significant differences based on their gender, age, or academic background (Magaña et al., 2022). From an Educational Technology Philosophy perspective, the final discovery regarding teachers' perceptions of flipped learning underscores the nuanced nature of technology integration in education. This finding illustrates the philosophy that effective implementation of educational technology requires a nuanced and context-sensitive approach, acknowledging the diverse influences on teachers' acceptance and utilization of innovative methodologies like flipped learning.

Meanwhile, the interviews explored how English teachers' perceptions contribute to the understanding of the model's popularity and potential benefits in the field of ELE. The participants exhibited a high level of enthusiasm and positive views toward integrating technology into their teaching practices. These perceptions can contribute to the transformative potential of the flipped classroom in reshaping traditional English language instruction. A common theme was the alignment between participants' educational philosophy and the student-centered principles of the flipped classroom, seen as fostering critical thinking and collaboration skills. Despite acknowledging implementation challenges, such as technological issues and initial student resistance, participants evolved in their perceptions over time, viewing challenges as opportunities for professional growth. The integration of technology was highlighted for enhancing the learning experience through multimedia resources, interactive discussions, and personalized feedback (Akçayır & Akçayır, 2018; O'Flaherty & Phillips, 2015). Ongoing

professional development played a crucial role, with trained educators expressing increased confidence and effectiveness in implementing the flipped classroom model, emphasizing the importance of continuous learning and support for teachers in integrating technology into their pedagogical practices.

From the perspective of Educational Technology Philosophy, the contribution of Teachers' perception to understanding the model's popularity and potential benefits in the field of ELE illuminate the transformative potential of integrating technology. The teachers' positive views and enthusiasm for technology integration align with the philosophy that effective educational technology should resonate with educators' pedagogical beliefs (Zhang & Fang, 2022). The acknowledgment of challenges underscores the philosophy that the implementation of technology requires adaptability and a growth mindset. The emphasis on ongoing professional development reflects the philosophy that successful technology integration necessitates continuous learning and support for educators. It empowered them to confidently implement innovative models like the flipped classroom and enhance the learning experience.

## **CONCLUSIONS**

In conclusion, the research findings provide a comprehensive and nuanced understanding of teachers' perceptions regarding the implementation of the Flipped Classroom model in ELE within a techno-pedagogical philosophy. Teachers express positive perceptions of the Flipped Classroom model, as evidenced by mean scores exceeding the 3.50 threshold across all indicators. The findings highlight a favorable reception among teachers, who acknowledge the model's positive impact on student learning, recognize challenges in implementation, and appreciate the respect accorded to their experience and teaching subject. These insights contribute significantly to the discourse on the integration of innovative pedagogical approaches in language education, emphasizing the importance of considering teachers' perspectives in shaping effective educational practices.

Meanwhile, English teachers' perceptions can contribute to the understanding of the model's popularity and potential benefits in the field of ELE. They can contribute to the transformative potential of the flipped classroom in reshaping traditional English language instruction. A common theme was the alignment between participants' educational philosophy and the student-centered principles of the flipped classroom, seen as fostering critical thinking and collaboration skills. The integration of technology was highlighted for enhancing the learning experience through multimedia resources, interactive discussions, and personalized feedback.

A limitation of this research is the small sample size of only 20 participants. While the study provides valuable insights based on the data collected from these participants, the generalizability of the findings may be compromised. A larger sample size would enhance the external validity of the study and allow for more

robust and representative conclusions that can be applied to a broader population. Furthermore, another limitation is the focus only on teachers' perceptions without considering the perspectives of students and administrative staff. Future research should aim to include a diverse range of stakeholders to obtain a more holistic view of the subject. Incorporating the viewpoints of students and administrators would contribute to a more well-rounded exploration of the issue at hand and offer a more comprehensive and balanced perspective.

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