

CHAPTER 3

RESEARCH PROCEDURES

This stage presents the methodology employed in this study to conduct the study. It describes seven parts of research procedures, such as method of the research, focus of the research, setting and participants, data collection, data analysis, steps of the research, and research schedule.

3.1 Method of the Research

This research adopted a descriptive case study design (Yin, 2018) to investigate more deeply students' experiences of cognitive engagement in English classes using the flipped classroom model (FCM). Case studies are a method of exploring contemporary phenomena or cases in more depth in real-world contexts. Especially when the relationship between phenomenon and context is not always clear. Meanwhile, descriptive case studies focus on phenomena related to real-life situations faced by individuals or groups and how they deal with these situations. In terms of descriptive case studies, it is suitable to answer research questions because the phenomenon of this research is that students in English classes tend to be quiet and not involved in class.

However, in TELL courses that use the Flipped Classroom Model (FCM), students become more cognitively active compared to courses that use traditional teaching methods. The activities in this approach are divided into pre-learning activities and in-class activities. During pre-learning activities, instructors send materials and assignments through Canvas, including warming up, reading materials, watching videos, intermezzo (games or questions), and completing assignments (multiple-choice or essay). Upon completing the assignments, students gain access to Zoom or in-class activities. In-class

activities are conducted through Zoom. Instructors start by announcing creative assignments from the previous week, conduct a simple quiz, review materials from Canvas, and assign practical tasks using Connective Creation. These practical tasks involve group formation, selecting blank slides, and creating content based on the covered material. In this activity, instructors only facilitate the process and provide a space for discussion, making students the center of learning. To explore students' perceptions and experiences in the FCM course, as well as its positive impact on their cognitive engagement, researchers will conduct in-depth interviews. Additionally, this case study allows researchers to evaluate Halverson and Graham's (2019) theory of student cognitive engagement.

3.2 Focus of the Research

This research will focus on the role of the flipped classroom model (FCM) on students' cognitive engagement in English as a foreign language (EFL) class. This study aims to provide an in-depth investigation of students' experiences in an English as a foreign language course that implements the FCM approach, which has a positive impact on students' cognitive engagement.

3.3 Setting and Participants

This research involved two students as participants. The participants involved are students who have completed courses that apply the Flipped Classroom Model (FCM) approach, especially the Technology Enhanced Language Learning (TELL) course in the English Education Department at one of Universities in Tasikmalaya. Participant selection was carried out based on recommendations from the lecturer who taught the course. Selection criteria include obtaining the highest grade in the class, with the assumption that the individual is likely to have a deeper understanding and greater engagement in

the learning process. Assessment is carried out through various factors, including attitude, attendance, participation on the Canvas and Zoom platforms, submission of assignments on the Canvas platform and connective creation, as well as midterm and final exam scores.

Subsequently, one participant was selected from each class to explore potential variations in experiences across different classes. Both participants were women and 22 years old. However, both came from different classes, namely Class A and Class B. The first participant came from Class A and received the highest score of 94.5, while the second participant came from Class B with the highest score of 93. These two participants were given pseudonyms, namely P1 for students from Class A and P2 for students from Class B.

In learning English, interactive and communicative classes are crucial to achieving language learning targets. One learning model that can support this is the Flipped Classroom Model (FCM). FCM is a learning approach in which students receive learning materials and assignments before class meetings. During class meetings, time is allocated for reflection on the material, discussion, and practical application. Thus, this approach aims to actively involve students in the learning process. By FCM, students have more opportunities to participate in interactive discussions, practice communicating in English, and apply their knowledge directly in relevant situations. This can increase student engagement and help them gain a deeper understanding of the English language.

In this study, the researcher focus was to investigate the issue of students' silence in the context of language learning, with particular emphasis on students' cognitive engagement. The issue of student inactivity is a major concern because it can hinder students' ability to understand language concepts,

which in turn affects their abilities in various language skills, including reading, writing, listening and speaking. This research aims to explore the challenges and benefits of implementing the Flipped Classroom Model (FCM) in overcoming the problem of student inactivity. Through this research, it is hoped that students' cognitive engagement can be increased, thereby opening opportunities for improvements in language understanding and mastery.

3.4 Technique of Collecting the Data

Semi-structured interviews were used to collect data. Semi-structured interviews are a qualitative approach to collecting data, involving standardized questions and interactive discussions. They provide rich insight from multiple perspectives in criminal justice settings. These interviews allow key stakeholders to participate, discuss issues, and contribute to understanding program processes and outcomes (Ahlin, 2019). Thus, researchers used the Halverson and Graham (2019) framework to develop questions for semi-structured interviews, which adapted and adopted questions from (Ammade et al., 2023). The indicator questions asked were about students' attention, students' effort and persistence, students' time on task, cognitive/metacognitive strategies, absorption, and curiosity during the implementation of flipped classroom. The interview was conducted in a blended manner. That is, if possible, they conducted face-to-face interviews offline, but if this was not possible, they were conducted online via Zoom.

3.5 Technique of Analysing the Data

The data collected through the interview process was analyzed using thematic analysis (Braun & Clarke, 2013) after the data is transcribed through the orthography system. The orthographic system is one of the linguistic fields that examine grammar into written form (Dwirika, 2021). Thematic analysis is

a method for identifying, analyzing, and reporting patterns (themes) among the data. It describes your data more in detail. Further, thematic analysis is one of the qualitative data analysis methods that report the experiences, meaning and reality of the participants (Braun & Clarke, 2013). Furthermore, this analysis technique is very useful for providing a more comprehensive view of the problem to be studied. The several stages that will be carried out in thematic analysis according to Braun and Clarke (2013) are as follows:

1. Familiarizing yourself with the data

At this stage, researchers familiarized themselves with the data by reading interview transcripts related to challenges and benefits of the Flipped Classroom Model (FCM) approach on students' cognitive engagement. Data is presented in the form of audio recordings of interviews. Then, the researcher read the interview transcripts repeatedly to understand the data collected.

2. Generating initial codes

At this stage the codes have been generated as shown in the table. The codes here are still random and contain various information, and need to be simplified to find the theme. Researchers tell this data based on research objectives is then classified using initial codes (for example, independent in learning, help to understand material, readiness to learn, new experience in learning, increase learning engagement and motivation, etc.) whose areas are colored (for example green, turquoise, purple, orange, pink, etc.) to highlight the challenges and benefits on students cognitive engagement experienced by students when attending class with the flipped classroom model (FCM) approach.

Table 3.1*Generating initial codes*

Dengan materi yang sudah disediakan sebelumnya, kita memiliki waktu untuk mempelajarinya secara mandiri dan memahami dengan lebih mendalam.

Independent in learning

With the material provided previously, we have time to study it independently and understand it more deeply.

Saya percaya bahwa tantangan yang diberikan oleh pendekatan FCM ini membantu saya berkembang dan memperluas pemahaman saya tentang materi.

Help to understanding material

I believe that the challenges provided by this FCM approach helped me grow and expand my understanding of the material.

Ketika dosen memberikan quiz pun karena kita telah mempelajari sebelumnya pada Canvas maka kita bisa dengan mudah menjawab.

Readiness to learn

Even when the lecturer gives a quiz, because we have previously studied on Canvas, we can easily answer.

Karena sebelum kegiatan belajar mengajar terdapat dulu aktivitas mengisi modul yang mengharuskan kita untuk mengisinya agar mendapat akses untuk mengikuti kelas pada platform Zoom.

New experience in learning

Because before teaching and learning activities there is an activity to fill out a module which

requires us to fill it out in order to get access to take classes on the Zoom platform.

Dibandingkan dengan metode tradisional di mana seringkali kita malas untuk mempersiapkan diri dengan membaca materi sebelum kelas, FCM membuat kita lebih termotivasi untuk mengeksplorasi materi lebih dalam.

Increase learning engagement and motivation

Compared to traditional methods where we are often lazy to prepare ourselves by reading the material before class, FCM makes us more motivated to explore the material more deeply.

Nah ketika mengerjakan tugas praktik ini, biasanya dosen membuat breakout room untuk kita berdiskusi jika mengerjakan tugas praktiknya secara berkelompok. Ketika proses diskusi ini menurut saya adalah momen dimana saya lebih terlibat di kelas.

Collaborative learning

So, when doing this practical assignment, the lecturer usually creates a breakout room for us to discuss if we are doing the practical assignment in groups. In my opinion, this discussion process is the moment where I am more involved in class.

Jika biasanya kelas mungkin diam ketika diberi pertanyaan, menurut saya berbeda di kelas TELL ini karena hampir seluruh siswa di kelas menjawab di chat box ketika diberi pertanyaan, walaupun tidak berbentuk verbal. Respon berupa emoji pun sering kali diberikan oleh siswa jadi walaupun kelas diadakan melalui zoom, menurut saya kelas berjalan dengan interaktif.

Actively participate in learning process

If usually the class might be silent when asked a question, I think it's different in this TELL class because almost all students in the class answer in the chat box when asked a question, even though it's not

verbal. Students often give responses in the form of emojis, so even though the class is held via Zoom, I think the class runs interactively.

Ini menunjukkan bahwa pengalaman saya di kelas yang menggunakan flipped classroom tidak hanya meningkatkan pemahaman, tetapi juga kemampuan saya dalam menghadapi evaluasi.

Improve the quality of learning

This shows that my experience in classes using the flipped classroom not only increased my understanding, but also my ability to deal with evaluations.

Sebaliknya, di kelas FCM ini, saya justru merasa bahwa setiap tugas adalah seperti permainan yang harus saya selesaikan. Hal ini membuat saya merasa sangat senang dan bebas dari tekanan saat mengerjakannya.

Build comfort in the learning process

On the other hand, in this FCM class, I actually feel that every assignment is like a game that I have to complete. This makes me feel very happy and free from pressure when working on it.

Tugas praktik ini sangat meningkatkan kreativitas karena kita dibebaskan untuk mendesign slide kita sendiri.

Build creativity

This practical assignment really increases creativity because we are freed to design our own slides.

Saya memantau kemajuan belajar saya di kelas FCM ini, salah satunya dari meninjau kuis.

Self-evaluation

I monitor my learning progress in this FCM class, one of which is by reviewing quizzes.

Walaupun terkadang muncul rasa malas, kesadaran akan tanggung jawab saya sebagai seorang pelajar tetap menjadi prioritas utama. Oleh karena itu, saya selalu berusaha untuk mengatur waktu dengan efisien dan membagi waktu dengan bijak antara berbagai tugas yang harus dikerjakan.

Time management and priorities

Even though I sometimes feel lazy, awareness of my responsibilities as a student remains a top priority. Therefore, I always try to manage my time efficiently and divide my time wisely between the various tasks that have to be done.

Untungnya, dengan pendekatan FCM di kelas TELL ini, saya dapat belajar secara fleksibel. Saya dapat mempelajari materi di mana pun, tidak terbatas hanya di ruang kelas, dan kapan pun saya mau.

Flexibility

Fortunately, with the FCM approach in this TELL class, I can learn flexibly. I can study material anywhere, not limited to just the classroom, and whenever I want.

Jadi ketika saya sudah mempelajari materi sebelumnya pada Canvas, pasti ada beberapa hal yang ingin saya konfirmasi. Kemudian saya menanyakannya untuk menyamakan pemahaman saya dengan dosen.

Perceptual adjustments

So when I have studied the previous material on Canvas, there are definitely several things I want to confirm. Then I asked him to equalize my understanding with the lecturer.

Kebanyakan kegiatan pembelajaran dilakukan secara online. Namun ketika UTS dan UAS biasanya pertemuan dilakukan secara offline di kampus.

Digital communication in learning

Most learning activities are carried out online. However, during UTS and UAS, meetings are usually held offline on campus.

Untuk aktifitas pada Canvas atau pengisian modul, biasanya dosen membagikan materi seminggu sebelum kelas dimulai. Pada pengisian modul tersebut kita mengerjakan warm up. Memahami materi, intermezzo, quiz, dan diskusi.

Familiarizing with FCM approach

For activities on Canvas or filling in modules, lecturers usually distribute material a week before class starts. When filling the module we do a warm up. Understanding the material, intermezzo, quizzes, and discussions.

Tetapi kalau harus memilih, tingkat perhatian saya mungkin lebih tinggi ketika pertemuan melalui Zoom karena biasanya ketika Zoom memungkinkan aku untuk lebih terlibat. Karena biasanya suka ada polling dan diskusi.

More intensive attention

But if I had to choose, my attention level is probably higher when meeting via Zoom because usually when Zoom allows me to be more involved. Because they usually like polls and discussions.

Selain itu menurut saya penugasan dan aktifitas di kelas TELL dengan pendekatan FCM memberi warna baru pada pembelajaran, jadi kita tidak boring saat berada di kelas karena kita benar benar menjadi center dalam pembelajaran tersebut.

Student-centered learning

Apart from that, I think the assignments and activities in the TELL class with the FCM approach give a new color to learning, so we don't get bored when we are in class because we really are the center of the learning.

Sayangnya, pada pertemuan online ini, menurut saya, tidak banyak diskusi secara verbal, tapi diskusi banyak dilakukan melalui chat box.

Limited verbal discussion

Unfortunately, in this online meeting, in my opinion, there wasn't much verbal discussion, but a lot of discussion was carried out via chat box.

Biasanya jika tugas kelompok hanya dibatasi dengan 2-3 orang saja. Namun, terkadang ada anggota kelompok yang tidak mau mengerjakan tugasnya dalam kelompok.

Individual participation issues in group assignments

Usually group assignments are limited to 2-3 people. However, sometimes there are group members who do not want to do their work in the group.

Ketika tugas praktik creative connection, misalnya membuat RPP atau membuat asesmen penilaian menggunakan tools, kadang tantangannya adalah karena ada beberapa tools yang asing dan baru kita ketahui ketika kelas TELL.

Technological problems

When doing creative connection practice assignments, for example making lesson plans or making assessments using tools, sometimes the challenge is because there are some tools that are unfamiliar and we only learned about them in TELL class.

Saya tidak menulis secara mendetail, namun saya hanya mencatat point-point yang saya anggap penting dari materi yang dijelaskan.

Cognitive learning strategies

I did not write in detail, but I only noted the points that I considered important from the material explained.

There were 22 initial codes representing various aspects indicated by participants in the interview transcripts. Below is a list of initial codes and their frequencies:

Table 3.2

List of initial codes and their frequency

No.	Initial Codes	Total
1	Independent in learning	14
2	Help to understanding material	16
3	Readiness to learn	16
4	New experience in learning	12
5	Increase learning engagement and motivation	18
6	Collaborative learning	18
7	Actively participate in learning process	31
8	Improve the quality of learning	13
9	Build comfort in the learning process	24
10	Build creativity	6
11	Self-evaluation	6
12	Time management and priorities	13
13	Flexibility	8
14	Perceptual adjustments	6
15	Digital communication in learning	11

16	Familiarizing with FCM approach	24
17	More intensive attention	4
18	Student-centered learning	1
19	Limited verbal discussion	1
20	Individual participation issues in group assignments	1
21	Technological problems	2
22	Cognitive learning strategies	4

3. Searching for the themes

After generating codes, researchers combined similar codes in this step. Codes became potential themes for following research questions. Meanwhile, codes that were not relevant to the topic and research questions were deleted.

Table 3.3

Searching for themes

No.	Initial Codes	Potential Themes
1	Limited verbal discussion	Barriers in online collaboration
2	Individual participation issues in group assignments	
3	Familiarizing with FCM approach	Difficulties in adapting to FCM approach
4	Independent in learning	Supporting learning autonomy through self-regulation
5	Readiness to learn	

6	Self-evaluation	
7	Time management and priorities	
8	Help to understanding material	

9	Build comfort in learning process	Enhancing students' motivation in learning
10	Flexibility	
11	Increased learning engagement and motivation	
12	Build creativity	
13	Improved the quality of learning	
14	More intensive attention	
15	Cognitive learning strategies	

16	Collaborative learning	Increasing students' active participation
17	Actively participate in learning process	

4. Reviewing themes

Themes that have been completed in the third stage are then reviewed by the researcher to determine whether the theme is suitable for research. If not, the researcher will continue to look for a suitable theme until it fits the research topic.

Table 3.4*Reviewing themes*

Potential Themes	Themes
Obstacles in group communications Difficulties to adapting to FCM approach	Challenges of the Flipped Classroom Model (FCM) on student's Cognitive Engagement
Supporting learning autonomy through self-regulation Enhancing students' motivation in learning Increasing students' active participation	Benefits of the Flipped Classroom Model (FCM) on student's Cognitive Engagement

5. Defining themes

In the fifth stage, researchers interpret each theme that has been identified as an answer to the research question.

Table 3.5*Defining themes*

Themes	Sub-Themes	Definition
Challenges of the Flipped Classroom Model (FCM) on Student's Cognitive Engagement	Obstacles in online collaboration	Students' opinions based their experiences that FCM have obstacles in online collaboration
	Difficulties to adapting to FCM approach	Students' opinions based their experiences that FCM have difficulties to adapting FCM approach
	Supporting learning	Students' opinions based their experiences that FCM

Benefits of the Flipped Classroom Model (FCM) on Student's Cognitive Engagement	autonomy through self-regulation	supports their learning autonomy through self-regulation in the EFL classroom
	Enhancing students' motivation in learning	Students' opinions based their experiences that FCM enhances their motivation in the EFL classroom
	Increasing students' active participation	Students' opinions based their experiences that FCM increases their cognitive engagement through active participation in EFL classroom

6. Producing the report

In the final stage, the researcher had a central theme and prepared a report on the research findings.

3.6 Step of the Research

The researcher does several steps in this study as follows:

1. Identifying and defining issue(s)/problem(s)/phenomenon

The first step taken by the researcher was to look for phenomena regarding English language learning that occurred at the English Education Department until this phenomenon was used as a research objective.

2. Exploring relevant study, finding the gap of research, and formulating the research question

After finding the phenomenon, the researcher looks for relevant previous research to find gaps that will be used as the formulation of the problem and research focus.

3. Determining research design

Researcher use a qualitative descriptive case study as a research design. This design was chosen by considering research issues, research questions, and the aim of the research.

4. The writing process of the research proposal

5. Reviewing relevant literature

Selecting, reading, and reviewing references such as journals and books to support and strengthen research evidence is carried out at this stage.

6. Selecting research subject

The subjects of the research are selected from the English Education Department (EED).

7. Choosing and formulating appropriate research techniques

The next step is to determine the research instrument. Researchers used semi-structured interviews which adapted and adopted the questions from (Ammade, et al., 2023) which were conducted in a blended manner (online and offline) to collect data.

8. Choosing participants and conducting interview

Researchers will involve three students from the Department of English Education who have taken courses that use the FCM teaching approach which has a positive impact on students' cognitive engagement. To conduct interviews, researchers will meet them face to face. However, if this is not possible, the interview will be conducted online via the Zoom platform.

9. Analyzing data

At this stage, after the data has been collected through an interview process and transcribed using an orthographic system, the data will be analyzed using a descriptive case study method using thematic analysis.

10. Presenting findings and conclusion

In this final step, the researcher will present findings and discussions to make research conclusions.

3.7 Time and Place of the Research

The research will take place in the English Education Department, Faculty of Educational Sciences and Teachers Training, at one of University in Tasikmalaya.

Table 7

Research Schedule

Activities	Month										
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
	2023					2024					
Research Proposal Writing	■										
Research Proposal Examination				■							
Data Collection					■						
Data Analysis					■	■	■	■			
Conlusion and Suggestion					■	■	■	■			
Comprehensive Review									■	■	
Final Thesis Examination									■	■	■