CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This study employs a quantitative research approach with a descriptive survey design. Quantitative research involves collecting and analyzing numerical data using statistical techniques to describe or explain a phenomenon (Creswell, 2014). A descriptive design was chosen as the primary objective of this study is to systematically describe and present the perceived level of vocabulary knowledge and watching patterns of English majors in Bandung.

A survey design was deemed appropriate, as data were collected directly from respondents via self-administered questionnaires. This enabled the researcher to systematically describe the characteristics of a large population (Cohen et al., 2018). A descriptive survey design does not involve manipulating or controlling variables; rather, it captures and summarizes naturally occurring attitudes, perceptions, and behaviors.

This study assessed watching patterns, which is watching English movies with English subtitles, using categorical descriptive questions, analyzing the results using frequency distributions and percentages to describe students' watching patterns. Perceptions of vocabulary mastery were evaluated using a five-point Likert scale and analyzed using mean scores and grouping (low, moderate, or high) for each indicator to describe students' perceptions of vocabulary mastery across the five indicators of form, meaning, use, growth, and retention.

B. Research Setting and Time

This study was conducted online by distributing a questionnaire to students at public and private universities in Bandung, West Java, Indonesia. The study focused on English Education Department and English Literature Department programs. Bandung was chosen as a location for the study because it is one of the major educational hubs in West Java. According to

PDDikti data accessed on 8 April 2026, 2,143 students are enrolled in accredited English Education Department programs and 3,137 students are enrolled in accredited English Literature Department programs in Bandung, making the city an ideal and representative location for this study.

The study was conducted over approximately three months, from April to June 2026. This period included instrument preparation in April, validation in May, data collection in May and June, and data analysis and report writing in June. The data was collected online via Google Forms to efficiently reach respondents from various universities and minimize geographical barriers.

C. Population and Sample

1) Population

A population is defined as a group of individuals who possess characteristics relevant to a study (Creswell, 2014). In this study, the population consists of active undergraduate students enrolled in English Education Department and English Literature Department programs at public and private universities in Bandung, Indonesia. These students were selected because they focus on English language learning and vocabulary knowledge, and because they are more frequently exposed to English media than students from other disciplines.

According to PDDikti data accessed on 8 April 2026, approximately 5,280 students are enrolled in accredited English language programs in Bandung: 2,143 in English Education Department and 3,137 in English Literature Department.

2) Sample

A sample is a portion of a population selected to represent its overall characteristics in a study (Creswell, 2014). This study uses purposive sampling, a non-probability sampling method in which respondents are selected based on predetermined criteria (Sugiyono, 2019). This technique was chosen because it enables the researcher to identify the most relevant respondents and ensures that the data collected aligns with

the analytical needs of the study. To ensure the relevance and quality of the data collected, respondents had to meet the following criteria:

a) Students enrolled in an English Education Department or English Literature Department programs at an accredited university in Bandung.
b) Undergraduate students currently in first to eighth semesters.
c) Students who enjoy watching or have watched English movies with English subtitles.

The sample size was determined using the formula by Hair et al. (2010). According to Hair et al., the sample size can be determined using practical guidelines based on the number of indicators or questionnaire items. This involves multiplying the total number of questions in the questionnaire by either 5 or 10. In this study, there were 26 questionnaire items, so a multiplier of 10 was used, as most researchers do to improve validity. Therefore, Hair's formula was applied as follows:

- 10 x 26 = 260 sample

Based on these calculations, the recommended sample size for this study is 260 respondents. As the study has already collected and validated data from 388 respondents, the sample size exceeds the minimum requirement and is considered representative.

D. Instrument of the Study

This study uses a questionnaire as its primary data collection tool. Questionnaires present respondents with a series of written statements or questions to assess their attitudes, perceptions, or behaviors (Creswell, 2014). This questionnaire was developed based on a relevant theoretical framework and adapted from instruments used in previous studies. The questionnaire is divided into three main sections.

Section 1: Demographic Information

This section contains general background information about the respondents, including their gender, age, university type (public/private), university name, study program (English Education Department/English Literature Department), and year of enrollment. This information is used to present descriptive profiles of the study participants.

Section 2: Watching Patterns

This section uses categorical descriptive questions to measure respondents' patterns regarding watching English movies with English subtitles. These questions are designed to capture actual watching behavior patterns and characteristics rather than respondents' level of agreement with a statement. Data from this section are analyzed using frequency distributions and percentages only.

a) **Watching Frequency:** How often do respondents watch English movies with English subtitles per week? (Kuppens, 2010).
b) **Watching Duration:** The length of time respondents typically watch per session influences the depth and volume of language input (Nation, 2001).
c) **Subtitle Usage:** Do respondents consistently use English subtitles when watching movies, in order to link the spoken words with their written forms? (Kuppens, 2010; Mayer, 2009).
d) **Genre Preferences**: The types of movies most frequently watched expose students to different styles of language and vocabulary, with different genres using different forms of expression (Kupens, 2010).

e) **Platforms:** The media platform used to access movies; platform usage reflects accessibility and watching regularity (Kuppens, 2010).

f) **Watching Strategies**: Examples of conscious behaviors while watching include guessing meanings from context, looking up words in a dictionary, noting unfamiliar words, repeating scenes, imitating dialogue, and trying to remember vocabulary (Laufer, 2005; Schmitt, 2000).

g) **Motivation:** The reasons why participants choose to watch English movies with English subtitles. These reasons can include entertainment, English learning, or both (Dörnyei, 2001; Schmitt, 2000).

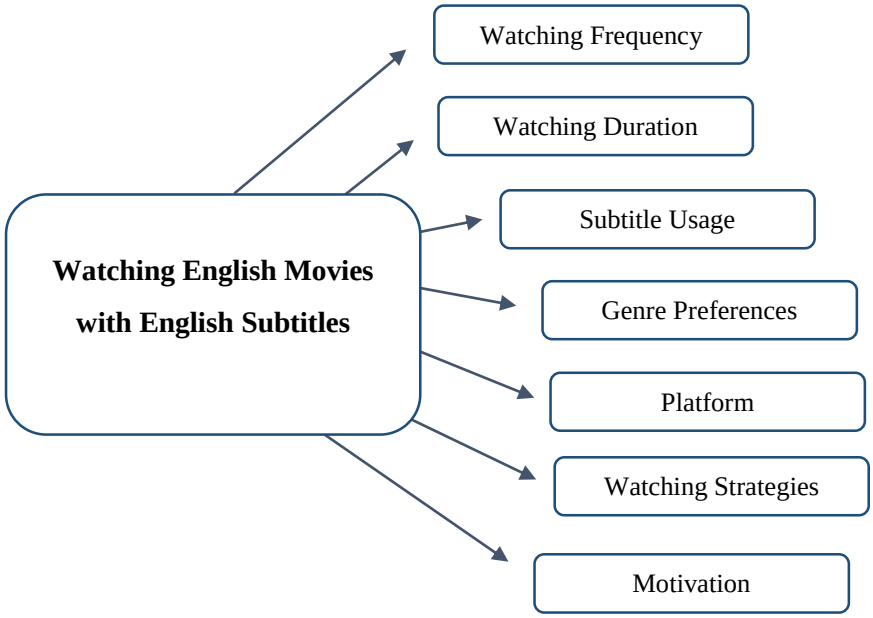

Diagram 3.1 *Indicators of Watching Patterns*

Section 3: Perceptions of Vocabulary Knowledge

a) **Form** (Nation, 2001): Measures respondents' perceived ability to recognize and produce spoken and written forms of words, including pronunciation, spelling, and awareness of morphology.

b) **Meaning** (Nation, 2001): Measures respondents' perceived ability to understand the meaning of words, including basic definitions, connotations, nuances, and semantic associations in different contexts.

c) **Use** (Nation, 2001): Analyzes respondents' perceived ability to use vocabulary appropriately in context. This includes knowledge of

grammatical functions, natural collocations, and an awareness of register, i.e., knowing when a word is appropriate in formal versus informal situations.

d) **Growth** (Ellis, 2008; Nation, 2001): Capture respondents' perceptions of their vocabulary development over time through their ongoing exposure to English movies with English subtitles, reflecting the gradual process of acquiring vocabulary through repeated exposure to authentic material.

e) **Retention** (Schmitt, 2000): Evaluates the ability to store new words in long-term memory and retrieve them in future situations. This reflects the depth of processing achieved through exposure to multiple modalities while watching a movie.

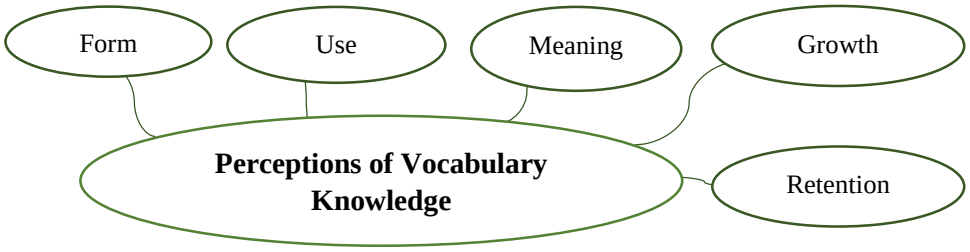

Diagram 3.2 *Indicators of Perceptions of Vocabulary Knowledge*

This section uses a five-point Likert scale, in which respondents indicate their level of agreement or disagreement.

Table 3. 1 *Likert Scale Score*

Statement	Score
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

(Sugiyono, 2019)

Table 3. 2 *Operationalization Research Variables*

Variable	Indicator	Item
Watching English Movies with English Subtitle – *Descriptive Categorical*	Watching Strategy	1
	Watching Duration	2
	Subtitle Usage	3
	Genre Preferences	4
	Platform	5
	Watching Strategies	6, 7, 8, 9
	Motivation	10
Student's Perceptions of Vocabulary Knowledge – *Likert Scale 1-5*	Form	1, 2, 3, 4, 5
	Meaning	6, 7, 8, 9, 10
	Use	11, 12, 13, 14, 15
	Growth	16, 17, 18, 19
	Retention	20, 21, 22, 23,24, 25, 26

1) Validity

To ensure the quality of the research instrument, validity tests on the perception of vocabulary knowledge were conducted prior to the start of the main data collection. Validity refers to the extent to which an instrument accurately measures the intended concept (Creswell, 2014). This study employed two types of validity test: content validity and construct validity.

Content validity was evaluated through a review by an English Education Department lecturer. The lecturer assessed the relevance and clarity of each questionnaire item, as well as its representation of the intended construct.

Construct validity was tested using the Pearson product-moment correlation in SPSS version 27, which yielded correlations between each item's score and its respective indicator's total score. The formula is as follows:

$$r_{xy} = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - \sum x)^2][n\sum Y^2 - (\sum Y)^2]}}$$

Description:

r_{xy} = Correlation coefficient between item score and the total score

N = Number of respondents

ΣX = Individual item score

ΣY = Total scores per respondent

ΣX^2 = Sum of squared item scores

ΣY^2 = Sum of squared total scores

ΣXY = Sum of the product of each item score and total score

A validity test was conducted with 40 respondents who met the research sampling. The number of degrees of freedom (df) is determined using the formula df = n − 2. For 40 respondents, df = 40 − 2 = 38, corresponding to an r-table value of 0.312 at a 0.05 significance level.

- If the result is ≥ 0.320 → the instrument is valid
- If the result is < 0.320 → the instrument is invalid

Table 3. 3 *Product-Moment Correlation Coefficient*

N	P.Sig		N	P.Sig		N	P.Sig	
	5%	10%		5%	10%		5%	10%
3	0,997	0,999	27	0,381	0,487	55	0,266	0,345
4	0,950	0,990	28	0,374	0,478	60	0,254	0,330
5	0,878	0,959	29	0,367	0,470	65	0,244	0,317
6	0,811	0,917	30	0,361	0,463	70	0,235	0,306
7	0,754	0,874	31	0,355	0,456	75	0,227	0,296
8	0,707	0,834	32	0,349	0,449	80	0,220	0,286
9	0,666	0,798	33	0,344	0,442	85	0,213	0,278
10	0,632	0,765	34	0,339	0,436	90	0,207	0,270
11	0,602	0,735	35	0,334	0,430	95	0,202	0,263
12	0,576	0,708	36	0,329	0,424	100	0,195	0,256
13	0,553	0,684	37	0,325	0,418	125	0,176	0,230
14	0,532	0,661	38	**0,320**	0,413	150	0,159	0,210
15	0,514	0,641	39	0,316	0,408	175	0,148	0,194
16	0,497	0,623	40	0,312	0,403	200	0,138	0,181
17	0,482	0,606	41	0,308	0,398	300	0,113	0,148

N	P.Sig		N	P.Sig		N	P.Sig	
	5%	10%		5%	10%		5%	10%
18	0,468	0,590	42	0,304	0,393	400	0,098	0,128
19	0,456	0,575	43	0,301	0,389	500	0,088	0,115
20	0,444	0,561	44	0,297	0,384	600	0,080	0,105
21	0,433	0,549	45	0,294	0,380	700	0,074	0,097
22	0,423	0,537	46	0,291	0,376	800	0,070	0,091
23	0,413	0,526	47	0,288	0,372	900	0,065	0,086
24	0,404	0,515	48	0,284	0,368	1000	0,062	0,081
25	0,396	0,505	49	0,281	0,364			
26	0,388	0,496	50	0,279	0,361			

Source: Online statistical reference

Table 3. 4 *Questionnaire Validity Test Result*

Item	r-Value	r-Table	P (sig.)	Remark
F1	0,668	0,320	0,000	Valid
F2	0,619	0,320	0,000	Valid
F3	0,527	0,320	0,001	Valid
F4	0,717	0,320	0,000	Valid
F5	0,493	0,320	0,002	Valid
M1	0,765	0,320	0,000	Valid
M2	0,741	0,320	0,000	Valid
M3	0,681	0,320	0,000	Valid
M4	0,724	0,320	0,000	Valid
M5	0,793	0,320	0,000	Valid
U1	0,756	0,320	0,000	Valid
U2	0,778	0,320	0,000	Valid
U3	0,759	0,320	0,000	Valid
U4	0,716	0,320	0,000	Valid
U5	0,723	0,320	0,000	Valid
G1	0,646	0,320	0,000	Valid
G2	0,651	0,320	0,000	Valid
G3	0,674	0,320	0,000	Valid
G4	0,702	0,320	0,000	Valid

R1	0,628	0,320	0,000	Valid
R2	0,731	0,320	0,000	Valid
R3	0,671	0,320	0,000	Valid
R4	0,785	0,320	0,000	Valid
R5	0,681	0,320	0,000	Valid
R6	0,696	0,320	0,000	Valid
R7	0,760	0,320	0,000	Valid

Source: Analysis result using SPSS version 27

As shown in Table 4.3, the R values for all 26 items were above the critical value of 0.312, with a significance level of 0.000 ($p < 0.05$). Consequently, all items were considered valid and appropriate for primary data collection.

2) Reliability

Reliability refers to an instrument's ability to produce consistent results when repeated measurements are taken (Cohen et al., 2018). In this study, reliability was measured using Cronbach's alpha coefficient in SPSS version 27, which is calculated using the following formula:

$$a = \left(\frac{k}{k-1}\right)\left(1 - \frac{\Sigma\, \sigma_b^2}{\sigma_t^2}\right)$$

Description:

α_u = Cronbach's alpha reliability coefficient

n = Number of items in the instrument

$\sum \sigma_b^2$= Sum of the variance of each individual item

σ_t^2= Total variance of all items

The reliability criteria used in this study are based on Nunnally (1978), who states:

- If the Cronbach's Alpha ≥ 0.70, the instrument is considered reliable and suitable for use in the main data collection.
- If the Cronbach's Alpha < 0.70, the instrument will be reviewed and revised before proceeding.

Although this study was not designed to test correlations, validity and reliability tests were still conducted to ensure that the intended constructs were measured accurately and consistently. Therefore, the obtained data can be relied upon to describe watching patterns, and most importantly, perceptions of vocabulary knowledge.

Table 3. 5 *Questionnaire Reliability Test Results*

N of Items	Cronbach's Alpha	r-Table	Remark
26	0,955	0,70	Reliable

Source: Analysis result using SPSS version 27

As shown in Table 3.5, the Cronbach's alpha value for the questionnaire items in this study is 0.968. This exceeds the minimum reliability threshold of 0.70 (Nunnally, 1978). This suggests that the instrument is highly reliable and consistent.

E. Research Procedures

Stage 1: Preparation

The researcher conducted a literature review to strengthen the theoretical basis of this study, focusing on respondents' watching patterns and perceptions of their vocabulary knowledge. They also formulated the research questions and determined an appropriate descriptive survey design and sampling technique.

Stage 2: Instrument Development and Validation

An initial draft of the questionnaire was developed based on the theoretical framework. It was then submitted to English Education Department lecturer for a review of its content validity, after which it was pilot-tested on approximately 40 respondents. Validity (item-total correlation ≥ 0.320) and reliability (Cronbach's alpha ≥ 0.70).

Stage 3: Data Collection

The final questionnaire was distributed online via Google Forms through social media platforms and Gmail. Data collection took place over three weeks.

Stage 4: Data Processing and Analysis

The data were processed and organized into tables using Microsoft Excel, and then imported into SPSS. The analyses conducted included: (1) descriptive statistics (frequencies and percentages) for the categorical data on watching patterns; and (2) an analysis of perceptions of vocabulary knowledge, which was classified into low, moderate or high categories and expressed as mean scores.

Step 5: Interpretation and Reporting

The findings are interpreted in light of the research questions. A written report is then prepared in accordance with the university's specified format and guidelines.

F. Data Analysis Technique

The data analysis for this study was conducted using SPSS (Statistical Package for the Social Sciences) software. The analysis was carried out in three main stages, as described below:

1) Descriptive Statistical Analysis of Watching Patterns

This study uses categorical descriptive questions to investigate the patterns of respondents when watching English movies with English subtitles. The seven indicators covered by these questions are watching frequency, watching duration, use of subtitles, genre preferences, platform, watching strategies, and motivation. As the items in this section are categorical, the data will be analyzed using frequency distributions and percentages. The percentage for each category is calculated using the following formula:

$$P = \frac{f}{N} X\ 100\%$$

Description:

P = percentage of respondents per category

f = number of respondents selecting a particular answer

N = total number of respondents

The results are presented as frequency distribution tables for each indicator, which can be interpreted descriptively to provide a comprehensive overview of respondents' viewing patterns.

Table 3. 6 *Frequency and Percentage of Each Indicator*

Category	Frequency (f)	Percentage (%)
1-2 per week		
3-4 per week		
5-6 per week		
Every day		
Total		

(All indicators are included)

3) Descriptive Analysis of Perceptions of Vocabulary Knowledge

Perceptions of vocabulary knowledge consist of 26 items on a 1-5 Likert scale, organized into the following five categories: Form (items 1–5), Meaning (items 6–10), Use (items 11–15), Growth (items 16–19), and Retention (items 20–26). The data are ordinal and continuous, and this analysis uses mean scores and categorization to describe the level of perceptions of vocabulary knowledge.

The mean scores for each indicator and for the overall variable are calculated using the following formula:

$$X = \frac{\Sigma\, Xi}{N}$$

Description:

X = Mean score

$\sum Xi$ = Sum of all scores

n = Total number of respondents

Once you have obtained all the indicator means, calculate them using the formula:

$$x_{total} = \frac{Mean\ total}{Total\ Indicators}$$

To categorize the mean score of each indicator into Low, Moderate, or High, the class interval is determined using the following steps.

Step 1: Determine the range

R = Highest Score − Lowest Score = 5 – 1 = 4

Step 2: Determine the length of the class interval

$$i = \frac{R}{BK} = \frac{4}{3} = 1{,}33$$

(Wahyuni, 2020)

Description:

i = Length of class interval

R = Range

BK = Number of classes (3: Low, Moderate, and High)

The following interval guideline table was produced based on calculations using that formula:

Table 3. 7 *Interval Guideline*

Category	Interval
Low	1.00 – 2.33
Moderate	2.34 – 3.67
High	3.68 – 5.00

The interval table in the guidelines is used in the following dimension and indicator tables.

Table 3. 8 *Mean Score Table Format per Dimension*

No	Dimension	Mean Score	Category
1	F1 - Written Form		
2	F2 - Oral Form		
3	F2 - Words Parts		
4	F4 – Part of Speech		
	Dimension Mean		

(All dimension are included)

Table 3. 9 *Mean Score Table per Indicator*

No	Item	Mean Score	Category
1	Form		
2	Meaning		
3	Use		
4	Growth		
5	Retention		
	Indicator Mean		

The following is a detailed breakdown of the results for each category (low, moderate, high), indicating whether respondents felt unable to identify, able to identify, or very confident in identifying each aspect of vocabulary knowledge. This breakdown will serve as a reference in the following chapter.

Table 3. 10 *Indicator Description Criteria*

Indicator	Criteria		
	Low	**Moderate**	**High**
Form	Respondents feel unable to recognize and spoken and written words of forms, including pronunciation, spelling, and awareness of morphology.	Respondents can recognize and spoken and written words of forms, including pronunciation, spelling, and awareness of morphology.	Respondents feel highly confident in recognize and spoken and written words of forms, including pronunciation, spelling, and awareness of morphology.

Meaning	Respondents feel unable to understand the meaning of words, including basic definitions, connotations, nuances, and semantic associations in different context.	Respondents can understand the meaning of words, including basic definitions, connotations, nuances, and semantic associations in different context.	Respondents feel highly confident to understand the meaning of words, including basic definitions, connotations, nuances, and semantic associations in different context.
Use	Respondents feel unable to use vocabulary appropriately in context. This includes knowledge of grammatical functions, natural collocations, and awareness of register, example knowing when a word is appropriate in formal versus informal situations.	Respondents can use vocabulary appropriately in context. This includes knowledge of grammatical functions, natural collocations, and awareness of register, example knowing when a word is appropriate in formal versus informal situations.	Respondents feel highly confident in use vocabulary appropriately in context. This includes knowledge of grammatical functions, natural collocations, and awareness of register, example knowing when a word is appropriate in formal versus informal situations.

Growth	Respondents feel unable to notice the gradual growth of their vocabulary through repeated exposure to English movies with English subtitles.	Respondents can notice the gradual growth of their vocabulary through repeated exposure to English movies with English subtitles.	Respondents feel highly confident to notice the gradual growth of their vocabulary through repeated exposure to English movies with English subtitles.
Retention	Respondents feel unable to store new words in long-term memory and retrieve them in future situations after watching English movies with English subtitles.	Respondents can store new words in long-term memory and retrieve them in future situations after watching English movies with English subtitles.	Respondents feel highly confident to store new words in long-term memory and retrieve them in future situations after watching English movies with English subtitles.

Source: The indicators in this table are adapted from Nation (2001), Ellis (2008), Schmitt (2000), and focus on vocabulary knowledge.