

CHAPTER THREE

RESEARCH METHOD

The methodology was determined by the purpose of the study. As already outlined earlier, the major aim of this study was to investigate students' development in CL within the four resources framework viewed from the use of questions/ questioning. Three foci were forwarded and formulated in the following research questions.

- a. How was the development of the students' CL within the four resources framework viewed from the use of and responses to questions?
- b. How did students of different categories immerse in the CL within the four resources framework viewed from the use of and responses to questions?
- c. What were the contextual boundaries (what works and falls short) in using questions as a means to immerse students in CL within the four resources framework?

Departing from the research questions, this chapter presents six sub-sections which cover: the research design, research participant and recruitment, research setting, data collection and instrumentation, research procedure, data analysis and concluding remark.

3.1. Research Design

Guided by the research questions, this study employed multiple methods of data collections and analysis. The employment of mixed methods was based on two reasons. First, to achieve fuller understanding of the students' engagement in CL. In answering the first research questions, a pair of tests was carried out and the results were analyzed quantitatively to obtain general map of students' progress. This quantitative method, however, ignored context thus could not give complete understanding on the target phenomenon i.e. students' journey in CL as indicated by their responses to questions' and their questions to texts. Therefore,

qualitative method was also employed to understand and explore the process and the context, and to highlight and explain contradictions and peculiarities.

Second, to verify findings obtained from both quantitative method and qualitative method. Mixing both methods allowed dialogue between the quantitative and qualitative data thus permitted justification of findings. In addition, comparing findings from multiple methods allowed display of contradiction and peculiarities thus permitted clarification of findings in nested context.

In this study, the quantitative data and qualitative data were collected in one phase that lasted for one semester. The two types of data were analyzed separately yet concurrently as illustrated in figure 3.

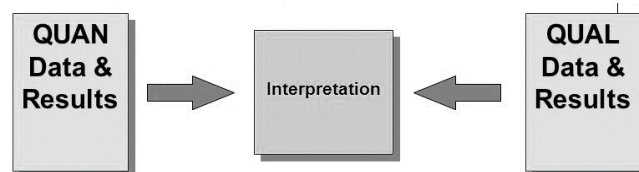


Figure 3: Concurrent Mixed Methods. Triangulation design. (Taken from Creswell and Clark, 2007)

The quantitative data obtained from tests and questionnaire were statistically described and tested. The scores of tests, in particular, was calculated using Wilcoxon signed rank test. The test was opted instead of paired t-test because normality assumption was not fulfilled by the data.

At the same time, qualitative data obtained from observation, analysis of students' work, interview, open ended section of questionnaire and students' questions section of tests were analyzed interactively. The framework from Miles and Huberman (1994) was adopted to work with the qualitative data. The interactive data analysis major phase includes data reduction, data display, and conclusion drawing/ verification. Results of the quantitative and qualitative data analysis were integrated along the way, whenever there was chance for data dialogue, but mainly, integration was carried out at the interpretation stage.

3.2. Research Participants and Recruitment

The study involved a class of first year university students majoring English Education under the Faculty of Teacher Training and Education of a university in Surakarta, Central Java, Indonesia. The class consisted of forty students. Initially, all forty students returning the consent letter form were observed during the study. However, as the study proceeded, five students decided not join the one or both of the tests and did not submit assignments. The five were then considered dropping out from the study and the remaining 35 students were taken as participants.

The students enrolled in the department were tightly selected. The rejection rate of the department was in fact the highest amongst other departments in teacher training faculty of the university. A quick poll at the beginning of the class revealed that 12 students had ever been appointed to represent their schools in English competitions. This indicated that the students had relatively good command of English compared to their peers in high school.

The first year was preferred for two major reasons. First year was considered the right moment for any ‘introduction’. The students had just left the blanket curriculum which was highly positivistic, thus it was the right moment to introduce them to CL which is post modernistic. Second, the earlier students engaged in CL the better it would be for their later reading experiences. Early introduction to CL allowed more time and opportunity for the students to train questioning ability when dealing with more complex texts.

The recruitment of participants began by sending consent letter to the head of the department; explaining the aim, data formation and management, and timeframe of the study. Consent letter form was then distributed to the students as well as the instructor/ lecturer who was involved as collaborator. As the demography of the students in terms of baseline competence obtained and somewhat clear, 9 out of 35 students were selected as focal respondents to represent certain category of students (high, middle, and low baselines).

Following Wallace's study (2003), certain meeting at the beginning, and end of the semester received stronger emphasis for illustration.

3.3. Research Setting

The study was conducted in an English Education Department of a university in Java. Several ranking organization listed this university as one of the top ten most popular universities in Indonesia. The students comes from various areas but mostly are of Javanese ethnicity. The language of communication in class is mainly English, but out-class, they speak mostly in Javanese and occasionally in Bahasa Indonesia and English.

The study took place in a course labelled Intensive Reading class, which was offered as a compulsory course for first year students. The on-site data collection lasted for one term, from the first week of September to the last week of November 2017. It was scheduled for 16 meetings but only 11 meetings were effectively used for teaching and learning. The other five meetings were allotted for introduction, tests, interview, and for filling questionnaire. Each session lasted roughly for 100 minutes. Downtime could not be eliminated due to the schedule that was approaching dusk but was reduced to minimum by preparing the class, tools, and copies of materials earlier. The class is scheduled every Wednesday at the last session which was likely to escalate the challenge to engage tired students. Several sessions were rescheduled to Thursday morning at the first period. The later schedule however was not better than the earlier schedule. While students might be fresh to have the class in the morning, downtime remained because of the late coming students.

The class was conducted in a regular classroom which was well equipped. The space available is relatively ideal to facilitate students' movement, particularly when they had to work in group. The seating arrangement for the CL class was set into U-shape. This was not only to accommodate better view for both teacher and students but more importantly, it represented and invited equality

and reduced power dominance. The main issue of the room was the temperature that could reach nearly 40 degrees when the air conditioners were not working. This had lent problems on students focus on the lesson or in doing tests.

3.4. Data Collection and Instrumentation

Data were collected using five techniques: observation, document analysis, test, interview, and questionnaire. The five corresponds one to another as a means of triangulation. This means that data obtained from one technique was checked and rechecked using another techniques.

1) Observation

Observation is systematic noting and recording of first-hand information (Creswell, 2012) in form of events, behaviors, and objects in the social setting chosen for the study (Marshall and Rossman, 2006). The observation was carried out as participatory, in this case, the researcher was also the teacher of the class under investigation.

Observation was the primary method to recount events during instruction which built major answers to the second and third research questions of this study. There were two points of interest in the observation. First, the students' activities when dealing with the material e.g. students' group discussion report, students' response to questions, students' generated questions, and other form of students contribution during lesson. Second, the milieu and context of students' contribution/ responses that include both context of success and failure. Table 8 summarizes the observation method of this study.

Table 8. Recap of Data Collection Method: Observation

Observation	RQ 2. How did students of different categories immerse in the CL within the four resources framework viewed from the use of and response to questions?	RQ 3. What were the contextual boundaries (what works and falls short) in using questions as a means to immerse students in CL within the four resources framework?
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Time	During lesson	During lesson
Tools/ instrument	video recording, observation checklist, rubric, extended field notes	video recording, extended field notes
Focus	Events (process). Ss' responses to T's questions aimed at stimulating engagement in each role, Ss' constructed questions that indicate engagement in certain role, Ss' expression indicating 'critical moment' (extended FN)	Events (process). Instant or delayed responses, paucity/ moment of silence, lively dialogue, off and on target discussion, complains and difficulties, indication of enthusiasm.
Preview	<u>Appendix 1</u> (format Extended Field Note-EFN) Description of instruction events and comments <u>Appendix 2</u> . Observation checklist sheet (tally if possible) Uses headings/pictures to predict storyline/ content/ word (CB) Responds to texts on a personal level (TP) Draws on a range of sources to synthesize information and express points of view to respond to text (e.g. construct/ design response text or generate new questions) (TU) Examines the writer's point of view and develops own position on the text (TA)	Preview: (format Extended Field Note-EFN) Description of instruction events and comments

The instruments used for observation was primarily field notes. This field notes were written immediately after the session and video recording of the instruction was provided in case of delayed writing or forgetting. The observation sheet used in this study was in form of extended field notes. The extended field notes put the records of both descriptive and reflective notes (Cresswell, 2012, Marshall and Rossman, 2006). The format is available at appendix 1. In addition to the extended field notes, a more structured observation sheet was used to aid classification of data. This instrument was adapted from the four resources guideposts available online at http://www.myread.org/monitoring_guideposts.htm and is available at appendix 2.

2) Artifacts (students worksheets and students writings)

Artifacts in this study refers to any written works that were produced during instructions either in class (worksheets and discussion notes) or out class (assignments). The documents, then, can also be referred as class artifact.

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The data to search in these documents included students' answers to questions, students' constructed questions, and summaries/ review. Beside observation notes, documents were one of major data sources to portray how students of differing baseline immerse in CL students. In this case, the works of focal students (summaries, group worksheet, and short paragraph) were collected, scored using rubric (particularly the summaries) and analyzed to see how each student engaged in the framework. Table 9 recap data collection method i.e. artifact analysis, employed in this study

Table 9. Recap of Data Collection Method: Artifact Analysis

Artifact analysis	RQ 2. How did students of different categories immerse in the CL within the four resources framework viewed from the use of and responses to questions?
Time	Beginning through end of semester (collection of students' work)
Tools/ Instrument	Rubric, students worksheet
Focus	Engagement in, change or progress on Ss' reader roles; Ss' responses to T's questions; Ss' constructed questions; see if the questions reflect the four roles
Preview	<p>Responses to the following questions in handout themed gender stereotype</p> <ol style="list-style-type: none"> 1. What is the text about? 2. Why is Barbie the center of controversy? 3. Why does Barbie become the center of controversy instead of He-man? 4. Are there any stereotype being reinforced or challenged? 5. What movement/ tags that is related to the objection to Barbie as woman representation? <p>Responses (short paragraph) to this two questions:</p> <ol style="list-style-type: none"> 1. Can you give another example of stereotyping 2. How important is this identification of stereotypes in text that you read? <p>Preview rubric</p> <p>CB – Capstone: accurately derives meaning from text by making sense of written words including specific terms</p> <p>TP – Milestone: derive / infer meaning with less or insufficient connection of text</p> <p>TU – Benchmark: limited/ insufficient understanding of how text achieves a certain purpose and unable to make connection made with the text</p> <p>TA – capstone: able to consider written words from various perspectives, track accuracy and reliability, uncover meaning,</p>

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intentions, agendas, assumption, and priorities, choose important ideas/ thoughts, recognize bias, take a standing toward the text, and provide another ways of doing / writing

3) Test (essay; pre and post test)

Test before the class was set to build students baseline profile. Meanwhile, post-test was set to examine trends or progress of students' engagement in CL within the four resources framework. Before the administration of test in the observed class, the test was tried out in a parallel class.

Both pre and post-tests consist of two sections and were in form of essay. The scoring was conducted with the aid of rubric which was developed based on Luke and Freebody's (1999). The rubric is available at appendix 3 but the preview is presented earlier in table 9. The tests are at appendix 4 and the preview is presented in table 10 that also serves as a recap for this section.

Table 10. Recap of Data Collection Method: Test

Test	RQ 1. How was the progress of the students' CL within the four resources framework viewed from the use of and responses to questions?
Time	Beginning and end of semester
Tools/ instrument	Pre and post-test, rubric
Focus	Change or progress of reader roles comparison of all responses before and after CL
Preview	<u>Pre-test Section B</u>

A Momentous Arrest

(Martin Luther King, Jr.)

On December 1, 1995, an attractive Negro seamstress, Mrs. Rosa Parks, boarded the Cleveland Avenue Bus in downtown Montgomery. She was returning home after her regular day's work in the Montgomery Fair_ a leading department store. Tired from long hours on her feet, Mrs. Parks sat down in the first seat behind the section reserved for whites. Not long after she took her seat, the bus operator ordered her, along with three other Negro passengers, to move back in order to accommodate boarding white passengers. ...

- If you were Mrs. Park what would you say to the bus operator?
- The writer used the word momentous which is synonymous to impactful (of great significance or importance). Why do you think the word is used?
- What problem is the writer identifying?

Post-test Section A

Traditional gender roles are STILL prevalent in schools:

Teachers call girls 'lovely' and boys 'strong', finds shocking study

By [Phoebe Weston For Mailonline](#)

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Traditional gender roles are still prevalent in early kindergartens, according to shocking new research. Staff in early childhood education and care institutions (ECEC) expect boys to be physical and active when playing and the girls to be quieter and calmer, the study found. Researchers found staff consciously or subconsciously maintain traditional gender patterns - calling little girls petite and lovely while telling the boys they were big and strong. ...

- What concept is being explained using the concept of pink dress?
- Why does the writer call the gender role as 'traditional'?
- What can you infer about the writer attitude toward gender role?

4) Interview

Interview was conducted to explore students' perception on the role of questions and on the CL practice that they had. In addition, interview was also used to elicit 'why' of certain response or reaction occurred in class. It also highlighted the how students could compare their previous reading practice to the one during the study. Therefore, interview addressed all three research questions. The interview results were used to justify and/ or verify data obtained from tests, observation, and questionnaires.

In this study the interview was conducted both one and one and in pair/group. The time of interview was mainly not predetermined but for efficiency reason and to deal with hesitant participant, a session approaching the end of the semester was used to interview a group of students. The manner of interview was primarily casual talk and conducted at possible moment during the class (e.g. when interviewee had finished his/ her work and was waiting other friends to finish theirs) and right after the class. Although the interview was not formal, the questions raised basically followed loosely the pre developed interview protocol and the preview is presented as part of table 11 that summarizes the interview method.

Table 11. Recap of Data Collection Method: Interview

Interview	RQ 1. How was the development of the students' CL within the	RQ 2. How did students of different categories immerse in the CL	RQ 3. What were the contextual boundaries (what works and falls
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	four resources viewed from the use of and response to questions?	within the four resources framework viewed from the use of and response to questions?	short) in using questions as a means to immerse students in CL within the four resources framework?
Time	Beginning and end of semester	After / during lesson	Mid and End of semester (Group)
Tools/ Instrument	Interview protocol, recorder and/or paper notes		
Focus	Progress or change of reading practice to lean on CL. Progress or change in the roles taken when reading.	Target on incidents, focal respondents, category representatives; exploring 'genetics' of phenomenon, metacognition, reflection	Challenges and success, metacognition
Preview	<ul style="list-style-type: none"> • What is reading to you? What do you do when reading? • What questions that you asked/ answer? • What is different in your reading practice in the past seven meetings compared to your previous reading practice? 	<ul style="list-style-type: none"> • What helps you/ what did you do to comprehend this text? • What makes you provide this kind of answer? • What attracted your interest in the text? • Did you agree or disagree with the idea/ claim? Why? How did you come to this? 	<ul style="list-style-type: none"> • Which reading text/ topic that you find most/ least interesting? • What activity did you like/ feel comfortable most and least? • Which or whose questions that stimulates your engagement in the text?

5) Questionnaire

The questionnaires were distributed twice and mainly explored and map students reading profile i.e. baseline reading practice and perspective on reading before and after the course. The items asked in the instruments were generally similar. However, in the post questionnaire there were added questions which asked the students' perception on the use of questions during the lessons.

Both open and close ended questionnaire were developed for the study. The close ended sections were in form of semantic scale and multiple choices. Provision of open ended questionnaire allows students' extended reflection on the activity of reading within the frame of four resources model. Before

distributed, the questionnaire was reviewed to avoid ambiguous wording and tried out to ensure that it could be completed within 30 minutes.

Due to its vulnerability in terms of reliability of responses, questionnaire was not meant to be a stand-alone data source. Interview was employed to clarify and check the reliability of responses. This means that during interviews questions taken from the questionnaire were also raised. Students' questionnaire responses which were unclear or absent were confirmed in the interview. In addition, the nature of the research questions made questionnaire not ideal as the major data collection technique. Nevertheless, the result of the questionnaire result enriched the discussion of the findings obtained from other data sources. In this case, responses on questions which asked students to define reading and to recount reading experience provided valuable information that explained the shift in students reading practice. The pre and post questionnaire are available at appendix 5 and the summary is displayed in table 12.

Table 12. Recap of Data Collection Method: Questionnaire

Questionnaire	RQ 1. How was the development of the students' CL within the four resources framework viewed from the use of and response to questions?	RQ 2. How did students of different categories immerse in the CL within the four resources framework viewed from the use of and response to questions?
Time	Beginning and end of semester	
Tools/ Instrument	Pre and post questionnaire	
Focus	General comparison on the following. Previous reading definition and practice Current reading definition and practice Engagement in Four Resources Framework Familiarity to CL: Reading-Writing	Focal respondents' responses on the following. Previous reading definition and practice Current reading definition and practice Engagement in Four Resources Framework

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connection, Questioning
Familiarity to multimodal texts

Familiarity to CL: Reading-Writing
connection, Questioning
Familiarity to multimodal texts

- Preview
- In a reading class I ...
 - a. Focus on reading texts
 - b. Answer comprehension questions
 - c. Ask questions based on the text
 - d. Write response/ journal/ essay/ poster
 - e. Have critical dialogue
 - f. Predict content of text
 - g. Other. Mention:.....
 - How do you describe yourself in terms of being critical when reading?
-
- Not critical highly critical
- Briefly write your definition of reading

In general the dialog between the research questions and the method of data collection to answer them is illustrated in table 13.

Table 13. Matrix of Data Collection

Question	RQ 1. Students' CL progress	RQ 2. Different categories of students' immersion into CL	RQ 3. The contextual boundaries
Method			
Major			
Observation		√	√
Test	√	√	
Doc Analysis		√	
Supporting			
Interview	√	√	√
Questionnaire	√	√	

3.5. Research Procedure

The research was conducted following this procedure.

- 1) Getting access Administering ethical issue (letter of consent)

This involved getting permit for the study and participant recruitment. The participants were those who signed and returned the letter of consent.

- 2) Instructional planning

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Instructional planning was conducted by paying particular attention to (a) organization of lessons i.e. from introductory sessions to practice sessions, (b) selection and organization of reading materials, (c) formulation/preparation of questions both scaling and questioning, and (d) design of worksheets. Detail of the instructional planning is written down in lesson plans which are available at Appendix 7.

3) Gaining demographic information

To gain baseline information and to aid demographic mapping, pre-test was conducted and questionnaire were distributed at the beginning of the study. Since the participants are fresh students, there was no record of their competence or proficiency and the baseline information was built from scratch; relying on the test and questionnaire results. The pre-test is tried out once in a parallel class to check its readability. After review, the test was administered in the research participants' class. Meanwhile, the questionnaires were distributed and filled in class. This was to ensure that every students devoted specific time to answer the questions.

4) Instruction and observation

The instructions lasted for 11 session with each meeting lasted for roughly 100 minutes. The instructions were roughly divided into two parts. The first part is the introductory sessions in which explicit teaching on the basic ideas underlying CL was introduced to the students. At this part, questions posed are mainly teacher's questions. This serves as modelling sessions in which students observed the questions and identify the area/role which are targeted by the questions. The second part is the practice sessions in which students began to work with SQ3R-SQ4R and within cooperative groups. In the second part, students' generated questions were encouraged with the use of SQ3R-SQ4R.

Within each session in both the first and second part, the order of the activity follows the sequence of 'class to group to individual' and from

conventional to critical, which means critical discussion is conducted after linguistic aspect of the text has been tackled. In both parts, there were reading sessions which were conducted in class, and there were writing sessions which were set as take-home assignments. The class' reading sessions applied the teacher-led whole-class interaction and cooperative group arrangements. Questions used in the teacher-led whole-class discussion were pre-developed teacher's questions. Questions used in the cooperative group were mostly students' generated. Meanwhile, the out class writing sessions applied individual task arrangement.

Since it was already quite handful to teach and observe, the field notes were written after each session and in case of forgetting, a collaborator and recording were available to help. The recording had been communicated and introduced to the students from the first week of the course to reduce Hawthorne effect. An assistant was working on the video recording as the instruction took place. Rehearsal on instruction recording was conducted before the study to optimize better understanding between the assistant and researcher on what to focus on during the actual instruction.

5) Gaining information on progress

To gain information on the development of students CL, data from all sources were tabulated, labelled, then placed side by side for comparison and pattern identification. The procedure for this information gathering follows the interactive model of analysis.

3.6. Data Analysis

Data obtained in this study were analyzed based on the nature of the data. The quantitative data obtained from test were calculated using non parametric measure, Wilcoxon signed rank test. This test is alternative to paired t-test when the data is not in normal distribution. Although the tests were not sensitive to

normality, Wilcoxon signed rank test was preferred for better acceptance of the result.

Meanwhile, qualitative data that were collected from observation, analysis of students' work, interview, open ended section of questionnaire and students' questions section of tests were analyzed using Miles and Huberman's (1994) interactive model. The next phase of analysis following data collection included data reduction, data display, and conclusion/ verification drawing as illustrated in the figure 4.

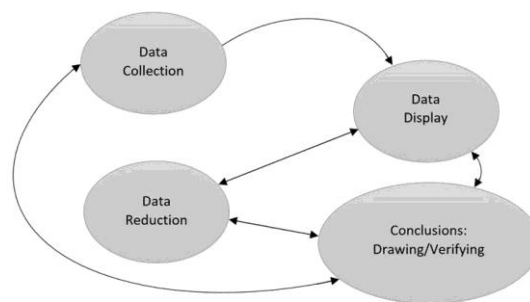


Figure 4: Interactive Model of Analysis (taken from <https://www.researchgate.net/>)

The data collected were selected in terms of relevance and simplified to make it manageable. The procedure in handling data follows the step of (1) tabulation of all responses to questions and tabulation of students generated questions, (2) label/ code the data to indicate the source, (3) classify and label/ code the data to indicate the addressed role (the FRF), (4) examining pattern of data to look for theme, (5) label/ code the data based on identified pattern/ theme, (6) re-examine the pattern/ codes.

Once the data was manageable, they were assembled in an organized manner to allow conclusion drawing. The form of data display in this study were tabulation and narration. The next phase was final conclusion drawing and verification. The conclusion drawing basically started from the first phase. When data were selected, patterns were noted, and proposition were displayed, the researcher had been involved in the conclusion drawing. The whole phases were interactive and allowed researcher to communicate and going back or forth the

phases when necessary. It even allowed the researcher to go back to field to collect more data when required. In this study, re-visit to the field was generally to obtain explanation on students' response to questions or students' reason for asking certain question that indicate his/ her engagement in CL within the framework.

3.7. Concluding Remark

The choice of methods in this study was mainly pragmatic. It means that the method was determined by the nature of the research questions. Because the research questions required both quantitative and qualitative method, the mixed-method was employed. The employment of mixed methods was also driven by an acknowledgement that 'what works' must be accompanied by how it works and for which category of students.

While the quantitative and qualitative data analysis were done separately, the interpretation of data was conducted integrated-ly. Both data and analysis were of equal importance in building full understanding of the phenomenon under investigation. In this study, quantitative data were measured using non-parametric Wilcoxon Signed Rank-Test and the qualitative data were analyzed using Miles and Huberman's Interactive Model.

The use of multi-methods of data collection: observation, document analysis, test, interview, and questionnaire allowed triangulation/ validation. Data on students' engagement in text analyst role obtained from document, for example, can be justified by examining similar data from the test. Likewise, questionnaire responses can be clarified in the interview.