CHAPTER III
RESEARCH METHODOLOGY

This chapter describes the research methodology used in the study to answer the research questions posed in the previous chapter. This includes the research design, access, site, and participants of the study, data collection, data analysis, and data triangulation.

3.1 Research Design

As the purpose of this study was to find the relation between TLP and TE and the teachers' perception of the role of language proficiency in the effectiveness of their teaching process, a mixed-methods sequential explanatory research design was chosen. The quantitative portion of the study used a type of chi-square test study to find the relations between TLP and TE, while the qualitative part of the study used descriptive research.

Generally, a mixed method design is chosen because by using this design, both quantitative and qualitative data can be obtained to have a clear and deeper understanding of the research questions and at the same time to help achieve a greater certainty in the formulation of the conclusion (Ponce & Pagán-Maldonado, 2015). Specifically, explanatory sequential strategy is used so that a more in-depth understanding of the results obtained in the quantitative stage can be explored in the qualitative phase (Creswell, 2013) and also because a mixed method research can become a way to bring together the strengths of both qualitative and quantitative studies, and at the same time enhance the validity of the findings and minimize researchers' bias (Hamied, 2017; Punch, 2009; Van Lier, 2005).

In the first stage of the study, a quantitative data collection was used; in this case, a two-dimensional chi square was conducted to answer the first research question: 'Is there a relation between teacher language proficiency and the

effectiveness of teaching process?' Chi square was chosen because the data for both TLP and TE were in the form of frequency counts. This type of quantitative study is appropriate when the data are in nominal scale and specifically two-dimensional chi square is appropriate when there are more than one dimension for each category (Lunenburg & Irby, 2008); in this study, there were four categories for each variable: four for TLP and four for TE.

In the second stage of the study, a qualitative research was done to obtain data to answer the second research question: 'How do teachers perceive the role of language proficiency in the effectiveness of teaching process to be?' Observations on how the teachers performed in the classroom and interviews with the two parties: teachers and the academic team became the main research instruments of collecting the data. This is the way descriptive research is conducted with the aim to 'examine situations in order to establish what is the norm' (Walliman, 2011, p. 8) and conducted in a real-life context (Van Lier, 2005) within the scope of an English language school.

3.2   Research Site and Participants

The teachers participating in this study came from three branches of an English language course in Bandung, Indonesia. This language course was chosen because of the accessibility to conduct this research in this site and because the English language was used exclusively by the teachers in class sessions. Mutually, this school could benefit from this study as they could discover at what level their English teachers' language proficiency was and whether this had any relations to their TE. At the same time, from the teachers' perception of the role of TLP and TE, the institutions could create more customized programs to support the improvement and maintenance of the teachers' TLP and TE.
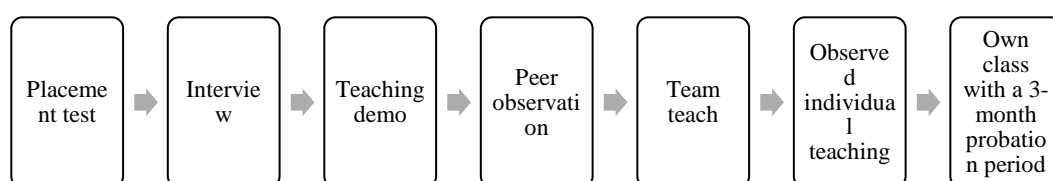
3.2.1   Research Site

Established 35 years ago in Bandung and has since expanded to 16 schools in nine cities across Indonesia, this school has the vision to be the preferred and

trusted English language training provider in the region and the mission to constantly increase the capacity of educators, professionals, entrepreneurs and students to confidently compete in the global community. This is because the language school does not only provide classes for people wanting to learn the English language, but it also provides Teacher Development Workshops (TDWs) and is affiliated to the Cambridge Language Assessment in providing the Certificate in English Language Teaching for Speakers of Other Languages (CELTA). Teachers wanting to teach in this course may come from any educational background; however, they need to possess high level of proficiency, at least a B2 level of the Common European Framework of Reference (CEFR). This is assessed through a proficiency level test, as well as speaking and writing assessment. The applicant will then be interviewed by the Academic Team Leader and do a teaching demo in an existing class. If she is considered able to teach, then the next step of the process of application is co-teaching with another teacher, teaching alone under the supervision of the Academic Team Leader, and teaching individually in a class. In general, the process of becoming a teacher in this school is as follows (Figure 3.1).

| Placement test | → | Interview | → | Teaching demo | → | Peer observation | → | Team teach | → | Observed individual teaching | → | Own class with a 3-month probation period |

Figure 3.1. The process of becoming a teacher at the school

Throughout the process described in Figure 3.1, the Vice Principal Academic (VPA) of the specific branch will give feedback on the applicant's performance, and after being accepted to become a teacher in the course, the teacher will need to go through three formal observations in a year and attend at least six internal teacher development workshops. Obtaining a CELTA is also highly expected, and the school supports the teachers wanting to attain one by

giving partial or full sponsorship.

3.2.2 Participants' Profile

There were 41 participants in the study from the three branches of the language school in Bandung. There were differences in the teachers' educational background. While some of them graduated from the English education major from various universities, some came from completely different majors: international relations, interior design, environmental engineering, and architecture to name a few. There was also a large range of teaching experience from more than 12 years to less than a year. Because of this significant differences in the teachers' general background, homogeneous purposive sampling was used in the second part of the study in terms of the level teachers was categorized, the branch that they taught so that the range of development programs they had experienced would be similar, and more importantly previous training in the target language, in this case teachers who had yet to obtain CELTA. By choosing homogeneous purposive sampling, one could better concentrate on teachers with specific characteristics that could help her get a better understanding of the research questions (Etikan, 2016).

3.3 Data Collection

There were several instruments used in both stages of the study to answer both research questions. In the first part, the quantitative study, two instruments – questionnaires filled by the teachers and interviews with the academic team – were used to find teachers' estimated TLP and TE. In the qualitative phase, two instruments – observations and interviews with the teachers and the academic team – were used to gain a deeper insight of the ways TLP was related to TE and how teachers perceived the role of language proficiency in the effectiveness of their teaching process to be.

3.3.1 Questionnaires

A three-part questionnaire was used in the first stage of the study to find two aspects of the study: teacher's perception of their own language proficiency as well as their perception of their teaching effectiveness.

3.3.1.1 Teachers' General Background

The first part of the questionnaire for TLP consisted of questions about the teachers' general background: name, gender, educational background, teaching year, previous target language (TL) learning/ training joined, and exam sat (Appendix C). The scores of the standardized tests were then converted into a CEFR level based on the conversion table found in respective tests' website Cambridge Assessment English, 2019). This was then taken as the externally-assessed TLP.

The levels of CEFR were used as the standardization of TLP in this study for two reasons. Firstly, CEFR provided a complete and comprehensive framework of the English language proficiency levels, and because CEFR described the language in terms of one's ability to use it by using a set of can do statements, it could reduce the variability of what was considered one level to another (Council of Europe, 2001). Secondly, with different tests taken by the teachers, using a CEFR leveling was a way to ensure a consistent result for all the teachers was achieved.

3.3.1.2 Teachers' Perceived Language Proficiency

The second part was about teachers perceived language proficiency divided into two sub parts: a questionnaire where participants needed to rate themselves from 1 (never) to 5 (always) and a polar question part (yes/ no questions) where they had to answer whether they could or could not do the statements given. The first sub-part consisted of 7 items about general language proficiency adapted from a research by Elder (1993a) in Appendix A, while the yes/ no questions were adopted from Common European Framework of Reference

(CEFR) (Council of Europe, 2001, p. 24) in Appendix D. I used the same framework for TLP in both self-evaluated and externally-assessed because the use of the same framework for collecting similar data ensured consistency (Nassaji, 2015).

3.3.1.3 Teachers' Perceived Teaching Effectiveness

Similar to the second part, the third part consisted of two sub-parts: a questionnaire and a polar question part (yes/ no questions) where they had to answer whether they could or could not do the statements given. This part measured TE, and it consisted of three main parts: managing the classroom (5 items), understanding and communicating lesson content (5 items), and assessing students and giving feedback (3 items). This framework was adapted from studies done by (Freeman et al., 2015; Richards et al., 2013; Richards, 2017), and the second sub-part was adapted from Australian Professional Standards for Teachers (2018, p. 10,14) in Appendix E.

For the lack of comprehensive frameworks of assessing the effectiveness of teachers' teaching in Indonesia, a leveling from the Australian professional standards for teachers was adapted because it provided a complete categorization of TE and it defined each category comprehensively (*Australian professional standards for teachers*, 2018), and even though this framework was created in Australia, there were some similarities with the competence standards used in the Indonesian context, especially the pedagogical competence (see sub chapter 2.2.2 about subject teachers' competences).

However, not all categories of the Australian professional standards for teachers were used in this study, instead categories which focused on the three aspects of teaching effectiveness in the study were used in four levels: Graduate, Proficient, Highly Accomplished, and Lead to sort teachers in their respective

levels of TE, and the statements of each category were made into *can do statement*, following the format of CEFR.

3.3.2 Observations

The second instrument used in this study to find both variables – teachers' language proficiency and teaching effectiveness – is observations. I became a non-participant observer noting down non-recordable instances happening in the classroom, such as classroom atmosphere, teachers' gesture and body language, and students' participation. These occurrences were jotted down in a field note as it was simple to keep and when used with audio recording could help the observer's memory to find a connection between variables (Hopkins, 2008). A sample of the field note is in Appendix F.

While observing I also used a framework similar to that of the framework in the questionnaire, which was adapted from a research by Elder, (1993a) in Appendix B. However, the framework for the observations did not use a Likert-scale like in the observation; rather I wrote down some notes on the occurrences of each item happening in the classroom. When needed, I re-listened to the audio recording taken during the observations to complete the table. See Appendix G.

Similar to TLP, the framework used in TE will also be the same as the framework of TE in the questionnaire which is adapted from studies done by (Freeman et al., 2015; Richards et al., 2013; Richards, 2017), and instead of using a Likert scale, I will take notes on the occurrences happening in the classroom as well (Appendix H).

Each class observed was 90 minutes long, and the teachers were observed once a week in the same class. However, the class itself was scheduled for two times a week, but taught by a co-teacher. The number of observations done to each participant was five to six times. This means that the observation process

were done in six weeks, and this number was chosen because six weeks was the amount of time needed to cover two units of the students' course book.

Additionally, I also recorded teachers' classroom talk using a voice recorder to further find TLP and TE. The use of audio recordings in this study had several advantages. First, as this study focused on the TLP, it was only reasonable for teachers' spoken language to be recorded. Secondly, teacher pocketed a small audio recorder which made it less intrusive for the students and the teachers themselves. The use of automatic record such as voice recorder could be beneficial especially in rapid events (Walliman, 2011), in this case: teacher classroom language use. Another advantage was that an audio recording could be replayed and examined at different times, and the transcription could be analyzed against different frameworks so that more than one facet of the study aim could be obtained (Richards & Lockhart, 2007). In this case, although both the frameworks for TLP and TE were used while I was observing the teachers, a more in-depth analysis of this will be done post-observations by using the audio recording.

Furthermore, to lessen the subjectivity of these observations, the framework was then compared to the descriptors of teachers' level of language proficiency and teaching effectiveness adopted from (*Australian professional standards for teachers*, 2018; Council of Europe, 2001). See Appendices I and J.

The descriptors of general language proficiency were divided into four categories: B1, B2, C1, and C2 following the levels of CEFR, and the descriptors of teaching effectiveness were divided into four categories: graduate, proficient, highly accomplished, and lead following the four levels of teachers' performance in the four levels of teachers' performance in (*Australian professional standards for teachers*, 2018).

3.3.3 Interviews

For both the quantitative and qualitative part of the study, interviews were used for the instrument of data collection. Interview with the academic team was done in the quantitative phase, while interviews with two parties: the academic team and the teachers were used for data collection in the qualitative phase. The use of interviews combined with other means of other types of data, in this case questionnaire, can strengthen the interpretations based on that data' (Griffee, 2012, p. 160).

3.3.3.1 Academic Team Interviews

Interviews with the academic team were done two times, after the distribution of the questionnaire and after the observations of the selected participants were done. The first interview was done to get the general estimation of all the teachers' teaching effectiveness to compare with the estimation of teaching effectiveness teachers do on themselves. The framework used was the same as the one used in the questionnaire to ensure that the results gathered were consistent.

The second stage of the interview was done in the qualitative phase after the observations and interviews of the selected teachers were done. This was done to strengthen the information gathered about teachers' perception of the roles of language proficiency in the effectiveness of the teaching process. The guidance for the questions asked to the academic team is in Appendix K.

3.3.3.2 Teacher Interviews

Teacher interviews were done in the qualitative stage of the study, and the first part of the interview consisted of follow up questions from the questionnaire about the teachers' general background: educational background, teaching year, previous target language (TL) learning/ training joined, and exam sat, while the second, the third, and the fourth part of the interview consists of questions related

to their perception of language proficiency and teaching effectiveness, and how they perceive the role of language proficiency to the effectiveness of their teaching process to be (Appendix L).

The interviews done to the teachers were conducted in their native language Indonesian, to ensure that there was no significant meaning lost in the translation. Similarly, for terms they could not translate in the Indonesian language, they were encouraged to use the English word. In this sense, the participants' experience and language are honored and it is significant for researchers to do so (Koulouriotis, 2011).

3.4 Data Analysis

Data analysis in this study was divided into data that answer the first research question 'Is there a relation between teachers' language proficiency and the second 'How do teachers perceive the role of language proficiency in the effectiveness of their teaching process to be?' The first question was answered from the quantitative analysis of the data gathered from the questionnaires and the academic team of each branch interviews, while the second was answered using the qualitative analysis of the data collected from observations and interviews with the teachers and the academic team.

3.4.1 Quantitative Data Analysis

The quantitative data for this study was obtained from the questionnaires participants needed to fill in prior to the observation. The first step of analyzing the result of this closed-ended-question questionnaire was to convert the answer of yes or no into the coding frame; in this case, I used the spread sheet program of Microsoft Excel. The result of this coding frame was then categorised into different categories with similar 'underlying theme' (Dörnyei, 2003, p. 108) and was presented in a table. The category for TLP was general language proficiency and a sample coding frame for the data is in Table 3.1.

Table 3.1
Coding Frame of Teachers' Estimated Language Proficiency

Teacher	Self evaluation	Exam sat (converted scores)/ category
1	B1/ B2/ C1/ C2	B1/ B2/ C1/ C2
2	B1/ B2/ C1/ C2	B1/ B2/ C1/ C2

Note. B1. B2, C1, and C2 English language proficiency levels from the Common European Framework of Reference (CEFR)

From Table 3.1 it can be seen that each teacher had two categories of TLP: self-evaluated (taken from teacher self-assessment of their TLP) and external evaluation (in this case the categories taken from the scores of the exams that they had taken). TLP gathered from the results of the standardized tests they had taken was then used as teachers' category in TLP to be compared with the TE gathered from the academic team's evaluation..

Similarly, data gathered from questionnaire for TE was coded in a table. However, unlike TLP which had only one category, data of TE were divided into three categories: managing the classroom, understanding and communicating lesson content, and assessing students and giving feedback. A sample of a coding frame for teachers' TE in all aspects is in Table 3.2.

Table 3.2
Coding Frame of Teachers' Estimated TE

Teacher	Self evaluation	Academic team evaluation/ Category
1	G/ P/ HA/ L	G/ P/ HA/ L
2	G/ P/ HA/ L	G/ P/ HA/ L

Note. G (Graduate), P (Proficient), HA (Highly Accomplished), and L (Lead)

Similar to TLP, from Table 3.2 it can be seen there are more than one category of TE. These were divided into two categories based on teachers' self-evaluation (considered as internally evaluated) and the academic team evaluation (considered as externally evaluated, which was then used as the category of teachers' TE).

The result gathered from the coding frame is then tabulated in a contingency table (cross tabulation) because this was a simple way to show the relationship between variables (Walliman, 2011) See Table 3.3.

Table 3.3
TLP and TE 1 Cross Tabulated Result

| | | | Teaching Effectiveness: Managing the classroom | | | | Total |
			Graduate	Proficient	Highly proficient	Lead	
TLP	B1	Count					
		Expected count					
	B2	Count					
		Expected count					
	C1	Count					
		Expected count					
	C2	Count					
		Expected count					
Total		Count					
		Expected count					

The raw result of the questionnaire tabulated as in Table 3.3 was then inputted in IBM SPSS Statistics for Windows version (IBM Corp., Armonk, NY, USA) program, and a chi-square type formula was used as the samples were nominally measured (Hamied, 2017) and the two variables were categorized in frequencies (Sherry & Henson, 2005).

The result of the crosstabs from the SPSS program may yield different results which need a different formula of analysis. When a study uses a big sample, a simple chi-squared test will suffice; however, with a smaller sample and the condition that more than 20% of the cells have an expected frequencies of less than five, then a variation of chi square formula named Fisher exact test is more suitable to analyze the result of the study (Sharpe, 2015). More specifically, with

a contingency table of bigger than 2x2, then an extension of Fisher exact test called Fisher-Freeman-Halton exact test can be used (Kim, 2017).

In the quantitative part of the study, the last formula was used as the findings fulfilled the three conditions where it was appropriate to use Fisher-Freeman-Halton exact test: a small sample, a condition where more than 20% of the cells have an expected frequency of less than five, and a bigger than a 2x2 contingency table.

The Fisher-Freeman-Halton exact test resulted in significance value, and this was compared to the null hypothesis formulated at the beginning of the study, which stated that there was no relation between TLP and TE at the level of significance of .05. If it was found that the significance value to be bigger than or same as .05, then the study did not reject the null hypothesis. Conversely, with a significance value of less than .05, then the result rejected the null hypothesis, in that there was a relation between the two variables (Hatch & Farhady, 1982), in this study, TLP and TE.

After it was found whether or not there was a relation between TLP and TE, strength of association value was calculated to find how strong the relation between these two variables was. Because the contingency table was bigger than 2 x 2, the strength of the association was seen from the Cramer's V value (Akoglu, 2018; Field, 2013). The interpretation of Phi and Cramer's V can be seen in Table 3.4 (Akoglu, 2018, p. 92).

Table 3.4
Interpretation of Phi and Cramer's V value

Phi and Cramer's V	Interpretation
> 0.25	Very strong
> 0.15	Strong
> 0.10	Moderate
> 0.05	Weak
> 0	No or very weak

From the interpretation of the Cramer's V value as seen from Table 3.4, how strong the relation between the two variables was established, ranging from no or very weak relation to very strong.

Lastly, the result of the open-ended questions in the first part of the questionnaire which was about the background of participants was simply described using a table containing frequencies of the data gathered.

3.4.2   Qualitative Data Analysis

The qualitative data for this study were gathered by means of interviews, both of the teachers pre and post observations and of the academic team as well as classroom observations with audio recordings to ensure classroom language used could be re-examined at a later time and, if needed, compared against different frameworks (Richards & Lockhart, 2007).

Data collected from the semi-structured interview with the teachers was analyzed using these two approaches: 'become familiar with the data and create meaning by using analytical categories' (Griffee, 2012, p. 164). First I familiarized myself with the data by listening repeatedly to the recording and reading the notes I took throughout the interview. Doing so helped me find common themes from different teachers which then were used as a basis for my analysis. However, at the same time I also prepared the themes and categories prior to doing the interview. In this way, the questions were not asked randomly, but in a purposeful way.

For data collected from the observations, I followed the Miles and Huberman framework of qualitative data analysis consisting of data reduction, data display, and drawing and verifying conclusions' (Punch, 2009, p. 174). After data was collected, I then reduced the data into some themes and patterns, two of which were the variables of the study: TLP and TE, with smaller themes similar to the ones teachers get in the questionnaire. This process was then continued with

displaying the data to both organize and summarize the bulk of data gathered. The last stage of the analysis of observation data was the drawing, and more importantly, verifying of conclusions. However, despite the being the last stage of the analysis process, the stage of drawing conclusion moved simultaneously with the two previous stages; thus, the crude conclusion drawn throughout these stages needed to be verified once data were reduced and displayed in an organized manner.

In this study, the recapitulated occurrences happening in the six times of observations were reduced into categories of *occasionally*, *generally*, and *consistently*. *Occasionally* denoted occurrences of the aspect happening in one or two sessions out of the six sessions observations done, *generally* in three of four times, and *consistently* in five or six sessions of observations (Table 3.5).

Table 3.5
Summary of TLP Data Gathered from the Observations

Factors of Teachers' Language proficiency	Teacher 1 (G/ P/ HA/ L)
General language proficiency	3/ 2/ 1/ N/A
1. Can pronounce words/ sound clearly and accurately	occasionally, generally, or consistently
2. Can clearly distinguish the use of questions, statements, and instructions.	
3. Can speak fluently (e.g. not too much hesitation or groping for words).	
4. Can express ideas in different ways (rephrasing, elaborating, summarizing).	
5. Can formulate questions clearly.	
6. Use correct spelling and punctuation in boardwork and handouts.	
7. Seek clarification of students language when necessary (e.g. ask them to repeat or rephrase)	

Note. The use of occasionally, generally, and consistently indicates the demonstration of TLP aspects tabulated from the six observations done to them. B1, B2, C1, and CE from CEFR levels

Similar to TLP data, TE data gathered was also recapitulated in a table with occurrences happening in the observations reduced into three categories: *occasionally*, *generally*, or *consistently* (Table 3.6) .

Table 3.6
Summary of TE Data Gathered from the Observations.

Factors of Teaching Effectiveness	Teacher 1 (G/ P/ HA/ L)
Managing the classroom	3/ 2/ 1/ N/A
1. Use English to put learners into groups or pairs	
2. Use English to give praise and encouragement for students' attempt to communicate	
3. Use English to control the activities (e.g. to get the attention of the class at the beginning/ the end of activities)	
4. Use English to discipline students	
5. Can give clear instructions	
Understanding and communicating lesson content	3/ 2/ 1/ N/A
1. Have access and use English resources (e.g. textbooks, the Internet), and can use other language-learning support materials (e.g. posters, authentic materials)	
2. Give accurate and meaningful explanations of the meaning and usage of the TL	
3. Give explanations of TL in the English	
4. Can adjust level of English to match students level appropriately	
5. Use appropriate models of English such as social language and formulaic expressions	
Assessing students and giving feedback	3/ 2/ 1/ N/A
1. Can correct students' errors accurately	
2. Can clearly show acceptance/ rejection of students' response	
3. Can provide appropriate corrective feedback (e.g. feedback on accuracy or performance)	

Note. The use of occasionally, generally, and consistently indicates the demonstration of TE aspects tabulated from the six observations done to them. B1, B2, C1, and CE from CEFR levels

In addition to a recapitulated table as seen from Tables 3.5 and 3.6, for each of the teacher, a narrative describing his/ her language proficiency and teaching effectiveness was narrated using excerpts from the audio recording and

from the field journal taken from the observations as well as discussion from the interviews of the teachers and academic team.

A sample of a completed questionnaire and a field note is in Appendices M and N.

3.5   Data Triangulation

There are different instruments used to measures the two variables of this study with the aim of increasing their internal validity as can be seen in Figure 3.2 Triangulation by method for TLP and TE Figure 3.2 below.
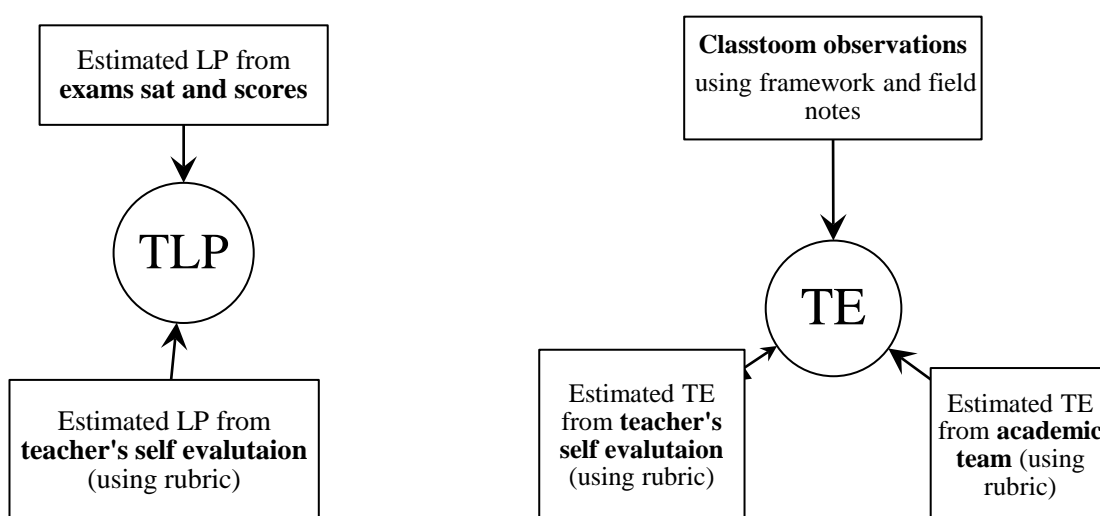

Figure 3.2. Triangulation by method for TLP and TE

As can be seen from Figure 3.2, data to measure TLP were obtained from teachers' self-assessment (internally assessed) as well as the results of the standardized test these teachers had taken (externally assessed) gathered from the questionnaires. The use of different methods to measure the same aspect has the benefit of increasing the internal validity of the data obtained (Meijer, Verloop, & Beijaard, 2002) and in this study, it could give a better prediction of the teachers' language proficiency level. Procedural approach was used to present the data collected so that the result of the study could be 'transparent and replicable' (Meijer et al., 2002, p. 147).

Similarly, data to measure TE were collected from the multi-method triangulation of teachers' self-evaluation of their TE (internally assessed), the academic team evaluation (externally assessed), added with TE seen from teachers' observations. The first two were analyzed against the results of TLP using the Fisher-Freeman to find the relation between TLP and TE. The last was analyzed using qualitative descriptive analysis using the same framework used in the questionnaire and a narrative gathered from the teachers and as well as the academic team interviews . How capable teachers were in fulfilling these criteria became the measurement of their teaching effectiveness.