

## CHAPTER III

### METHODOLOGY

Every research undertaking entails an appropriate research methodology for the sake of attaining supporting data to acquire and to analyze the research problems. Thus, this chapter presents an overview of the research method adopted in this study and the rationale underlying the selection of the research design and the participant(s) of the study.

This chapter comprises six major sections that are: (1) research design; (2) setting of the study; (3) participant/subject of the study; (4) data source; (5) data collection; and (6) data analysis. It seeks to answer these two research questions: (a) How is the graduates' understanding of abstract writing reflected in their writing? and (b) What are the challenges the graduates faced in abstract writing?

#### **3.1 Research design**

This study employed a qualitative design, specifically a move analysis method as this study was a part of a more extensive study in investigating and analyzing the comparison between students' understandings on rhetorical structure in abstracts and their actual writing performance (Baker, 2010; Hyland, 2009). Besides, this study also described the challenges faced by the students in writing a research article abstract. Thus, this design was used and adopted because it is believed to be perfectly helpful in conducting a deeper data analysis and to help acquire a detailed description in the issue (Creswell, 2003; Denzin & Lincoln, 2000; Hennink, Hutter, & Bailey, 2011; Miles, Huberman, & Saldana, 2013; Paris & Winn, 2013; Silvermman, 2005). The move-step analysis guideline was taken from Hyland (2000) and Kurniawan et al. elaboration (2019) that involved 5 aspects that are the introduction of the issues, aims, research method, result, and conclusion and adopted genre knowledge analysis in analyzing the graduates' understandings (Tardy, 2009). A detailed description regarding data sources, data collection, and data analysis is mentioned in the next sub-section.

#### **3.2 Setting of the study**

This study was conducted in a virtual setting. All of the data were collected online using google form. The data collected from November 2019 to September 2020 because the participants lived outside Bandung. To collect the data, I took

longer time than expected because the time was adjusted to the participants' schedule.

### 3.3 Subject of the study

The subject of the study were ten graduates' students majoring in English education and a journal reviewer expert. Specifically, this study involved ten graduates' students of the Indonesia University of Education who were scholarship awardees. The selection was made because these students have outstanding achievement and well-performance in the classroom so it is expected that their understanding could really reflected in their writing. Table 5 shows the demography of the participant in the present study

Table 5. Demography of the participants

<b>Status of the author</b>	<b>Σpeople</b>
Postgraduate student	10
<b>Year</b>	
2016	1
2017	9
<b>Major</b>	
English Education	10
<b>Status</b>	
LPDP awardee	8
BU awardee	2
<b>The article published in</b>	
Scopus-indexed journal	4
Proceeding of the international conference	6
<b>Status of the expert</b>	

<p>Experience in writing journal article &gt;10 times</p> <p>Position Editor-in-chief</p> <p>Length of handling the position in the journal &gt;10 years</p>
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### 3.4 Data Source

This study used the data from ten graduates' abstracts of English Education in the Indonesia University of Education. Specifically, this study involved ten published abstracts in Scopus-indexed journals or in proceedings of international conferences. The sample in this study was only ten because the researcher wanted to gain more specific and focused results.

### 3.5 Data Collection

The data of the study were collected through three instruments namely open-ended questionnaires, document, and experts' judgment. The description of the aforementioned instruments is described as follows,

#### 3.5.1 Instrument

##### 3.5.1.1 *Open-ended questionnaire*

The design of the instrument was based on the research needs which contained nine items that focused on the students' understandings of abstract move-step and the challenges faced by the students. The design of this instrument was taken from Hyland (2000) and genre analysis by Tardy (2009) as those theories have been established and widely used (Fadhly et. al. 2018; Kurniawan et al., 2019). The list of the question is mentioned in the following table:

Table 6. Open-ended questionnaire:

No.	Questions	Category
1.	What do you know about abstract construction? What are the elements of abstract? (e.g. aims and findings only; aims, methods, and findings; introduction, aims, methods, conclusion, etc)	Students' understanding of abstract moves-steps  <i>(adopted from Hyland, 2000)</i>
2.	What is the content that should be put in there? (for example, introduction describing the issues on the topic, and etc.)	
3.	Why there is a difference between your statement and your writing?	
4.	How do you write the part of the introduction, aims, methods, results, and conclusions in abstract writing?	Follow up questions related to abstract construction  <i>(adopted from Flower and Hayes' (1980b) theory</i>
5.	What are the things you do in pre-writing and post-writing stages? Please elaborate!  (pre-writing and post-writing, such as planning, organizing, content knowledge, and discourse knowledge, and translating, reviewing (evaluating, editing, and revising)	
6.	please elaborate on the challenges of writing an abstract for publication?	Challenges
7.	Do the English materials taught at the university help you to write academic writing such as writing abstract in English? what kind of materials do you get? Explain!	

8.	What kind of materials in writing do you expect to get it from your English lecturer in the future?	<i>(adopted from Chenoweth and Hayes' theory, 2003)</i>
9.	Do you think it is needed to include the teaching of how to write a good English abstract in academic writing! state your reason!	

The above-mentioned questions were expected to be helpful in addressing the following research questions: (a) *How are the graduates' understandings of abstract writing as reflected in their writings?* and (b) *What are the challenges the graduates' faced in writing the abstracts?*

For data collection, the researcher firstly collected the data using availability sampling by directly contacting the participants to ask for their willingness to participate in the study. The questionnaire was collected online using Google form by sharing the link via WhatsApp to the participants. Time allotted for the participants to submit the questionnaire was adjusted to the participants' schedule to give them more time to think about the answer.

#### **3.5.1.2. Document**

The document, abstracts, in the study served as the primary source of data. The document analysis in this study referred to analyzing the move-step presented in the abstracts. The document was included in the study as it was the main source of data. It helped yield important information that enabled the researcher to give a voice and meaning related to the research topic (Bowen, 2008). It was also used to find out the answer for RQ1 which was about the comparison of the students' claims on their understandings of abstract construction (the move-step) from their final product of writing. The analysis was based on the criteria of a good abstract proposed by Hyland (2000) which involve 5 aspects: introduction of the issues, aims, research method, result, and conclusion, as shown in the following table:

Table 7. The rhetorical structure of abstract

Abstract	Moves	Steps
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Hyland model of rhetorical moves in abstract (2000)

Table 8. Detailed version of moves analysis guideline from Hyland model (2000)

Moves	Steps	Details
M1 Introduction	S1	Arguing for topic significance
	S2	Making topic generalization
	S3	Defining key terms
	S4	Identifying gap
M2 Purpose	S1	Stating the research purpose
	S1	Describing participants/data sources

M3 Method	S2	Describing instruments
	S3	Describing procedure and context
M4 Findings	S1	Describing the main results
M5 Conclusion	S1	Deducing conclusion
	S2	Evaluating the significance of the research
	S3	Stating limitation
	S4	Presenting recommendation or implication

However, as mentioned in the chapter 2, Hyland's definition of step in move 3 (methodology) was quite confusing. It is mentioned that the step in move 3 consists of describing participants, instrument, and procedure and context. The definition of procedure and context was not clear enough. Thus, the researcher also used Kurniawan's et al (2019) elaboration of steps in Hyland's model (2000) as shown in table 9

Table 9. Kurniawan et al.'s (2019) elaboration of Hyland's model move and step

Step	Arguing	Topic	Definition	Gap identification	
Moves	Significance (S1)	Generalization (S2)	(S3)	(S4)	
introduction					
Aim					
10					
Method	Design	Instrument	Data	Collection procedure	Analysis procedure

Finding (describing overall result)					
Conclusion	conclusion	interpretation	Significance	limitation	Recommendation

In Kurniawan et al.'s table are clearer. The steps of move 3 (methodology) consists of describing the design of the study, instrument, data, data collection procedure, and data analysis. Thus, Kurniawan's et al (2019) elaboration is used in this study.

For data collection process, the researcher asked the participants to submit their published abstracts online by attaching the file in Google form.

### 3.5.1.3. Expert judgment

Evaluating the construction of abstract (move-step) is not an easy task as it possesses a great understanding of move-step and advanced skills of formal writing evaluation. Therefore, this study used one expert judgment (a professional journal editor who has more than 10 years' experience in editing journals for a minimum of SINTA 2-index journals). The expert judgement was included as an affirmation in case bias is presented in the researcher's judgment. Meanwhile, the specific qualification of the expert was included because it is believed that the higher qualification, the more accurate and credible assessment given. The assessment table for expert judgment is shown in the following table.

Table 10. Expert judgment on abstract moves (Hyland, 2000)

Abstract	Moves	Steps
1		
2		
3		
4		
5		

6		
7		
8		
9		
10		

For collecting the data, the researcher firstly contacted the reviewer and asked for his willingness in assisting this research project. Then, the researcher sent an abstract analysis format proposed by Hyland (2000) and ten published abstracts via Gmail to the reviewer. For the time allotment, the researcher allocated flexible working time that was adjusted to the expert's time and schedule.

### **3.6 Data Analysis**

This study used unit analysis adopted from Kurniawan, et al. (2019) study to analyze the abstracts. First, each text was broken down into sentences. Each sentence was labelled by a sub-communicative purpose (step). Then, the labelling results were classified into moves. On the other side, the data from the questionnaire were written numerically based on the sum of participants to obtain general findings regarding the students' understandings about the eligible research article abstract writing. A detailed step of data analysis is described in the following sub-section.

#### **3.6.1 Open-ended questionnaires**

Firstly, the researcher coded, categorized, analyzed, and interpreted the result of open-ended questionnaires that have been distributed to 10 selected participants. The questionnaire consisted of nine questions (see table 5), which were divided into two main parts. Part one encompassed the students' background knowledge regarding the abstract construction (move-step). This knowledge was used to be compared with their product of writing (published abstracts) to see whether their understandings were manifested in their writings. However, the comparison discussion will be put in the next sub-section. Meanwhile, part two of

the questionnaire dealt with the challenges in writing abstracts. Table 11 demonstrates the sample analysis process and its result.

Table 11. A sample of the analysis process of categorizing the result of the questionnaire

Author 1			
Category	Details	Answer	Conclusion
Students' understandings of abstract moves-steps	Moves	The abstract should consists of introduction, aims, method, finding, and conclusion	Knows the elements of abstracts
	Step	<b>Introduction</b> making the topic generalization and identifying the gap  <b>Aims</b> Stating the aims of the research  <b>Method</b> Describing the data source and data collection  <b>Finding</b> Stating the main result  <b>Conclusion</b>	<b>Introduction</b> S2 and S1  <b>Aims</b> S1  <b>Method</b> S1 and S3  <b>Finding</b> S1  <b>Conclusion</b> S1

		Drawing conclusion from the research	
Follow up questions related to abstract construction	Pre-writing and post-writing	<p><b>Pre-writing:</b> reading the entire research and summarize each main point of the research.</p> <p><b>Post-writing:</b> re-reading the text, making sure all elements of abstract is presented</p>	Check all points
Challenges	Challenge and recommendation	<p><b>Challenge:</b> Writing an informative abstract within 150-250 words</p> <p><b>Recommendation:</b></p> <p>Involve abstract evaluation in teaching academic writing</p>	

(adopted from Hyland, 2000; Kurniawan, et. al., 2019; Tardy, 2009)

Then, the researcher drew an overall conclusion as mentioned in the following:

Table 12. Example of overall moves status analysis from students' understandings

<i>Moves</i>	$\Sigma$ <i>People</i>
Introduction	10
Aim	10
Method	10

Finding	10
Conclusion	10

Table 13. Example of overall steps of the moves from students' understandings

Step	Arguing	Topic	Definition	Gap identification	
Moves	Significance	Generalization	(S3)	(S4)	
	(S1)	(S2)			
introduction	2	5	8	10	
Aim					
10					
Method	Design	Instrument	data	Collection procedure	Analysis procedure
	10	10	10	9	8
Finding (describing overall result)					
10					
Conclusion	Conclusion	Interpretation	significance	limitation	Recommendation
	10	0	0	0	10

Then, the results from the questionnaire were compared to the result from a document analysis. Further description on how the data were analyzed is described in the following sub-section:

### 3.6.2 Document

The document was analyzed through the following steps: firstly, the researcher compared the result of the questionnaire and the actual manifestation of abstract move-step written by the students based on the criteria of a good abstract proposed by Hyland (2000). The illustration of how the data was analyzed is described in the table 14.

Table 14. Sample of analysis process the students' understandings and the product of writing.

<b>Author 1, Abstract 1</b>				
Background knowledge		Writing product		conclusion
Moves	Step	Moves	Step	
Introduction, aims, methods, findings, and conclusions	Intro: S1 &S1  Aims: S1  Methods: S1 & S3  Findings: S1  Conclusion: S1	Introduction, Aims, method, and finding.  <b>No conclusion</b>  <b>Only presented M1-M4</b>	Intro: S1  Aims: S1  Method: S1  Finding: S1  <b>No step</b>	<b>Do not reflected because the students do not really familiar with the steps presented in the abstracts</b>

Then, the researcher drew a conclusion of the overall result as mentioned in the following table:

Table 15. Example of overall comparative result of the status of the moves

<i>Moves</i>	<i>From students' understandings</i>	<i>From students' abstract</i>
Introduction	10	9
Aim	10	10
Method	10	10
Finding	10	9

Conclusion	10	3
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Table 16. Example of comparative result of the status of the steps and moves

Step	Arguing significance	Topic generalization	Definition	Gap identification	
Moves					
Introduction					
understanding	10	10	10	9	
Authors’ abstract	2	0	0	10	
Method					
understanding	design	instrument	Data	Collection procedure	Analysis procedure
	10	10	10	9	8
Authors’ abstract	10	8	9	8	2
Conclusion					
understanding	conclusion	interpretation	Significance	limitation	Recommendation
	10	0	0	0	10
Authors’ abstract	5	0	0	0	2

(taken from Kurniawan et al., 2019)

### 3.6.3 Expert judgment

The result of the analysis on the move-step of ten published abstracts from the journal reviewer expert was used to affirm and match with the result of the researcher's analysis. The analysis was based on Hyland's (2000) model of move-

step. Finally, the researcher drew a conclusion from it. Table 17 demonstrates the sample procedure of data analysis

Table 17. A sample procedure of data analysis

<b>Abstract</b>	<b>Result of document</b>	<b>Result of expert judgment</b>	<b>Conclusion</b>
Abstract 1	Only consist of M1-M4.  <b>Steps:</b>  Intro: S1  Aims: S1  Method: S1  Finding: S1	Only consist of M1-M4.  <b>Steps:</b>  Intro: S1  Aims: S1  Method: S1  Finding: S1	<b>Same judgement</b>

After that, the researcher drew an overall data conclusion and interpreted the data using Cohen's kappa degree of agreement as mentioned in the following table

Table 18. Example of degree of agreement (Cohen's kappa measurement)

<b>Abstract</b>	<b>Author's judgment and Expert judgment</b>	<b>Degree of agreement</b>
1	1.00	Almost perfect
2	0.61	Substantial
3	0.82	Almost perfect
4	0.85	Almost perfect
5	1.00	Almost perfect

6	1.00	Almost perfect
7	1.00	Almost perfect
8	1.00	Almost perfect
9	1.00	Almost perfect
10	0.84	Almost perfect

Overall, the analysis between the researcher and the expert showed similarities, almost perfect as the data indicated the agreement range from 0.82-1.00

### 3.7 Data trustworthiness

the researchers used abbreviations instead of the students' names (e.g., A1). Furthermore, to increase the data confidence and credibility, I compared the data from the open-ended questionnaire with the actual writing. Firstly, the researcher had a consultation with a lecturer regarding the instruments used in the study, data collection, and data analysis in terms of their suitability with the topic of the research. Secondly, the researcher distributed open-ended questionnaires to ten selected participants to investigate the understandings of abstract moves and steps and the challenges faced by the students in writing the abstracts. Thirdly, the researcher compared their understandings with the actual product of writing (published abstracts). This analysis was done by using the move-step criteria proposed by Hyland (2000). Lastly, the researcher compared it with the result from expert judgment (a journal reviewer expert) to avoid bias and to strengthen the result of the analysis (Crookes, 1986). The analysis was done using Cohen's Kappa measurement (Suherdi et al., forthcoming).