

## **CHAPTER III**

### **METHODOLOGY**

This chapter provides the explanation of the research methodology, which includes research design, data collection, data analysis, and data presentation.

#### **3.1 Research Design**

This study was a part of a larger research project that sought to examine rhetorical moves and steps in abstracts of across disciplines at Universitas Pendidikan Indonesia. Thus, this study was designed in a qualitative manner. Qualitative research is a research method that explores and understands the meaning of a certain phenomenon that occurred in a social setting (Cresswell, 2013). Since the present study is aimed at examining the manifestation of moves, steps and linguistic features of abstracts with data derived from an academic event, qualitative methods are considered relevant.

#### **3.2 Data Collection**

Data of this research were the ‘pre-workshop training’ abstracts written by the novice Indonesian writers in the field of soft and hard science. The data were specifically taken from an online academic workshop, namely “Individual Coaching Clinic: Penulisan Abstrak Artikel Internasional” funded by Universitas Pendidikan Indonesia. The workshop was designed as a University-Internal event whose target audiences are limited to lecturers and post-graduate students of Universitas Pendidikan Indonesia. The researcher was involved directly in the workshop as one of the committee members of the workshop. Eligible participants registered themselves for the workshop by filling out Google Form asking about participants’ identity (full name, phone number, e-mail address), educational background (academic level and current study program), publication experience, and the ownership of Scopus ID. They were also required to upload an abstract of their research electronically. Before the workshop started, the participants were informed about this research, and they were asked to fill out a form of consent. At first, there were 55 registered participants meaning 55 abstracts collected. They comprised 34 abstracts from soft and 21 from the hard science field. In general, the

term “soft” science in the present study refers to social science study which is a disciplinary study that deals with humanity and social relationships, such as sociology, linguistics, psychology, etc. On the other hand, “hard” science deals with the study of natural science, for example, physics and chemistry. In this study, the identification between novice and experienced authors were based on the publication experience. The participants were considered novice if they did not have experience in publishing a manuscript into a journal publisher. In line with the objective of this study, only abstract from those novice participants were included. Thus, eight abstracts were eliminated because the writer of those abstracts claimed that they already had publication experience. To this end, the selection process yielded 47 abstracts which consist of 28 abstracts written by the authors from soft science (consisting of 13 disciplines) and 19 authors from hard science fields (consisting of 8 disciplines). The following table presents the distribution of data sources of this study.

Table 3. Data Distribution

Soft		Hard	
English language education	10	Biology Education	6
Linguistics	3		
Indonesian Language Education	2	Chemistry Education	3
Sundanese Language Education	2		
Elementary School Education	3	Mathematics Education	3
Management Education	1		
Management office	1	Geography Education	2
Communication	1		
Social Education	1	Natural Science Education	2
Economy Education	1		
Civics Education	1	Nursing	1
Curriculum Development	1	Sport and Physical Health Education	1
Arabic Education	1	Logistics Engineering	1
<b>Total (n)</b>	<b>28</b>	<b>Total (n)</b>	<b>19</b>

### 3.3 Data Analysis

The first process of data analysis procedure started by deciding the most appropriate move analysis framework model to analyze the data. In order to find the most appropriate model, a pilot study was conducted. Five abstracts were chosen randomly and analyzed using Bhatia's Four-Move Model (1993) and Hyland's five-model (2000). Based on the pilot study, it was found that compared to Bhatia's model, Hyland's model (see Table 4) was more appropriate because the move classification consists of Introduction Move that match thoroughly to some sentences of the abstract in both sets of data. In the move codification process, the present study implemented a "top-down" and "bottom-up" approach. Top-down approach is a strategy of processing information based on the content while bottom-up approach is based on linguistic signals (Darabad, 2016). The procedure started by breaking down the abstracts into sentences. Then, each sentence was copied and pasted in a table, consisting of five columns: sentences, move, step, voice and tense. Regarding the top-down approach, each sentence was coded based on the researcher's intuitive representation of the content of the text. Moreover, the organizational patterns and the frequency of moves were also recorded in order to determine whether the moves are optional or conventional. In determining the status of the move, the present study employed Kanoksilapatham's categorization (2005), where move is considered as optional if the occurrences are lesser than 66%, conventional when the occurrences are more than  $\geq$  66%-99%, and obligatory when the occurrences are 100%. Having analyzed the move, step and organization patterns of the sentences, the researcher employed the bottom up approach in analyzing the linguistics features. In this phase, the voice (active or passive) and tense of the verbs (present or past) characterizing each move were identified.

Table 4. Hyland's (2000) Framework for Data Analysis

<i>Move</i>		<i>Step</i>
1	Introduction	S1 Arguing for topic significance
		S2 Making topic generalization
		S3 Defining the key term(s)
		S4 Identifying gap
2	Purpose	Stating the research purpose

3	Method	S1	Describing participants/data sources
		S2	Describing instrument(s)
		S3	Describing procedure and context
4	Findings	Describing the main results	
5	Conclusion	S1	Deducing conclusion
		S2	Evaluating the significance of the research
		S3	Stating limitation
		S4	Presenting recommendation or implication

### 3.3.1 Data Validation

To ensure the reliability of the analysis, investigator triangulation was employed. Investigator triangulation refers to the use of more than one investigator or data analyst in reporting, coding, or analyzing the data as an attempt to decrease the potential bias (Thurmond, 2001). In the present study, the investigator triangulation was conducted by involving another data analyst who has experience in move analysis codification. In this phase, twenty abstracts were chosen randomly and handed to the coder. Then, the similarities and the differences were calculated using Cohen's Kappa statistics (K). The result of the statistics shows in the following table below.

Table 5. Cohen's Kappa Statistics (K)

	Sample of Abstracts	Frequency of Move Agreement	Frequency of Move Disagreement	K	%
Researcher	20	215	0	1.00	100%
Co-rater	20	201	14	0.97	97%

Based on Table 5, the statistical difference between the researcher (1.00) and the co-rater (0.97) is 0.3. Through these outcomes, it means that 97% of move codification between the researcher and the co-rater is matched. Afterwards, the researcher and the coder conducted a follow-up discussion to determine which labels were more representative to use. Finally, the researcher tabulated the data into Microsoft Excel in order to find out the occurrence of moves and steps along

with their linguistic features. To keep the confidentiality of personal information of the authors, the attributes used in all excerpts were: abstract, number, step, and soft or hard science. The following table shows the sample of data analysis.

Table 6. Sample of Data Analysis

No	Sentences	Move	Step	Voice	Tense
1	The utilization of technology <b>has become</b> an essential thing in English language learning process both in the classroom and out of the classroom.	1	2	AV	Present Perfect
2	The technology <b>emerges</b> and brings new perspectives for every language learners by giving chances for having a more effective learning process.	1	2	AV	Present
3	The individual learning style preferences <b>determine</b> the way they learn and choose the most suitable technology enhancing their language ability.	1	2	AV	Present
4	The EFL students as independent learners in college must <b>have chosen</b> the kinds of technology which closely support their language learning based on their learning style perspectives.	1	2	AV	Present perfect
5	The study <b>focuses</b> on how the EFL (English Foreign Language) students' preferences affect the way they choose different kinds of the media and consider which media bring stronger impact in their learning process.	2	-	AV	Present
6	The descriptive qualitative <b>was implemented</b> in this research.	3	3	PV	Past
7	The VARK questionnaires and interviews <b>were administered</b> to some EFL students in a public university in Bandung, Indonesia as research sample.	3	1 (2)	PV	Past

8	It <b>was found</b> the EFL students are mostly kinesthetics indicated with 56 %, yet 7% Visual, 27% Auditory and 7% Write/Write.	4	-	PV	Past
9	Moreover, the technology preferences <b>were not reflected</b> what styles are they since some had not recognize their own styles.	4	-	AV	Past
10	Therefore, most of them <b>choose</b> technology because of familiarity.	4	-	AV	Present
11	It is <b>suggested</b> that The EFL students must know their learning style so they can eliminate media which do not work much and select the most appropriate ones for their learning preferences in order to learn English language easier and faster.	5	4	PV	Past