## Chapter III

## RESEARCH METHOD

This particular chapter elaborates the methodological aspects of the research. It consists of four sections. The first section presents the research paradigm and design. The second section covers problem justification. The third section elaborates the data collection techniques as well as their justification. The fourth section presents data analysis.

As further justification for each section of this chapter, researcher elaborates why each section is aligned to descriptive case study design. In attempting to do so, researcher attempts to meet three conditions proposed by Yin (1994, p. 1) in justifying the research paradigm applied and the research problem. Such conditions consist of (a) the type of research question posed; (b) the extent of control an investigator has over actual behavioral events, and; (c) the degree of focus on contemporary as opposes to historical events. In addition, second language acquisition theories are accounted for to justify the data collection techniques and the data analysis procedures applied in this study.

## 3. 1 Research Design

This study is a qualitative case study. Alwasilah (2002) explained that the objective of qualitative research is to obtain the descriptive data. Wray et al. (1998, p. 8) also states that qualitative data deals with kinds of material such as judgments, perception, and insight. Furthermore, Yin (2003) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real life
context especially when the boundaries between phenomenon and context are not clearly evident."

Zonabend (1992) cited in Tellis (1997) states that "case study is done by giving special attention to completeness in observation, reconstruction, and analysis of the cases under study." A case study researcher focuses on a single entity as it exists in its natural environment (Johnson, 1992). Frequently, as Thomas (2003, p. 33) claims, "case studies also provide the reasons why the entity acts as it does." Furthermore, Yin (1994, p. 3) claims that case study "allows an investigation to retain the holistic and meaningful characteristics of real-life events."

This study applies case study as it deals with finding insights on the use of articles. This study is intended to explain the article choice of two Indonesian English teachers. Furthermore in line with Zonabend (1992), special attention is given to observation, reconstruction and analysis of the article choice.

Case study has a number of advantages and disadvantages. First, as case studies are qualitative in nature, thus they have the advantage of qualitative research which, as Johnson (1992, p. 76) claims, "they are primarily naturalistic, relying on the collection of naturally occurring data." In other words, the data of a case study is high in reliability for the naturalness in terms of behavior, environment and all related aspects of the events investigated. Case study is also flexible in terms of design (Yin, 1994) and in terms of the interaction of multiple factors aligned to the subject of the research (Thomas, 2003). According to Yin (1994, p. 9-10), there are three main disadvantages of case study. "The first one is the lack of rigor of case study research, the second one is that they provide little basis for scientific generalization, and the third disadvantage is that they take too long and they result in massive, unreadable documents."

Particularly in this research, the advantages of the case study outweigh the disadvantages. The natural data is essential in this research in order to prove that the events studied are the actual phenomenon as it is. The lack of rigor in terms of bias is resolved for researcher has no control over the events. It is further resolved as case study requires multiple sources of evidence or triangulation. In this research, two techniques were used namely video-recorded observation and elicitation task as an attempt to triangulate. The procedure of each technique was specified to ensure that bias did not occur.

The flexibility of case study is of crucial advantage in which the course of the study is adjusted to the research question as concepts by concepts develop, ranging from theoretical foundation to data analysis. Especially for this research, where field observation is frequently conducted, it is very likely that uncontrolled factors or events occurred and required to be accounted for and this is where flexibility is most needed.

## 3. 2 Research Questions

The following research questions, as previously stated in chapter I, contribute to defining the research design of this research.

1. Have the participants acquired English articles the, a/an, and $\emptyset$ ?
2. How does semantic-pragmatic context of definiteness contribute to English article choice of the participants?
3. How does semantic-pragmatic context of specificity contribute to English article choice of the participants?
4. How does noun countability contribute to English article choice of the participants?

Yin (1994) claims that the first and most important condition for differentiating the various research strategies is to identify the type of research question under question. Yin (1994, p. 5) remarks, "there are certain form of research questions appropriate for case study, namely 'how' and 'why' questions." In the research problems of this research, the type of the first research question is a yes/no question. Despite the type of the first research question, it actually implies a 'what' questions to be exact, 'what level' of acquisition of L2 article of the participants has arrived at. The first question leads the way to the subsequent problems which are 'how' questions. Thus, the research questions suit well with case study paradigm.

In order to further corroborate the use of descriptive case study related to the research questions, Yin (1994, p. 9) also mentions that "'a how' and 'why' question is being asked about a contemporary set of events over which the investigator has little or no control." This research studies the article choice produced by non-NESTs. This study is considered as contemporary as it involves the process of article acquisition which is still a growing field of study in second language acquisition. It also requires natural data to be investigated, so researcher must minimize control or must not interfere with the studied events. In the context of this study, the natural use of articles serves as the secondary data. Thus, case study suits the study in terms of research problems and the control of researcher over the case.

## 3. 3 Data Collection Method

## 3. 3. 1 Research participants

The participants of this study were two experienced Indonesian English teacher teaching in Bandung. The participants consisted of a male and a female teachers, i.e. teacher 1 and teacher 2 . They were particularly chosen due to their differences in teaching experience and proficiency level. In addition, they teach

English using English consistently in the class. Furthermore, the researcher had full access to conduct obervation to their classroom interaction.

The first participant, teacher 1, is a 27-year-old teacher. He has about two and a half years of experience teaching adult classes both in formal and non-formal institutions. He earned his first degree in English literature in one of foreign language academies in Bandung. During the data collection process, he was pusuing a master's degree in English Education in one of the state universities in Bandung. In terms of proficiency, his latest TOEFL score, taken on May 15th 2013, was 550 with the subsection result of 55 for listening comprehension, 54 for structure and written expression, and 56 for reading comprehension (attached in the appendix). Such a result indicates that does not have considerable difficulties in reading and listening; however he occasionally produces inaccurate grammar in producing English.

The second participant, teacher 2 , is a 32 year-old teacher. She has 6 years of experience teaching in tertiary level of education and adult classes in non-formal institutions. She earned her first degree in Communications in one of public universities in Bandung. She went to Australia to pursue a master's degree in Marketing for a year. Afterwards, she taught English in one of junior high schools in Singapore for a few years. Currently, she teaches in a private high school in one of national schools in Bandung and in a non-formal institution teaching adult classes.

In terms of proficiency, she once took the IELTS test in 2007 and her overall band was 7.5 in which the score of individual bands was 8.0 in listening, 7.5 in reading, 6.5 in writing, and 7.0 in speaking. Such a result shows that she does not have any difficulties in listening, reading, and speaking. Yet in terms of writing, she still has minor difficulties. Her latest TOEFL score, taken on April 12th 2013, was 567 with the sub-section result of 59 in listening comprehension, 56 in structure and
written expression, and 55 in reading comprehension (attached in the appendix). In terms of both teaching experience and language proficiency level, teacher 2 is ahead of teacher 1 .

In addition, a native speaker of English, a British with the initial ML, was involved in validating the elicitation task and also the analysis results. The native speaker is a female teacher. She has been teaching English in different parts of Asia for more than 15 years. In addition, another native speaker, an American, MM also took part in reviewing the elicitation task. She was asked to answer all 160 items by email. She works for one of the public universities in Iowa city. The involvement of a native speaker is intended to avoid any bias and inaccuracies of article use in this study.

## 3. 3. 2 Data Collection Instruments

Two data collecting instruments were used, namely a set of written forcedchoice elicitation task and video-taped observation of the teaching processes. They were chosen for the naturalistic nature of the required data and for gaining detailed information and clarification of the phenomenon under study. In addition, Yin (1994: 78) states, "the use of multiple source of evidence from two or more sources into a case study investigation will increase its quality substantially."

On L2 acquisition grounds, the two instruments are intended to measure the participants’ implicit knowledge of L2 articles. Ellis (2009, p. 10-17) characterizes implicit knowledge by comparing it to explicit knowledge. The first characteristic is implicit knowledge is tacit and intuitive whereas explicit knowledge is conscious. In addition, implicit knowledge is procedural whereas explicit knowledge is declarative. In further detail, L2 learners' procedural rules may or may not be target like while their declarative rules are often imprecise and inaccurate. Implicit knowledge is
available through automatic processing whereas explicit knowledge is generally accessible only through controlled processing. Ellis further adds default L2 production relies on implicit knowledge but difficulty in performing a language task may result in the learner attempting to exploit explicit knowledge. Implicit knowledge is only evident in learners' verbal behavior whereas explicit knowledge is verbalizable. There are limits on most learners' ability to acquire implicit knowledge whereas most explicit knowledge is learnable.

Based on the characteristics presented, the first instrument, the forced-choice elicitation task, was aimed to cover the aspect of the participants' performance in their tacit or intuitive and the procedural use of English articles. Despite the controlled nature of the items, it was presented in a dicourse or a contextual use to elicit verbal-like behaviour of the participants. In addition, the classroom observation represented the participants' performance in naturalistic setting. The instruments did not involve metalinguistic elicitation which is one of the main characteristics of explicit knowledge measurement.

## 3. 3. 2. 1 Forced-Choice Elicitation task

This instrument was basically intended to find out the accuracy of the participants' article use in context. It basically incorporated elements of grammar completion test and discource completion test or DCT. Despite the focus on form, this instrument also involved a focus of meaning since the use of articles involved semantic-pragmatic aspects.

The forced-choice elicitation task in this study combined the items from Hawkins (1978), IKW (2004), Snape (2005), Pongpairoj (2007), and White (2009). It comprises of 160 items which were controlled in terms of noun types and semantic/pragmatic contexts. The noun types consisted of imaginable count singular,
imaginable count plural, abstract count singular, and non-count or mass adapted from Snape (2005) and White (2009). The nouns were taken from different resources ranging from previous studies (Hawkins, 1976; IKW, 2004; Snape, 2005; Pongpairoj, 2007; and White, 2009) and other sources such as grammar books (Celce-Murcia and Larsen-Freeman, 1999; Cowan, 2008), and The University of Western Australia (UWA) MRC Psycholinguistic Database version 2.00 (1997). The list of nouns used in the forced-choice elicitation task is attached in appendix I.

In terms of the semantic/pragmatic contexts, the task involved (in)definiteness [ $\pm$ def] and specificity [ $\pm$ spec] which makes up the following four contexs, i.e. [+ def, + spec], [+ def, - spec], [- def, + spec], and [- def, - spec]. The combination of noun types and the four semantic/pragmatic contexts were resulting in the following matrix. Each context was operationalized into ten items, thus with 16 contexts, the overall items were 160 items. The matrix was also applied in analyzing and coding both the oral production task and the video recorded observation. Thus, the matrix was the main framework of this study.

Table 6. The framework of the study adapted from Hawkins (1978), IKW (2004), Snape (2005), and White (2009)

| No. | Noun Types | Semantic-pragmatic context |  |
| :---: | :---: | :---: | :---: |
|  |  | Definite [+ def] | Indefinite [- def] |
|  |  | Specificity [ $\pm$ spec] | Specificity [ $\pm$ spe |
| 1. | Imaginable count Singular | 1. $[+$ def, + spec $]$ <br> 2. [+def, -spec] | 1. [-def, +spec] <br> 2. [-def, -spec] |
| 2. | Imaginable count Plural | 1. $[+$ def, + spec $]$ <br> 2. [+def, -spec] | 1. $[-$ def, + spec $]$ <br> 2. [-def, -spec] |
| 3. | Abstract count Singular | 1. $[+$ def, + spec $]$ <br> 2. [+def, -spec] | 1. $[-$ def, + spec $]$ <br> 2. [-def, -spec] |
| 4. | Noncount/ Mass | 1. $[+$ def, + spec $]$ <br> 2. [+def, -spec] | 1. [-def, + spec] <br> 2. [-def, -spec] |

Some of the items were adapted from previous studies (Hawkins, 1978; IKW, 2004; Snape, 2005; Pongpairoj, 2007; and White, 2009) and the remaining items were developed by the researcher. All the simple (in)definites were placed in the
comment position, either serving as a direct/indirect object of a verb or a complement. Such is the case since the topic position preferably allows a specific reading as it is pre-established in the discourse (Ihsane and Puskas, 2001).

In addition, following previous studies (IKW, 2003, 2004; Snape; and White, 2009), the value of explicit speaker knowledge [ESK] is conflated with specificity. As the adopted definition suggests, specificity concerns with the speaker's intent to refer and it posses a noteworthy property which is operationalised by [ESK]. As an illustration, in IKW's study (2004), the value of specificity is always conflated with ESK.
(38) [-indefinite, + specific]

## Meeting on a street

Roberta: Hi, William! It's nice to see you again. I didn't know that you were in Boston.

William: I am here for a week. I am visiting (a, the, --) friend from collegehis name is Sam Brown, and he lives in Cambridge now.
(IKW 2004, p. 22)
In this context, IKW claimed that L2 Korean and Russian learners of English overused the and such a case was resulted from the effect of specificity. In this item, the speaker, William, intends to refer to a friend of his with the value of [+ESK] and the noteworthy property of his name Sam Brown, and he lives in Cambridge.
(39) Conversation between two police officers
[-definite,-specific]
Chris : I need to find your roommate Jonathan right away.
Clara : He is not here-he went to New York.
Chris : Really? In what part of New York is he staying?

Clara : I don't really know. He is staying with (a, the, --) friend-but he didn't tell me who that is. He didn't leave me any phone number or address. (IKW 2004, p. 22)

In this context the learners were accurate in using the indefinite article and attributed this result to the negative value of specificity [-spec]. In this item, the value of specificity is operationalised by denying the identity of the referent which is conflated with the value of [-ESK].

However, Trenkic (2007b) and Pongpairoj (2007) suggested that the value of [+spec] could be [-ESK] as shown in the following sample.
(40) [-definite, + specific] (- explicit speaker knowledge)

Office gossip
Gina : and what about the others?
Mary : Well, Dave is single, Paul is happily married, and Peter...he is engaged to a/ this merchant banker, but none of us knows who she is or what she is like.

The indefinite NP is considered specific since it can be felicitously introduced by this (Prince, 1981; Fodor \& Sag 1982 cited in Pongpairoj, 2007). Trenkic (2007b) and Pongpairoj (2007) claimed that by conflating the two values, the effect of specificity on article choice is dificult to determine. They suggested adding contexts in which the two values are not conflating, i.e. by adding [+spec;-ESK] context. Pongpairoj (2007) conducted a study to L2 Thai learners of English and L2 French learners of English by adding [+spec;-ESK] contexts. The results showed that the Thai learners article choice was influenced by ESK instead of specificity. They overused $a(n)$ in [+def, +spec; -ESK] contexts.

All things considered, this study treats [ESK] as one of the species of
specificity (Heusinger, 2011). The items contain the speaker's knowledge of the referent's identifying attributes such as name, apperance, etc. [+ESK] or the denial of the speaker's knowledge of the referent's identifying attributes [-ESK]. The items [+spec] were operationalised based on the speaker's intent to refer and the noteworthy property of the referent as well as [-ESK] and the items [-spec] were operationalised without speaker's intent to refer and no noteworthy property as well as [-ESK].
(41) Imaginable Singular Nouns

Context 1 [+def, +spec]
At the end of a chess tournament
Laura : Are you ready to leave?
Betsy : No, not yet. First, I need to talk to $\qquad$ winner of this tournament. She is my best friend and I want to congratulate her!
(42) Imaginable plural nouns

Context 2 [+def, -spec]
Two friends are chatting
Calvin : Did you hear about the murder on fourth street? That's just three blocks from here.

Brandy: Oh, yes. It's horrible. The police found $\qquad$ bodies of three women in the dumpster. The police have not identified them yet. I can't believe there is a murderer on the loose in our neighborhood.
(43) Abstract singular noun

Context 3 [-def, +spec]
Sheila : The reseach methodology course last semester was really fun.
Sean : Even with all the crazy assignments?
Sheila : Yeah. Those assignments resulted in $\qquad$ improvement to my research skills. It has changed the way I approach data.

Imaginable Singular Nouns
Context 4 [-def, -spec]
Professor Clark: I'm looking for Professor Anne Peterson.
Secretary : I'm afraid she is busy. She is meeting $\qquad$ reporter. I don't know who this reporter is but Professor Peterson went in with him and she told me not to let anyone in. I think it will take quite a while.

All the items are reviewed by the British native speaker and the American native speaker mentioned earlier, ML and MM. ML provided corrections and comments to ensure that the items were both accurate and sounded natural. She also provided the input on the noun types used in this study. She validated the content of all the items in accordance to the obligatory contexts in the matrix. The items were then given to MM as a pilot study and the items were eventually administered to the participants. The items were distributed to teacher 2 on August 18th, 2013 and to teacher 1 on the following day. Both of them spent around 90 minutes to complete the items.

## 3. 3. 2. 2 Video-taped observation

The video-taped observation served as the second source of data of article use in a natural setting. The observation was conducted during classroom sessions since the participants are English teachers, thus the classroom is a natural setting in which they interact with their students. Furthermore, despite the occassional use of English out of the classrooms, it is difficult to record the participants in such a setting without affecting the participants. On top of that, the use of English in such a setting is short in length and incidental. In addition, in terms of ethical issue, a letter of consent was issued by UPI to conduct the observation.

The observation was conducted to teacher 1 and teacher 2 in the course of 3 months starting from March to May 2013. Each participant was observed 10 times which are recorded both by video camera and voice recorder device. Such means is conducted to avoid any technical issues that would inhibit transcription and analysis processes. However only three observations were transcribed for each participant since the data obtained was able to capture the article choice of the participants.

Teacher 1 was observed in one of English institution in Bandung. He taught one elementary class and one pre-intermediate class and his interaction with the two classes were recorded. Each classroom session lasts about one and half hour. Three sessions out of 10 were transcribed and analysed in which teacher 1 taught his elementary students in two sessions and one session with his pre-intermediate students. The observation took place on April 17th, 30th, and May 2nd, 2013. There were 6 elementary students and 9 pre-intermediate students involved in this study. However, the main focus was placed upon the teacher.

The second participant, teacher 2 , was observed teaching in the same intitution with Teacher 1 in which she taught two TOEFL preparation classes; one is TOEFL B and the other one is TOEFL iBT. Teacher 2 was observed teaching the two TOEFL preparation classes; two sessions with 6 TOEFL iBT students and a session with 7 TOEFL B students on April 16th and May 1st, 2013 subsequently.

The observations were transcribed and the use of article was identified and coded. The transcription was further analyzed in accordance to the noun types and the semantic-pragmatic contexts of article use.

## 3. 3. 3 Data Analysis

In this research, the analysis conducted, in accordance with the research problem, is aimed to discover significant patterns of article use and how such patterns interact in the explaining the use. Thus, the analysis used in this research is highly of pattern-matching. As for case study analysis, one of the most desirable strategies is to use a pattern-matching logic. Such logic compares an empirically based pattern to a predicted one (or with several alternative predictions). Furthermore, Trochim (1989) cited in Yin (1994:106) states that "if the patterns coincide, the results can help a case study strengthen its internal validity."

The observation data were classified according to the empirically based pattern as suggested in the framework and will be quantified to allow for interpretation of the tendencies occurred. The observation data were analyzed in three main classification analyses, namely the classification analysis of the article use, the analysis of the noun types, and the semantic/pragmatic contexts. The illustration of data coding and analysis of the first participant, teacher 1 , is presented in (8) and (9). The complete transcription and analyses are attached in the appendix.
(45) Transcription 1

| T1 | : How do you like the weather. Do you like the weather outside? |
| :--- | :--- |
| Ss | : Yeah |
| S1 | : So hot |
| T1 | : It's so hot but it's sunny, yeah it's sunny |
| Ss | : <inaudible> |
| T1 | : It's too hot. What, so what what what do you expect <to S1>? Do you do you |
|  | expect \&Ølthe rain or? |
| S1 | : Huh? Cloudy |
| T1 | : Cloudy, yeah cloudy, right, uhuh but but not [Ølthe rain right? Yeah huh |
|  | huhuhuhu. What is that? Is that a a tent? <pointing at S3> |
| S3 | : No, a jacket |
| T1 | : Oh a jacket. I thought it was a tent. |

Table 7．The analysis sample of transcription 1

| No． | Line | NP | Error analysis | Imaginable singular nouns |  |  |  | Imaginable plural nouns |  |  |  | Abstract singular nouns |  |  |  | Mass Nouns |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ［＋Def］ |  | ［－Def］ |  | ［＋Def］ |  | ［－Def］ |  | ［＋Def］ |  | ［－Def］ |  | ［＋Def］ |  | ［－Def］ |  |
|  |  |  |  | $\begin{aligned} & \ddot{0} \\ & \dot{\omega} \\ & + \end{aligned}$ | $\begin{gathered} 0 \\ 0 \\ 0 \\ i \end{gathered}$ | $\begin{aligned} & \ddot{0} \\ & \stackrel{0}{0} \\ & + \end{aligned}$ | 苞 | $\begin{aligned} & \ddot{0} \\ & \text { 0, } \\ & + \end{aligned}$ | $\begin{aligned} & \ddot{0} \\ & \stackrel{0}{6} \end{aligned}$ | $\begin{aligned} & \ddot{0} \\ & \text { 0n } \\ & + \end{aligned}$ | $\begin{aligned} & \ddot{0} \\ & \stackrel{0}{6} \\ & \hline 1 \end{aligned}$ | $\begin{aligned} & \ddot{0} \\ & \dot{0} \\ & + \end{aligned}$ | $\begin{aligned} & 0 \ddot{0} \\ & \stackrel{0}{1} \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & + \\ & + \end{aligned}$ | 苞 | U 0 a + | 苞 | 0 0 0 + + | \％ |
| 1 | 1 | the weather |  |  | $\cdots$ |  |  |  |  |  | 0 |  |  |  |  | $\sqrt{ }$ |  |  |  |
| 2 | 1 | the weather |  |  |  |  |  |  |  |  |  |  |  |  |  | $\sqrt{ }$ |  |  |  |
| 3 | 7 | the rain＊ | $\emptyset$ rain |  |  |  |  |  |  |  |  |  |  |  |  |  | ＊ |  | $\checkmark$ |
| 4 | 9 | the rain＊ | $\emptyset$ rain |  |  | － |  |  |  |  |  |  |  | － |  |  | ＊ |  | $\sqrt{ }$ |
| 5 | 10 | a tent |  | P |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 12 | a jacket |  |  |  | $\sqrt{ }$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | 12 | a tent |  |  |  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |  |  |

Furthermore，there were cases leading to ambiguous interpretation as depicted in the following transcription．

Transcription 1

| 60 | S2 | ：Advertisement |
| :--- | :--- | :--- |
| 61 | T2 | ：why？Why．．why did you watch $\underline{\text { advertisement }}$ for？do you do you look for |
| 62 |  | something？（．）to buy or．．？ |
| 63 | S2 | ：Ooh．．No because，because I＇m bored so：： |
| 64 | T2 | ：oh I see，so when you get bored，you watch $\underline{\text { advertisement }}$ and <br> 65 |
| 66 | S2 | ：Yemmercial breaks |

The NP $\emptyset$ advertisement in this case is ambiguous in terms of error analysis．There are two possible correct use，i．e．an advertisement or $\varnothing$ advertisements．In order to avoid bias judgement，such a case was excluded from the numerator of $\varnothing$ ，yet it was included in the denominator．Hence，some cases do not show $100 \%$ overall use．

Meanwhile，the elicitation task as the primary data is outlined in details to provide article use that the observation and the oral production data could not capture． The articles occurrences，noun types，and semantic／pragmatic contexts in the forced－ choice elicitation task are quantified by applying the measures of simplified supplied in obligatory contexts（henceforth SOC），target－like use（henceforth TLU），and used in obligatory contexts（henceforth UOC）（Pica， 1983 cited in Wong and Quek，2007）．
$S O C=\underline{\text { number of correct suppliance in obligatory contexts }}$
Number of obligatory contexts
In order to determine whether acquisition has taken place, this study adopts $80 \%$ or over of the SOC (Brown, 1973; Andersen, 1978). The overall SOC measure of 160 forced-elicitation items for definiteness is calculated by dividing the number of the correct suppliance in obligatory contexts by each participant, GP and NS with the denominator 80 for definite article the and 40 for indefinite article a/an, and 40 for indefinite article $\emptyset$.

In addition to SOC, TLU measure is used to address the potential overestimation of SOC measure when the morpheme is over-supplied or overgeneralized since TLU takes into account the suppliances in non-obligatory contexts in the denominator (Wong and Quek, 2007). TLU analyses were performed to the task item results of both participants. In calculating TLU, the numerator is similar to SOC, i.e. the correct suppliance in obligatory contexts, yet the denominator includes the number of suppliance of the target article in non-obligatory contexts. $\mathrm{TLU}=\quad$ number of correct suppliance in obligatory contexts

Number of obligatory contexts + Number of suppliances in non-obligatory contexts

Since SOC and TLU measures are used to measure accuracy, UOC is used to tap into article use. Following Master (1987), this study also uses UOC to observe the learner's underuse and overuse of articles. SOC and TLU cannot exceed $100 \%$, but it is possible for UOC to do so. UOC was measured by dividing the total of suppliance of articles in both obligatory and non-obligatory contexts with the number of obligatory contexts. In other words, the numerator in UOC is the denominator in TLU and the denominator in UOC is the numerator in TLU.

$$
\begin{aligned}
\mathrm{UOC}= & \begin{array}{l}
\text { The total number of suppliances in both obligatory contexts and non- } \\
\text { obligatory contexts }
\end{array}
\end{aligned}
$$

By applying the three measures, it is expected that the article choice produced by the two teachers can be thoroughly described.


Parawati Siti Sondari, 2014
A Study Of English Article Choice: A Case Study Of Two Indonesian English Teachers
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