

# Variability of Conclusion Reasoning Patterns in Third Languages of Foreign Learners

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**Abstract:-** Writings from various genres in Indonesian as a third language contain a line of thought consisting of three main elements: establishment, evidence, and conclusion. These three elements, in this study, are used as the basis for determining the reasoning patterns of making a conclusion in the third language. This research applies a qualitative approach. The data sources of this research are Indonesian sentences written by foreign speakers learning Indonesian language. Data analysis was carried out using the content analysis technique. The results of the analysis show that the patterns of reasoning in the preparation of conclusions tend to be inductive, deductive, and syllogistic.

**Keywords:-** Reasoning Patterns, Drawing Conclusions, Target Language, Third Language.

## I. INTRODUCTION

The relationship between language and thought involves many factors and is intricately intertwined (Fenigan and Besnjar, 1993). The complexity can be seen in the thinking activities that are manifested in the reasoning process. The reasoning is a thought process in drawing a conclusion based on knowledge. Reasoning is often used in the activities of the learning process because learning processes need to determine the truth. Finding the truth is the basis for drawing conclusions. Making conclusions is a process of reasoning to acquire new knowledge based on the old ones (Sullivan, 1963).

The content analysis can be used to analyze one's reasoning in language, especially in the aspect of linguistic units. In this current study, the language unit is used to identify the contents of reasoning in Indonesian as L-3. Before learning Indonesian as an L-3, the foreign speakers have already mastered their first language (L-1) and the second language (L-2). These two languages serve as the foundation for learning other foreign languages. In this study, the foreign language (L-3) is Indonesian which was being studied by the foreign speakers.

Based on the introduction, this study aims to describe the variability of reasoning patterns in Indonesian as L-3 which is the target language for foreign speakers. More specifically, this study explains the patterns of reasoning in making conclusions.

## II. REVIEW OF RELATED THEORIES

### Reasoning

Thinking activity to conclude or construct new statements based on-premises: statements that are known and assumed to be true (Copi, 1982, p. 5). The process of providing proof of the truth or falsity of a proposition by relating it logically to other propositions is called reasoning (Kelley, 2014. P. 97). In line with Warnick and Inch (1994) reasoning is an activity to relate facts (truths that have been known and accepted) with convictions (things that are still being debated).

Warnick and Inch (1994) mention that there are two models of analysis of reasoning patterns or arguments that are popular today, namely the Traditional model and the Toulmin model. The traditional model was first introduced by Monroe C. Beardsley (1950). The Traditional Model is used to identify the framework of argument and reasoning, namely the relationship patterns of the premise of evidence and conviction. Reasoning can be grouped according to the complexity of the relationship between the premise structure and its establishment. Based on that thought, the reasoning patterns can be grouped into two: 1) simple reasoning patterns, namely the reasoning consists of only one evidence (premise) and, 2) complex reasoning patterns, i.e., there are many pieces of evidence (premises) and many related stances between one with others (Toulmin, Rieke, & Janik, 1979). The following is an explanation of each reasoning pattern.

### Patterns of Reasoning in Making Conclusions

The pattern of reasoning in the preparation of conclusions is carried out through the process of compiling a rational relationship between convictions and evidence to obtain conclusions (Sullivan, 1963). The following is an explanation of the pattern of reasoning in the preparation of conclusions consisting of patterns of inductive reasoning, deductive reasoning, and syllogistic reasoning.

#### 1) Inductive Reasoning

Inductive reasoning tries to show that the conclusion is supported by the premises even though the conclusion strengthens and exceeds the actual condition (Kelley, 2014, p. 86). Inductive reasoning involves using existing knowledge or observations to make predictions about new problems (Hayes and Heit, 2010, p. 130). That is, it begins with some evidences that have been known and linked, from which new knowledge (conclusions) is obtained in the form of general statements. Such an explanation theoretically has

something to do with the pattern of inductive reasoning. Inductive patterned reasoning is reasoning that goes from the specific to the general conclusion. This opinion is in line with Yulianto (2008, p. 168) that this inductive reasoning pattern begins its description with specific things, then goes to its climax, namely generalization.

## 2) Deductive reasoning

Deductive reasoning is a process towards a specific truth that is built from a general truth (Ramon, 1991, p. 7). General truths in deductive reasoning patterns can contain (a) the main idea is explained and (b) explanatory descriptions in the form of examples, analogies, or stories (Borman and Borman, 1989, p. 147). This opinion is in line with Siddik (2016, p. 102) which states that the use of general statements as outlined in the main sentence leads to an explanation which is represented in explanatory sentences or supporting sentences. Two of these opinions stated that the standard of deductive truth is propositional logic of functional standard truth, as found in most texts (Feeney and Heit, 2007, p. 274).

## 3) Syllogistic Reasoning

The syllogism is a three-term structure of arguments. A conclusion from two initial premises must be made based on several true arguments (Fredal, 2020, p. 23).

## Third Language Acquisition

Third language acquisition (TLA) study is concerned with how L-1 and L-2 influence the TLA (Cenoz, 2001, p. 1). TLA is also inseparable from the language distance from L-1 to L-3 (Cenoz, 2001: 8). Language distance is defined as the proximity of L-1, L-2, and L-3 typologies in the case of L-3 acquisition. Language distance affects L-3 acquirers whose language history is close to each other. Kellerman (in Cenoz, 2001:8) mentions the language distance factor as a psychotypological concept of language.

## III. METHOD

This research applies the qualitative approach which is used to describe the reasoning entity in the target language in the form of Indonesian as L-3. In the L-3, it is indicated that there is a pattern of reasoning in the preparation of conclusions by foreign speakers.

The data of this research is in the form of sentence patterns of reasoning in the preparation of conclusions which include inductive, deductive, and syllogistic. The data sources were taken from the respondents' essays from various genres written in Indonesian on different topics. This is in accordance with the Competency Standards for Graduates of the BIPA Course and Training (2016, p. 73).

The data collection techniques used in this study were: 1) reading and observing the results of writing from various genres, 2) sorting and classifying sentences with certain types of reasoning obtained from the writings of foreign speakers, and 3) documenting data in the form of sentences of reasoning patterns. Data analysis procedures include 1)

data reduction, 2) data presentation, 3) drawing conclusions/verification. and 4) validate the data findings.

The data analysis technique used the content analysis technique. This technique was used to 1) interpret the contents of the sentence patterns of Indonesian reasoning as L-3, 2) classify them into several patterns of inference-compiling reasoning (inductive, deductive, and syllogistic), and 3) interpret each pattern of reasoning in making conclusions. These three procedures were applied to analyze Indonesian writing as L-3 foreign speakers. The analysis results obtained are reliable, can be applied in different contexts (replicable), and are valid.

## IV. RESULTS

The pattern of making conclusions is based on the truth that has been known through the available evidence. The combination of evidence and conclusions is made through inductive reasoning, deductive reasoning, and syllogistic reasoning. The following is an explanation of each pattern of reasoning in the preparation of conclusions.

### a. Inductive Reasoning Pattern

The pattern of compiling inductive reasoning to make conclusions can be seen in data (1) as follows.

(1) [1] *Di pagi, saya sering berbicara dengan Pak Wd [DD].* [2] *Di Minggu satu, beliau bertanya “apa kabar dan saya hanya “Baik” atau “Iya” [DK].* [3] *Di Minggu dua, berbicara sedikit [DK].* [4] *Beliau senang sekali dan tersenyum [P]. (PPpsi/SP-2/19)*

[1] In the morning, I often talk to Mr. Wd [DD]. [2] In the first week, he asked “how are you and I just “OK” or “Yes” [DK]. [3] In Week two, talk a little [DK]. [4] He was very happy and smiled [F]. (PPpsi/SP-2/19)

In (1) shows the use of inductive reasoning. This statement is supported by three facts: sentence [1], sentence [2], and sentence [3]. When the role of each sentence is combined with a conclusion, a clearer picture of Mr. Wd's circumstances or traits is revealed as in sentence [4].

The clarity of the data (1) can be observed based on the sequence of facts or evidence that is specific and then leads to a general conclusion. The order presented is in accordance with the criteria for inductive reasoning patterns. The inductive reasoning pattern begins with specific things then goes on to the generalization (Yulianto, 2008, p. 168).

Sentence [1] is the basic data, while sentence [2] and [3] are categorized as the basic truth. The three sentences are in the form of special evidence and are categorized as causes. The three causes present a series of evidence, and then end with a conclusion as in sentence [4]. The inductive reasoning pattern in data (1) is caused by the speaker's background using different L-1 and L-2. After being traced, the L-1 is used by the speaker, namely Mandarin, which has a different pattern from Indonesian and English.

The results show that the speaker in data (1) uses English as L-2 which has a conclusion pattern supported by the premises (Kelley, 2014, p. 86). Because of the structure of L-3 and L-2 is similar in terms of pattern, the conclusion becomes the effect, while the premises becomes the causes. The cause-and-effect explanation is also used in Indonesian. Although the terms are used differently, they have the same meaning. This is the main cause of the emergence of inductive reasoning patterns.

Data (2) is stated inductively about the evidence containing the cause and the conclusion containing the effect. Based on the results of the study, data (2) has a different pattern from the previous data.

(2)[1] *Selanjutnya, bulan madu. Saya tidak mengerti itu juga [DK]. [2] Ketika saya ke mana-mana saya suka melakukan hal yang lucu dan unik [D]. [3] Tetapi, ide saya tentang bulan madu adalah hal itu yang romantis dan sering di pantai [DD]. [4] Saya mungkin lebih suka menggunakan uang yang asli untuk bulan madu dan donor uangnya ke organisasi atau memberi barang yang berguna [DK;M]. [5] Mungkin saya adalah terlalu realistis [P;M]. (PPpsi/SP-3/23)*

[1] Next, honeymoon. I don't understand that either [DK]. [2] When I go everywhere I like to do funny and unique things [D]. [3] However, my idea of a honeymoon is that it's romantic and often on the beach [DD]. [4] I might prefer to use the real money for my honeymoon and donate the money to organizations or give useful items [DK;M]. [5] Maybe I'm being too realistic [P;M]. (PPpsi/SP-3/23)

From data (2), it can be seen that the pattern of drawing conclusions is expressed inductively which ends with a general statement. The general statement in the form of consequences can be found in sentence [5]. This general statement is obtained from several facts, which are reflected in the sentence [3]. The next fact is sentence [4]. The explanation between the first and second facts conveyed by the speaker is in the form of a cause.

The explanatory sentence contained in data (2) consists of the truth in sentence [1]. This sentence gets support from sentence [2] in the form of the speaker's experience. The basic data is seen in sentence [3]. This sentence becomes the main idea in the discussion of the honeymoon. The main idea is explained in sentence [4] which is positioned as the basis of truth, in which there is a modality of possible markers. The four sentences have explanatory sentences in the form of causes. These four explanatory sentences together support the stance in sentence [5]. This sentence contains a modality of possibility markers. This marker is used as a theme. Thus, data (2) is appropriate and in accordance with the criteria for inductive reasoning patterns. This pattern uses data (2) because it shows the emergence of the main and complementary elements of reasoning contained in each sentence. This sentence is influenced by English as L-2 which is mastered by the speaker.

Statements that are in line with data (2) are also found in data (3). The following is the explanation of data (3), it is stated that the evidence contains the cause and the conclusion contains the effect.

(3)[1] *Saya membaca artikel yang berjudul “kunci keberhasilan” [DD]. [2] Artikel ini menjelaskan informasi mengenai kunci untuk keberhasilan dunia pekerjaan [DK]. [3] Namun, juga bisa dipakai untuk kehidupan sehari-hari [D]. [4] Menurut artikel ini, faktor yang terpenting untuk mencapai kesuksesan berasal dari kepercayaan [P]. (PPpsi/SP-1/46)*

[1] I read an article entitled “key to success” [DD]. [2] This article provides information on the key to success in the world of work [DK]. [3] However, it can also be used for everyday life [D]. [4] According to this article, the most important factor for achieving success comes from belief [P]. (PPpsi/SP-1/46)

The data (3) above, sequentially in one paragraph, is in accordance with the inductive reasoning structure. In addition, data (3) indicates the presence of the main and complementary elements.

In data (3), sentence [1] is needed to build conclusions. This constituent is the main fact, followed by the second fact [2]. This article describes information about the key to success in the world of work. The main and second facts serve as basic statements and are considered important in determining conclusions. The conclusion in question leads to constituent [4], which is in the form of a result. This constituent is a conclusion derived from the first and second facts stated implicitly.

Sentence [1] is the basic data, while sentence [2] is the basis for the truth. The support is found in sentence [3]. These three sentences are categorized as explanatory sentences in the form of causes. The three explanatory sentences support the position positioned in sentence [4], which is the main sentence. This explanation implies that there is a pattern of inductive reasoning in the form of L-3 in data (3) due to the influence of English as L-2, not from B-1, namely Spanish.

The pattern used in data (1), (2), and (3) is also found in data (4). However, this data has a different statement from the previous one. The following is the result of data analysis (4) containing a statement of evidence containing the effect and the conclusion containing the cause.

(4) [1] *Setelah rapat dengan Pak A di Galeri Semeru, saya pulang sendiri [DD]. [2] Tetapi sebelum itu, saya membeli kue yang Mbak Ns bawa hari ini [DK]. [3] Enak sekali! [D] [4] Saya juga mencoba rasa coklat. [5] Itu juga enak tetapi sedikit kering [P]. (PPpsi/SP-3/17)*

[1] After meeting with Pak A at the Semeru Gallery, I went home alone [DD]. [2] But before that, I bought the cake that Mbak Ns brought today [DK]. [3] So delicious! [D] [4] I also tried the chocolate flavor. [5] It was also tasty but a little dry [P]. (PPpsi/SP-3/17)

In data (4), based on the two facts of the observed activity, the speaker concludes the second activity. There is no conclusion for the first activity. The temporary conclusion is in [4]. The conclusion is stated explicitly through the constituent [5]. Such an explanation shows that the evidence and conclusions have significant relevance.

The main and complementary elements of reasoning found in data (4) are different from the previous data. Sentence [1] as the basic data is connected with the basis of truth which lies in sentence [2]. This sentence has support in the position of sentence [3]. In contrast, sentence [4] is a basis for truth but there is no support. These four sentences are categorized as explanatory sentences in the form of consequences which together support the stance that lies in the sentence [5]. This sentence has the main sentence in the form of cause. Based on this explanation, the pattern has met the construction of inductive reasoning patterns. The presence of this pattern is due to the influence of English as L-2.

#### b. Deductive Reasoning Pattern

The pattern of drawing conclusions through deductive reasoning patterns can contain (a) the main ideas explained and (b) explanatory descriptions in the form of examples, analogies, or stories (Borman and Borman, 1989, p. 147). The following data (5) contains the main ideas described.

(5) [1] *Orang-orang di sini percaya pada kesatuan dalam keberagaman [P]. [2] Setiap orang yang saya temui masing-masing baik, ramah, dan membantu [DD]. [3] Meskipun memiliki budaya, tradisi, dan agama yang berbeda [DK], [4] orang-orang di sini hidup dengan damai [D]. (PPpsi/SP-2/02)*

(5) [1] People here believe in unity in diversity [P]. [2] Everyone I met was kind, friendly, and helpful [DD]. [3] Despite having different cultures, traditions, and religions [DK], [4] people here live peacefully [D]. (PPpsi/SP-2/02)

The conclusion of the type of deductive reasoning pattern in the data (5) is caused by the suitability of the criteria for the sequence or construction in one paragraph. It is further clarified that the content of the paragraph begins with the provision of general information in the sentence [1], then continues with specific information. Statements in the form of sentence-specific information [2]. The statement is a result that shows evidence in the form of the nature of the people around the speaker. The statement in the form of this trait is also supported by other specific information, namely the sentence [3] Even though they have different cultures, traditions, and religions. The next explanation, shows the facts as evidence to support the truth. The truth is obtained from the general conclusion stated at the beginning of the paragraph through the sentence [1]. This sentence describes the character of the Indonesian people conveyed by the speaker. Because the person concerned is observing directly.

The main idea described in sentence [1] is believing in unity in diversity. This sentence becomes a stance that is explained by three supporting sentences, namely sentences

[2], [3], and [4]. Sentences [2] and [4] are categorized as the basis of truth, while sentences [3] are called basic data. Based on this, it can be seen that the data structure (5) meets the requirements as a pattern of deductive reasoning. This reasoning pattern is used SP-2, because it can clarify the intent and purpose of the speaker. In addition, the implications of using deductive reasoning patterns are caused by the perspective of the language rules that are learned by speakers. Speakers learn Mandarin as L-1 which has a different pattern from Indonesian and English.

In English (L-2), there is a pattern to a specific truth which is built from a general truth (Ramon, 1991, p. 7). Ramon's opinion on deductive reasoning tends to be the same as the term in Indonesian. The pattern of deductive reasoning in Indonesian begins with the main sentence and then is developed with several explanatory sentences (Yulianto, 2008, p. 167). Therefore, the results of the study show that the two languages studied by speakers have similar patterns. The similarity of these patterns is a consequence of the formation of deductive reasoning patterns in Indonesian as L-3. The indication of Indonesian as L-3 in data (11) is in accordance with the criteria that have been determined by the pattern of deductive reasoning described earlier.

Data (6) contains an explanatory description in the form of a story as presented below.

(6) [1] *Saya berasal dari Amerika dan tinggal di sana tapi saya pikir saya bukan orang Amerika [P]. [2] Kemarin, teman-teman CLS dan kelas Duku pergi ke rumah sakit untuk bertemu Mbak Ky [DD]. Sebelum itu, mereka mau membeli makanan kepada Mbak Ky. [3] Karena keluarga saya orang-orang Cina, kami ada banyak tradisi tentang hadiah yang hanya di Cina. [4] Tapi di Amerika, tidak ada banyak aturan tentang ini [DK]. [5] Ketika saya melakukan aktivitas dengan tradisi Cina, orang-orang pikir saya aneh [D]. [6] Saya suka memberi oleh-oleh dan hadiah, tapi di Amerika oleh-oleh dan hadiah tidak harus [DK]. (PPpsi/SP-3/08)*

[1] I'm from America and live there but I don't think I'm American [P]. [2] Yesterday, CLS friends and Duku's class went to the hospital to meet Mbak Ky [DD]. Before that, they wanted to buy food for Mbak Ky. [3] Since my family is Chinese, we have many traditions about gifts that are only in China. [4] But in America, there are not many rules about this [DK]. [5] When I do activities with Chinese traditions, people think I'm weird [D]. [6] I like to give gifts and gifts, but in America gifts and gifts don't have to be [DK]. (PPpsi/SP-3/08)

In data (6), the preparation of deductive conclusions is stated through the delivery of general information which is complemented by specific information. In (6) the speaker conveys his thoughts by providing general information first, namely [1] I am from America and live there but I think I am not an American. Based on the facts he experienced, the speaker thought that he was not an American, but a Chinese. This is detailed in the form of special information that is presented afterwards. In that case, given an example that has

become his habit as a Chinese descendant in America through the sentence [6] I like to give gifts and gifts, but in America gifts and gifts are not necessary. After understanding the sentence, speakers preserve the culture of giving gifts and gifts that have been passed down from generation to generation in China, even though they live in America.

The elements found in (6) has six sentences. The main sentence that is general in nature has sentence [1] as a stance. To explain the stance, it must be based on sentence [2] as basic data. Sentence [3] as the basis of truth that better explains the speaker's intention. The speaker's good intentions are justified through sentence [4] which gets support from sentence [5] in the form of culture. The principal thing, especially the cultural problem, can be justified through sentence [6] as the basis of truth. This condition can be used as an excuse that the presence of a deductive reasoning pattern indicates the influence of English as a L-2. Confidence can be proven from the results of the speaker's writing which is structurally in accordance with the pattern of deductive reasoning.

### c. Syllogistic Reasoning Pattern

The pattern of making conclusions through syllogistic statements. The following is an explanation of data (7) and which includes a categorical syllogism. The data, each starting with a major premise, can be stated completely and sequentially.

(7) [1] *Ondeh-ondoh makanan Cina [P]. [2] Di Cina, ondeh-ondoh ada kacang hitam atau kacang [DD]. [3] Tapi di Indonesia, ondeh-ondoh ada kacang hijau [DK]. [4] Ibu saya di Amerika makanan favorit ondeh-ondoh dengan kacang hitam [DK]. (PPpsi/SP-3/04)*

[1] Ondeh-ondoh Chinese food [P]. [2] In China, ondeh-ondoh are black beans or beans [DD]. [3] But in Indonesia, ondeh-ondoh is green beans [DK]. [4] My mother in America favorite food ondeh-ondoh with black beans [DK]. (PPpsi/SP-3/04)

In (7) the pattern of compiling conclusions is stated in full and sequentially and begins with a major premise that focuses on constituents [1]. This statement is a general rule which states that the 'name or type' of food in China is similar to that in Indonesia. The constituent [2] refers to the fact that speakers know that the food contains black beans. Another fact to support constituents [2] is found in constituent [3] which was conveyed by speakers about ondeh-ondoh in Indonesia which contains green beans. The fact [2] and [3] that it can be concluded as seen in the constituent [4]. In drawing the conclusion, the speaker states it explicitly related to the constituent [4].

It is clear that the constituent [1] is located as the major premise, while the constituent [2] is positioned as the minor premise. Another supporter of the minor premise is that constituents [3] and [4] act as conclusions. Thus, the four constituents of the sentence structure qualify to be called syllogistic reasoning patterns. Sentence [1] is the

position, while sentence [2] is the basic data. Sentences [3] and [4] are referred to as the basis of truth.

The reason for the emergence of the syllogistic reasoning pattern is because there tend to be similarities in sentence structure in Indonesian as L-3 and English as L-2. In addition, there are similarities in the definition of the theory of syllogistic reasoning patterns. The pattern of syllogistic reasoning, namely conclusions that differ from the two initial premises must be followed from the construction of several true arguments (Fredal, 2020, p. 23). Fredal's opinion is based on three terms of the structure of the argument, namely one major premise and two minor premises.

The presentation is implemented in Indonesian and English. Therefore, the acquisition of two languages sequentially is a consequence of the formation of a syllogistic reasoning pattern. On the other hand, the emergence of this syllogistic reasoning pattern in the construction of Indonesian sentences as L-3 is caused by the impression of using Mandarin as L-1 which has the same pattern as Indonesian and English. It is clear that L-1 and L-2 make the speaker's impression in producing Indonesian sentences which are categorized as syllogistic patterned reasoning.

Data (8) is different from the syllogism data (7) which has been described previously. Data (8) including negative syllogistic reasoning patterns that begin with a major premise can be stated completely and sequentially.

(7) [1] *Harganya mahal sekali sama dengan di Amerika Serikat [P]. [2] Saya harus membeli makanan gandum bebas agar saya tidak sakit [DD]. [3] Sesudah kami berbelanja kami pergi ke Coffee Toffe karena kami ingin membuat PR [DK]. (PPpsi/SP-1/15)*

(8) [1] The price is very expensive the same as in the United States [P]. [2] I have to buy wheat-free food so I don't get sick [DD]. [3] After we shopped we went to Coffee Toffe because we wanted to do a PR [DK]. (PPpsi/SP-1/15)

Data (8) is categorized completely and sequentially starting with the major premise in constituent [1]. Constituents [2] and [3] are minor premises. The two minor premises refer to the fact that speakers face that 'even though wheat is expensive, it must be bought because it is a staple food'. In drawing the conclusion, the speaker states it explicitly with the constituents "I have to buy".

Data (8) is also a difference in syllogism in (9). Data (9) contains a negative syllogism statement that begins with the major premise and is stated completely and not in sequence.

(8) [1] *Sekarang orang-orang CLS mungkin berpikir bahwa saya adalah orang yang sangat suka belajar bahasa asing tetapi ini tidak benar [P]. [2] Ketika saya bermigrasi ke Amerika [DD]. [3] Saya harus belajar bahasa Inggris untuk kehidupan [DK]. (PPpsi/SP-3/28)*

[1] Now CLS people may think that I am a person who really likes to learn foreign languages but this is not true [P]. [2] When I immigrated to America [DD]. [3] I have to learn English for life [DK]. (PPpsi/SP-3/28)

Two similar patterns used in data (9) have a conclusion-compiling pattern beginning with a conclusion that states 'CLS friends think that speakers like learning languages' as stated in the constituents [1] now CLS people may think that I am a person who really likes learn a foreign language but this is not true. The conclusion is a major premise of conjunction but in the category of opposite equivalent compound sentences that state different conditions or conditions. The conclusion is based on the fact that 'speakers learn a language due to living conditions immigrating to America' as stated in the first minor premise [2] when I immigrated to America and the second minor premise [3] I must learn English for life. The sentence structure between the first and second minor premises is not in order. It should be after the major premise followed by the second minor premise, then connected with the first minor premise. Two minor premises are facts that support the explicitly stated major premise.

Although the two data have different syllogistic reasoning patterns, data (8) and (9) in terms of statements have the same reasoning order. The sentence construction containing data (8) and (9) has three elements of reasoning. The premise obtains an explanatory sentence in sentence [2] as the basic data. This sentence is strengthened through the basis of truth contained in sentence [3]. Sentences [2] and [3] are located as minor premises.

The presentation of data (8) and (9) is evidence that there is conformity in the structure of the syllogistic reasoning pattern. In addition, the background for the emergence of the syllogistic reasoning pattern is caused by the influence of English as a previously mastered L-2. English is mastered by students as reflected in the results of the data (8) and (9). These two data have the same pattern of syllogistic reasoning. In addition, there are also different categories of reasoning.

However, data (10) has a different category of statement. Data (10) contains a hypothetical syllogism statement that begins with the major premise and is stated completely and not in sequence.

(9)[1] *Tamasya hari Sabtu ini adalah mengunjungi pesantren dan masjid Turen [P]. [2] Pesantren adalah sebuah pendidikan tradisional yang para siswanya tinggal bersama dan belajar [DK]. [3] Pemandangan dan margasatwa saya lihat. Pesantren sangat indah [D]. [4] Ada banyak kegiatan untuk siswa-siswa [DD]. (PPpsi/SP-1/22)*

[1] This Saturday's excursion is to visit the pesantren and the Turen mosque [P]. [2] Pesantren is a traditional education where students live together and study [DK]. [3] Landscapes and wildlife I saw. The boarding school is very

beautiful [D]. [4] There are many activities for [DD] students. (PPpsi/SP-1/22)

In (10) the pattern for compiling conclusions is stated completely and not in sequence. The major premise is expressed by the constituents [1]. The speaker makes a general statement that 'religious tourism activities are carried out in pesantren'. Constituent [2] is the first minor premise. The second minor premise is on the constituent [3]. The third minor premise is on the constituents [3] and the fourth minor premise is on the constituents [4]. Based on several minor premises, if ordered, the correct arrangement is after the first minor premise is combined into the fourth minor premise. After that, it is followed by the third minor premise and ends with the second minor premise. The second minor premise shows that 'speakers see the scenery around the pesantren. Thus, in drawing conclusions the major premise is stated explicitly, namely religious tourism activities.

This data (10) contains the main elements of the establishment of the constituent [1] as the main sentence in the category of major premise. In the minor premise of the constituents [2], there is also the main element of the basic truth that is supported by the constituents [3]. Constituent [4] is the basic data. Constituents [2], [3], and [4] include explanatory sentences. This explanation shows that the data (10) meets the requirements that every sentence contains elements of syllogistic reasoning. The cause of the emergence of syllogistic reasoning patterns is the influence of using L-2 which is controlled by students before learning L-3.

The following is an explanation of data (11) including a categorical syllogism in the form of statements in sequence and beginning with a minor premise and stated in full, as presented below.

(10) [1] *Hari Rabu satu minggu lalu hari sedih [DD]. Tetapi, hari Rabu ini senang. [2] Saya pergi ke kelas batik pertama kali [DK]. [3] Sekarang saya mengerti kenapa batik selalu mahal [D]. [4] Karena orang yang membuat batik perlu banyak konsentrasi dan sabar [P:M]. (PPpsi/SP-3/13)*

[1] Last Wednesday was a sad day [DD]. But, this Wednesday is happy. [2] I went to batik class for the first time [DK]. [3] Now I understand why batik is always expensive [D]. [4] Because people who make batik need a lot of concentration and patience [P:M]. (PPpsi/SP-3/13)

The pattern of reasoning in the data (11) uses the pattern of making inferences to be stated in a complete and sequential manner. At the beginning of the major premise stated with constituents [1]. That statement is a general rule which states that one week ago, Wednesday was a sad day. But one Sunday later on the same day the speaker was in a happy condition. The major premise is the category of compound sentences that have the conjunction but. Minor premise stated with constituents [2] and [3]. The two statements refer to facts directly experienced by the speaker. Based on these two facts, it can be concluded that 'a batik craftsman needs patience, perseverance, and full concentration', as in the sentence [4] because people who make batik need a lot of concentration and patience. Thus,

the conclusion in the syllogism is stated explicitly with the constituent because.

## V. DISCUSSION

This inductive reasoning pattern entity begins with several evidence or facts containing causes and each sentence can be categorized as basic data or basic truth. Not only the two categories but each category can also be given a complementary element of reasoning. It also depends on the context of the sentence. Furthermore, the presentation of the evidence ends with a conclusion containing the consequences in the form of a stance. The stance in the conclusion can also be given a modality or rebuttal. The two complementary elements of reasoning are Toulmin's model (Toulmin, 1990; Toulmin, Rieke, and Janik, 1979) used to identify patterns of inductive reasoning. In this pattern, modalities or refutations are obtained in the form of certainty, possibility, rejection, and approval by using certain markers or markers. The marker is an explanation that the sentence in this reasoning pattern has a modality or refutation.

In the next explanation, there is a pattern of inductive reasoning where the statement contains b) the evidence contains the effect and the conclusion contains the cause. This inductive reasoning pattern begins with some evidence containing consequences called explanatory sentences using basic data elements, the basis of truth. The basis of truth can also be strengthened by support. This support includes a complementary element of reasoning. After that, it ends with a conclusion containing a cause called the main sentence which is the main element of reasoning as a stance. The stance or conclusion in inductive reasoning is supported by the premise, although the conclusion strengthens and exceeds the actual condition (Kelley, 2004, p. 86). The conditions in question can give rise to new statements.

The results of this study indicate that the pattern of inductive reasoning has two different statements. The difference lies in the position between cause and effect can be evidence or conclusions. This is in line with the opinion of Yulianto (2008, p. 167-169) that the inductive pattern of the main sentence is positioned at the end. However, there is a slight difference with the results of this study regarding the content of the main sentence at the end, but it can contain cause or effect.

The emergence of deductive patterned reasoning entities is categorized as a) the main idea explained. This reasoning pattern begins with the main sentence called the conclusion containing the conclusion. The conclusion is based on an explanatory sentence containing evidence which is called the main element of basic data and the basis of truth. The two main elements do not rule out the possibility of being followed by complementary elements of support, modality, and rebuttal. The three complementary elements of reasoning are used for the context of certain sentences. The description of the categories of the results of this study shows that there are similarities with the opinion of Borman and Borman (1989, p. 146) that the main idea is never

conveyed in long sentences because the speech partner is considered to have understood based on the explanatory description. The explanatory description is in the form of conclusions based on explanatory sentences.

In the same pattern, but different categories, Borman and Borman (1989, p. 147) argue that explanatory descriptions can take the form of stories, examples, and analogies. The three descriptions are in line with the results of this study, namely the pattern of deductive reasoning in the category b) explanatory in the form of stories obtained by students. This pattern can represent a story told by students that begins with the main sentence, which is called a conclusion containing a stance. The stance ends with an explanatory sentence containing basic data, the basis of truth. The three main elements of reasoning can also be used as modalities and support. These two complementary elements of reasoning are used to clarify the storyline; c) category of explanatory description in the form of analogy. This pattern is used to clarify the analogous expression. Therefore, starting with the establishment as the main sentence is called the conclusion. The conclusion is followed by several explanatory sentences containing evidence that has the main element of basic reasoning the truth is supported; d) on the other hand, the pattern of deductive reasoning is also categorized as explanatory description in the form of examples. This pattern has the same sentence structure as the analogy described earlier. Thus, the results of this study indicate that there are similarities with the opinion of Yulianto (2008, p. 167-169) which states that the deductive reasoning pattern of the main sentence is located at the beginning. In this study, the main sentence is the establishment, then followed by several explanatory sentences containing evidence called basic data and the basis of truth. These two main elements can be obtained modality and support.

Based on the explanation of the results of this study, the reasoning patterned in the preparation of conclusions in front, it can be seen that the reasoning patterns found from inductive and deductive are influenced by English as L-2. This phenomenon can be proven in detail. For example, 1) the pattern of inductive reasoning resulted in two classifications, namely causes and effects, and 2) the pattern of deductive reasoning obtained general-specific and general-specific. The results of this study of deductive reasoning patterns show that there are similarity\*-s with the opinion of Ramon (1991, p. 7) that the process leading to a specific truth is built from a general truth. It was emphasized that the process of drawing conclusions was obtained from general things to specific things.

These two patterns of reasoning cannot be separated from the influence of English as an L-2. In addition, it is also influenced by the Indonesian sentence structure as L-3. This explanation shows that students have a pattern of thinking from specific statements to general statements. This statement process is called deductive reasoning. Likewise, it was found that students had a pattern of thinking from general statements to specific statements. This statement process is called patterning inductive reasoning. Thus,

students demonstrate competence which is reflected in two patterns of reasoning, namely inductive and deductive. These two patterns of reasoning are in line with the results of Widhiantari's research (2013, p. 6) that the pattern of developing students' reasoning in responding to the Kompas opinion rubric produces two patterns of reasoning, namely inductive and deductive. The same two patterns were also found in the results of research by Handayani and Rahmawati (2016, p. 50) in newspapers in the form of opinion rubric articles.

Based on the results of this study, the entities of the syllogistic reasoning pattern are classified into three, namely hypotheses, negative, and categorical. The pattern of hypothetical syllogistic reasoning found three statements, namely a) starting with the minor premise stated sequentially and completely, b) starting with the minor premise stated in an incomplete and unordered sequence, and c) beginning with the major premise being stated in full, but not in sequence. These three statements result from four different patterns. The difference is that two patterns start with a major premise and some start with a minor premise.

In this study, the findings of negative syllogistic reasoning patterns resulted from three statements, namely a) starting with the major premise stated sequentially and completely, b) starting with the major premise being stated in full, but not in sequence, and c) starting with the conclusion stated sequentially. From these three statements, four patterns begin with the major premise. In the next explanation, the findings of categorical reasoning patterns are obtained from two statements, namely a) starting with the major premise stated in sequence and in full and b) beginning with the minor premise stated in sequence and completely. Two statements, if you look closely, you can find two different patterns from each statement. Thus, the results of the study of three different types of syllogistic reasoning are in line with the opinion of Fredal (2020, p. 23) that different conclusions from the two initial premises must be followed from the construction of several true statements.

There are other findings from students in the preparation of conclusions, in addition to the two patterns previously described. The reasoning pattern in question is a syllogism. The pattern of syllogistic reasoning is found in the students' writings. Because students have a systematic or sequential pattern of thinking. Based on the students' systematic thinking, three different elements are produced in the syllogistic reasoning pattern. Although the number of syllogistic-patterned reasoning is found to be small, it can reflect the competence of students in compiling concluding sentences.

This fact is in line with the results of the research of Segers and Verhoeven (2016, p. 13) which have similarities with this study, which both express reasoning. The results of Segers and Verhoeven's research show that syllogism partially mediated the relationship between lexical quality and reading comprehension. Syllogistic reasoning in higher-order thinking processes is needed to make conclusions in reading comprehension. The results of this study are based

on the formulation of the first problem discussing the pattern of reasoning and the second revealing the form of reasoning. The difference with the results of this study, shows the pattern of reasoning, the form of reasoning, and the relationship between the pattern and the form of reasoning. However, the research of Segers and Verhoeven shows the relationship between lexical quality, syllogistic reasoning, and reading comprehension.

## VI. CONCLUSION

The pattern of reasoning in making conclusions of foreign speakers in Indonesian as L-3 is reflected in the explanation of reasoning in developing evidence (premises) and conclusions (conclusions). The elements of establishment in writing from various genres consist of three categories, namely a) factual stance in the form of statements about events, and b) value establishment in the form of an assessment of the shortcomings or advantages of a fact, object, or behavior. Elements of evidence in the form of a) facts in the form of events, and b) opinions about facts consisting of analysis, assessment, suggestions (hopes), and attitudes. The exposure of these two elements determines the pattern of reasoning in the preparation of inductive, deductive, and syllogistic conclusions. These three patterns can be realized through the logical thinking activities of foreign speakers. The findings of this study reinforce the notion that language has a relationship with the mind. In general, in the reasoning pattern, there is a reasoning strategy for BIPA students in Indonesian as a third language, it can be seen in the way they present the main idea which is supported by explanatory ideas, both the simple and complex level of thinking.

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