#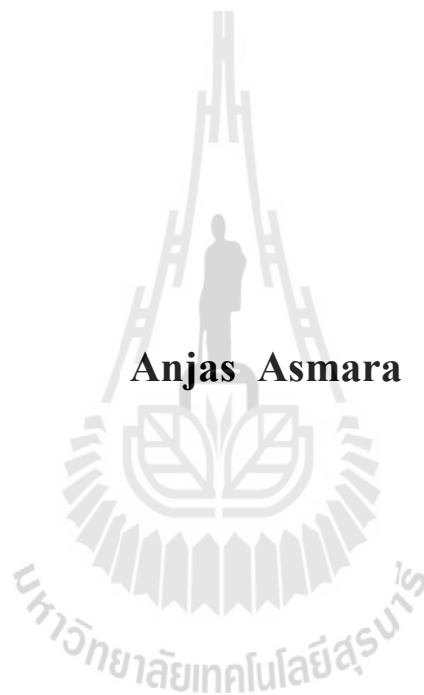 กลวิธีการเรียนไวยากรณ์ภาษาที่สองของผู้เรียนชาวอินโดนีเซียที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศและมีเชาวน์ปัญญาด้านภาษาและด้านการใช้เหตุผลเชิงตรรกะ

นายแอนจัส แอสมารา

L2 GRAMMAR LEARNING STRATEGIES OF EFL

INDONESIAN LEARNERS WITH VERBAL

AND LOGICAL INTELLIGENCE

Anjas Asmara

A Thesis Submitted in Partial Fulfillment of the Requirements for

the Degree of Master of Arts in English Language Studies

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L2 GRAMMAR LEARNING STRATEGIES OF EFL

INDONESIAN LEARNERS WITH VERBAL

AND LOGICAL INTELLIGENCE

Suranaree University of Technology has approved this thesis submitted in partial fulfillment of the requirements for a Master's Degree.

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and Innovation

แอนจัส แอสมารา : กลวิธีการเรียนไวยากรณ์ภาษาที่สองของผู้เรียนชาวอินโดนีเซียที่เรียน
ภาษาอังกฤษในฐานะภาษาต่างประเทศและมีเชาวน์ปัญญาด้านภาษาและด้านการใช้เหตุผล
เชิงตรรกะ (L2 GRAMMAR LEARNING STRATEGIES OF EFL INDONESIAN
LEARNERS WITH VERBAL AND LOGICAL INTELLIGENCE)
อาจารย์ที่ปรึกษา : อาจารย์ ดร.สิรินทร ศรีโพธิ์, 191 หน้า

ทฤษฎีพหุปัญญา (Multiple Intelligence) ได้รับการยอมรับว่าเป็นแนวทางที่มีประสิทธิภาพ
สำหรับการเรียนภาษาที่สองและภาษาต่างประเทศมานานกว่าสามทศวรรษ ที่ผ่านมาพบว่ามี
การศึกษาจำนวนมากเกี่ยวกับความสัมพันธ์ของทฤษฎีพหุปัญญาและการรับรู้ภาษาที่สองรวมถึง
ภาษาต่างประเทศ แต่ยังไม่พบการศึกษาวิจัยเชิงคุณภาพที่เกี่ยวกับความเชื่อมโยงของทฤษฎี
พหุปัญญาและกลยุทธ์การเรียนไวยากรณ์สำหรับภาษาที่สองระดับมหาวิทยาลัยในประเทศ
อินโดนีเซีย ดังนั้นในการศึกษานี้จึงมุ่งที่จะค้นหากลยุทธ์การเรียนไวยากรณ์ภาษาที่สองของผู้เรียน
ชาวอินโดนีเซียของผู้ที่มีเชาว์ปัญญาด้านภาษาและด้านการใช้เหตุผลเชิงตรรกะซึ่งเป็นกลุ่มที่
ผลการวิจัยด้านนี้ระบุว่าเป็นกลุ่มที่มีจำนวนมากที่สุดในกลุ่มผู้เรียนทั่วไป การวิจัยนี้มีวัตถุประสงค์
เพื่อสำรวจกลยุทธ์การเรียนไวยากรณ์ภาษาที่สองซึ่งเป็นความเห็นจากผู้เรียน ประชากรในการวิจัย
ครั้งนี้ประกอบด้วยนักศึกษาชั้นปีที่สองจำนวน 143 คนที่เรียนวิชาหลักภาษา 3 ที่มหาวิทยาลัย
เทคโนเครธ จังหวัดลำพุง ประเทศอินโดนีเซีย แต่เพียง 63 คนที่ถูกจำแนกว่าเป็นผู้ที่มีเชาว์ปัญญา
ด้านภาษาและด้านการใช้เหตุผลเชิงตรรกะ โดยแบบสอบถามพหุปัญญาของแม็คเคนซี่
(McKenzie's MI Inventory) ถูกเลือกเข้าร่วมงานวิจัยในลำดับถัดไป เครื่องมือวิจัยประกอบด้วย
แบบสอบถาม ข้อสอบไวยากรณ์ก่อนและหลังเรียน บันทึกของนักศึกษา แบบสอบถามกลยุทธ์การ
เรียนไวยากรณ์ภาษาที่สองและการสัมภาษณ์แบบกึ่งโครงสร้าง

ผลการศึกษาพบว่านักศึกษาจำนวนครึ่งหนึ่งของประชากรทั้งหมด มีเชาว์ปัญญาด้านภาษา
และด้านการใช้เหตุผลเชิงตรรกะและพบว่าผู้เรียนที่มีเชาว์ปัญญาด้านที่รู้จักตนเอง (Intrapersonal)
มีจำนวนมากที่สุด ในส่วนที่เกี่ยวกับกลยุทธ์การเรียนไวยากรณ์พบว่าผู้เรียนที่มีเชาว์ปัญญาด้าน
ภาษาใช้กลยุทธ์จำนวนมากกว่าอีกกลุ่มหนึ่งแต่ไม่มีนัยสำคัญ และผลการวิเคราะห์ข้อมูลเชิงคุณภาพ
จากบันทึกของผู้เรียนและการสัมภาษณ์พบว่าผู้เรียนทั้งสองกลุ่มใช้กลยุทธ์ในการเรียนไวยากรณ์ที่
ค่อนข้างเหมือนกัน ตัวอย่างของกลยุทธ์ที่ใช้มากได้แก่ การวิเคราะห์ประโยค การแปลเป็นภาษาที่
หนึ่ง การจดระหว่างการสอน การจดด้วยมือ การขอความช่วยเหลือจากเพื่อน การหาความรู้เพิ่มเติม
จากอินเทอร์เน็ท การปรึกษาครูและการใช้หลายๆกลยุทธ์พร้อมกัน ในส่วนที่เกี่ยวกับการ
เปรียบเทียบการใช้กลยุทธ์การเรียนไวยากรณ์ของกลุ่มผู้เรียนที่ได้คะแนนการสอบไวยากรณ์ดีกับ
ผู้เรียนโดยเฉลี่ยทั่วไปนั้นพบว่า กลุ่มผู้เรียนที่ได้คะแนนสูงใช้กลยุทธ์มากกว่าและแตกต่างอย่างเห็น

ได้ชัดเช่น การเป็นผู้อธิบายในกลุ่ม การเรียนด้วยตนเองและการทบทวนบทเรียนเป็นประจำ เป็น
กลยุทธ์ที่ใช้เฉพาะกลุ่มผู้เรียนที่ได้คะแนนสูงเท่านั้น จากผลการศึกษาดังกล่าวได้มีการเสนอการใช้
ผลการศึกษาเพื่อประโยชน์ทางด้านการเรียนการสอนไวยากรณ์ภาษาที่สองและเสนอแง่มุมที่
สามารถศึกษาวิจัยต่อไป

สาขาวิชาภาษาต่างประเทศ   ลายมือชื่อนักศึกษา_____

ปีการศึกษา 2558   ลายมือชื่ออาจารย์ที่ปรึกษา_____

ANJAS ASMARA : L2 GRAMMAR LEARNING STRATEGIES OF EFL
INDONESIAN LEARNERS WITH VERBAL AND LOGICAL
INTELLIGENCE. THESIS ADVISOR : SIRINTHORN SEEPHO, Ph.D.,
191 PP.

VERBAL INTELLIGENCE/LOGICAL INTELLIGENCE/MULTIPLE
INTELLIGENCE THEORY/L2 GRAMMAR LEARNING STRATEGIES

Multiple Intelligence (MI) theory has been accepted to be an effective
approach in Second/Foreign Language Learning for more than three decades. A
number of studies were found to investigate the relationship between MI theory and
second/foreign language acquisition. However, there is no study conducted to find the
connection between MI theory and L2 grammar learning strategies at the university
level especially in Indonesia. Therefore, this study aimed to explore L2 grammar
learning strategies used by Verbal and Logical learners, claimed by previous studies
as the most dominated Intelligences in language classrooms. The population of this
study was 143 second-year English major students from three "Structure 3" classes at
Teknokrat University, Lampung, Indonesia. Yet, only 63 students, who were
classified as Verbal and Logical Intelligence learners based on the results of
McKenzie's MI Inventory, were purposefully selected. The research instruments were
McKenzie's MI Inventory, pretest & posttest, student's journal, L2 Grammar
Learning Strategy Inventory, and semi-structured interview.

The results revealed that Verbal and Logical Intelligence learners were found
about a half of the population, but Intrapersonal Intelligence was in the first rank. In

relation to strategy use, Verbal Intelligence learners reported to use more strategies than Logical Intelligence learners. However, the difference was not statistically significant. Furthermore, qualitative results exhibited more similarities than differences in strategy use between the two groups. Examples of highly frequently used strategies included sentence analysis, translation into L1, taking notes along with the lecture, handwriting, asking friends for help, searching for the grammar point and its explanation in the Internet, teacher consultation, and combined strategies. As for the comparison between good Verbal and Logical Intelligence Learners, the data revealed that differences were reported in both quantity and quality of the used strategies. It was found that the good ones used more and different strategies. The following strategies; explainer in group discussions, self-study, and regular review grammar lessons were mentioned by only good Verbal and Logical learners. Based on the findings of the study, the pedagogical implications were discussed and recommendations for further research were also stated.

School of Foreign Languages   Student's signature_____

Academic Year 2015   Advisor's signature_____

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

The study attempts to explore what Verbal-Logical Intelligence learners use to learn grammar among Indonesian university students. This chapter consists of an introductory description of the present study. It begins with the background of the study, followed by the rationale of the study, the purposes of the study, the research questions, the significance of the study, the definition of the key terms, and concludes with the scope and limitation of the study.

1.1 Background of the Study

In the era of globalization, English plays a significant role in almost every field including the business of education. English does not have an official status, yet it is the *de facto* international language for global communication (Cavaliere, et al., 2014 and Taguchi, 2014) and as a result is regarded as the most sought after language to learn in the world. This shows just how powerful English actually is. Furthermore, Asean country members started to be officially united in the Asean Economic Community (AEC) since the end of 2015 and English is regarded as an official language within that community. Therefore, the aim of this era is to continue cooperation among ASEAN member countries in economic, social, cultural, technical, educational and other fields (ASEAN Secretariat, 2012). As a result,

ASEAN countries get more opportunities to work abroad in some sectors as well as to study in Asean country institutions where English is used as a medium of instruction.

However, to learn a language effectively, many factors need to be taken into consideration since the increasing demand of learning English brings not only opportunities but also challenges for language teachers. One of the challenges is how to consider individual differences into language learning. Language teachers should be ready to teach their students based on the learner's needs and differences. There are a number of theories in Foreign or Second Language Acquisition which consider how individual differences play an important role in target language learning (Dörnyei & Skehan, 2003 and Ellis, 1986). They point out that the prominent role of individual factors like learning styles, motivation, age, intelligence and aptitude lead to the success of learning the target language. The SLA theories provide new perspectives concerning how to teach learners according to their differences. In short, it does not seem effective if language teachers teach the learners merely based on a particular style or way without considering learner differences.

In regards to learner's differences, Ellis (1985 as cited in Panahandeh, et. al., 2015) mentions that Multiple Intelligences are considered as an individual factor. One of the prominent theories concerning the individual factor is Gardner's Multiple Intelligence theory. Multiple Intelligence (MI) theory was pioneered by Howard Gardner in 1983. It belongs to a psychological theory which indicates how the brain deals with information. For more than 30 years, this theory has been broadly used in the general education system. A number of schools have been using the MI theory as the foundation of their instructional policy and curriculum, for example 'Suzuki Music School' in Japan which focuses merely on Music Intelligence (Gardner, 1983).

In Indonesia, few private schools were labeled as MI schools. They see students equally in terms of intelligence and the teachers teach the lessons based on the students' strengths. The education system with the MI label is only limited to the school level.

Regarding language learner's strengths, there are a number of research studies that have been conducted to explore the relationship between MI theory and Foreign/Second Language Acquisition. Some studies found that teaching language through MI theory increases students' motivation (Yeh, 2014; Mcfarlane, 2010; Sahatsathatna, 2010; Mirrick, 2010; Greenhawk, 1997). Other studies (e.g., Zahedi & Gabenchi, 2014; Wei, 2011; Suan & Sulaiman, 2009) revealed that every intelligence has a different performance level and tendency in the component of language skills. The studies claimed that particular intelligences performed better in grammar scores. The finding implicitly showed that language learners have natural preferences in learning a target language and their preference motivated them to learn. The findings indicated that it is worth exploring the relationship between MI theory and language learners' learning abilities more in order to understand the role of individual differences in terms of intelligences.

The Multiple Intelligence in the EFL/ESL teaching/learning context has been a debatable issue for a long time. In the last decade, though many research studies have been conducted in this field, they seemed to simply focus on comparing between the test or academic scores and the nine intelligences of Gardner. Most of them were quantitative studies (i.e., Zahedi & Ghabanchi, 2014; Farsinejad, 2014; Ghasemi & Behjat, 2013; Saricouglu & Arikan, 2009). The present study tries to fill the gap by conducting the study with qualitative and quantitative methods (mixed methods) to

get more comprehensive results from learners' perspectives. The qualitative method provides a more detailed explanation about learner's L2 grammar learning strategies, and does not just simply compare the score (quantitative method).

Relating to the present study, English in Indonesia is considered to be a foreign language, which is normally used in international occasions not for daily communication. Therefore, it is not easy for Indonesian students to get exposure to practising English. Moreover, the main motivation of English language learning is for passing particular tests. In academic purposes, Indonesian students have to take the Test of English as a Foreign Language (TOEFL) and the International English Language Testing System (IELTS) when they are going to continue their study both abroad and in local universities. For working purposes, Indonesians have to take the Test of English for International Communication (TOEIC) for working in multi national companies. Grammar is one of the components. This condition explicitly shows that the need for grammar plays an important role as does fluency.

In the last decade, a number of studies revealed that learners learned grammar points by employing several approaches such as deductive, inductive, explicit and implicit (Rattya, 2013; Gurata, 2008; Oxford and Lee, 2007; Ollerhead and Oosthuizen, 2005). Some learners felt learning grammar by focusing on the pattern/structure worked well for them but others felt relating to the context or meaning was more suitable. The studies (Rattya, 2013; Gurata, 2008; Oxford and Lee, 2007; Ollerhead and Oosthuizen, 2005) showed that the effectiveness of those approaches depend on the learners' preference/style which usually come from individual learner differences. Relating to learner differences, Gardner (1983, 1993, 1999) and Ellis (1985 as cited in Panahandeh, et. al., 2015) point out that intelligence

is considered to be individual learner differences which should be taken into consideration in learning processes since it potentially optimizes and motivates to become a successful language user.

1.1.1 English Language Teaching (ELT) in Indonesia

English language in Indonesia is generally taught as a foreign language which means English is not commonly used as a communication tool. The following information lays the background of ELT in Indonesia from the past until now. The English language was mandated as a compulsory subject on December 27, 1949 or four years after Indonesian independence (Thomas, 1968 as cited in Yulia, 2014). Relating to English language teaching, Darjowidjojo (2000) points out that the Grammar Translation Method was the first method to teach English in Indonesia. This can be seen from a number of books which were commonly used in English language classes in Indonesia such as, Abdurachman's *English Grammar*, Tobing's *Practical Exercises*, and De Maar and Pino's *English Passages for Translation.* The learners were asked to read sentence by sentence and translate to Indonesian. Also, English language teachers were generally driven by textbooks with sentence based orientation. Such learning just focused on learning grammar structure without context (Sugeng, 2015; Madya, 2008; Supriadi, 2000; Dardjowidjojo, 2000; Nababan, 1991).

Around the 1950s, the behavioral method was adopted to the Indonesian curriculum to teach English. The students focused merely on drilling activities such as listen and repeat. In the 1970s, the third curriculum type was the eclectic methods which was a combination of the grammar translation method, the direct, and aural-oral approach. In this period, the teachers started to have a certain freedom to select

their teaching techniques. However, this curriculum was criticized by the teachers because the students still performed poorly in English communication.

A decade later, a communicative method, namely Competency-based Curriculum or *Kurikulum Berbasis Kompetensi (KBK),* was adopted and used since 1984 until now. This curriculum focuses on four components: linguistic competence, socio cultural competence, discourse competence, and strategic competence as coined by Hymes (1972) and Halliday (1973). Sugeng (2015) explains that the Indonesian government changed the syllabus of the communicative curriculum three times since 1980 which were: firstly, the competency-based education (1980s) which required students to practice the concrete skills rather than abstract learning. Secondly, school-based curriculum (1990s) which allowed schools to adjust their curriculum from the national curriculum according to their needs. Lastly, character-based education (2000s) put an emphasis on students' important core values such as caring, honesty, fairness, responsibility, and respect for others. It was hoped this would improve students' quality of their language usage especially in grammar accuracy both in speaking and writing. This condition explicitly shows the need for increasing grammar focus in English teaching in Indonesia.

1.1.2 Grammar Teaching in Indonesia

English Grammar teaching in Indonesia can not be separated from the historical story of the Indonesian curriculum since grammar teaching has the same development history. The Grammar Translation method was the first method used to teach English language in Indonesia. In this period, grammar was the focus of learning activities because the teachers were driven by text books emphasizing grammar points and translating sentences to Indonesian. After several changes in the

Indonesian curricula, the Communicative method has been adopted and adapted in language teaching methods since 1984 until now which put more stress on fluency. However, the students' inadequacy of grammar accuracy has been brought to the attention of many teachers and it critically needs to be solved. Sugeng (2015) finds that the new curriculum does not give a balanced proportion between grammar accuracy and fluency in the English language classroom which should actually be equally addressed since they are the main components of the TOEFL, IELTS, and TOEIC.

1.2 Rationale of the Study

Grammar is a part of a language which regnites the same concern as other components in a language. Most language standardized tests, e.g., TOEFL, IELTS, TOEIC have grammar as one of the components. Moreover, Sugeng (2015) finds that Indonesian students perform poorly in grammar accuracy rather than fluency in both writing and speaking. However, the present study can not find a research study which is focused on grammar learning strategies at Indonesian university level. The previous study of grammar just focuses on grammatical errors which were made by learners (Faisal, et. al, 2016 and Mardijono, 2003). This study comes to fill the gap by exploring what strategies learners use to learn L2 grammar. The findings will lead to pedagogical implications to inform teachers to plan their lessons and teaching methods appropriately and to inform learners how to learn L2 grammar more effectively.

In the field of Second/Foreign Language Acquisition, a number of research studies confirm that Multiple Intelligence theory plays a significant role in

Second/Foreign Language Acquisition (Yeh, 2014; Peng, 2013; Constatinesu, 2013; Khalaf, 2013; Mohammadi, et al, 2012; Al-Muhaidib, 2011; Suan & Sulaiman, 2009; Chan, 2005; Messick, 1992). Those studies reveal that the awareness and appreciation of Multiple Intelligences potentially optimize and accelerate the learning process. The finding has the same implication with Ellis (1986) who points out that individual learner differences potentially influence the rate of ultimate success in SLA.

The 9 intelligences proposed by Gardner (1983, 1999) include Verbal-Linguistic Intelligence, Logical-Mathematical Intelligence, Spatial-Visual Intelligence, Musical Intelligence, Interpersonal Intelligence, Intrapersonal Intelligence, Bodily-Kinesthetic Intelligence, Naturalist Intelligence and Existential Intelligence. The present study is focused on exploring Verbal and Logical Intelligences, as several research studies mentioned that the most dominated intelligences in the language learning classroom are Verbal and Logical Intelligences, this study therefore will focus on those intelligences (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011; Saricouglo & Arikan, 2009).

Some studies revealed that individual learner differences play significant roles in Second/Foreign Language Acquisition (i.e., Dörnyei and Skehan, 2003; Cook, 2001; Ellis, 1986). The theories point out a number of factors such as: age, motivation, aptitude, personality, and learning style. They believe that individual learner differences do not influence the route of learning yet the ultimate success' rate of Second/Foreign Language Acquisition. It can be assumed that when the learning process is appropriate with individual differences, learners can take benefits to

accelerate their learning rate. The present study contributes to the field by exploring how Verbal and Logical learners learn grammar.

Regarding L2 grammar learning, Sawir (2005) stated that Asian learners especially Indonesian learners have focused on English grammar lessons rather than communicative competence lessons since elementary schools, yet this grammatical competence seems to develop slowly. Sawir's study showed that grammar was still considered by EFL learners as one of the most difficult parts in learning English. Furthermore, some studies (e.g. Shiu, 2011; Jones et. al., 2012; Lock, 2009; Andrews, et.al., 2006) reveal that grammar learning does not seem to have significant impacts in students' competency in both writing and speaking. They still make grammatical mistakes even though they have learned those grammar lessons. The studies suggest that the way of teaching grammar should consider learner differences in order to be a more effective process.

Since the last decade, the inclination of teaching English pays more attention to communicative competence which puts an emphasis on fluency. Language teachers consider that grammar instruction does not facilitate language acquisition, the learners are able to acquire grammar knowledge through natural exposure, rather than instruction (Krashen & Terrell, 1983). In contrast, the study of Simon And Taverniers (2011) find that accuracy in L2 production is considered by language learners as the most challenging component both written and spoken. The study reveals that the teaching of grammar knowledge cannot be denied, since the accuracy of grammar is one of the important factors in communicative competence (Canale and Swain, 1983 as cited in Brown 2007).

A number of studies find that grammar is considered an essential component of language teaching, without grammar learners will communicate merely in a limited number of situations (Drugas, 2015; Mallia, 2015; Myhil & Watson, 2014; Nowak, 2012; Petraki and Hill, 2010; Ellis, 2006; Millard, 2000; Nachiengmai, 1997). Yet, to master grammatical features of foreign languages is not easy, thus a need to explore how learners learnt grammar might be helpful for teachers to accommodate/facilitate an effective learning process.

Finding effective strategies to learn grammar is worth exploring since some studies showed the more strategies used in grammar learning, the better the achievement (Gurata, 2008; Oxford and Lee, 2007; Kemp, 2007). The study of learner grammar strategies will give inputs to teachers to select their effective teaching methods. The present study analysed and contrasted a number of L2 grammar strategies combined with a survey which collected data from 30 Indonesian second year university students at the English Faculty, Muhammadiyah University Yogyakarta, Indonesia to make a comprehensive strategies' list. The participants of the survey has similar characteristics with the real participants in both age and major. Furthermore, grammar is still commonly taught in the language classroom which explicitly indicates the importance of grammar competency.

1.3 Purpose of the Study

There are 4 objectives of the study:

1. To explore the intelligences' profile of the population (L2 Indonesian learners).

2. To explore the L2 grammar learning strategies used by Verbal and Logical Intelligence learners.

3. To compare and contrast the L2 grammar learning strategies used by Verbal and Logical learners.

4. To explore the L2 grammar learning strategies used by good Verbal and Logical Intelligence learners.

1.4 Research Questions

The study is designed to answer the four following questions :

1. What is the distribution of intelligences of L2 Indonesian learners?

2. What L2 grammar learning strategies do Verbal and Logical learners use?

3. What are the similarities and differences found in the use of L2 grammar learning strategies employed by Verbal and Logical learners?

4. What are the L2 grammar learning strategies used by good Verbal and Logical learners?

1.5 Significance of the Study

The present study's findings are beneficial to the field of language teaching both for learners and teachers. Firstly, the Multiple Intelligence profiles of EFL learners reveal how they learn L2 grammar. The present study gives an explanation by conducting a qualitative study from learners' perspectives. Secondly, the present study informs teachers about how different learners learn grammar points so they are able to plan their lessons and select teaching methods appropriately. Thirdly, the list of grammar learning strategies revealed by Verbal and Logical learners is useful for learners to learn more about them and select the ones that more suitable for them.

Lastly, the findings of similarities and differences on Verbal and Logical learners let the teachers be more aware of their individual learner differences.

1.6 Definition of the Key Terms

The present study has four key terms that need clarifications: Verbal and Logical Intelligences, L2 grammar lessons, and L2 grammar learning strategies. Verbal and Logical Intelligences come from the part of nine types of intelligences which was proposed by Gardner (1983, 1999). Grammar's definition here is relevant to this study, not grammar as a general definition. L2 grammar learning strategies are from the findings of some studies and the survey. This study focuses solely on Verbal and Logical learners since a number of studies claim that those intelligences are dominated in language classrooms (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011; Saricouglo & Arikan, 2009).

Verbal / Linguistics Intelligence

Verbal/Linguistic Intelligence refers to a tendency of a person who has a high sensitivity to the meaning of words and he/she is able to use words in both speaking and writing effectively. Learners who are considered to be Verbal Intelligence learners will perceive information easier if the information is in the form of words rather than pictures, graphics or other forms. The present study identified the participants whether they are Verbal/Linguistic Intelligence learners, or not by using Mckenzie's (1999b) Multiple Intelligence Inventory.

Logical -Mathematical Intelligence

According to Gardner (1983), Logical-Mathematical Intelligence is the ability of a person to perceive information from numbers, formulas and logical explanation who will perceive information easier if the information is in the form of numbers or logical explanations. Such learners have to see the object of information to enable them to understand well. A mathematician, scientist and logician are several examples of people who have high Logical-Mathematical Intelligence (Gardner, 1983). Mckenzie's Multiple Intelligence Inventory was used to identify the participants' intelligence.

Grammar Lessons

The four L2 grammar topics which were taught to the participants were used in this study. The four main topics in the compulsory subject "Structure III" at the English faculty, Teknorat, Lampung, Indonesia: conditional sentence, subjunctive in noun clause, simple sentence, and compound and complex sentence. The topics are based on the book "Understanding and Using English Grammar" by Betty Schramper Azar (2002). According to the syllabus, the four main topics were taught in 14 meetings.

L2 Grammar Learning Strategies

The grammar learning strategies of this study are from three studies Gurata (2008), Oxford and Lee (2007), Kemp (2007), and the present survey. The item strategies of every study were analyzed and contrasted to look for similarities and differences. After finding the similarities and differences the present study was combined with the present survey of learning grammar strategies from 30 Indonesian

university students in order to make comprehensive strategies. Finally, there are 41 item grammar learning strategies which are useful for learners.

1.7 Scope and Limitation of the Study

The present study focuses solely on Verbal and Logical Intelligence learners. L2 grammar learning strategies represent the four grammar topics of this study not grammar in general. The total duration was around 42 hours or one semester at the English faculty, Teknokrat University, Lampung, Indonesia.

1.8 Summary

The present study aims to investigate the Verbal and Logical Intelligences of second year university students at Teknokrat University, Indonesia learn grammar. This study is motivated by the desire to contribute to the field for considering learning differences in English grammar learning/teaching since intelligence is considered to be an individual difference. Furthermore, grammar is one of the important components in language learning. A number of previous research studies revealed that Multiple Intelligence Theory increases students' motivation in language learning. This study hopes that the present findings give inputs to teachers on how to select teaching methods appropriately. Also, students are able to take benefits from the L2 grammar learning strategies provided. However, due to the limitation of the participants and grammar lessons, the result of this study may not be applicable and generalizable to other contexts. In the next chapter, Multiple Intelligence Theory and L2 grammar learning strategies are reviewed.

CHAPTER 2

LITERATURE REVIEW

This chapter describes a review of relevant literature related to the present study. It is divided into three main topics which are Multiple Intelligences, L2 grammar learning strategies, and English Language Teaching (ELT) in Indonesia. The first topic begins with classification and definitions of intelligence, the theory of Multiple Intelligence, and how it is measured. The second topic describes L2 grammar learning strategies from several studies and a survey. Lastly, the previous research studies relevant to these topics are reviewed at the end of this chapter.

2.1 Multiple Intelligences

The term 'intelligence' is derived from the latin verb *Intelligere.* It was first coined by the French psychologist, Binet in 1904 (Gardner, 1983, 1999). The word 'intelligence' is usually symbolised by psychologists with the letter 'g' which means "a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience" (Gottfredson, 1994, p.13). The definition of intelligence has similar intentions with Gardner's definition as the Multiple Intelligence Theory was inspired by Binet's theory. The present study discusses Multiple Intelligences which were proposed by Horward Gardner (1983, 1999) and his Multiple Intelligence Theory.

2.1.1 The Definition of Intelligence

Gardner (1983) points out that intelligence is "the presence of areas in the brain that correspond, at least roughly, to certain forms of cognition, and these same studies imply a neural organization that proves hospitable to the notion of different modes of information processing" (p.59). It means intelligence is an ability to solve problems and how to perceive information effectively. He asserts that intelligence cannot be separated by biological factors. The two main issues of intelligence which determine one's intelligence are the flexibility of human development and the identity, or nature of the intellectual capacity. The flexibility of human development is related to the critical period theory (Hatch, 1983; Krashen, 1982) which believed that malleability or plasticity in development was crucial in a particular period. The theories claimed that children might change their intelligences rank order before puberty, yet not after it. The second issue claims that the identity/nature of human intellectual capacity can be developed by the environment surrounding the child.

Gardner (1983) implicitly defines in his first book "Frames of Mind" that intelligence is a computational capacity which processes a particular kind of information that initiates in human biology and human psychology. A decade later, Gardner (1999) revises that "intelligence has three distinct meanings: intelligence as a species characteristic; intelligence as an individual difference; and intelligence as fit of an assignment" (p.32-33). The revised definition (1999) is considered to be the definition of the present study's intelligence since the revised definition is more specific than the previous one (1983).

2.1.2 The Multiple Intelligence Theory

In the emergence of Multiple Intelligence Gardner (1983) proposes seven intelligences to criticize the Intelligence Quotient (IQ) which was proposed by the French scholars, Alfred Binet and Theodore Simon in 1908. Gardner criticizes that the test score of the IQ does not give meaningful information, but only a number. He claims the IQ score cannot be used to predict the success of general learning or language learning. The seven proposed intelligences are Verbal-Linguistic, Musical-Rythmic, Logical-Mathematical, Visual-Spatial, Bodily-Kinaesthetic, Intrapersonal and Interpersonal (Gardner, 1983). A decade later, Gardner added two intelligences which were Naturalist and Existential Intelligences (Gardner, 1999).

2.1.2.1 Gardner's Intelligences

Multiple Intelligence theory claims that all people have the nine intelligences, yet different people will not have identical intelligence profiles even for identical twins. Gardner (1983) points out that the nine intelligences are not for labelling yet for empowering people. The detailed explanations of Gardner's nine intelligences are as follows:

Musical Intelligence

Musical Intelligence (Musical Smart) indicates three main areas which are performance, composition and high appreciation in music. Gardner (1983) points out that Musical Intelligence is the ability to recognize pitch or melody, rhythm, timbre, and tone. Pitch (melody) and rhythm are the components of "Musical Smart". This intelligence usually enjoys reflecting most of the things in music. Copland (1969) states "composing is as natural as eating or sleeping, it is something that the composer happens to have been born to do" (as cited in Gardner, 1983, p.102).

Sensitive learners, composers, singers, musicians, and conductors have high levels of Musical Intelligence. Young-adult learners who are considered to be "Musical Smart" usually love singing or playing musical instruments.

Spatial-Visual Intelligence

Gardner (1983) asserts that Spatial-Visual Intelligence (Picture Smart) is the ability to imagine and think three dimensionally without seeing the comprehensive/complete objects. The components are mental imagination, image manipulation, graphic and artistic skills and logical reasoning. Gardner agrees with Piaget (1956 as cited in Gardner, 1983) that the development of Spatial Intelligence will be completed at the end of the sensory motor stage of early childhood. Painters, pilots, sculptures, architects and sailors are examples of people who have high levels of this intelligence. Young-adult learners who are considered to be "Picture Smart" usually enjoy drawing, imagining, and playing puzzles.

Bodily-Kinesthetic Intelligence

Bodily-Kinesthetic Intelligence (Body Smart) is the capacity to understand movement, and the ability to manipulate and use the body to understand or to deliver information (Gardner, 1983). This intelligence has a good coordinating skill between mind and body. Dancers, actors, athletes and crafts people have well-developed Bodily-Kinesthetic Intelligence. Young-adult learners who are considered to be "Body Smart" usually enjoy outdoor activities and sports.

Intrapersonal Intelligence

Intrapersonal Intelligence (Self Smart) refers to the ability to understand and to be aware of planning and directing one's life. Self Smart has high appreciation levels to the self or a well-balanced person and all human situations

(Gardner, 1983). Psychologists, spiritual leaders and philosophers are the instances of well-developed Intrapersonal Intelligence. Young-adult learners who are considered to be "Self Smart" usually tend to be shy, are able to motivate themselves and are intuitive people.

Interpersonal Intelligence

Interpersonal Intelligence (People Smart) is the ability to understand, communicate, work and interact with other people effectively (Gardner, 1983). "People Smart" is considered to be a person who has a high sensitivity to verbal-non verbal communication, controlling other peoples feelings, and entertaining other people with multiple perspectives. Teachers, social workers and politicians exhibit this intelligence. Young-adult learners who are considered to be "People Smart" usually are seen as good communicators and as a leader among friends.

Naturalist Intelligence

Naturalist Intelligence (Nature Smart) is the human ability to distinguish and classify among living things or nature such as plants and animals (Gardner, 1999). This intelligence is inspired by Charles Darwin concerning the theory of human evolution. He claims that gardeners, farmers, and hunters have high levels of this intelligence. This intelligence is also found in artists, poets and social scientists who are capable of recognizing a particular pattern.

Existential Intelligence

The latest, Existential Intelligence is considered to be the ability to understand the deep human existence of a larger picture (Gardner, 1999). Such people who are considered to possess this type of intelligence usually ask themselves about the meaning of life, what their role is in the world, as well as their question in

happiness. Aestheticians, philosophers, and religious people are considered to have high levels of Existential Intelligence.

2.1.2.2 Two Intelligences "Verbal and Logical Intelligences": The Focus of this Study

The present study examines solely Verbal and Logical Intelligences, since a number of research studies revealed that Verbal and Logical Intelligences are the majority intelligences of language learners (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011 and Arikan, 2009). In this section, the present study describes what they are like, as well as the the characteristics, activities and strengths of Verbal and Logical Intelligences.

Verbal / Linguistic Intelligence (Word Smart)

Gardner (1999) mentions that Linguistic Intelligence (Word Smart) involves "sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals" (p. 41). It is a tendency of a person who has a high sensitivity to the meaning of words and he/she is able to use words in both speaking and writing effectively (Gardner, 1983). There are four components of Linguistic Intelligence: sensitivity to the interaction among linguistic connotations; sensitivity to phonology; a mastery of syntax; and ability to recognize pragmatic functions. He points out that poets, journalists, novelists, lawyers, interpreters, writers, and public speakers all have high levels of Linguistic Intelligence. Young-adult learners who are considered to be "Word Smart" usually love reading, writing, telling stories and doing crossword puzzles.

Gardner (1983) explains that a person who is considered to be "Word Smart" enjoys putting his/her thoughts down on paper, poetry or other activities

which play with words. Story telling, brainstorming, tape recording, and journal writing are considered to be their convenience activities (Kartiah, et.al., 2014). "Word Smart" learners have the ability to think of words and to use language to express complex meaning. It can be said that a person who is considered to be "Word Smart" will perceive information effectively if the information is in words, rather than pictures or graphics. Some studies (Wei, 2011; Suan & Sulaiman, 2009; Chan, 2005) revealed that Verbal Intelligence learners share common characteristics such as, notices grammatical mistakes, easily remembers quotes or famous sayings, loves fancy words, and enjoys writing and other activities which play with words. It is explicitly seen words and the creation of word tasks that are the strength of Verbal Intelligence learners.

Gardner (1993) further clarifies that Linguistic Intelligence is consistent with the stance of traditional psychology. For instance, a specific area of the brain called Broca's area, is the place for grammatical sentence production. A person with damage to this area is able to understand words and sentences quite well but is not able to put words together.

Logical Intelligence (Number/Reasoning Smart)

Gardner (1999) explains that Logical-Mathematical Intelligence (Number/Reasoning Smart) involves "the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically" (p.42). A person with such intelligence has the ability to count, measure, hypothesize and carry out complete mathematical operations or problems (Gardner, 1983). Number/Reasoning Smart learners have high levels of abilities in logical thinking, sequence thinking and finding out patterns in problems. Scientists, programmers,

doctors, engineers, mathematicians and detectives are the several instances of people who are Number/Reasoning Smart. Young-adult learners who are considered to be "Number/Reasoning Smart" usually enjoy categorizing things, finding patterns, experimenting and playing strategy games.

According to Gardner (1983), Logical Intelligence is considered to be the intelligence of a person who has a good ability in logical thinking and calculation. The common characteristics of this intelligence are usually able to calculate math solely in their head, enjoy science experiments, organize things by category, are abstract and rational thinkers and are curious about how things work (Wei, 2011; Suan & Sulaiman, 2009; Chan, 2005). Furthermore, Kartiah, et. al. (2004) describes that "Number/Reasoning Smart" enjoys learning activities such as calculations, quantifications, classifications, categorizations, and critical and scientific thinking. Gardner (1983) explains implicitly how to recognize "Number/Reasoning Smart" by giving a story about a child who tries to recognize procedure from objects in his book "Frames of Mind" regarding the strengths of "Number/Reasoning Smart". This type of intelligence learners is normally good at figuring things out, exploring patterns or relationships, problem solving, and has a good ability in abstract thoughts.

Furthermore, Gardner (1993) gives an explanation from an example in his book "Multiple Intelligences: New Horizons". Gardner describes a scientist who can solve problems without doing experiments just by imagining the structure, which is named "scientific thinking". It infers that a solution of the problem is constructed before it is articulated. In a gifted individual, the problem solving process happens rapidly. Houde and Mazoyer (2003) reveal that particular areas of the brain are more prominent in mathemathical calculations than others (as cited in Gardner,

1993). It can be seen from several people who have problems in particular brain areas but they perform well in calculations. It shows that particular areas of the brain are for mathemathical calculations.

2.1.3 Multiple Intelligence Measurement

A number of Multiple Intelligence measurements can be found in many previous studies. There are two measurements which have been frequently adopted in Multiple Intelligences research: The Multiple Intelligences Developmental Assessment Scales (MIDAS) and The Mckenzie's Multiple Intelligences Inventory.

2.1.3.1 Multiple Intelligences Developmental Assessment Scales (MIDAS)

MIDAS is developed by Shearer in 1996. It provides a method to elicit Multiple Intelligence profiles which can be used for people of all ages. It consists of 119 Likert-type items (from *a* to *f*) which are descriptive questions. MIDAS represents Gardner's nine intelligences which are divided into three components: a full range of skills; abilities; and intellectual potential. The MIDAS is designed to be a "thoughtful and systematic" survey of the person's skills and activities. It was developed as an interview or dialogue rather than as an impersonal set of general statements. When answering the 119 questions the respondent selects from six descriptive statements rather than merely selecting a yes/no or an ill-defined number response as is common with most MI checklists. Response choices are identified by a letter rather than by a number (Shearer, 2006).

MIDAS as claimed by Shearer can be used to measure not only Multiple Intelligence profiles, but also innovative-leadership profiles. Shearer (1997) conducts a study to measure the validity and reliability of MIDAS. The study shows that the range of MIDAS is 0.85 with range 0.76 to 0.87 which is acceptable for the test

validity. However, Gardner (2004) criticizes that many MIDAS' descriptive questions do not measure strength. Gardner explains that MIDAS suffers from two deficiencies: firstly, they don't actually measure the strengths. It needs a perfomance task to measure what intelligence he/she is. Secondly, the item tests assume that everyone has a good Intrapersonal Intelligence which means he/she knows himself/herself better. Gardner doubts anyone would give low score in intelligence since he/she assumes to know himself/herself better than others.

2.1.3.2 McKenzie's Multiple Intelligence Inventory

Mckenzie's Multiple Intelligence Inventory consists of 90 statements which represent the nine intelligences defined by Gardner. It was developed by McKenzie in 1999. This inventory is used solely to measure young adult learners for their Multiple Intelligence profiles (McKenzie, 1999a). A number of studies have been conducted in this field and they have used McKenzie's Multiple Intelligence Inventory to measure participants of those studies (e.g. Peng, 2013; Wei, 2011; Hajhasenmi & Eng, 2010; and Botelho, 2003) . A number of studies (e.g. Hajashemi and Eng, 2010; Peng, 2003; Razhmo, 2008; Al-Balhan, 2006) revealed that the Multiple Intelligence Inventory was valid and reliable for measuring adult language learners. The overall consistency of McKenzie's MI Inventory ranged from 0.85 to 0.90, which was an acceptable and high index of reliability.

In the present study, McKenzie's Multiple Intelligence Inventory was used to measure the Multiple Intelligence profiles of Indonesian second year English students at Teknokrat University, Lampung, Indonesia. This inventory is the latest instrument to measure Multiple Intelligence profiles which cover the nine intelligences (Verbal-Linguistic, Musical-Rythmic, Logical-Mathematical, Visual-

Spatial, Bodily-Kinesthetic, Intrapersonal, Interpersonal, Naturalist, and Existential Intelligences) of adult learners. The Test validity/ reliability of McKenzie's Multiple Intelligence Inventory is high and more practical than MIDAS, since the present instrument does not need to interpret the result. The participants' Multiple Intelligence profiles are explicitly seen from the score. Also, McKenzie's Multiple Intelligence questionnaire is available online for free.

2.2 L2 Grammar Learning Strategies for this Study

In this section, strategies are described focus only on grammar, not general language learning. Oxford and Lee (2007) define grammar learning strategies as "actions or thoughts that learners consciously employ to make language learning and/or language use easier, more effective, more efficient, and more enjoyable" (p.117). They claim that there are three general categories relating to grammar strategies: sensitivity to morphophonological (word endings); sensitivity to semantic (natural gender of references); and sensitivity to syntactic (derivational suffixes). The L2 grammar learning strategies for this study are adapted and adopted from 3 studies conducted by Oxford and Lee (2007), Kemp (2007), and Gurata (2008). The detailed explanation is as follows:

2.2.1 Implicit L2 grammar learning and associated strategies

Oxford and Lee (2007) state "implicit L2 learning involves learning grammar pattern in the language without any direction to pay attention to form and without any rule explanation" (p.126). It can be said language learners develop their competence subconsciously without paying attention to linguistic targets. Implicit L2 learning strategies can be divided into two groups: (1) strategies in purely meaning oriented,

and (2) strategies in implicit L2 grammar learning that includes form. The first strategy means that language learners focus only on meaning. It can be concluded there is no grammar strategy, since the theory clearly suggests that learners do not focus on form. The second strategy is a combination between focus on meaning and focus on form. The learners pay attention to meaning, yet when having difficulties on understanding or producing the L2, they turn their attention to grammar. The strategies used by learners who combine focus on meaning and focus on form are provided in Appendix F.1.

2.2.2 Explicit L2 grammar learning and associated strategies

Explicit L2 grammar learning is a condition where language learners are able to clearly see the structure or linguistics of grammar knowledge (Oxford and Lee, 2007). These strategies can be divided into two groups: (1) explicit-inductive L2 grammar learning and (2) explicit-deductive L2 grammar learning.

Oxford and Lee (2007) explain that explicit L2 grammar learning is "learners processing the L2 input with the conscious intention to find out whether the input contains regularities" (p.127). Many research studies reveal that explicit grammar learning tends to be appropriate for adult learners, since the explicit grammar explanation helps them to understand the grammar effectively (Simon & Taverniers, 2011; Kemp, 2007; Ellis, 2006). On the other hand, DeKeyser (2003) states that explicit-deductive L2 grammar learning involves "learning a rule that is supplied by the book, the teacher, or by some other means and then applying the rule to specific instances" (as cited in Oxford and Lee, 2007, p.129). The strategies used by learners who are oriented to explicit-inductive and explicit-deductive learning can be seen at Appendix F.2 and F.3.

2.2.3 Kemp's strategic processing in grammar learning (2007)

Kemp's study (2007) had 40 grammar learning strategies which were adapted from Oxford's strategy for language learning (1990). Kemp's study elicited data from 114 participants who knew between 2 – 12 languages. A 5 point Likert scale; (1) I never do this, (2) I seldom do this, (3) I sometimes do this, (4) I often do this, and (5) I always do this was used to measure the degree of the participant strategies used. He found that the more language learners know, the greater the number of grammar learning strategies they used. The 40 strategy items were divided into 6 classifications; memory for grammar, thinking about grammar, analysis of grammar, communicating with grammar, organising grammar learning, and using grammar with other people. The 40 strategy items can be seen at Appendix G.

2.2.4 Gurata's strategy types of grammar learning strategies (2008)

Gurata's grammar learning strategies were adapted from two studies of language learning strategies (O'Malley and Chamot, 1990 and Oxford, 1990). The 35 item strategies were used to elicit data from pre-intermediate to upper-intermediate students. The 35 strategy inventories were grouped into two main aspects: frequency and usefulness. First, a five point Likert scale from never (1) to always (5) was used to respond to the question. The second, "I think this is a useful strategy (even though I may not use it)". A three point Likert scale was used to respond to this statement: (1), totally disagree (2), partly agree and (3), totally agree. Gurata's study found that the more strategies used, the higher the achievement on the L2 grammar test. The 35 grammar learning strategies can be seen at Appendix H.

Similarities and differences were found among three L2 grammar learning strategy lists. After reviewing a number of related L2 grammar learning studies, this

section presents the L2 grammar learning strategies which are listed in the questionnaire and its development process. After the analysis, it was found that the items from three grammar learning strategies have many similarities and differences, and thus each item from each list was studied and either deleted or combined into the list.

For example,

- *I put the new structure in a sentence so I can remember it.* (Kemp, 2007)
- *I write one or two sentences using the new grammar structure so that I can remember the structure.* (Gurata, 2008)
- *When I see a new grammar structure, I use the context/situation, the dialogue, or the picture in order to understand its meaning.* (Gurata, 2008)
- *After discovering a rule, I try to apply it as soon as possible in a meaningful context.* (Oxford & Lee, 2007)
- *I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.* (The combined strategies)

The above strategies use different words to deliver the same strategy which is that L2 grammar learners prefer to relate the new grammar points with a context to understand and to memorize the grammar points.

- *I ask other people to correct my grammar.* (Kemp, 2007)
- *I ask good speakers of English to correct my grammar when I talk.* (Gurata, 2008)
- *I check with others who are more proficient to make sure my rule interpretation is correct.* (Oxford & Lee, 2007)

The above strategies have the same intention. That is, the L2 grammar learner learns grammar by asking other people who are considered to be more proficient than him/her. There are many similarities found in the three strategy lists. However, after comparing and contrasting each item, 9 different strategies in Kemp (2007), 7

different strategies in Gurata (2008), and 5 different strategies in Oxford and Lee (2007) were found and all of them are included in the final version of the questionnaire for this study (Appendix B). The differences mean that the strategy item is considered to have a different intention among those studies.

2.2.5 The preliminary L2 grammar learning strategy questionnaire

This study presents L2 grammar strategy lists which are from 3 studies and a survey but there are too many items and it is not practical to use all the lists. Therefore, this study has to make the present L2 grammar strategy lists. The development of 41 item strategies of this study is presented in chapter 3.

2.3 The Previous Studies Concerning Verbal-Logical Intelligences and L2 Grammar Learning

A number of research studies which discussed Verbal and Logical Intelligences have been conducted since the last decade. Those intelligences were regarded as the general intelligence profiles of learners (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011; Arikan, 2009; Suan and Sulaiman, 2009). The following part includes related research studies.

Farsinejad (2014) conducted a study about the role of Verbal Intelligence in L2 grammar learning. The participants were 68 Iranian adult English learners in a university and were asked to take an IQ verbal and grammar test. Then, they were divided into high and low verbal IQ groups by using a measuring tool that is Wachsler's Adult Intelligence Scale (WAIS III) (1981). This study compared the scores of the pretest and posttest which used grammar from a- TOEFL test. The

finding revealed that there was a significant relationship between Verbal Intelligence scores and grammar scores. A high Verbal IQ could take benefits from Inductive teaching grammar, yet this was not the case for Low Verbal IQ. This study just compared the scores between the Verbal IQ and Grammar scores.

Zahedi and Ghabanchi (2014) investigated the possible relationship between Logical and Natural Intelligences in relation to learning grammar. The subjects were 30 Iranian EFL learners which consisted of 20 females and 10 males. They were asked to fill a questionnaire to measure Intelligence (MIDAS) and complete a -forty item multiple choice grammar test based on their grammar book (Richards, 2005). They found that there was a positive and significant relationship between males' grammar and Logical Intelligence scores, but no strong relationship in the females' group. There was a positive relationship between Natural Intelligence and grammar scores in the males' group. The more the students had a tendency to be Naturalist, the higher their grammar score was. This result was contrary to the females' group. The study revealed that gender had a significant role in learning grammar.

Saricaoglu and Arikan (2009) analysed the relationship between MI and the resulting score in English grammar, listening and writing. Also, the possible relationship between gender and parent's educational background to the success'-factors was analysed. The subjects consisted of 144 students at Erciyes University's School of Foreign Language. After measuring their intelligence with the MI inventory's questionnaire, the researcher took the students' scores of grammar, writing and listening from the administration of the school. The related findings showed that the majority intelligence of the participants was Logical Intelligence.

There was a high positive relationship between Logical and Verbal Intelligence with the grammar test scores.

Wei (2011) studied the relationship between Multiple Intelligence and grammatical errors. He compared the errors between control and experimental groups. The subjects consisted of 74 English students at Guangzhou Auto Mobile, China. A questionnaire, a writing task and an error correction task were used to test the subjects. He found that experimental groups who had treatment with MI perspectives performed better than control groups. The related findings suggested that the more Logical and Verbal Intelligences, the less article errors occurred. This study was a quantitative study and just solely compared the number of grammatical mistakes and MI profiles.

The previous studies revealed that Verbal-Logical Intelligences had a positive relationship with L2 grammar learning. However another study had a contrary result. Zarei and Mohesni (2012) investigated the relationship between Multiple Intelligences and grammar-writing accuracy. 190 English students from two Iranian universities were asked to fill Mckenzie's questionnaire to capture their intelligence profile. The Michighan Test of English Proficiency (MTEP) which consisted of 40 grammar and 40 vocabulary questions and two different writing topics, was used to test the participants. It was found that Intrapersonal Intelligence was the best predictor of grammar accuracy. Intrapersonal and Interpersonal Intelligences perfomed better than Logical and Verbal Intelligences in grammar writing accuracy.

Suan and Sulaiman (2009) conducted a study to look for the effective learning strategies of language learning. 75 Malaysian students who were from different faculties were selected for the study. They were asked to write sentences in the

Japanese grammar class. One of the aims was to determine a correlation of Multiple Intelligence profiles among Japanese language students. Logical Intelligence was to be found dominant intelligence. Such intelligence enjoyed comparing and contrasting objects or concepts in the class. Students who performed better in Japanese grammar lessons were found to have Logical Intelligence. The ability to analyse the sentence systematically played the most important role in forming a correct sentence. This study employed a descriptive design. The observation played the most important role to interpret the subjects' activities in the class. However, this finding is not comprehensive enough as it was merely based on the observation of one class meeting.

The present study fills the gap by eliciting qualitative data from three grammar class meetings within one semester at Teknokrat University, Indonesia. These meetings are considered long enough for students to be observed and also reflected their own L2 grammar learning strategies.

Another study which exhibits Multiple Intelligence and Second Language acquisition can be found in the following study. Simon and Taverniers (2011) investigated undergraduate Dutch speakers' beliefs in SLA. 117 first year students in a Belgian university were asked to fill three questionnaires about their learning beliefs related to grammar, pronunciation and vocabulary. The quantitative analysis revealed that vocabulary was considered to be more important than grammar and pronunciation for efficient communication. However, the participants believed that grammar is considered to be the most difficult component of learning compared to vocabulary and pronunciation. Exercises given in class were assumed to be the most

effective way to learn grammatical points. Logical thinking students were assumed to perform better in grammar class.

Qualitative and quantitative analysis is important in analysing research data. However, the previous studies show that they only used either a qualitative or quantitative analysis. The present study fills the gap by using a mixed methods approach as the present study compares pretest and posttest scores to confirm whether the participants L2 grammar learning strategies work or not (quantitative). Also, journals and semi-structured interviews will be used to elicit the comprehensive data (qualitative).

Regarding Multiple Intelligence Theory in Indonesia, not many research studies can be found in Indonesia about Multiple Intelligence theory and Second Language Acquisition. The present study finds few research studies which discussed such topics, and was mostly limited to school levels and different subjects (e.g. math, religion, moral education), not L2 learning. The present study cannot find a study of Multiple Intelligence and language learning in Indonesia's university levels.

Kartiah, et. al. (2014) investigated students' intelligence and teachers' strategy in English teaching. 100 Indonesian students and 7 teachers from two Islamic secondary schools were selected for the study. Interview and inventory were employed to collect the data. The study found that Linguistic Intelligence was claimed to be the most frequent intelligence among the participants. Also, the teaching style of teachers was dominated by Linguistic Intelligence. This study provided teaching strategies in every profile intelligence defined by Gardner as, teaching strategies might/ might not be learner learning strategies. The learners' strategies might not be the same as the teachers' expectation. To fill the gap, the present study focuses on the

learners' perspective in how they learn in an L2 grammar lesson, not how language

teachers teach an L2 grammar lesson.

Table 2.1: The Summary of MI and L2 Grammar Learning Studies

Title	Participants	Methodology	Results
(1) The role of Verbal Intelligence in L2 grammar learning	68 university students	A questionnaire & pretest and posttest	A significant relationship was found between High Verbal Intelligence and grammar scores.
(2) The relationship between Logical, Naturalist Intelligences and learning grammar for EFL learners at elementary level	30 university students	A questionnaire & a grammar test	A positive relationship was found between Naturalist-Logical male students and grammar scores.
(3) A study of Multiple Intelligences, foreign language success and some selected variables	114 university students	A questionnaire & final grades	A positive relationship was found between Naturalist-Logical students and grammar test scores.
(4) The relationship between MI and grammatical errors in English writing made by EFL learners	74 university students	A questionnaire, a writing task, & an error correction task	The more Verbal-Logical Intelligences, the less article errors occured.
(5) On the relationship between Multiple Intelligences and grammatical and writing accuracy of Iranian learners of English	190 university students	A questionnaire, Michigan Test of English Proficiency (MTEP)	- Intrapersonal Intelligence was found as the best predictor of grammar accuracy. - Intrapersonal and Interpersonal Intelligences performed better than Verbal-Logical Intelligences in grammar writing accuracy.

Table 2.1: The Summary of MI and L2 Grammar Learning Studies (Cont.)

Title	Participants	Methodology	Results
(6) Multiple Intelligences in Japanese language learning	75 university students	A questionnaire, observation, & writing exercises	Logical Intelligence students performed better in Japanese grammar lessons.
(7) Advanced EFL learners' beliefs about language learning between grammar, pronunciation, and vocabulary	117 first year university students	3 questionnaires	Grammar was considered by participants as the most difficult part to learning rather than vocabulary and pronunciation.
(8) The portrayal of Multiple Intelligence theory in English teaching strategy for Indonesian secondary school	7 secondary school teachers and 100 school students	A questionnaire and interview	Linguistic Intelligence was found as the most frequent intelligence among learners.

Table 2.2: The Summary of Gaps

Aspect of Study	Participants	Methodology
Learners' perspectives	Indonesian university students	Mixed-methods
One semester period		

Generally, the previous studies just compared the Multiple Intelligence profiles and the score of particular competencies such as listening, vocabulary learning, reading strategies and, grammar points, etc. The procedures which compared between Multiple Intelligence profiles and the scores of listening, reading, vocabulary learning were commonly found in many previous research studies (e.g. Naeni & Pandian, 2010; Farahani & Kalkhroan, 2014). As a result, the present study fills the gap by conducting the study with a qualitative analysis and pays attention to the

learners' perspectives in what Verbal and Logical Intelligences are used to learn in L2 grammar lessons. A qualitative analysis will provide a detailed and comprehensive explanation to support quantitative analysis.

2.4 The Previous Study of L2 Grammar Learning Strategies

In the last decade, not many research studies which focused on L2 grammar learning strategies have been conducted. However, there were a number of previous related studies in grammar learning strategies, as follows:

Kemp (2007) conducted a study to compare Multilingual and Bilingual adult speakers about how they learn L2 grammar. 114 participants took part, including undergraduate language students, lecturers, researchers and educated professional workers in Scotland. The participants were considered bilingual and multilingual speakers. They were asked to fill the 40 grammar strategies questionnaire which exhibit grammar learning statements. The quantitative analysis revealed that the more language learners know, the greater number of grammar learning strategies they used. The more languages participants know, the more frequently they used the 40 strategies overall. Explicit grammar instruction was claimed to be able to speed their learning grammar both from teachers and textbooks. The 40 grammar strategic learning items can be seen at Appendix G.

Gurata (2008) investigated about L2 grammar learning strategies employed by Turkish students. There were 176 English students who were from different proficiency levels; pre-intermediate, intermediate, and upper-intermediate. The subjects were asked to fill a 35 item-questionnaire to elicit information about the frequency and the usefulness of particular L2 grammar learning strategies. The

quantitative analysis revealed that the higher grammar group or higher achiever score used more strategies than the lower grammar group. The more strategies used, the higher the achievement on an L2 grammar test. The study found that cognitive, metacognitive, social-affective and compensation strategies were claimed as the most frequently used for all the language proficiency levels. The 35 item questionnaire can be seen in Appendix H.

The above studies explicitly revealed that the more strategies uses, the better better achievement of grammar. Kemp (2007) found that multilingual speakers or people who are able to speak more than two languages used more strategies than bilingual speakers or people who are able to speak two languages in learning grammar. This finding confirms Gurata's study who revealed that the more strategies used, the higher the grammar score. Those studies show that it is worth exploring more about grammar learning strategies to enhance language learners and language teachers to perceive grammar knowledge effectively.

Pineda (2010) conducted a study for identifying language learner strategies used by students of different languages at a language program at the university level. The participants were Spanish students of French, English, Portuguese, Chinese, Japanese, Italian, and German at a public university non-credit language institute style program. A questionnaire, a semi-structured interview, and a series of lesson observations were used to elicit the data. The related finding revealed that cognitive and memory strategies were found to be the most common strategies in grammar learning. Grammar learning was viewed by the participants as purely memory based.

Regarding learning grammar, Fatemipour and Moharamzadeh (2015) studied the impact of textual enhancement and oral enhancement on learning English

language grammar. There were 70 intermediate English students at Tehran University who were asked to answer 30 grammar questions after they finished six meetings. This experimental study divided the subjects into two classes; textual enhancement's class and oral enhanchment's class. The first class which had 35 students were given reading materials with bolded grammatical points without explanation from the teacher. On the other hand, the second group learnt grammar points by oral enhancement. The 35 students (an experimental group) were given three comprehension texts and they listened for the explanation from the teacher. The quantitative analysis revealed that a significant difference was found among the two groups. The subjects who learned with oral enhancement performed better than the subject who learned with textual enhancement in the L2 grammar test.

Table 2.3: The Summary of L2 Grammar Learning Studies

Title	Participants	Methodology	Results
(1) Strategic Processing in Grammar Learning: Do Multilinguals Use More strategies?	114 participants who were undergraduate language students, lecturers, researchers and educated professional workers in Scotland	A questionnaire	(1) The more language learners know, the greater the number of grammar learning strategies they used. (2) The more languages participants know, the more frequently they used the 40 strategies overall. (3) Explicit grammar instruction was claimed to be able to speed their learning grammar both from teachers and textbooks.

Table 2.3: The Summary of L2 Grammar Learning Studies (Cont.)

Title	Participants	Methodology	Results
(2) Identifying Language Learning Strategies: An Exploratory Study	Spanish students of French, English, Portuguese, Chinese, Japanese, Italian, and German at a public university non-credit language institute style program	A questionnaire, a semi-structured interview, and a series of lesson observations	Cognitive and memory strategies were found to bethe common strategies in grammar learning.
(3) The Grammar Learning Strategies Employed by Turkish University Preparatory School EFL Students	176 English university students	A questionnaire	(1) The high grammar group used more strategies than the low grammar group. (2) Cognitive, metacognitive, social-affective and compensation strategies were claimed as the most frequently used for all the language proficiency levels.
(4) The impact of textual enhancement vs oral enhanchement on learning English language grammar	70 intermediate English students at Tehran University	30 grammar questions, reading materials with bolded grammatical points, & three comprehension texts	The subjects who learned with oral enhancement performed better than the subject who learned with textual enhancement in the L2 grammar test.

Relating to the Indonesian context, there is no research study which focuses on L2 grammar learning strategies at the Indonesian university level. There was a study which investigated grammatical errors of 17 fourth-year English language students in an Indonesian university (Mardijino, 2003). The finding revealed that morphological and syntactic errors were found to be the most common errors in students' thesis proposals. However, the previous study just focuses on students' errors, not learning strategies. As a result, this study will fill the gap by exploring what grammar learning strategies Verbal and Logical learners use to learn grammar.

2.5 The Previous Studies of Grammar Teaching in Indonesia

There are not many research studies which were conducted on grammar teaching in Indonesia. However, a number of research studies about grammar teaching can be found in order to describe the English grammar teaching situation in Indonesia.

Widodo (2006) conducted a study about approaches and procedures for teaching grammar in Indonesia. The document analysis of related studies was employed to find out the grammar teaching steps. It was found that the notion of practise and consciousness-raising, explicit and implicit knowledge, and deductive – inductive approaches were developed to teach grammar. It can be concluded that the five steps to teach grammar include: building up students' knowledge of the rule or rule initiation, eliciting functions of the rule or rule elicitation, familiarizing students with the rule in use through exercises or rule practice, checking students' comprehension and rule activation, and expanding students' knowledge or enrichment.

Bumela (2014) analysed the learners' responses of teaching functional grammar steps in the class. This study was aimed at finding effective ways of learning grammar from reading texts. 5 students of the English Education Faculty in IAIN Syekh Nurjati Cirebon, Indonesia were asked to respond to the 4 selected texts taken from their grammar class. They were asked to analyse the texts and answer a number of questions. The study revealed that the successful textual analysis was determined by how students made sense of the text. After understanding the context, the students could gain insights into the structures or grammar points embedded in the texts. The finding implicitly showed that the topic of reading texts in a grammar class should be familiar tothe students in order to enhance and motivate them to learn grammar.

Panggabean (2015) conducted a study about a problematic approach to English teaching and learning. The study discussed teaching English instructions in Indonesia which was divided into two types: the grammar free approach and the strict grammar approach. The study reviewed and analysed a number of related research studies which claimed that Indonesian learners generally learned English in formal instruction settings using the strict grammar approach. They learned the language in the same manner they learned their mother tongue as English is considered a foreign language. The study suggested that the strict grammar approach should be employed to teach English for academic purposes (EAP), yet the free grammar approach should be for teaching English for general purposes to beginners.

Early studies show that there are several methods or approaches to teach grammar lessons in Indonesia. Deductive-inductive approaches and implicit-explicit instructions are commonly found in English grammar teaching in Indonesia. However, grammar teaching in Indonesia has not received the same attention in the

past two decades from the Indonesian curriculum system which has primarily focus on fluency rather than accuracy (Sugeng, 2015).

2.6 Summary

In this chapter, the related literature of Multiple Intelligences and L2 grammar learning strategies are reviewed to provide the overall picture of the study. It starts with the brief history and definition of the term "intelligence", Multiple Intelligence theory which explains all the nine intelligences: Musical Intelligence, Spatial-Visual Intelligence, Bodily-Kinesthetic Intelligence, Intrapersonal Intelligence, Interpersonal Intelligence, Naturalist Intelligence, Existential Intelligence, Verbal-Linguistic Intelligence, and Logical Intelligence. MIDAS and McKenzie's Multiple Intelligence Inventory are reviewed to provide the instrument's justification of this study. The review of 3 studies and the survey are presented to describe the development of the 41 L2 grammar learning strategies of this study. Following that, previous research studies concerning Verbal-Logical Intelligences and L2 grammar learning are reviewed which lead to the gap that this study fills. Another review, the previous study of L2 grammar learning strategies are presented in order to describe the importance of effective grammar learning strategies.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter discusses the research methodology which is used in the present study. It begins with the research methodology, the theoretical framework, the participants of the study, the research instruments, the data collection and lastly, the data analysis procedure.

3.1 Research Methodology

Research methodology plays a critical role for the success of a research study. Mackey and Gas (2005) and Dörnyei (2003) point out that quantitative, qualitative and mixed research methods are known as the most common types used in second/foreign language research. Quantitative research exhibits data collection procedures which yield mainly numerical data and it will be analysed by statistical methods. In contrast, qualitative research exhibits data collection procedures which yield mainly open-ended and non-numerical data. Non-statistical-methods will be used to analyse qualitative research such as the content method analysis. As qualitative and quantitative approaches have weaknesses and strengths, a mixed methods approach emerges to elicit and analyse data in a broader and more complete range of research questions since the researcher is not confined to a single method/approach. Mixed methods exhibit a combination between quantitative and

qualitative research both in data collection and data analysis such as combining interviews and questionnaires in a study as well as having open-ended questionnaires.

The present study employs a mixed methods design which involves quantitative and qualitative approaches both in collecting and analysing data in order to answer the research questions. It aims to find out which L2 grammar learning strategies are used by Verbal and Logical Intelligence learners. Moreover, semi-structured interviews were conducted in order to acquire data to answer the research questions and make this study more interesting and useful. Therefore, the data from both the questionnaire and semi-structured interview allow the researcher to better understand the grammar learning of Verbal and Logical Intelligence learners. Quantitative and qualitative methods have their limitations, so mixed methods can potentially optimize the process of data collection and data analysis. Dornyei (2007) mentions that the benefits of mixed methods involve three components: multi-level analysis of complex issues, improving validity, and reaching multiple audiences.

3.2 Theoretical Framework

The theory of Multiple Intelligence which was proposed by Gardner (1983) has implications for general education. Gardner (1999) claims that many schools in the USA which applied a Multiple Intelligences' perspective in their curriculum felt satisfied since it increased students' motivation. However, the present study focuses solely on Foreign language teaching and learning. The Mckenzie's Multiple Intelligence Inventory (1999b) was used to identify the intelligence profiles of the

participants. Verbal and Logical Intelligence learners who discussed in this study since those intelligences are claimed as the most dominated intelligences in language learning classes (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011; Saricouglo & Arikan, 2009). The Mckenzie's Multiple Intelligence Inventory was created by Walter Mckenzie in 1999. The 90 statements are representative of the nine proposed intelligences by Gardner (1983, 1999). The Mckenzie inventory is the latest version and has been widely used in many research studies since the last decade (Al-Bahlan, 2006; Razhmo, 2008; Peng, 2013, Hajhasenmi & Wong, 2010).

Regarding grammar learning strategies, the present study developed the L2 grammar learning questionnaires which are based upon; (1) Kemp, (2007); (2) Oxford and Lee, (2007); (3) Gurata, (2008); and the survey which elicited data from 30 Indonesian second year university students at the English Faculty, Yogyakarta Muhammadiyah University (UMY), Indonesia. The grammar learning strategies inventory is useful both for learners and teachers. Learners can pick and choose which one is the most convenient strategy from the inventory of 41. On the other hand, teachers can consider the learner strategies in their language teaching to be more effective.

In sum, student differences play an important role in Second Language Acquisition. Students' strengths and styles are two of the components which come from different level of intelligence (Dörnyei & Skehan, 2003). Some studies agree that language teachers should consider learners' learning style in their teaching

(Dehdast, et al. , 2015; Chen & Hung, 2012; Manorat, 2004). A number of studies show that students with different levels of intelligences have different achievement in L2 grammar lessons in the classroom (Farsinejad, 2014; Zahedi & Gabhanci, 2014; Saricauglo & Alikan, 2009).

3.3 Participants of the Study

Because of the convenience and purposive sampling method, the population is 143 second year university students who come from three grammar classes namely "Structure III" in English Literature, Teknokrat University, Lampung, Indonesia. "Structure III" is one of the five English structure requirements offered by the English Literature Faculty, Teknokrat University. The reason for choosing grammar courses is because this study aims to focus on L2 grammar learning, not general language learning. This subject is intended to increase students' knowledge about conditional sentences, types one, two and three, and various types of sentences in English (Teknokrat University, 2015).

The students of "Structure III" are considered to have extensive English language learning experience as they have been learning the language since elementary, junior, and senior high schools as well as have one year at university level. This study selected only 63 Verbal and Logical Intelligence learners who were identified by McKenzie's Multiple Intelligence Inventory. The subjects were taught by two regular lecturers. Their ages range between 18 – 22 years old and can be regarded as Foreign Language learners.

After taking McKenzie's Multiple Intelligence Inventory's test, all Verbal and Logical Intelligence learners were selected. Those participants are considered to represent the population. The participants were asked to write three journals about how they learn grammar lessons (See Appendix D). At the end of the semester, 11 Verbal and 7 Logical Intelligence learners who were part of the high achieving students of the posttest were interviewed to gain deeper information about their grammar learning strategies. The reason is because the study would like to see the effective strategies used by the good learners which might be beneficial for other learners. The total interviewees were 18 Verbal and Logical Intelligence learners.

3.4 Research Procedure

McKenzie's Multiple Intelligence Inventory and pretest were taken by the population at the first week of the semester at the English Literature Faculty, Teknokrat University, Indonesia. The following week, a number of grammar lessons of simple sentences, conditional sentences, compound and complex sentences were given to the population. All the 63 Verbal and Logical students were asked to write 3 journal entries at the end of every topic in different class meetings. At the end of the semester, the participants took a post-test and 18 students who got high score in the postest were selected to be interviewed by the researcher.
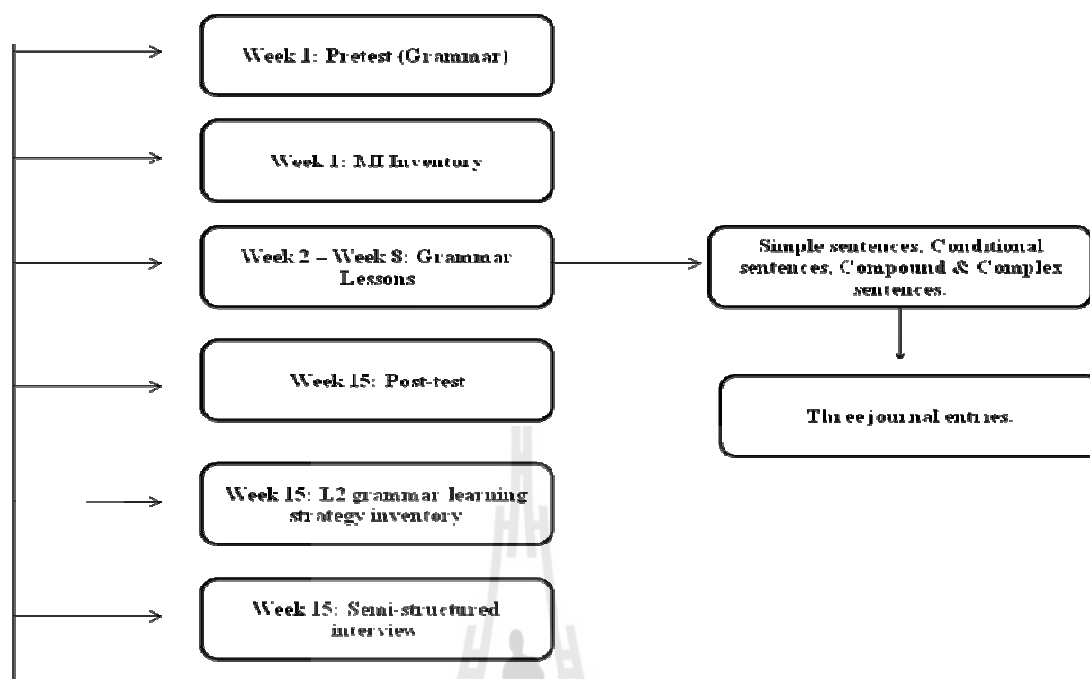
Figure 3.1: Research Procedure

3.5 Research Instruments

The present study employs five instruments to gather data. They are the Multiple Intelligence Inventory, the L2 grammar learning strategy inventory, the pretest and posttest, the student journals, and semi-structured interviews. A detailed explanation of each instrument is provided as follows:

3.5.1 McKenzie's Multiple Intelligence Inventory

The Multiple Intelligence Inventory created by McKenzie in 1999 which consists of 90 statements, is related to the nine intelligences proposed by Gardner (1983 & 1999). A number of studies conducted in this field (e.g. Peng, 2013; Wei,

2011; Hajhasenmi & Wong, 2010; Botelho, 2003) used Mckenzie's Multiple Intelligence questionnaire to measure their subjects' intelligence.

McKenzie's Multiple Intelligence Inventory was chosen for two reasons. Firstly, it is more complete and up-to date, with an inventory was based on the latest theory of Gardners' Multiple Intelligence. It has nine intelligences while others have only seven or eight intelligences. Secondly, its validity and reliability were confirmed by a number of studies with high ranges of consistency for measuring adult or undergraduate learners (See Appendix A).

Moreover, this inventory is very practical and easy to use and understand. Therefore, the participants will not have many difficulties when completing the inventory. The MI inventory was translated to Indonesian in order to reduce the language barrier as the participants are Indonesian. Back translation technique was used to ensure the accuracy of the translation by two experienced Indonesian university lecturers. Then, the inventory was delivered to all Structure III grammar class participants of grammar classes in a university in Indonesia. The present study only focused on learners who were identified as Verbal and Logical Intelligence students since they are claimed to be the majority of general learners.

3.5.2 L2 Grammar Learning Strategy Inventory for this Study

The L2 grammar learning strategies were adopted and adapted from three related studies (Kemp, 2007; Oxford and Lee, 2007; Gurata, 2008) and a survey which elicited data from 30 Indonesian second year students at the English Faculty, Yogyakarta Muhammadiyah University, Indonesia. Every strategy of those studies

and results of the survey were analysed, compared, and contrasted to look for differences and similiraties. After categorizing the similarities and differences, the strategy lists were validated by an expert to see whether the interpretation was appropriate or not. There are 41 L2 grammar learning strategies which are useful for learners and teachers.

The present study conducted a survey from 30 Indonesian second year students at the English Faculty, Yogyakarta Muhammadiyah University, Indonesia in order to find their grammar learning strategies with four guided questions (Appendix I). Generally, these are the top three grammar learning strategies; memorising, which means students learn grammar by remembering the rules or context: discussing, which means students need to discuss new learnt grammar with other people; and practising, which means students need to practice answering grammar questions to understand new learnt grammar. The survey reveals that the participant grammar learning strategies used have many similarities with the 41 strategies which were adapted and adopted from 3 studies (Kemp, 2007; Oxford and Lee, 2007; Gurata, 2008).

Subject 1 : *"I usually learn grammar through memorizing and   practicing"*.

Subject 2 : *"I discuss with my friends to enhance my understanding"*.

Subject 6 : *"I discuss and practice with my friends to understand new learnt grammar lessons"*.

Subject 21 : *"I ask my friends who are more proficient"*.

- *I put the new structure in a sentence so I can remember it.* (Kemp, 2007)

- *I write one or two sentences using the new grammar structure so that I can remember the structure.* (Gurata, 2008)

- *I check with others who are more proficient to make sure my rule interpretation is correct.* (Oxford & Lee, 2007)

Those strategies implicitly state the same intention which focuses on memorizing, discussing, and practising.

There are 41 items of L2 grammar learning strategies which describe how learners learn in L2 grammar lessons. The inventory divides into two sections, with the first section consisting of instruction and learner's identity and the last section consisting of 41 descriptive L2 learning grammar strategy items. A Likert-scale is provided to measure their degree strategy used i.e., (1), Always (2), Often (3), Sometimes (4), Never.

The grammar learning strategy inventory was translated to Indonesian since the participants are Indonesian students. To reduce the language barrier, The Back Translation technique was used to check the translation accuracy by two experienced Indonesian university lecturers. After validity and reliability were confirmed, the inventory was delivered at the end of the semester to all Verbal and Logical learners of L2 grammar classes in a university in Indonesia. (See Appendix B)

3.5.3 Pretest and Posttest

The pretest and posttest for the participants are used to measure their learning development. The results of the test ensure that Verbal and Logical Intelligence learners have learned the grammar points. The pretest and posttest were adopted from the grammar book "Understanding and Using English Grammar" by Betty

Schrampfer Azzar (2002). The pretest and posttest are constructed based on the specification described below:

3.5.3.1 Test Specification

There are 50 questions which divide into 30 multiple-choice items, 10 analysing sentence items, and 10 gap filling items. The content of the test is based on the book by Betty Schramper Azzar (2002) entitled "Understanding and Using English Grammar". The questions consist of 9 questions of conditional sentences, 5 questions of subjunctive in noun clause, 11 questions of compound sentences, 20 questions of complex sentences and 5 questions of simple sentences (See Appendix J). The test will only measure those examples of grammar knowledge, not all language components or grammar points.

To ensure the content validity of the pretest, there are three steps that this study took. First, this study asked two experts of language teaching and learning to validate the pretest questions. Second, the pretest questions were piloted to 30 Indonesian students who have similiar characteristics to the study participants. They are the second year students at the English faculty, Yogyakarta Muhammadiyah University, Indonesia. Third, after piloting the pretest the questions were analysed by an Item Analysis System to see whether the questions and the choices were too easy or too difficult as well as to see its discrimination ability (See Appendix K). Finally, after some revisions the pretest was delivered to the population. (See Appendix C)

3.5.4 Student Journal

Verbal and Logical Intelligence students were asked to write journals about how they learn grammar. The journal provides information on what and how they learn and solve problems in grammar lessons. The format of the journal is based on the mentioned purposes. In addition, this study applies two attempts. Firstly, the participants were asked to write journal entries without guided questions in order to give them more freedom. However, if their journal entry was not informative, guided questions were provided. To ensure, the students will know and understand what to write, training was provided. They wrote 3 journal entries after 3 different topics were taught to them in class. The researcher explained, guided, and collectively directed to the classes about the meaning of each guided question in the journal. (See Appendix D)

3.5.5 Semi-structured Interview

Heigham and Crocker (2009) stated that there are three types of interviews. First, the structured interview which represents data collection in the most controlled form with prepared questions in order to elicit interviewee specific answers. Second, the open interview which gives undetermined questions, is in-depth and unstructured. Last, the semi-structured interview which is a 'compromise' because it draws to some extent from both previous types. The present study used a semi-structured interview which means the researcher has a list of questions as a guide yet still has freedom to digress and probe for more information. Mackey and Gass (2005) asserted "interviews can allow researchers to investigate phenomena that are not directly observable, such as learners' self reported perceptions and attitudes" (p.173).

This study provides an explanation from learners' perspectives, thus interview data provide more information about their L2 grammar learning strategy use. The interview can also be conducted in the L1 to obtain precise information from the participants. This would help avoid problems that may be caused by English language proficiency which might affect the quality and the quantity of data. Each interviewee was interviewed by the researcher for about 30 minutes and audio-video recorded (under participant's permission). The interview was held at the end of their final grammar exam. The guided questions are provided at appendix E.

3.6 Data Collection

The table below describes the whole data collecting procedure which was conducted to second year students at the English Literature Faculty, Teknokrat University, Lampung, Indonesia.

Table 3.4: The Timeline of Data Collection

The Timeline of Data Collection		
Meeting	**Research Activity**	**Topic**
Week 1	Multiple Intelligence Inventory & Pretest	Conditional Sentence: present, past, future.
Week 2		Conditional Sentence: wish, as if, would.
Week 3	Journal writing training	Subjunctive in Noun clause.
Week 4	Journal entry 1	Simple Sentence.
Week 5		Quiz 1
Week 6		Compound Sentences: coordinate & correlative conjunction.
Week 7	Journal entry 2	Compound Sentence: Conjunctive adverb

Table 3.4: The Timeline of Data Collection (Cont.)

The Timeline of Data Collection		
Meeting	**Research Activity**	**Topic**
Week 8		Complex Sentence: Adjective clause
Week 9		Complex Sentence: Adjective clause
Week 10		Mid test
Week 11		Complex Sentence: Noun clause
Week 12	Journal entry 3	Complex Sentence: Adverb clause
Week 13		Quiz 2
Week 14		Compound complex sentences.
Week 15	Posttest	Final exam
	Semi-structured interview & L2 grammar learning strategy inventory	No class

3.6.1 McKenzie's Multiple Intelligence Inventory

The Multiple Intelligence Inventory was distributed to the population in the first week of grammar classes at Lampung Teknokrat University. After the MI inventory test, all Verbal and Logical Intelligence learners of the population were selected. The population wrote '1' beside every statement if the statement represented their thoughts and wrote '0' if the statement dis not represent their thoughts. Every section has a maximum score of 100. Simple calculating of the sum of the score explicitly revealed their highest score which showd the dominant intelligence.

3.6.2 L2 Grammar Learning Strategy Inventory

The L2 grammar learning strategy inventory was distributed to all Verbal and Logical Intelligence learners at the end of the semester or after their final exam. They were given in the form a Likert scale (1), Always (2), Often (3), Sometimes (4),

Never, which represented their degree of strategies used for the learning of grammar. The 41 statements' results were calculated by Descriptive analysis using SPSS 16.00 to reveal what strategies they used.

3.6.3 Pretest and Posttest

The population took the pretest in the first week of grammar classes. They answered 50 questions which were divided into 30 multiple choice, 10 sentence analysis, and 10 gap filling. The pretest's specification is the same as the posttest and was taken by the population at the final exam or last meeting.

3.6.4 Journals

The participants who are categorized into Verbal and Logical Intelligence learners were asked to write journal entries with guided questions about how they learn grammar lessons. Three journals were written by the participants who were divided into three meeting classes; week 4, week 7, and week 13. They were asked to answer some questions in their L1.

3.6.5 Semi-structured Interview

The participants who got high scores in posttest (A) were interviewed individually by the researcher at the end of the semester. The interviewer had opportunities to ask other questions which were not included in the question lists. First language (L1) was used for an interview to prevent their proficiency level affecting the quality and the quantity of information. All of the interviews were audio-video recorded with the interviewee's permission.

3.7 Data Analysis Method

Analyzing data is the process that requires piecing data/information together, making the invisible obvious, and recognizing the significance. The present study divides the data into qualitative and quantitative types. Interviews and journal entriesneed content analysis. On the other hand, quantitative data which are the pretest and post test scores of the present study, SPSS 16.00 (Statistical Package for the Social Science) are used to analyze the data. There are two statistical calculations which are Descriptive analysis and T-test. A detailed explanation is presented in the following sections:

3.7.1 Quantitative Data Analysis

3.7.1.1 Descriptive Analysis

Descriptive analysis was used to analyse the overall picture of the participants in the L2 grammar learning strategy such as the mean, frequency, and standard deviation. The following table is the scale used for categorizing the scores.

Table 3.5: Scale Used for Interpreting Responses

Mean ($\bar{x}$)	Interpretation
1.0 - 1.99	Low
2.00 - 2.99	Medium
3.00 - 4.00	High

The interpretation of mean score is from a Likert scale (1), Always (2), Often (3), Sometimes (4), Never, which represented their degree of strategies used for

their L2 grammar learning strategies. The study interpreted the four Likert scale into three interpretations: high, medium, and low strategies used.

3.7.1.2 T- test

Mackey and Gass (2005) point out that the aim of the T-test is "to determine if the means of two groups are significantly different from one another" (p. 272). There are two types of T-test. Firstly, a paired T-test which is used to compare groups who are not independent. For example, one of the ways of knowing the development of particular groups in language learning can be done by comparing the pretest and posttest scores of the groups, then each person is paired with him or herself in the two tests. Lastly, the T-test which is used to compare two groups to see whether they have a significant difference or not. Dörnyei (2007) defines the second type as an independent sample T-test. It refers to a comparison result among two groups.

The present study compares the participant scores of the pretest and posttest to see whether the students have learned the grammar points or not and to clarify whether their L2 grammar learning strategies work or not. Each participant was compared to himself or herself to see his/her development in learning grammar points by using a paired T-test. Their participant development may be able to confirm the effectiveness of his/her strategy in L2 grammar learning.

3.7.2 Qualitative Data Analysis

Heigham and Crocker (2009) point out that there are five qualitative data collection methods; observations, interviews, open-response items on questionnaires,

verbal reports (journals) and discourse analyses. Interviews and journals will be used by the present study.

3.7.2.1 Data from the Students' Journals and Semi-structured interviews

Data collection of the present study, that is, journals and semi-structured interviews were analysed qualitatively in order to find the patterns and L2 grammar learning strategies. The steps of the qualitative analysis are adopted from O'Connor and Gibson (2013) as described in the following sections.

Organizing the data

The data from students' journals and interview's transcriptions are categorized according to particular topics, patterns and strategies. Good-classification assists the reasearcher to identify the components of particular strategies easier. The coding data is analysed by inter-rater/ the researcher. The researcher codes and recodes the data at a different period of time in order to compare the two sets of coded materials systematically.

Finding and organizing ideas and concepts

The researcher looks for and organizes similarities and differences from the participants' responses and answers. Then, the ideas are categorized and the different ideas of the responses are noted.

Building the overall themes in data

The researcher pays attention to every category of responses in every idea or theme. The similar ideas or themes are then classified into the same main idea or

theme. However, the most obtrusive pattern-strategy-response of the participants' opinion and answers is identified.

Finding possible and plausible explanations for findings

The researcher summarizes the results according to every classification in order to make it easier to recognize the main finding.

Table 3.6: Summary of Data Collection and Data Analysis

Research Questions	Instrument	Data Analysis
1.What is the distribution of intelligences of L2 Indonesian learners?	- McKenzie's Multiple Intelligence Inventory	- Percentage
2.What L2 grammar learning strategies do Verbal and Logical learners use?	- L2 grammar learning inventory - Journals and semi-structured interview	- T-test - Percentage - Content analysis
3. What are the similarities and differences found in the use of L2 grammar learning strategies employed by Verbal and Logical learners?	- L2 grammar learning inventory - Journals and semi-structured interview	- Percentage - T-test - Content analysis
4.What are the L2 grammar learning strategies used by good Verbal and Logical learners?	- Posttest - L2 grammar learning inventory - Journals and semi-structured interview	- T-test - Percentage - Content analysis

3.8 Summary

This chapter started by describing the research methodology and theoretical framework of this study. The participants are 63 second year university students at Teknokrat University, Lampung, Indonesia. The research procedure describes the research activities within 15 weeks or one semester. Mckenzie's Multiple Intelligence

Inventory, L2 grammar learning strategy inventory, pretest and posttest, student journals, and semi-structured interviews are reviewed to describe the research instruments. The L2 grammar learning strategy inventory for this study describes the developmental stage of the 41 L2 grammar strategy inventory which come from 3 studies and a survey. Qualitative and quantitative methods are employed to analyze the collected data. The results of the data collection are presented in the next chapter.

CHAPTER 4

RESULTS

The purpose of this chapter is to present the results of the study. Different research instruments were employed to collect quantitative and qualitative data to answer the four research questions formulated at the beginning of the study. Research questions are used as the framework for data presentation and interpretation.

4.1 Research Question 1

What is the distribution of intelligences of L2 Indonesian learners?

In order to measure the intelligences' profile of 143 second-year students of English Literature, at Teknokrat University, Bandar Lampung, Indonesia, McKenzie's Multiple Intelligence Inventory (McKenzie, 1999b) was employed within the first week of the course "Structure 3". The results revealed that there were two learners' distribution types: learners with a single dominant intelligence and learners with combined dominant intelligences. The first category, which is learners with a single dominant intelligence, means that the learners have their highest score in one intelligence among the nine intelligences. While learners with combined dominant intelligences refer to the ones who have equal/similar high scores among the nine intelligences. Table 4.7 is the whole picture of a single and combined dominant intelligence profile.

Table 4.7: The Intelligence's Profile of the Population

MI Profile	Number	Precentage
Intrapersonal	39	27%
Logical	32	22%
Verbal	31	22%
Interpersonal	6	4%
Musical	5	3%
Existential	5	3%
Kinaesthetic	4	3%
Spatial	1	1%
Naturalist	0	0%
Existential & Intrapersonal	5	3%
Intra & Inter-personal	3	2%
Kinaesthetic & Interpersonal	2	1%
Musical & Interpersonal	2	1%
Intrapersonal & Spatial	2	1%
Verbal & Interpersonal	1	1%
Existential & Kinaesthetic	1	1%
Existential, Intrapersonal, & Interpesonal	1	1%
Musical, Existantial, &Interpersonal	1	1%
Musical, Existantial, & Interpersonal	1	1%
Musical, Logical, & Interpersonal	1	1%
Total	143	100%

4.1.1 Learners with a Single Dominant Intelligence

Based on the results from McKenzie's Multiple Intelligence Inventory, it was found that 123 second-year students or 86 percent of the population had only one highest score or a single dominant intelligence's profile among the nine intelligences. The detailed information can be seen in Table 4.8.

Table 4.8: A Single Dominant Intelligence Profile

MI Profile	Number	Percentage
Intrapersonal	39	32%
Logical	32	26%
Verbal	31	25%
Interpersonal	6	5%
Musical	5	4%
Existential	5	4%
Kinesthetic	4	3%
Spatial	1	1%
Naturalist	0	0%
Total	123	100%

The inventory revealed that Intrapersonal intelligence was found to be the most dominant intelligence among the population, who are categorized into learners with a single dominant intelligence. Logical and Verbal Intelligences were the second and the third most dominant of the population. Interpersonal Intelligence, Musical Intelligence, Kinesthetic Intelligence, Spatial Intelligence and Naturalist Intelligence followed respectively.

4.1.2 Learners with Combined Dominant Intelligences

There were 20 students or 14 percent of the population who could be identified by McKenzie's Multiple Intelligence Inventory as combined dominant intelligences in the population.

Table 4.9: The Distribution of Combined Dominant Intelligence Profiles

Combined Intelligences	Number	Percentage
1. Existential & Intrapersonal	5	25%
2. Intrapersonal & Interpersonal	3	15%
3. Kinesthetic & Interpersonal	2	10%
4. Musical & Interpersonal	2	10%
5. Intrapersonal & Spatial	2	10%
6. Verbal & Interpersonal	1	5%
7. Existential & Kinesthetic	1	5%
8. Existential, Intrapersonal, & Interpersonal	1	5%
9. Musical, Existantial, & Interpersonal	1	5%
10. Musical, Kinesthetic, & Interpersonal	1	5%
11. Musical, Logical, & Interpersonal	1	5%
Total	20	100%

Existential & Intrapersonal intelligences were found to be the most dominant intelligences in the students who had two distinctively high intelligence scores. Intrapersonal & Interpersonal intelligences, Kinesthetic & Interpersonal intelligences, Musical & Interpersonal intelligences, Intrapersonal & Spatial intelligences, Verbal & Interpersonal intelligences, Existential & Kinesthetic intelligences followed respectively. On other hand, the three highest intelligence scores had the same percentage which was 5%. They fall into four combined intelligence profiles: Existential, Intrapersonal & Interpesonal intelligences; Musical, Existential, & Interpersonal intelligences; Musical, Kinesthetic, & Interpersonal intelligences; Musical, Logical, & Interpersonal intelligences.

In conclusion, both a single (86% of the population) and combined dominant intelligence (14% of the population) profiles' groups have the same result which is Intrapersonal was found to be one of the highest intelligence rank's components. However, 20 students (14%) of the population who had second and third combined dominant intelligences' profiles were excluded in this study because it is ambiguous to identify the strategy used.

4.2 Research Question 2

What L2 grammar learning strategies do Verbal and Logical learners use?

To obtain grammar learning strategies used by Verbal and Logical learners, quantitative and qualitative research instruments, which were the L2 grammar learning strategy inventory, student journals and semi-structured interviews, were employed. In this part, the results of quantitative data are divided into three sub-topics which start from high, medium, and low frequency the of strategy used. On the other hand, qualitative data were categorized and analysed by content analysis. Other strategies revealed by the participants were also added in the L2 grammar learning strategy inventory. The findings are presented in the following sections.

4.2.1 Quantitative Data: General Strategies Used

In order to answer research question 2, a 41- L2 grammar learning strategy inventory was used. The answers related to the frequency of L2 grammar learning strategies were collected by using a 4-scala Likert-scales (1=Never, 2=Sometimes,

3=Often, and 4=Always). The using of 4 scales is intended to avoid the ambiguous interpretation of the participants. The results can be seen in Table 4.10 below.

Table 4.10: The Frequency of the Strategy Used Reported by Verbal Learners

Frequency	Strategy	Mean	Categories
Verbal Learners			
High use	13. I take notes in class when the teacher shows a new grammar point.	3.42	Cognitive strategy
	29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	3.19	Cognitive strategy
	34. I ask other people to verify that I have understood or used a grammar structure correctly.	3.16	Using grammar with other people
	17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanation.	3.16	Cognitive strategy
	16. If I notice a grammatical structure that is new to me being used in class, I write it down.	3.13	Cognitive strategy
	35. I ask other people to correct my grammar.	3.13	Social strategy
	9. I use familiar words to learn new grammar points.	3.10	Cognitive strategy
	38. If I understand a grammar point, I can usually explain it to other people.	3.06	Social strategy
	2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	3.00	Cognitive strategy
	21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	3.00	Cognitive strategy
Medium use	12. I use reference materials such as a grammar book to help me use the language or understand the structure.	2.97	Cognitive strategy
	32. I try to notice my grammar errors and find out the reasons for them.	2.97	Organising grammar learning

Table 4.10: The Frequency of the Strategy Used Reported by Verbal Learners (Cont.)

Frequency	Strategy	Mean	Categories
	Verbal Learners		
	14. I like to learn grammar by learning a sentence or a chunk of language as a whole.	2.90	Cognitive strategy
	28. While writing or speaking I make the grammar up if I do not know the right structure to use.	2.90	Cognitive strategy
	27. I compare my speech or writing with that of more proficient people to see how I can improve.	2.84	Cognitive strategy
	10. I find it useful to hear or see a new grammar point used in different contexts.	2.81	Cognitive strategy
	1. I create associations between new grammar structures and what I already know.	2.81	Cognitive strategy
	11. I pay attention to my grammar when I communicate outside the classroom.	2.81	Cognitive strategy
Medium use	15. I notice (or remember) structures that are repeated often in the text.	2.81	Cognitive strategy
	37. When I am talking and writing with a native speaker, I try to let him or her know when I need help with my grammar.	2.81	Social strategy
	19. I try to understand what I have heard or read without translating it word-for word into English.	2.81	Cognitive strategy
	39. I learn from other people's mistakes.	2.74	Social strategy
	5. I remember where I first see or hear new structures.	2.74	Cognitive strategy
	26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	2.74	Cognitive strategy
	25. I paraprhase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	2.68	Cognitive strategy
	22. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.	2.68	Communicating with others

Table 4.10: The Frequency of the Strategy Used Reported by Verbal Learners (Cont.)

Frequency	Strategy	Mean	Categories
	Verbal Learners		
Medium use	33. I do grammar exercises at home.	2.68	Cognitive strategy
	36. I discuss grammatical points with other learners or native speakers.	2.65	Social strategy
	6. I review grammar regularly.	2.61	Cognitive strategy
	24. I study grammar by applying grammar rules with a friend or a relative.	2.58	Social strategy
	8. I say or write new grammatical constructions or expressions repeatedly to practise them.	2.58	Cognitive strategy
	30. I decide in advance to focus on the way native speakers use particular grammatical structures.	2.55	Organising grammar learning
	31. I organise my language notebook to record new information such as grammar points.	2.55	Organising grammar learning
	4. I visualize the new structure in my mind.	2.48	Cognitive strategy
	20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.	2.45	Cognitive strategy
	18. I look for similarities and contrasts between English grammar and the language I'm learning or using.	2.45	Cognitive strategy
	23. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.	2.39	Cognitive strategy
	40. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.	2.32	Social strategy
	41. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalence in my native language.	2.19	Cognitive strategy
	7. I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure.	2.06	Cognitive strategy
Low use	3. I remember the structure by drawing a picture or diagram.	1.71	Cognitive strategy

The results showed that the mean score of the inventory items ranged between 1.71 – 3.42. It means the 41 strategy items were rated by Verbal learners into three ranges: 10 high strategies used (13, 29, 34, 17, 16, 35, 9, 38, 2, and 21); 30 medium strategies used (12, 32, 14, 28, 27, 10, 1, 11, 15, 37, 19, 39, 5, 26, 25, 33, 36, 6, 24, 8, 30, 31, 4, 20, 18, 23, 40, 41, and 7); and 1 low strategy used (3).

Table 4.11: The Frequency of the Strategy Used Reported by Logical Learners

	Logical Learners		
Frequency	**Strategy**	**Mean**	**Categories**
High use	13. I take notes in class when the teacher shows a new grammar point.	3.81	Cognitive strategy
	29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	3.38	Cognitive strategy
	16. If I notice a grammatical structure that is new to me being used in class, I write it down.	3.34	Cognitive strategiy
	31. I organise my language notebook to record new information such as grammar points.	3.31	Organising grammar learning
	21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	3.22	Cognitive strategy
	17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanation.	3.19	Cognitive strategy
	35. I ask other people to correct my grammar.	3.19	Social strategy
	9. I use familiar words to learn new grammar points.	3.13	Cognitive strategy
	25. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	3.13	Cognitive strategy
	34. I ask other people to verify that I have understood or used a grammar structure correctly.	3.13	Social strategy
	2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	3.09	Cognitive strategy
	32. I try to notice my grammar errors and find out the reasons for them.	3.03	Organising grammar learning
	27. I compare my speech or writing with that of more proficient people to see how I can improve.	3.00	Cognitive strategy

Table 4.11: The Frequency of the Strategy Used Reported by Logical Learners (Cont.)

Frequency	Strategy	Mean	Categories
	Logical Learners		
Medium use	14. I like to learn grammar by learning a sentence or a chunk of language as a whole.	2.97	Cognitive strategy
	15. I notice (or remember) structures that are repeated often in the text.	2.97	Cognitive strategy
	28. While writing or speaking I make the grammar up if I do not know the right structure to use.	2.97	Cognitive strategy
	4. I visualize the new structure in my mind.	2.91	Cognitive strategy
	8. I say or write new grammatical constructions or expressions repeatedly to practise them.	2.91	Cognitive strategy
	19. I try to understand what I have heard or read without translating it word-for word into English.	2.88	Cognitive strategy
	36. I discuss grammatical points with other learners or native speakers.	2.88	Social strategy
	37. When I am talking and writing with a native speaker, I try to let him or her know when I need help with my grammar.	2.88	Social strategy
	39. I learn from other people's mistakes.	2.88	Social strategy
	5. I remember where I first see or hear new structures.	2.84	Cognitive strategy
	26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	2.84	Cognitive strategy
	10. I find it useful to hear or see a new grammar point used in different contexts.	2.78	Cognitive strategy
	38. If I understand a grammar point, I can usually explain it to other people.	2.78	Social strategy
	22. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.	2.75	Communicating with others
	12. I use reference materials such as a grammar book to help me use the language or understand the structure.	2.72	Cognitive strategy
	30. I decide in advance to focus on the way native speakers use particular grammatical structures.	2.72	Organising grammar learning

Table 4.11: The Frequency of the Strategy Used Reported by Logical Learners (Cont.)

Frequency	Strategy	Mean	Categories
Logical Learners			
	1. I create associations between new grammar structures and what I already know.	2.69	Cognitive strategy
	24. I study grammar by applying grammar rules with a friend or a relative.	2.53	Social strategy
	40. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.	2.53	Social strategy
	18. I look for similarities and contrasts between English grammar and the language I'm learning or using.	2.47	Cognitive strategy
	23. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.	2.47	Cognitive strategy
Medium use	33. I do grammar exercises at home.	2.47	Cognitive strategy
	6. I review grammar regularly.	2.34	Cognitive strategy
	11. I pay attention to my grammar when I communicate outside the classroom.	2.31	Cognitive strategy
	20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.	2.25	Cognitive strategy
	41. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalence in my native language.	2.19	Cognitive strategy
	3. I remember the structure by drawing a picture or diagram.	2.13	Cognitive strategy
	7. I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure.	2.09	Cognitive strategy

The results reported that the mean score of the inventory items ranged between 2.09 – 3.81 which fall into two ranges: 13 high strategies used (13, 29, 16, 31, 21, 35, 17, 9, 25, 34, 2, 32, and 27) and 28 medium strategies used (14, 28, 15, 8, 4, 39, 19, 36, 37, 5, 26, 38, 10, 22, 12, 30, 1, 40, 24, 18, 33, 23, 6, 11, 20, 41, 3, and 7).

4.2.2 Qualitative Data: Student journal and semi-structured interview

The students learning process obtained from student journals and semi-structured interviews is presented to answer the second research question: *"What L2 grammar learning strategies do Verbal and Logical learners use?"*. The student journal collected from 3 class meetings and the semi-structured interview conducted after their final exam or posttest were categorized and analysed to find the learning behaviour of the participants.

A number of qualitative findings in learning strategy were similar to the quantitative parts. In order to make comprehensive results, they were both used to support each other in subsequent explanations. Based on the content analysis, 8 strategy types were revealed: (1) Sentence analysis; (2) Translation into L1; (3) Taking notes along with the lecture; (4) Handwriting; (5) Asking friends for help; (6) Searching for the grammar point and its explanation on the Internet; (7) Teacher consultation; and (8) Combined strategies. The details of each strategy are presented in research question 3, part 4.3.2 in the qualitative section.

4.3 Research Question 3

What are the similarities and differences found in the use of L2 grammar learning strategies employed by Verbal and Logical learners?

Quantitative and qualitative data obtained from the L2 grammar learning strategy inventory, student journals, and semi-structured interviews were used to answer the third research question. After analysing data both quantitatively and

qualitatively, the similarities and differences found will be reported in the following sections.

4.3.1 Quantitative Data

In order to examine the similarities and differences of Verbal and Logical learners, a 4-scala Likert-scales (1=Never, 2=Sometimes, 3=Often, and 4=Always) was used to gather L2 grammar learning strategies employed by Verbal and Logical learners. The frequency means of the two groups are presented below.

Table 4.12: Means of the Average Frequency of Strategies Used for the Two Groups

	Intelligence	N	$\bar{x}$	Std. Deviation	Sig.
Average of frequency	Verbal	31	2.75	0.84	
					0.50
	Logical	32	2.83	0.80	

Based on the T-test result, as can be seen from Table 4.12, the mean score of Logical learners appear to be slightly higher than Verbal learners. The result indicated that there was no significant difference between Verbal and Logical learners in L2 grammar learning strategies or they use more or less the same number of strategies (t=2.00, p<.05). In addition, the following sections explore in detail whether there are any differences in high, medium, and low frequencies of strategies used. Moreover, the similar strategies among the two groups are also reported.

The similarities found among two groups in high frequency of strategies used

The mean scores showed that both Verbal and Logical learners employed cognitive learning strategies to learn grammar frequently. The results showed that the cognitive learning strategy was highly used in the top category, while, using grammar with other people, and organising grammar learning, were found to be the second and third rank strategies used respectively. The same strategies used by both groups are presented in Table 4.13.

Table 4.13: The Similarities of High Strategy Used among Two Groups

The similarities of high strategies used	
Categories	**Strategies**
Cognitive strategy	13. I take notes in class when the teacher shows a new grammar point.
	29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.
	17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanations.
	16. If I notice a grammatical structure that is new to me being used in class, I write it down.
	9. I use familiar words to learn new grammar points.
	2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.
	21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.
Social strategy	34. I ask other people to verify that I have understood or used a grammar structure correctly.
	35. I ask other people to correct my grammar.

Table 4.13 shows that 9 of the same strategies were in high frequency of strategies used by Verbal and Logical learners to learn grammar lessons. The 9 strategies above which are categorized into cognitive strategy and using grammar

with other people indicated that both groups employed the same strategies to learn grammar lessons to some extent.

The differences found among two groups in high frequency of strategy used

The mean score of both groups showed that a number of different strategies used were found between Verbal and Logical learners in this category. The following table shows the findings.

Table 4.14: The Differences of High Strategies Used among Two Groups

Intelligence	Strategies	Categories
Verbal	38. If I understand a grammar point, I can usually explain it to other people.	Cognitive strategy
Logical	25. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	Cognitive strategy
	27. I compare my speech or writing with that of more proficient people to see how I can improve.	
	32. I try to notice my grammar errors and find out the reasons for them.	Organizing grammar learning
	31. I organise my language notebook to record new information such as grammar points.	

Table 4.14 describes different strategies among both groups in high frequency of strategies used. It was reported that Verbal learners frequently used the strategy *"If I understand a grammar point, I can usually explain it to other people"* which was not found to be commonly used by Logical learners to learn grammar lessons. Meanwhile, 4 strategies which distinguish Logical learners from Verbal learners

were: items 25, 27, 32, and 31. The findings indicate that Verbal and Logical learners employed different learning strategies to learn grammar to some extent.

The similarities found among two groups in medium frequency of strategies used

In the medium frequency of strategies used, the mean scores showed that both Verbal and Logical learners employed 26 of the same learning strategies which were categorized into five types. The findings are presented in the following table.

Table 4.15: The Similarities of Medium Strategy Used among Two Groups

The similarities of medium strategies used	
Category	**Strategies**
	12. I use reference materials such as a grammar book to help me use the language or understand the structure.
	5. I remember where I first see or hear new structures.
	14. I like to learn grammar by learning a sentence or a chunk of language as a whole.
	28. While writing or speaking I make the grammar up if I do not know the right structure to use.
Cognitive strategy	10. I find it useful to hear or see a new grammar point used in different contexts.
	1. I create associations between new grammar structures and what I already know.
	11. I pay attention to my grammar when I communicate outside the classroom.
	15. I notice (or remember) structures that are repeated often in the text.
	26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).

Table 4.15: The Similarities of Medium Strategy Used among Two Groups (Cont.)

Category	Strategies
The similarities of medium strategies used	
Cognitive strategy	6. I review grammar regularly.
	8. I say or write new grammatical constructions or expressions repeatedly to practise them.
	20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.
	19. I try to understand what I have heard or read without translating it word-for word into English. (2.74)
	18. I look for similarities and contrasts between English grammar and the language I'm learning or using.
	4. I visualise the new structure in my mind.
	41. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalence in my native language.
	7. I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure.
	33. I do grammar exercises at home.
	23. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.

Table 4.15 reports that 26 of the same strategies were employed by Verbal and Logical learners to learn grammar lessons. The 26 strategies above which are categorized into cognitive strategy, using grammar with other people, communicating using grammar, and organizing grammar learning indicate to some extent that both groups occasionally employed the same strategies to learn grammar lessons.

The differences found among two groups in medium frequency of strategies used

In this category, there were 5 strategies which distinguished between Verbal and Logical learners. The findings are presented in the following table.

Table 4.16: The Differences of Medium Strategies Used among Two Groups

Intelligence	Strategies	Categories
The differences of medium strategies used		
Verbal	27. I compare my speech or writing with that of more proficient people to see how I can improve.	Cognitive strategy
	25. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	
	32. I try to notice my grammar errors and find out the reasons for them.	Organizing grammar learning
Logical	3. I remember the structure by drawing a picture or diagram.	Cognitive strategy
	38. If I understand a grammar point, I can usually explain it to other people.	Social strategy

Table 4.16 shows that 3 strategies (items 27, 25, and 32) distinguish Verbal learners from their counterpart, while, 2 strategies (items 3 and 38) distinguish Logical learners from Verbal learners. It shows to some extent that they use different strategies to learn grammar.

A difference found among two groups in low frequency of strategies used

The mean score of both groups showed that there was one strategy which was categorized into a low strategy used by Verbal learners only. Item 3: *"I remember the structure by drawing a picture or diagram."* This shows that Verbal learners had more strategy ranges than their counterpart since Logical learners had only two ranges: high and medium frequency of strategies used. It indicates that "item 3" distinguishes Verbal learners from Logical learners who are learning grammar in this category.

In conclusion, the quantitative data revealed that generally both Verbal and Logical learners have more similarities than differences in L2 grammar learning strategies. Even though both groups have the same strategies use but they are different in the frequency used to some extent. The results might relate to their individual differences since they have different learning styles. In order to have a deeper understanding of their L2 grammar learning strategies, qualitative data are needed to be explored. The data of qualitative instruments were analysed and explained in the following section.

4.3.2 Qualitative Data

The present finding shows that there is no major difference between Verbal and Logical learners in L2 grammar learning strategies qualitatively. In order to explain more, a number of similarities found between Verbal and Logical learners in learning grammar were categorized into 8 strategy types: (1) Sentence analysis; (2) Translation into L1; (3) Taking notes along with the lecture; (4) Handwriting; (5) Asking friends for help; (6) Searching for the grammar point and its explanation on the Internet; (7) Teacher consultation; and (8) Combined strategies. The detailed information is presented in the following sections.

Sentence analysis

Around 70 percent of the participants reported that they usually like to focus on structure when they learn grammar lessons. They like to analyse grammar rather than translate word for word. This can be seen from the extracts below.

Subject 1 (diary-Logical): *"I must see the pattern such as subject, verb, and predicate in order to remember the grammar point."*

Subject 5 (diary-Logical): *"I usually like to see pattern of sentences to help me understand grammar points."*

Subject 13 (diary-Verbal): *"I study grammar by applying grammar rules with my friends."*

Subject 44 (diary-Verbal): *"I memorise the pattern since it helps me to understand and analyse various contexts."*

Regarding the above extracts, the participants indicated that they like to focus on pattern since it helps them to understand grammar lessons. Translating word for word into their L1 does not seem effective because they have a limited vocabulary. This finding is similar with a number of strategies in the L2 grammar learning strategy inventory (Items 2, 3, 10, 11, 14, 17, 19, and 26).

Translation into L1

A half of the population reported that they usually see importance of word-for word translation in making sense of grammar points or in focusing on meaning. This strategy is the opposite of sentence analysis. The participants must understand the meaning of the words otherwise they can not make sense of the grammar points.

Subject 2 (diary-Verbal) :*"I like to translate to Indonesian to help me understand better."*

Subject 63 (diary-Logical) :*"I like to analyse word for word to understand the grammar lessons."*

Subject 7 (interview-Logical):*" ...... I usually translate to Indonesian sir..."*

Subject 11 (interview-Verbal):*"If I know the meaning or understand the context, I will understand the grammar lesson easier."*

The extracts clearly show that a half of the participants must use their vocabulary knowledge to make sense of the grammar points. This result might be

related to a long history of Indonesian teaching history of Grammar translation. Grammar translation is still commonly used as a teaching method in many schools in Indonesia.

Taking notes along with the lecture

Taking notes in the class was commonly reported by both all Verbal and Logical learners. The participants asserted that taking notes helped them to remember grammar lessons well.

Subject 4 (diary-Verbal): *"I usually like to write notes when my teacher explains in the class."*
Subject 13 (diary-Logical): *"I remember and understand the lesson by writing and reading my notes."*
Subject 46 (diary-Logical):*"I always write notes in the class to help me memorising the important grammar lessons."*
Subject 12 (interview-Verbal): *" I usually write notes which have my own pattern and interesting abbreviations."*
Subject 16 (interview-Logical):*"I collected many patterns in my notes and I reviewed all notes before exam."*

Regarding the extracts, it can be seen that generally most of the students like to take notes to assist them in memorising and understanding grammar points. This finding is also found in the L2 grammar learning strategy inventory in items 13 and 16.

Handwriting/ Typing

It was found that around twenty percent of the participants claimed that taking notes by hand is better than typing in a mobile phone or computer to remember grammar lessons .

Subject 15 (interview-Logical): *"I like to write directly with hands not computer because writing by hand helps me to remember well."*

Subject 16 (interview-Logical): *" I just read my notes and browse related questions, but I must write my notes by hands otherwise I will easily forget."*

Subject 17 (interview-verbal): *"I usually like to write notes, not type them in my laptop, both in class and at home otherwise I will forget everything."*

The extract comments above show that some learners believe using their motoric body enhances them to memorise grammar points better than typing with a-phone or computer.

Asking friends for help

Learning in or outside the classroom gives learners a chance to interact with their classmates or other people. Around 70 percent of the participants benefited from this social interaction. Generally, they prefer to discuss grammar lessons with their friends rather than their teacher. They feel discussing with classmates is more convenient, less frustrating, and more relaxed than with their teacher.

Subject 11 (diary-Verbal): *"I love to ask my friends who are better than me to explain the lesson again."*

Subject 18 (diary-Verbal): *"Reading my notes and discussing with my firends help me to understand the grammar lesson."*

Subject 28 (diary-Logical): *"I try to ask my close friend to explain again from my teacher's explanation."*

Subject 1 (interview-Logical): *"I like to ask my friend first, not the teacher, because I feel shy and I worry."*

Subject 4 (interview-Verbal): *"I usually study with friends and read alone in the morning, but, I gain more understanding when learning with friends."*

The extracts of diaries and comments above clearly show that generally Indonesian EFL learners prefer to discuss or ask about grammar lessons with their classmates. This finding is also found in the quantitative findings in the inventory: items 24, 27, 34, 35, 36, and 37.

Searching for the grammar point and its explanation on the Internet

The younger generation in Indonesia is considered to be familiar with the Internet since they commonly have mobile phones or portable computers which allow them to access the Internet easily. This condition affects their grammar learning strategies. Around 60 percent of the participants benefit from the Internet to learn grammar lessons as displayed below.

Subject 12 (diary-Logical): *"I like to understand my grammar lesson by searching in Internet because it is easier for me."*

Subject 39 (diary-Verbal): *"After that, I look for it on the Internet to read and practise the answers to related questions."*

Subject 9 (additional strategy-Verbal): *"I like to take online tests after I learn from my teacher. I like to make sure that I understand what was taught in the lesson."*

Subject 12 (additional strategy-Logical): *"I usually study in YouTube because it has interesting pictures and I can repeat as I want."*

Subject 5 (interview-Verbal): *"I usually search Google to find out the key words about my curiosity in grammar lessons."*

Subject 13 (interview-Logical): *"I do exercises as possible on the Internet because it helps me a lot to understand grammar."*

The extracts above are strong evidence that participants benefit from the Internet to learn grammar lessons. The Internet was used for several purposes such as on-line tests and learning grammar lessons.

Teacher consultation

The collected data reveals that a half of learners prefer to ask about or discuss grammar lessons with their teacher rather than their friends. They believe the teacher is more capable than their friends.

Subject 10 (diary-Logical): *"I love to ask my teacher about the new learnt grammar lesson in the class because she is more clever than me."*

Subject 26 (diary-Verbal): *"I usually ask my teacher about particular grammar points before my exam."*

Subject 2 (interview-Verbal): *"If I do not understand the grammar lesson I will ask my teacher until I understand."*

Subject 8 (interview-Logical): *"My teacher is more clear and capable than my friends."*

The extracts above assert that the learners believe their teacher is more capable than their friends to explain and answer their grammar question compared to their classmates.

Combined strategies

It was reported that around 30 percent of the participants like to decipher the structure but sometimes they turn to translate the sentences to their L1 to make sense of particular grammar points. Generally, they argued that when they analysed sentences or answered questions they just focused on structure. However, they turned to translate to their L1 when they faced difficult sentences/questions.

Subject 2 (diary-Verbal): *"I like memorising and understanding the grammar lesson by seeing the pattern and practising related questions. However, I like to translate to my language to help me to answer related questions sometimes."*

Subject 7 (interview-Logical): *"I usually see the pattern, but for difficult conjunction such as however, consequently, and something like that I translate to Indonesian first to understand the context."*

Subject 10 (interview-Logical): *"I do not know some meaning of connectors so they make me confused how to make sense the structure. I still strugle how to distinguish independent and dependent clause so I need to translate to Indonesian first not only seeing the pattern."*

Subject 20 (interview-Verbal): *"Both. I like to match with patterns first and then translate to see whether it makes sense or not."*

The excerpt above reveals that around 30 percent of the learners like to turn to translating sentences to their L1 when they face difficult grammar points. They need to translate word for word to understand the context but they still pay attention to grammar patterns to make sense of the grammar points.

To summarize, the collected data of quantitative and qualitative instruments clearly show that overall, the participants employed a number of strategies to learn in an L2 grammar lesson. There are more similarities than differences found in the use of L2 grammar learning strategies used by the participants both quantitatively and qualitatively. Furthermore, the findings explicitly show that general Verbal and Logical learners use the same or less similar strategies in L2 grammar learning strategies.

4.4 Research Question 4:

What are the L2 grammar learning strategies used by good Verbal and Logical learners?

Regarding research question 4, participants who were categorized into high/good grammar achievers were analysed quantitatively and qualitatively to know the degree of their learning strategies used, to learn L2 grammar lessons. The L2 grammar learning strategies inventory, student diaries, and semi-structured interview were analysed to answer research question 4. The following table shows the criteria of learners' performance according to their posttest's score.

Table 4.17: The Learner Scores' Category

Raw Scores	Category
28 – 40	High/Good grammar achiever
15 – 27	Medium grammar achiever
0 – 14	Low grammar achiever

Table 4.17 shows the posttest score of the participants which based on their total correct answers, with 40 being the highest and 0 being the lowest. The category of the raw scores here was also compared to the participants' grammar final score of the "Structure" class. The comparison exhibits that students who were categorized into high/good grammar achievers, they also got high score in their final grade.

4.4.1 Quantitative Data

A-four Likert scale of 41 L2 grammar learning strategies inventory was entered to SPSS to be analysed by an Independent sample T-test to find out the frequentcy of strategies used by good Verbal and Logical learners. According to the posttest, 6 Verbal and 4 Logical learners were categorized as good learners. The results can be seen in the following tables.

Table 4.18: The High Frequency of Strategies Used by Good Verbal Learners

Good Verbal Learners		
Strategies	**Mean**	**Categories**
25. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	3.67	Cognitive strategy
12. I use reference materials such as a grammar book to help me use the language or understand the structure.	3.33	
13. I take notes in class when the teacher shows a new grammar point.	3.33	
17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanations.	3.33	
21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	3.33	
28. While writing or speaking I make the grammar up if I do not know the right structure to use.	3.33	
33. I do grammar exercises at home.	3.33	
2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	3.17	
16. If I notice a grammatical structure that is new to me being used in class, I write it down.	3.17	
29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	3.17	
1. I create associations between new grammar structures and what I already know.	3.00	Cognitive strategy
9. I use familiar words to learn new grammar points.	3.00	
26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	3.00	
38. If I understand a grammar point, I can usually explain it to other people.	3.67	Social strategy
34. I ask other people to verify that I have understood or used a grammar structure correctly.	3.17	
35. I ask other people to correct my grammar.	3.00	
22. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.	3.33	Communicating using grammar
32. I try to notice my grammar errors and find out the reasons for them.	3.33	Organizing grammar learning

Table 4.18 reports that 18 strategies were categorized into high frequency of strategies used by good Verbal learners. Cognitive strategy was in the first rank while using grammar with other people, communicating using grammar, and organizing grammar learning followed respectively. Comparing between general and good Verbal learners, it was found that good Verbal learners significantly used more grammar learning strategies than general Verbal learners. In this category, 10 strategies were rated by general Verbal learners as high strategies used. While, 18 strategies were rated by good Verbal learners as high strategies used. There were 8 strategies which distinguish good Verbal learners from general Verbal learners: items 25, 12, 28, 33, 1, 26, 22, and 32.

Table 4.19: The High Frequency of Strategies Used by Good Logical Learners

Good Logical Learners		
Strategies	**Mean**	**Categories**
13. I take notes in class when the teacher shows a new grammar point.	4.00	Cognitive strategy
14. I like to learn grammar by learning a sentence or a chunk of language as a whole.	3.75	
29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	3.75	
2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	3.50	
11. I pay attention to my grammar when I communicate outside the classroom.	3.50	
12. I use reference materials such as a grammar book to help me use the language or understand the structure.	3.50	
21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	3.50	
25. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	3.50	
1. I create associations between new grammar structures and what I already know.	3.25	
4. I visualize the new structure in my mind.	3.25	

Table 4.19: The High Frequency of Strategies Used by Good Logical Learners (Cont.)

Good Logical Learners		
Strategies	**Mean**	**Categories**
15. I notice (or remember) structures that are repeated often in the text.	3.25	Cognitive strategy
27. I compare my speech or writing with that of more proficient people to see how I can improve.	3.25	
10. I find it useful to hear or see a new grammar point used in different contexts.	3.00	
23. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.	3.00	
26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	3.00	
38. If I understand a grammar point, I can usually explain it to other people.	3.50	Social strategy
39. I learn from other people's mistakes.	3.25	
36. I discuss grammatical points with other learners or native speakers.	3.00	
37. When I am talking and writing with a native speaker, I try to let him or her know when I need help with my grammar.	3.00	
40. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.	3.00	
31. I organise my language notebook to record new information such as grammar points.	3.25	Organising grammar learning
30. I decide in advance to focus on the way native speakers use particular grammatical structures.	3.00	
32. I try to notice my grammar errors and find out the reasons for them.	3.00	
22. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.	3.00	Communicating using grammar

Table 4.19 displays 24 strategies that were categorized into high frequency of strategies used by good Logical learners. Cognitive strategy was in the first rank while using grammar with other people, organizing grammar learning, and communicating using grammar, followed respectively. It was found that good Logical learners significantly used more grammar learning strategies than general Logical learners. General Logical learners reported using 13 strategies where good Logical learners

reported using 24 strategies. It showed that 14 strategies were found to be different between general and good Logical learners: items 14, 11, 12, 1, 4, 15, 10, 23, 26, 38, 39, 36, 37, and 40.

In conclusion, good Verbal and Logical learners used more strategies than general Verbal and Logical learners. This finding indicates that the more strategies used the better the achievement in grammar scores. Meanwhile, cognitive strategy was found to be the most categories used rather than using grammar with other people, communicating using grammar, and organizing grammar learning.

4.4.2 Qualitative Data

In this section, the data obtained of good Verbal and Logical learners from student journals and semi-structured interviews were analysed into 3 grammar learning strategies which distinguish general Verbal and Logical learners. The distinguished strategies are: (1) Explainer in group discussions; (2) Self-study; and (3) Regular review of grammar lessons. The details of the strategies are presented in the following sections.

Explainer in group discussions

Social interaction was found to be the highest frequently used strategy for both Verbal and Logical learners. However, good Verbal and Logical learners were found to be the explainers to their classmates when they had a group discussion with their classmates. The following comments are the evidence of this finding .

Subject 1 (Interview-Logical): *"To be frank, in our discussion, I rarely ask my friends but they like asking me. So, I always explain grammar lessons to them. They*

like to ask many things and I just answer what I feel I understand. It is good for me because it challenges me."

Subject 3 (Interview-Logical): *"Yes, we usually have a grammar discussion. They like to ask me about some points in the class before an exam so I explain to them what I feel I understand."*

Subject 6 (Interview-Verbal): *"We usually have a grammar discussion several weeks before the exam. My friends like to ask me to explain again if they do not feel they understand the lesson in the class. Sometimes, the emerging questions make me feel curious how to explain to them efficiently."*

The comments above point out that good Verbal and Logical learners play a significant role in a group discussion since they are considered to be the person who is able to answer the emerging grammar questions in the discussion.

Self-study

Self-study was commonly employed by all good Verbal and Logical learners to learn grammar lessons. It means the learners usually make sense of and understand grammar lessons by themselves, and do not just emphasize the teacher's explanation in the class. This can be seen from the following comments.

Subject 2 (interview-Logical): *"I review and memorise my lesson regularly so it is easier to remember and understand."*

Subject 4 (interview-Verbal): *"When I do not understand some points, I like to find out the answer by my self first so I can prove the particular points correctly."*

Subject 8 (interview-Logical): *"Honestly, I think I can understand the new grammar lesson easier by my self than studying in the class."*

The comments above show that all good Verbal and Logical learners do not only emphasize their teacher's explanation but also must struggle to make sense of grammar lessons from other sources. This finding is similar with the grammar learning strategy inventory: items 8 and 33.

Regular review of grammar lessons

Generally, it was found that all the participants of Verbal and Logical learners did not review grammar lessons regularly besides in their weekly grammar class. However, it was reported that all good Verbal and Logical learners reviewed their grammar lessons regularly, not just before their final exam. This can be seen from the following comments.

Subject 1 (Interview-Logical): *"Actually, I rarely study at home. I only study when I have homeworks, but, I have homework every week so I must study at least once a week."*

Subject 3 (Interview-Verbal): *"I review my grammar lesson around 3 times a week since I am an English tutor as well."*

Subject 9 (Interview-Verbal): "Actually, I like to study alone after my class to understand the material better."

The comments explicitly show that good Verbal and Logical learners reviewed their grammar lessons regularly, even though, some of them had other motivational factors such as doing homework and preparing teaching materials.

In conclusion, the obtained data of good learners both quantitative and qualitative show that generally good Verbal and Logical learners employed similar and the same strategies to learn grammar lessons. Good Verbal and Logical learners have three distinguished strategies from general learners: explainer in group discussions, self-study, and regular review of grammar lessons.

4.5 Summary

The findings of the present study showed that there were more similarities than differences found between general Verbal and Logical learners in L2 grammar learning strategies, in both quantitative and qualitative analyses. However, significant differences were found between good Verbal and Logical learners and general Verbal and Logical learners. In the next chapter, the detailed summary of the main findings will be presented and discussed. Also, pedagogical implications and recommendations for further research will be revealed.

CHAPTER 5

DISCUSSIONS & RECOMMENDATIONS

The results of the previous chapter are reviewed and interpreted in this chapter. The main purpose of this last chapter is to discuss the main findings which can be categorized into three sub-topics: discussion of the results; pedagogical implications; and recommendations. The detailed discussion is described in the following sections.

5.1 Discussion of the results

According to the 4 research questions of this study, a number of interesting findings were found and need to be discussed for further explanation. The interesting findings are discussed in the following sections.

5.1.1 The distribution of Intelligences of L2 Indonesian learners

Research question 1 was to find the distribution of Intelligences of L2 Indonesian learners of second year students taking, English Literature, at Teknokrat University, Lampung, Indonesia. McKenzie's Multiple Intelligence Inventory (McKenzie, 1999b) was employed to measure 143 students. The results revealed two learners' distribution types: learners with a single dominant intelligence and learners with combined dominant intelligences among the population. 123 students or 86% of the population were found to be of the single dominant intelligence. On the other hand, 20 students

or 14% of the population were categorized into the combined dominant intelligences. The first category shows that Intrapersonal Intelligence was found to have the highest percentage (32%). Logical Intelligence (26%), Verbal Intelligence (25%), Interpersonal Intelligence (5%), Musical Intelligence (4%), Existential Intelligence (4%), Kinesthetic Intelligence (3%), Spatial Intelligence (1%), and Naturalist Intelligence (0%) followed respectively.

The second category, which is combined dominant intelligences, was categorized into double and triple dominant intelligences. The highest percentage of the first sub-category is the combination between Existential and Intrapersonal Intelligences (25%). Intrapersonal and Interpersonal Intelligences (15%), Kinesthetic and Interpersonal Intelligences (10%), Musical and Interpersonal Intelligences (10%), Intrapersonal and Spatial Intelligences (10%), Verbal and Interpersonal Intelligences (5%), Existential and Kinesthetic Intelligences (5%) followed respectively. Furthermore, the triple combined intelligences were found in four combinations: Existential-Intrapersonal-Interpesonal Intelligences (5%); Musical-Existential-Interpersonal Intelligences (5%); Musical-Kinesthetic- Interpersonal Intelligences (5%); and Musical-Logical-Interpersonal Intelligences (5%).

McKenzie's Multiple Intelligence inventory yielded information that Intrapersonal intelligence was found to have the highest score (32%) among the nine intelligences. Verbal (26%) and Logical intelligences (25%) followed respectively. Intrapersonal intelligence indicates that students are good at understanding and controlling their feelings and emotions. Yet, this contradicts a number of studies

which claimed that language learners were generally dominated by Verbal or Logical learners (Kartiah, et. al, 2014; Zahedi & Ghabanchi, 2014; Moheb & Bagheri, 2013; Peng, 2013; Al-Muhaidib, 2011; Saricouglo & Arikan, 2009). This result might be related to the social background of Indonesia which is characterised by the local diversity words *"Bhinneka Tunggal Ika"* which means "They are many, they are one" or "Unity in Diversity" (Novera, 2004).

Indonesia's national motto, *"Bhinneka Tunggal Ika"* is a value which emphasizes that differences should be appreciated and accepted. This motto is explicitly seen in the system of government which acknowledges 6 official religions. Even though Indonesia is dominated by Muslims, the government gives public holidays for every important day of the 6 official religions. In order to appreciate this Indonesian value, they should be able to find out a way to beat/decrease their ego. On the other hand, Intelligence can be influenced by external factors like religions. The participants are mainly quite strict Muslim students who always pray five times a day. This might be the reason the population is dominated by Intrapersonal Intelligence or self smart which refers to the ability to understand and to be aware in planning and directing one's life (Gardner, 1983).

Regarding Multiple Intelligence, two studies conducted in Indonesian schools showed that Existential Intelligence was found to be the most dominant intelligence and Intrapersonal was the second highest intelligence (Kartiah, et. al, 2014 and Emmiyati, et. al, 2014). However, the combination of Verbal and Logical learners of

the present study is considered to be the most dominated intelligence since they make up about half of the population (51%).

5.1.2 L2 grammar learning strategies used by Verbal and Logical learners

Research question 2 was formulated to explore L2 grammar learning strategies used by Verbal and Logical learners both quantitatively and qualitatively. The 41 L2 grammar learning strategies inventory revealed that there were three employed strategies' ranges by Verbal learners: high, medium, and low frequency of strategies used. Meanwhile, two ranges: high and medium strategies use were employed by Logical learners. On the other hand, the qualitative data revealed that there were 8 commonly used strategies by Verbal and Logical learners: (1) Sentence analysis; (2) Translation into L1; (3) Taking notes along with the lecture; (4) Handwriting; (5) Asking friends for help; (6) Searching for the grammar point and its explanation on the Internet; (7) Teacher consultation; and (8) Combined strategies. In order to get comprehensive results, quantitative and qualitative discussion are embedded. A number of interesting findings are discussed in the following sections.

Sentence analysis

A number of Verbal and Logical learners were reported to use the strategy "sentence analysis", which means they focus on structure when learning grammar lessons. This finding is linear with Pangabean (2015) who asserts that a strict grammar approach asking learners to focus on structure is suitable for teaching English for Academic Purposes but not for teaching English for General Purposes for beginners. Furthermore, a number of studies claim that explicit grammar learning is

appropriate for adult learners since the explicit grammar explanation helps them understand the grammar knowledge more effectively (Farshi & Baghbani, 2015; Simon & Taverniers, 2011; Kemp, 2007; Oxford & Lee, 2007; and Ellis, 2006). The finding indicates that sentence analysis assists language learners to learn grammar more effectively.

Translation into L1

The strategy "translation to L1", which means students like to focus on meaning or translating word for word to understand grammar points, was used by Verbal and Logical learners. They claim that knowing the meaning of the words enhances them to better make sense of grammar lessons. This finding is in line with Krashen (1985) and Ellis (1994) who point out the importance of comprehensible inputs which require language learners to make sense of the points in order to bring input to intake. It means "noticing" plays a significant role in this process. Furthermore, Rubin (1975) finds that good language learners use the strategy focus on meaning because it is not sufficient to pay attention to grammar only. The more meaningful the material to be learned, the greater the facility in learning and retention (Carrol, 1966 as cited in Rubin, 1975). This finding indicates that language learners will not start to learn grammar until they understand what is learnt.

Taking notes along with the lecture

It is interesting to note that Verbal and Logical learners rank the strategy *"I take notes in class when the teacher shows a new grammar point"* as the top strategy used both quantitatively and qualitatively. This finding confirms a number of previous

studies which found that taking notes was commonly used to learn all components in a language including a grammar lesson (Ahn, et. al, 2016; Peverly, et. al, 2014; Mezek, 2013; and Minh, 2012). It indicates that Verbal and Logical learners used this strategy to understand grammar because they were worried they would forget the lesson from the class. Taking notes allows learners to maintain a longer retention of memories and the learning process both in the production and review of the notes (Friedman, 2015).

On the other hand, both Verbal and Logical learners listed the same two strategies as low frequency of strategies used: Item 7: *"I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure."* and Item 3: *"I remember the structure by drawing a picture or diagram."* These findings indicate that Verbal and Logical learners rarely employ those strategies to learn grammar. The results implicitly confirm Gardner's definition. Gardner (1983) points out that Verbal Intelligence will perceive information easier if the information is in the form of words rather than pictures, graphics or other forms, while, Logical learners are more able to perceive information if the information is in the form of numbers or logical explanations.

Handwriting

A number of learners claimed that taking notes by hand made it easier to remember and understand grammar lessons than typing in a mobile phone or computer. This finding confirms the previous study, Anh, et. al (2016) which reveals one of the findings that handwriting enhances students' ability to effectively recall

their memory in language comprehension. Moreover, Mueller and Oppenheimer (2014) point out that note-takers using the handwritten form significantly write fewer words than those who type and can memorise better than those who type.

The finding shows that handwriting requires learners to process and reframe in their own words, which plays an important role in the learning process. Note taking with a mobile phone or computer tends to solely transcribe the lecture verbatim rather than allowing the information to be processed in their own words (Mueller and Oppenheimer, 2014). It means that the learning process happens when students take notes by hand because they have to rewrite the given information in their own language. Furthermore, Friedman (2015) argues that effective note taking happens when students are able to avoid transcribing notes, which means writing every word the instructor says.

Social interaction

As reported in Chapter 4, generally, Verbal and Logical learners like to discuss grammar lessons with their classmate or teacher to help them understand more easily. This finding is linear with earlier studies which argue that language learners like to ask other people who are more capable than themselves in making sense of grammar lessons (Family, et. al, 2015; Minh, 2012; Pineda, 2010; Gurata, 2008; Oxford & Lee, 2007; Kemp, 2007; and Ford, et. al, 2003). They like to ask other people because they feel it is easier and faster to get their information needed rather than looking for it in grammar books.

Moreover, Vygotsky (1978) claims that the ability of the less competent learners can be developed by more competent learners. This present finding explicitly confirms the concept of *Zone of Proximal Development* (ZPD) in social constructivism. The participants were found frequently to discuss and ask about grammar lessons both with their friends and teachers. A number of good learners were reported to play an important role in their interaction. Their role was that of a person who liked to answer the emerging grammar questions from their classmates.

Verbal and Logical learners reported that they liked to ask their friends who were considered more capable than themselves. It was reported that a number of learners felt shy and worried to ask their teacher because they felt it would disturb or disappoint their teacher. Previous studies indicated that Asian language learners did not like to frequently ask questions in class, but preferred to save them until later or try to solve the problems themselves before asking the teacher because they respected the teacher and the social hierarchy between them (Novera, 2014 and Xiao, 2007; and Chu & Walters, 2003).

Furthermore, Indonesian people prefer to keep silent on whether they know something or not since they worry that if they ask or say something, it will embarrass them (Turner, at. al, 2000 as cited in Novera, 2014). Therefore it is possible that most Verbal and Logical learners prefer to ask or discuss grammar with their classmates rather than the teacher. This gap potentially creates a greater distance between them.

On-line learning and comparing notes among friends

At the end of the L2 grammar learning strategies, the participants were given space to add additional strategies which were not included in the 41 listed items. After analysing and contrasting between additional strategies and the 41 listed strategies, there were two proposed grammar learning strategies which needed to be added. Item 42: *"I learn L2 grammar by practising and reading explanations from Internet."* and Item 43: *"I like to compare my notes with my friends' notes to help me better understand grammar points."* Those strategies are categorized into cognitive strategies.

The finding of online grammar learning reflects the previous studies which claimed that the Internet is a useful tool and motivates students in the teaching of grammar (Eskandari & Soleimini, 2016; Shuib, et. al, 2015; Sahiner, 2015; and Mohammad, 2015). It is strongly evident that the Internet can not be separated from learning activities in this digital era. On the other hand, Ahn, et. al (2016) finds that taking notes is not only useful for note-takers but also their peers since it allows them to discuss and share the written or spoken information well. The previous finding is in line with the present finding which finds that comparing notes among friends is useful in learning a grammar lesson.

General strategies used

The means of the responses to the four Likert-scale of L2 grammar learning strategies inventory resulted in information about the frequency of strategies used of the two groups. According to these means, Verbal learners were found to employ

three ranges; high, medium, and low frequency of strategies used. Meanwhile, only the high and medium frequency of strategies used were employed by Logical learners. The result of the Logical group indicated that they employed more strategies than Verbal learners in L2 grammar learning.

This finding is the opposite of Tahriri and Divsar's study (2011) which found that participants of the Verbal-Linguistic type were found to be higher than Logical participants in terms of strategies used. However, the present finding of the Logical group is linear with Gurata's study (2008) which stated that there were no strategies listed that fell into the range *never*. Yet, this previous finding is contradictive with the present finding of the Verbal group. A possible reason for this is that the study of Gurata is for general learners which focused on bilingual and multilingual speakers without identifying intelligence profiles and different proficiency levels.

Cognitive strategy

In the high frequency of strategies used, three types of categories; cognitive strategy, using grammar with other people, and organizing grammar learning can be seen in both groups. It was found that 8 of top 10 strategies used by Verbal learners were cognitive strategies and the rest used grammar with other people. In the counterpart group, the Logical learners, 9 of the top 13 strategies were found to be cognitive strategies. Organizing grammar learning and using grammar with other people followed respectively. The pattern reflects the previous findings which claimed that cognitive strategies are the most prvalent in learning L2 grammar (Samiyan, 2013; Hashemian & Adibpour, 2012; Minh, 2012; Pineda, 2010; Gurata,

2008; Kemp 2007; Anderson, 2005; and Riley & Harch, 1999). Since the nature of grammar is cognitive learning, cognitive strategies are generally found in language learners no matter what/which intelligence the learners are classified.

5.1.3 The similarities and differences found between Verbal and Logical learners

In response to research question 3, an examination of the similarities and differences found in the use of L2 grammar learning strategies employed by Verbal and Logical learners both quantitatively and qualitatively. The 41 L2 grammar learning strategies inventory revealed that a number of similarities and differences were found in three strategies' frequencies; high, medium, and low strategies used. However, it was found that Logical learners did not have a strategy which fell into low strategy used. Meanwhile, the content analysis showed that 8 similar strategies used were found among the two groups: (1) Sentence analysis; (2) Translation into L1; (3) Taking notes along with the lecture; (4) Handwriting; (5) Asking friends for help; (6) Searching for the grammar point and its explanation on the Internet; (7) Teacher consultation; and (8) Combined strategies.

The general finding revealed that there were more similar than different strategies used between Verbal and Logical learners in L2 grammar learning strategies both quantitatively and qualitatively (see 5.1.2). The T-test score showed that there was no significant difference in L2 grammar learning strategies between Verbal and Logical learners. The finding indicates that both learners use more or less same strategies quantitatively and qualitatively. A possible explanation is that the nature of grammar is cognitive learning which requires similar strategies for language

learners. This finding supports Tahririri & Divsar (2012) and Zarei & Mohseni (2012) who found that there was no significant effect on the overall strategy used between Verbal-Logical Intelligences and grammar learning. The finding exhibits that Verbal and Logical learners are different in terms of intelligence, yet not L2 grammar learning strategies.

5.1.4 The new proposed L2 grammar learning strategy inventory

The present study adopted and adapted the 41 listed L2 grammar learning strategies from 3 studies (Oxford and Lee, 2007; Kemp, 2007; and Gurata, 2008) as well as a survey. After analysing and contrasting the findings, this study proposes five new items for the L2 grammar learning strategy inventory, as follows:

- Item 30 *"I learn L2 grammar by practising and reading explanations from the Internet."*
- Item 31 *"I like to compare my notes with my friends' notes to help me better understand grammar points."*
- Item 31 *"I prefer take notes by hands to memorise and understand grammar better.'*
- Item 32 *"I like to join grammar discussions with my friends to understand grammar points deeper."*
- Item 41 *"I like to focus on pattern but when I face difficult a grammar lesson, I translate it to Indonesian."*

The new five proposed strategies are intended to complete the 41 L2 grammar learning strategies inventory since all the new proposed strategies cannot be found in the inventory. Then, the new 46 L2 grammar learning strategies inventory is from 3 studies (Oxford & Lee, 2007; Kemp, 2007; Gurata, 2008), a survey, and the findings of the study.

Table 5.20: The New Proposed L2 Grammar Learning Strategy Inventory

Strategies	Categories
1. I create associations between new grammar structures and what I already know.	
2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	
3. I remember the structure by drawing a picture or diagram.	
4. I visualise the new structure in my mind.	
5. I remember where I first see or hear new structures.	
6. I review grammar regularly.	
7. I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure.	
8. I say or write new grammatical constructions or expressions repeatedly to practise them.	
9. I use familiar words to learn new grammar points.	
10. I find it useful to hear or see a new grammar point used in different contexts.	
11. I pay attention to my grammar when I communicate outside the classroom.	
12. I use reference materials such as a grammar book to help me use the language or understand the structure.	Cognitive strategy
13. I take notes in class when the teacher shows a new grammar point.	
14. I like to learn grammar by learning a sentence or a chunk of language as a whole.	
15. I notice (or remember) structures that are repeated often in the text.	
16. If I notice a grammatical structure that is new to me being used in class, I write it down.	
17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanations.	
18. I look for similarities and contrasts between English grammar and the language I'm learning or using.	
19.I try to understand what I have heard or read without translating it word-for word into English.	
20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.	
21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	
22. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.	
23. I paraphrase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	
24. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	

Table 5.20: The New Proposed L2 Grammar Learning Strategy Inventory (Cont.)

Strategies	Categories
25. I compare my speech or writing with that of more proficient people to see how I can improve.	Cognitive strategy
26. While writing or speaking I make the grammar up if I do not know the right structure to use.	
27. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	
28. I do grammar exercises at home.	
29. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalence in my native language.	
30. I learn L2 grammar by practising and reading explanations from the Internet.	
31. I prefer take notes by hand to memorise and understand grammar lessons better	
32. I like to focus on pattern but when I face difficult a grammar lesson, I translate it to Indonesian	
33. I like to compare my notes with my friends' notes to help me better understand grammar points.	
34. I ask other people to verify that I have understood or used a grammar structure correctly.	Social strategy
35. I ask other people to correct my grammar.	
36. I discuss grammatical points with other learners or native speakers.	
37. When I am talking and writing with a native speaker, I try to let him or her know when I need help with my grammar.	
38. If I understand a grammar point, I can usually explain it to other people.	
39. I learn from other people's mistakes.	
40. I study grammar by applying grammar rules with a friend or a relative.	
41. I like to join grammar discussions with my friends to understand grammar points deeper	
42. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.	
43. I decide in advance to focus on the way native speakers use particular grammatical structures.	Organising grammar learning
44. I organise my language notebook to record new information such as grammar points.	
45. I try to notice my grammar errors and find out the reasons for them.	
46. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.	Communicating with others

5.1.5 L2 grammar learning strategies used by good Verbal and Logical learners

Research question 4 was to further explore L2 grammar learning strategies used by good Verbal and Logical learners both quantitatively and qualitatively. The 41 L2 grammar learning strategies revealed that the 41 strategy items were rated by the two groups into three ranges: high, medium, and low frequency of strategies used. On the other hand, the content analysis of qualitative data were categorized into 3 distinguished strategies: (1) Explainer in group discussions; (2) Self-study; and (3) Regular review of grammar lessons.

The more strategies used the better the grammar score

It was found that both good Verbal and Logical learners used more strategies than general Verbal and Logical learners in learning grammar quantitatively. This finding confirms earlier studies which point out that the more strategies used, the better the achievement in either grammar success or score (Kayaoglu, 2013; Yusuf, 2012; Saricauglo & Arikan, 2009; Pawlak, 2009; Gurata, 2008; Kemp, 2007; Anderson, 2005; Rilley & Harch, 1999; and Rubin, 1975). Yet, Tilfarlioglu and Yalcin (2005) showed that there was no significant relationship between the use of grammar learning strategies and students' achievement. A possible reason might be related to other factors such as motivation which plays a significant role. Generally, good Verbal - Logical learners reported to have more motivation than their counterpart, general learners. Moreover, the result indicates that it is worth building and maintaining awareness of language learners in L2 grammar learning strategies.

Explainer in group discussions

Good Verbal and Logical learners were reported to always explain or answer grammar lessons or questions to their classmates in their group discussion. This behaviour indicates that good Verbal-Logical learners do not feel inhibited since they are willing to answer emerging questions and make mistakes in order to solve the grammar questions. Earlier studies denote that two strategies of good language learners are that they are willing to communicate with peers and willing to make mistakes in learning a language including grammar (Yusuf, 2012; Pawlak, 2009; Thompson, 2005; and Rubin, 1975). This finding implies that good learners seem to feel fine when making mistakes related to solving grammar problems.

Regular self-study

The strategy "self-study" was reportedly used by good Verbal and Logical learners regularly. They realize that learning grammar in their class is not enough. Regular self-study allows the learners to make sense of and explore grammar lessons in class both from notes and other related sources. Tricia (2000) points out that self-directed or good language learners can learn both inside and outside the classroom, know how to use resources independently, and adjust their learning strategies appropriately (as cited in Thompson, 2005). This finding reveals that the learning process in the classroom needs to be completed by regular self-learning in order to achieve success in language learning including grammar.

5.2 Pedagogical Implications

The research findings clearly showed that learning strategies played an important role in L2 grammar success. Oxford and Lee (2007) argue that grammar learning strategies are employed to make language learning and/or language use easier, more effective, more efficient, and more enjoyable. As a result, several implications are needed to be asserted as supported by the findings.

Firstly, different intelligence does not mean always imply that they will have to always learn or do learning strategies differently. Sometime, it depends on the nature of lesson.

Secondly, language teachers should establish awareness of the strategies of the students and encourage them to use many strategies relevant to them. Before starting the class, grammar learning strategies need to be explained to language learners because this might potentially help learners understand how to apply the explained or given strategies effectively. The proper strategy might optimize and maximize the learning process. Learners should realize that not all grammar strategies are appropriate to all situations or contexts.

Thirdly, language teachers should explore more knowledge about cognitive learning strategies since the present finding shows that cognitive strategies is the top category of frequency used in grammar learning. The teachers should adjust their teaching style to be appropriate with cognitive strategies revealed by language learners.

Fourthly, language teachers should understand how to deliver a balanced teaching approach between focusing on structure and meaning. Since the present finding shows that language learners benefit from sentence analysis and translation to L1, which explicitly shows the need of those strategies to make sense of grammar lessons, they can be used to help learners make sense of grammar lessons.

Fifthly, language teachers should provide appropriate times in their class to allow language learners to take notes by hand. The learners should be told about the benefits of handwriting over typing and how to take good notes. A short training session on how to write good notes is needed for learners.

Next, language teachers should encourage students to have a group grammar discussion with their classmates. Language learners should be propotionnately distributed which means every learner has a different role. It seems fine to let better students play the main role in a discussion because it helps others to understand it better their own language. Also, good learners can strengthen their knowledge by answering the emerging grammar questions or re-explaining grammar lessons to others .

Seventhly, the new proposed L2 grammar learning strategies of this study can be used by grammar language learners and teachers to learn and teach effectively. They can choose the most appropriate or convenient items from the 46 listed strategies.

Lastly, language teachers should encourage learners to do regular self-learning, so they not only learn in the class. Learners should do homework frequently

which requires learners to solve grammar problems and learn grammar on a regular basis.

5.3 Recommendations for further study

Further research studies on Multiple Intelligences and L2 grammar learning strategies are needed to provide more data and more length of time to agree or disagree with these findings.

First, further research should investigate grammar learning strategies with other intelligences such as Intrapersonal Intelligence, Interpersonal Intelligence, Musical Intelligence, Kinesthetic Intelligence, Spatial Intelligence, Existential Intelligence, and Naturalist Intelligence.

Second, more Multiple Intelligence and grammar learning strategies' studies still need to be conducted at the Indonesian university level since the present study could not find any related study of Multiple Intelligence and grammar learning strategies in Indonesia.

Finally, qualitative and quantitative studies between Multiple Intelligence and grammar learning strategies should be integrated into more than one institution by considering other factors such as motivation, cultural background, and personality, in order to get more comprehensive results.

REFERENCES

REFERENCES

Ahn, R., Ingham, S., Mendez, T., &Pomona, C. P. (2016). Socially constructed learning activity: Communal note-taking as a generative tool to promote active student engagement. *Transformative Dialogues: Teaching and Learning Journal*, 8(3), 1-15.

Al-Bahlan, E. M. (2006). Multiple Intelligence Styles in Relation to Improved Academic Performance in Kuwaiti Middle School Reading. *Digest of Middle East Studies*, 15(1), 18-3.

Al-Muhaidib, N. S. (2011). Multiple Intelligences: Identifying student diversity among Saudi female ESL learners. *International Journal of Applied Education Studies – IJAES*, 12(1), 33-40.

Andrews, R. C., Torgerson, S., Beverton, A., Freeman, T., Lock, G., Low, G., Robinson, A., & Zhu, D. (2006). The effect of grammar teaching on writing development. *British Education Research Journal* 32, 1, 39-55.

Anderson, N. J. (2005). L2 strategy research. In E. Heikel (Ed.), *Handbook of Research in Second Language Teaching and Learning*, 757-772. Mahwah, NJ: Lawrence Erlboum Associates.

Arikan, A., & Saricauglo, A. (2009). A study of Multiple Intelligences, foreign languages success and some selected variables. *Journal of Theory and Practice in Education*, 5(2), 110-112.

ASEAN Secretariat. (2012). *Founding of the ASEAN*. Retrieved July 20th, 2015 from http://www.asean.org/asean/about-asean/history

Azzar, B. S. (2002). *Understanding and Using English Grammar* (Ed.3). New York: Pearson Education.

Botelho, M. (2003). *Multiple Intelligences Theory in English Language Teaching: An analysis of current textbooks, materials and teachers' perceptions.* (Master's Thesis). Retrieved August 15th, 2015, from https://etd.ohiolink.edu/

Brown, H. D. (2007). *Principles of Language Learning and Teaching*. New York: Pearson Longman.

Bumela, L. (2014). Responding and analysing: Stages of teaching functional grammar in Indonesia context. *Indonesian Journal of Applied Linguistics,* 4 (1), 70-86.

Cavaliere, F. J., Glassock, K., & Sen, K. C. (2014). *The Englishnization of Business: Does this help or hinder teaching global business?*, 135(62).

Chan, D. W. (2005). Perceived Multiple Intelligences and Learning Preferences among Chinese Gifted Students in Hong Kong. *Journal for Education of the Gifted*, 29(2). 187-212.

Chen, M. L., & Hung, L. M. (2012). Personality type, perceptual style preferences and strategies for learning English as a foreign Language. *Social Behaviour and Personality*, 40(9), 1501-1510. http://dx.doi.org/10.2224/sbp.2012.40.9.1501

Chu, Y., & Walters, L., M. (2013). The question-asking behaviour of Asian students in an American university classroom. Journal of English as an International Language, 8(2), 10-29.

Constantinescu, R. S. (2014). The theory of Multiple Intelligences- applications in mentoring beginning teachers. *Social and Behaviour Sciences*, 116. 3345-3349.

Cohen, A. D., & Macaro, V. (2007). *Language Learner Strategies.* New York: Oxford University Press.

Cook, V. (2001). *Second Language Learning and Teaching* (3rd eds.). New York: Oxford University Press. (Chapter 5).

Chu, Y., & Walters, L. M. (2013). The question-asking behaviour of Asian students in an American university classroom. *Journal of English as an International Language*, 8(2), 10-29.

Dörnyei, Z. (2007). *Research Methods in Applied Linguistic: Qualitative, Quantitative and Mixed Methodologies*. New York: Oxford University Press.

Dörnyei, Z. (2003). *Questionnaires in Second Language Research*. London:Lawrence Erlbaum Associates Publisher.

Dörnyei, *Z., &* Skehan, P. (2003). Individual differences in second language learning. In Doughty, C. J. & Long, M. H. (Eds.), *The Handbook of Second Language Acquisition* . Malden: Blackwell.

Drugas, C. L. (2015). The importance of teaching the adjective in context. *Scientific Journal of Humanistic Studies*, 7(12), 68-70.

Ellis, R. (1986). *Understanding Second Language Acquisition*. Oxford: Oxford University Press.

Ellis, R. (2006). *Current Issues in the Teaching of Grammar: An SLA Perspective*, 40(1), 83-107. TESOL Quarterly.

Ellis, R. (1994). An instructed theory of second language acquisition. In N. Ellis (Ed.), *Implicit and Explicit Learning of Languages,* 77-114. London: Academic Press.

Ellis, R. (1994). An instructed theory of second language acquisition. In N. Ellis (Ed.), *Implicit and Explicit Learning of Languages,* 77-114. London: Academic Press.

Emmiyati, N., Rasyid, M. A., Rahman, M. A., Arsyad, A., & Dirawan, D. D. (2014). Multiple Intelligences profiles of junior secondary school students in Indonesia. International Studies, 7(1), 103-110.

Eskandari, M., & Soleimani. H. (2015). The effect of collaborative discovery learning using MOODLE on the learning of conditional sentences by Iranian EFL . Theory and Practice in Language Studies, 6(1), 153-163. DOI: http://dx.doi.org/10.17507/tpls.0601.20

Fahim, M., & Noormohammadi, R. (2014). An investigation into perfectionism as a moderator of the links between language learning styles and strategies. *Journal of Language Teaching and Reserach*, 5(5), 1121-1131. doi:10.4304/jltr.5.5.1121-1131

Faisal, M., Mulya, K., &, Samsul, B. Y. (2016). Errors in EFL writing by junior high students in Indonesia. *International Journal of Research Studies in Language Learning*, 10(10), 1-14.

Family, N., Durus, N., & Ziegler, G. (2015). Grammar as a joint achievement: Co-constructions in L2 in interactions. *Novitas-ROYAL- Research on Youth and Language,* 9(1), 30-45.

Fatemipour, H., & Moharamzadeh, S. (2015). The impact of textual enhancement vs oral enhancement on learning English language grammar. *Journal of Language Teaching and Research*, 6(2). 327-332. doi: http://dx.doi.org/10.17507/jltr.0602.12

Farshi, S. S., & Baghbani, S. D. (2015). The effects of implicit and explicit focus on form on oral accuracy of EFL learners. Theory and Practice in Language Studies, 5(2), 292-297. DOI: http://dx.doi.org/10.17507/tpls.0502.08

Farsinejad, E. (2014). The role of Verbal Intelligence in L2 grammar learning. *Modern Journal of Language Teaching Methods,* 4(4), 71-76.

Farahani, A. A. K., & Kalkhroan, E. L. (2014). The relationship between incidental vocabulary learning and Multiple Intelligences of Iranian EFL learners. *Theory and Practice in Language Studies*, 4(1), 58-64. doi:10.4304/tpls.4.1.58-64

Ford, C. E., Fox, B., A., & Thompson, S., A. (2003). Social interaction and grammar. *In The New Psychology of Language: Cognitive and Functional Approaches to Language Structure,* 2, 119-144. Michael Tomasselo (Ed.). London: Erlbaum.

Friedman, M. C. (2015). *Notes on Note-Taking: Review of Research and Insight for Students and Instructors.* Harvard Initiative for Learning and Teaching.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligence*. New York: Basic Books.

Gardner, H. (1993). *Multiple Intelligences: New Horizons*. New York: Basic Books.

Gardner, H. (1999). *Intelligence Reframed*. New York: Basic Books.

Gardner, H. (2004). *Frequently Asked Questions-Multiple Intelligences and Related Educational Topics*. Retrieved September 18th, 2015 from http://multipleintelligencesoasis.org/wpcontent/uploads/2013/06/faq.pdf.

Hajhasemi, K., & Eng, W. B. (2010). *A Validation of the Persian Version of Mckenzie's Multiple Intelligences Inventory to Measure Profiles of Pre-University Student*, 18(2), 343-355.

Gould, S. J. (1981). *The Mismeasure of Man.* New York: Norton Company.

Ganjabi, M. (2011). Grammar instruction and error correction: a matter of Iranian students' beliefs. *Electronic Journal of Research in Educational Psychology*, 9(3), 1285-1305.

Gottfredson, L. S. (1994). *Mainstream Science on Intelligence: An Editorial with 52 Signatories, History, and Bibliography*, 24(1), 13-23.

Ghasemi, H., & Behjat, F. (2013). The relationship between Emotional Intelligence (EI) and writing improvement of Iranian EFL students at MA level. *International Journal of Linguistics,* 5(5),197-207.

Greenhawk, J. (1997). Multiple Intelligences meets standards. *Educational Leadership*, 55(1), 62-64.

Gurata, A. (2008). *The Learning Strategies Employed by Turkish University Preparatory School EFL Students* (Master's Thesis). Retrieved August 15th, 2015, from http://www.thesis.bilkent.edu.tr/0003607.pdf

Hadi, S. (1994). *Statistik*. Yogyakarta: Andi.

Hajhasemi, K., & Eng, W. B. (2010). A validation study of the Persian version of Mckenzie's Multiple Intelligences inventory to measure profiles of pre-university students. *Pertanika J. Social, Science, and Humaniora*, 18(2), 434-355.

Hatch, E. (1983). *Psycholinguistics: A Second Language Perspective*. Rowley, MA: Newbury House.

Hashemian, M., & Adibpour, M. (2012). Relationship between Iranian L2 learners' Miltiple Intelligences and language learning strategies. *RALS*, 3(4), 26-43.

Heigham, J., & Croker, R. A. (2009). *Qualitative Research in Applied Linguistics : A Practical Introduction*. Palgrave Macmillan. New York.

Jones, S., Myhild, D., & Bailey, T. (2013). *Grammar for Writing? An Investigation of the Effects of Contextualised Grammar Teaching on Students' Writing*, 26. 1241-1263. DOI 10.1007/s11145-012-9416-1

Kartiah, S. R. K., Rahman, M. A., & Rahman, A. Q. (2014). The portrayal of Multiple Intelligence theory in English teaching strategy for Indonesian secondary school. *Journal of Language Teaching and Research*, 5(5), 1052-1061. doi:10.4304/jltr.5.5.1052-1061

Kayaouglu, M. N. (2013). Poor and good learners' language beliefs and their influence on their language learning strategy use. *Novitas-Royal Research on Youth and Language*, 7(1), 35-54.

Kemp, C. (2007). Strategic processing in grammar learning: do multilinguals use more strategies?. *International Journal of Multilingualism*, 4(4). doi: 10.2167/ijm099.0

Khalaf, S. S. (2013). Implications of Multiple Intelligences theory in ELT field. *International Journal of Humanities and Social Science*, 3(4), 292-297.

Krashen, S. D. (1982). Accounting for child-adult differences in second language rate and attainment. In Stephen Krashen, Robin C. Scarlella, and Michael H. Long (eds.), *Child-Adult Differences in Second Language Acquisition*, 202-226. Rowley, MA: Newburry House.

Krashen, S. (1985). *The Input Hyphothesis*. London: Longman.

Krashen, S. D. & Terrel, T. (1983). *The Natural Approach: Language Acquisition in the Classroom*. Oxford: Pergamon.

Locke, T. (2009). Grammar and writing- the international debate. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The Sage Handbook of Writing Development*, 182-193. London: Sage.

Mackey, A., & Gass, S. M. (2005). *Second Language Research: Methodology and Design*. London: Lawrence Erlbaum Associates Publishers.

Mallia, J. G. (2015). Embedding grammar while developing communicative competence in English: relevant cultural contexts and teaching approaches. *Arab World English Journal*, 6(1), 50-57.

Mackey, A., & Gass, S. M. (2005). *Second Language Research: Methodology and Design*. London: Lawrence Erlbaum Associates Publisher.

Madya, S. (2008). Curriculum Innovations in Indonesia and the Strategies to Implement Them. In Y.H. Choi & B. Spolsky (eds.), *ELT Curriculum Innovation and Implementation in Asia* (pp. 1-38). Seoul, South Korea: eduKLC.

Manarot, P. (2004). *A Case Study the Relationship between Learning Styles and Explicit/Implicit Feedback among Suranaree University of Technology Students*. (Master's Thesis). Retrieved August 10th, 2015, from, http://sutir.sut.ac.th:8080/sutir/bitstream/123456789/1643/2/pornsawan_man orat_fulltext.pdf

Mardijiono, J. J. (2003). Indonesian EFL Advanced Learners' Grammatical Errors, 5(1), 67-90. *Universitas Kristen Petra Journal*.

http://kata.petra.ac.id/index.php/ing/article/viewFile/15499/15491

Martinez, I.M.P. (1995). A Study of the learning strategies used by secondary schools and university students of English in Spain. *Revista Alicantina de Estudios Ingleses*, 8, 177-193.

McFarlane, D. A. (2010). *Teaching Unmotivated and Under-Motivated College Students: Problems, Challenges, and Considerations*, 13(3).

McKenzie, W. (1999a). Multiple Intelligences inventory to measure MI profiles of pre-university students. *Pertanika Journal of Social Sciences & Humanities (JSSH),* 18(2), 343-355.

McKenzie, W. (1999b). *Multiple Intelligences Inventory: The One and Only Surfaqurium.* Accessed on September 19, 2015. Retrieved from http://surfaquarium.com/MI/inventory.htm

Messick, S. (1992). Multiple Intelligences or Multilevel Intelligence? selective on distinctive properties of hierarchy: on Gardner's *Frames of Mind* and Stenberg's *Beyond IQ* in the context of theory and research on the structure of human abilities. *Psychological Inquiry,* 3(4), 365-368. Lawrence Elbaurn Associates.

Minh, D. D. (2012). Language Learning Strategies Used by Vietnamese EFL Science-Oriented University Students. (Dissertation), Retrieved January 10th, 2015. http://sutir.sut.ac.th:8080/sutir/handle/123456789/3881

Mirric, B. M. (2010). *Multiple Intelligences Theory – A Milestone Innovation in English Language Teaching at the University of Nis Medical School*, 49(2).

Mezek, S. (2013). Learning terminology from reading texts in English: The effects of note-taking strategies. *Nordic journal of English Studies*, 13(1), 133-161.

Millard, D. J. (2000). Form-focused instruction in communicative language teaching: implications for grammar textbooks. *TESL Canada Journal*, 18(1).

Mohammadi, M. P., Abidin, M. J. Z., & Anuar, K. B. Y. A. (2012). The relationship between students' strength in Multipke Intelligences in their achievement in learning English language. Journal of Language Teaching and Research, 3(4), 677-686. doi:10.4304/jltr.3.4.677-686

Mohamad, F. (2015).Internet-based grammar instruction in the ESL classroom. *The International Journal of Pedagogies and Learning*, 5(2). 34-48.

Moheb, N. , & Bagheri, M. S. (2013). Relationship between MI and writing strategies. *Journal of Language Teaching and Research*, 4(4), 777-784. doi:10.4304/jltr.4.4.777-784

Mohammadi, M., P., Abidin, M., J., Z., & Ahmad, K., A., B., Y. (2012). The relationship students' strengths in Multiple Intelligences and their achievement in learning English language. *Journal of Language Teaching and Research*, 3(4), 677-686. doi:10.4304/jltr.3.4.677-686

Mueller, P. A., & Oppeinheimer, D. M. (2014). The pen is mightier than the keyboard: Advantages pf longhand over Laptop note taking. *Psychological Science Online First*, 1-10. DOI:10.1177/0956797614524581

Myhill, D., & Watson, A. (2013). The role of grammar in the writing curriculum: a review of the literature. *Child Language Teaching and Therapy*, 30(1). 41-62. DOI: 10.1177/0265659013514070

Nachiengmai, Y. (1997). The Teaching of Grammar. *Thai TESOL Bulletin,* 10(2).

Naeni, M. B. , & Pandian, A. (2010). On the relationship of Multiple Intelligences with listening proficiency and attitudes among Iranian TEFL university students. *TESL Canada Journal*, 28(1).

Nababan, P. W. J. (1991). Language in Education: The Case of Indonesia. *International Review of Education,* 37(1), 115-131.

Nowak, A. L. (2012). *Tough Love: The Law School that Required Its Students to Learn Good Grammar*.

Novera, I. A. (2004). Indonesian postgraduate students studying in Australia: An examination of their academic, social and cultural experiences. *International Education Journal*, 5(4), 475-487.

Oppenheimer, A., N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. New York: Pinter Publisher.

O'Conner, H., & Gibson, N. (2003). A step-by-step guide to qualitative data analysis. *A Journal of Aboriginal and Indigenous Community Health,* 1(1), 63-90.

Ollerhead, S., & Oosthuizen, J. (2005). Meaning-focused vs form-focused L2 instruction: Implications for writing educational materials for South African learners of English. *Stellenbosch Papers in Linguistic*, 36, 59-84. DOI: 10.5774/36-0-13

Oxford, R. L., & Lee, K. R. (2007). L2 grammar strategies: the second Cinderella and beyond. In Cohen, A., D. & Macaro, E. (eds.), *Language Learner Strategies*, 117-138. London: Oxford University Press.

Petraki, E., & Hill, D. (2010). *Theories of Grammar and Their Influence on Teaching Practice: Examining Language Teachers' Beliefs*.

Panahandeh, E., Khoshkhoonejad, A., & Mansourzadeh, N. (2015). On the relationship between Iranian EFL learners' Multiple Intelligences and their learning styles. *Theory and Practice in Language Studies*, 5(4), 784-791. DOI: http://dx.doi.org/10.17507/tpls.0504.14

Panggabean, H. (2015). A problematic approach to English learning and teaching: A case in Indonesia. *English Language Teaching*, 8(3), 35-45.

Pawlak, M. (2009). Grammar learning strategies and language attainment: Seeking a relationship. *Research in Language*, 7. DOI: 10.2478/v10015-009-0004-7

Peng, S. (2013). *Multiple Intelligences, Thinking Styles, Reading Strategies and Reading Performance by Chinese EFL Students*. (Dissertation), http://sutir.sut.ac.th:8080/sutir/bitstream/123456789/4856/2/Fulltext.pdf

Peverly, S. T., Garner, J. K., & Vekaria, P. C. (2014). Both handwriting speed and selective attention are important to lecture note-taking. *Read Writ*, 27, 1-30. DOI 10.1007/s11145-013-9431-x

Pineda, J. E. (2010). Identifying Language Learning Strategies: An Exploratory Study. *Gist: Revista Colombiana de Educacion Bilingue,* 4, 94-106.

Rattay, K. (2013). Languaging and visualisation method for grammar teaching: A conceptual change theory perspective. *English Teaching: Practice and Critique*, 12(3), 87-101.

Richards, C. J., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. (2nd Eds.). Cambridge: Cambridge University Press.

Riley, L. D., & Harsch, K. (1999). Enhancing the learning experience with strategy journals: Supporting the diverse learning styles of ESL/EFL students.

Proceedings of the HERDSA Annual International Conference. http://www2.hawaii.edu/~kenton/srl/riley-harsch-99.pdf

Rubin, J. (1975). What "good language learner" can teach us. *TESOL Quarterly*, 9(1), 41-51.

Sahatsathatsana, S. (2010). *The Development of An English Conversation Syllabus Based on the Theory of Multiple Intelligences*. (Dissertation), http://sutir.sut.ac.th:8080/sutir/bitstream/123456789/3472/2/Fulltext.pdf

Sahiner, M. (2015). Computer assisted language learning (CALL) and classroom management of grammar teaching. *Journal of Language Literature*, 15, 27-39.

Samiyan, L. V. (2013). The relationship between Linguistic Intelligence and L2 learning strategies among EFL learners with intermediate level of proficiency. Journal of Literature, Languages and Linguistics, 1, 89-93.

Sawir, E. (2005). Language difficulties on international students in Australia: the effects of prior learning experience. *International Education Journal*, 6(5), 567-580.

Saricaoglu, A., & Arikan, A. (2009). A study of Multiple Intelligences, foreign language success and some selected variables. *Journal Kuram ve Uygulama*, 5(2),110-122.

Simon, E., & Taverniers, M. (2011). *Advanced EFL Learners' Beliefs about Language Learning Between Grammar, Pronunciation, and Vocabulary*, 92(8), 896-922. http://dx.doi.org/10.1080/0013838X.2011.604578

Singh, K. (2007). *Quantitative Social Research Methods*. New Delhi: Sage publications.

Shiu, L. J. (2011). *EFL Learners' Perceptions of Grammatical Difficulty in relation to Second Language Proficiency, Perfomance, and Knowledge.* (Dissertation, University of Toronto,Canada).

Shearer, C. B. (2007). Reliability, Validity and Utility of a Multiple Intelligences Assessment for Career Planning.

Shearer, C. B. (2006). *Criterion related validity of the MIDAS assessments*. Kent, Ohio: MI Research and Consulting, Inc.

Simon, E., & Taverniers, M. (2011). *Advanced EFL Learners' Beliefs about Language Learning Between Grammar, Pronunciation, and Vocabulary*, 92(8), 896-922. http://dx.doi.org/10.1080/0013838X.2011.604578

Shuib, M., Abdullah, A., Azizan, S. N., & Gunasegaran, T. (2015). Designing an intelligent mobile learning tool for grammar laerning (i-Mol). IJIM, 9(1), 41-46. http://dx.doi.org/10.3991/ijim.v9i1.4238

Supriadi, D. (2000). *Anatomi Buku Sekolah di Indonesia: Problematik Penilaian, Penyebaran dan Penggunaan Buku Pelajaran, Buku Bacaan dan Buku Sumber*. Yogyakarta: Adicipta Karya Nusa.

Suan, W. H., & Sulaiman, T. (2009). Multiple Intelligences in Japanese language learning. *The International Journal of Learning*, 16(7), 565-575.

Sugeng, B. (2015). Need for increasing grammar grammar focus in English teaching: A case in Indonesia. *Journal of Education and Social Research*, 5(3), 131-137.

Taguchi, N. (2014). *English-Medium Education in the Global Society*, 52(2). 89-98. DOI 10.1515/iral-2014-0004

Tahriri, A., & Divsar, H. (2011). EFL learners' self-perceived strategy use across various intelligence types: A case study. Journal of Pan-Pacific Association of Applied Linguistics, 15(1), 115-138.

Teknokrat. (2015). *Learning Contract Structrure III*. Bandar Lampung.

Tilfarlioglu, F. Y., & Ciftci, F. S. (2011). Supporting self-efficacy and learner autonomy in relation to academic success in EFL classrooms (a case study). Theory and Practice in Language Studies, 1(10), 1284-1294. DOI:10.4304/tpls.1.10.

Thompson, S. (2005). *The Good Language Learners*. Teaching module of University of Birminham.

Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Vanpatten, B., & Williams, J. (2007). *Theories in Second Language Acquisition: An Introduction*. New Jersey: Lawrence Erlbraum Associates.

Wei, Z. (2011). *The Relationship between MI and Grammatical Errors in English Writing Made by EFL Learners*. (Dissertation) Retrieved August, 10th, 2015, from http://sutir.sut.ac.th:8080/sutir/bitstream/123456789/4321/1/Fulltext.pdf

Widodo, H. P. (2006). Approaches and procedures for teaching grammar. *English Teaching: Practice and Critiques*, 5(1), 122-141.

Xia, Y. (2014). Language theories and language teaching – from traditional to Functionalism. *Journal of Language Teaching and Research*, 5(3), 559-565. doi:10.4304/jltr.5.3.559-565

Xiao, L. (2007). Bridging the gap between teaching styles and learning styles: A cross-cultural perspective. *The Journal of ASIA TEFL*, 4(1), 55-78.

Yeh, E. (2014). Teaching culture and language through the Multiple Intelligences film teaching model in the ESL/EFL classroom. *The Journal of Effective Teaching*, 14(1),63-79.

Yulia, Y. (2014). *An Evaluation of English Language Teaching Programs in Indonesian Junior High Schools in the Yogyakarta Province*. (Dissertation, School of Global, Urban, and Social Studies College of design and Social Context RMIT University).

Yusuf, S. (2012). Language learning strategies of two Indonesian young learners in USA. International Journal of English Linguistics, 2(4), 65-72.

Zahedi, Z., & Ghabanchi, Z. (2014). The relationship between Logical, Naturalist Intelligences and learning grammar for EFL learners at elementary level. *Theory and Practice in Language Studies*, 4(2),403-410. doi:10.4304/tpls.4.2.403-410.

Zarei, A. A., & Mohesni, F. (2012). *On the Relationship between Multiple Intelligences and Grammatical and Writing Accuracy of Iranian Learners of English,* 10(7), 1306-1317. US-China Foreign Language.

Zacharias, N. T. (2013). *A Survey of Tertiary Teachers' Beliefs about English Language Teaching in Indonesia with Regard to the Role of English as a Global Language.* (Master Thesis of Institute for English Language Education Assumption University of Thailand).

APPENDICES

APPENDIX A

Indonesian Version

Kuisioner Kecerdasan Majemuk

Penelitian Tesis Program Master Bahasa Inggris di Suranaree University of Technology, Nakhon Ratchasima, Thailand.

<table>
<tr><td>

Kata Pengantar

Saya adalah Anjas Asmara, mahasiswa pasca sarjana di Jurusan English Foreign Language di Suranaree University of Technology, Thailand yang saat ini sedang menyelesaikan penelitian tesis dengan mengambil reponden dari mahasiswa Sastra Inggris semester ketiga di Teknokrat, Bandar Lampung, Lampung, Indonesia.

Saya berharap rekan-rekan mahasiswa bersedia menjadi responden dalam penelitian ini dan memberikan informasi yang dibutuhkan. Seluruh data dan hasil penelitian ini akan digunakan sebagai bahan kajian dan diskusi terkait pembelajaran bahasa kedua atau Second Language Acquisition.

Atas kesediaan rekan-rekan mahasiswa untuk mengisi kuisioner ini saya ucapkan terimakasih.

</td></tr>
</table>

Biodata Responden

1. Nama : ....

2. Jenis kelamin : ....

3. Alamat : ....

4. Usia : ....

5. Email & Telp : ....

<u>Angket Kecerdasan Majemuk</u>

Hak cipta 1999-2014 Walter McKenzie

<u>Bagian 1</u>

Lengkapi setiap bagian dengan memberikan angka '1' disamping setiap pernyataan yang anda rasa paling menggambarkan diri anda. Jika pernyataan dinilai tidak menggambarkan diri anda, kosongkan saja. Selanjutnya, jumlahkan total angka disetiap bagian.

Bagian Pertama

_____ Saya suka mengkategorikan segala sesuatu berdasarkan ciri-ciri umum terlebih dahulu.

_____ Hal tentang Ekologis (interaksi antara organisme dan lingkungannya) sangat penting bagi saya.

_____ Pengelompokkan informasi/ klasifikasi membantu saya dalam memahami hal-hal baru.

_____ Saya suka berkebun.

_____ Saya yakin bahwa melestarikan taman nasional itu penting.

_____ Meletakkan semua informasi secara hirarki adalah hal yang masuk akal bagi saya.

_____ Hewan adalah hal penting bagi hidup saya.

_____ Rumah saya memiliki sistem daur ulang.

_____ Saya suka belajar biologi, botani (ilmu tumbuh-tumbuhan) dan zoologi (ilmu kehewanan).

_____ Saya mudah menangkap perbedaan yang tipis dari sebuah makna.

_____ *Jumlah untuk Bagian Pertama*

Bagian Kedua

_____ Saya mudah menemukan rumus atau memahami pola.

_____ Saya tetap bisa fokus dalam kebisingan dan suara .

_____ Bergerak sesuai irama adalah hal mudah bagi saya.

_____ Saya suka menciptakan musik.

_____ Saya suka merespon irama dari puisi.

_____ Saya suka mengingat hal-hal dengan mengaitkannya dalam sajak puisi atau alunan musik .

_____ Saya sulit konsentrasi jika ada suara bising .

_____ Mendengarkan suara alam sangat menenangkan.

_____ Saya lebih mudah larut dalam musik dari pada drama.

_____ Mengingat lirik lagu sangatlah mudah bagi saya.

_____ *Jumlah untuk Bagian Kedua*

Bagian Ketiga

_____ Saya terkenal sebagai orang yang rapi dan teratur.

_____ Petunjuk yang sistematis sangat membantu saya.

_____ Saya mudah menemukan cara menyelesaikan masalah.

_____ Saya sangat mudah frustasi dengan orang-orang yang tidak teratur.

_____ Saya mampu menyelesaikan perhitungan dengan cepat dikepala saya.

_____ Teka-teki otak sangatlah menyenangkan.

_____ Saya tidak bisa memulai mengerjakan sebuah tugas sebelum segala sesuatu yang saya perlukan siap atau tersedia.

_____ Struktur merupakan hal yang baik .

_____ Saya suka senang mencari solusi dari sesuatu hal yang tidak berjalan semestinya.

_____ Segala sesuatu harus masuk akal, kalau tidak saya akan kecewa.

_____ *Jumlah untuk Bagian Ketiga.*

Bagian Keempat

_____ Melihat seberapa besar peranan saya dalam suatu hal adalah penting.

_____ Saya suka berdiskusi tentang pertanyaan-pertanyaan seputar kehidupan.

_____ Agama sangatlah penting bagi saya.

_____ Saya suka melihat karya seni.

_____ Latihan rileksasi dan meditasi merupakan hal yang menyenangkan bagi saya .

_____ Saya suka jalan-jalan ke tempat-tempat yang inspiratif .

_____ Saya suka membaca filsafat.

_____ Mempelajari hal-hal baru mudah bagi saya, jika bisa melihat penerapan aslinya di dunia nyata.

_____ Saya penasaran jika apakah ada jenis kehidupan yang cerdas selain manusia dialam semesta ini.

_____ Berhubungan dengan orang, ide dan keyakinan yang berbeda adalah hal penting bagi saya.

_____ *Jumlah untuk Bagian Keempat.*

Bagian Kelima

_____ Cara belajar terbaik saya adalah berinteraksi dengan orang lain.

_____ Saya suka obrolan santai dan diskusi yang serius.

_____ Semakin banyak semakin meriah.

_____ Saya suka memimpin diantara teman dan kolega.

_____ Saya menghargai hubungan dari pada ide-ide atau prestasi.

_____ Belajar berkelompok sangat efektif bagi saya.

_____ Saya adalah seorang pekerja tim atau "team player"

_____ Teman-teman adalah hal penting bagi saya.

_____ Saya tergabung di lebih dari tiga klub atau organisasi.

_____ Saya tidak suka bekerja sendiri.

_____ *Jumlah untuk Bagian Kelima*

Bagian Keenam

_____ Saya mudah belajar sesuatu dengan mengerjakan secara langsung.

_____ Saya suka membuat sesuatu dengan tangan saya sendiri.

_____ Olahraga adalah bagian hidup saya.

_____ Saya menggunakan bahasa tubuh dan non verbal ketika saya berkomunikasi.

_____ Mendemonstrasikan lebih baik dari pada menjelaskan.

_____ Saya suka menari.

_____ Saya suka bekerja dengan peralatan.

_____ Menganggur itu lebih melelahkan dari pada sibuk .

_____ Aktifitas menggunakan tangan sangat menyenangkan.

_____ Gaya hidup saya sangatlah aktif.

_____ *Jumlah untuk Bagian Keenam*

Bagian Ketujuh

_____ Bahasa asing sangatlah menarik bagi saya.

_____ Saya suka baca buku-buku, majalah-majalah dan website .

_____ Saya rutin menulis diari / jurnal.

_____ Teka-teki seperti teka-teki silang dan acak kata sangatlah menyenangkan.

_____ Mencatat hal-hal penting sangat membantu saya dalam mengingat dan memahami.

_____ Saya suka menghubungi teman-teman melalui surat / email.

_____ Menjelaskan ide-ide saya ke orang lain sangatlah mudah.

_____ Saya menulis untuk kesenangan/hobbi.

_____ Bermain kata-kata, anagram (menyusun satu kata menjadi kata yang lain) dan spoonerisms (mendeteksi kesalahan suara) sangatlah menyenangkan bagi saya.

_____ Saya suka berbicara didepan umum dan mengikuti debat.

_____ *Jumlah untuk Bagian Ketujuh.*

Bagian Kedelapan

_____ Perilaku saya mempengaruhi bagaimana saya belajar.

_____ Saya bersedia terlibat dalam suatu hal yang dapat menolong orang lain.

_____ Saya sangat peka terhadap keyakinan moral / prinsip saya.

_____ Saya dapat belajar dengan mudah ketika saya memiliki ikatan emosi dengan subyeknya.

_____ Keadilan sangatlah penting bagi saya.

_____ Hal-hal tentang keadilan sosial sangatlah menarik bagi saya.

_____ Bekerja sendiri atau bersama grup adalah sama-sama produktif.

_____ Saya harus mengetahui alasan kenapa saya harus mengerjakan sesuatu sebelum saya setuju mengerjakannya.

_____ Ketika saya yakin di suatu hal saya akan berusaha lebih baik.

_____ Saya akan protes atau memberikan petisi (permohonan) untuk mengoreksi hal yang salah.

_____ *Jumlah untuk Bagian Kedelapan.*

Bagian Kesembilan

_____ Menata ulang atau mendekorasi ulang sebuah ruangan sangatlah menyenangkan bagi saya.

_____ Saya suka menciptakan karya seni sendiri.

_____ Saya mengingat lebih baik saat menggunakan susunan grafis.

_____ Saya suka semua jenis hiburan di media.

_____ Diagram, grafik dan tabel sangat mebantu untuk menerjemahkan data.

_____ Video musik bisa membuat saya lebih tertarik pada sebuah lagu.

_____ Saya bisa mengingat hal-hal melalui gambaran batin.

_____ Saya sangat bagus dalam membaca peta dan konsep (blueprint).

_____ Teka-teki tiga dimensi sangatlah menyenangkan.

_____ Saya bisa menggambarkan ide-ide yang ada dalam fikiran saya.

_____ *Jumlah untuk Bagian Kesembilan.*

Bagian II

Sekarang hitunglah total jumlah dari setiap bagian dan kalikan dengan 10 seperti di bawah ini:

Bagian	Total Per-bagian	Kali	Jumlah
1		x 10	
2		x 10	
3		x 10	
4		x 10	
5		x 10	
6		x 10	
7		x 10	
8		x 10	
9		x 10	

Bagian III

Sekarang masukkan skor anda di dalam grafik berikut:

100									
90									
80									
70									
60									
50									
40									
30									
20									
10									
0	1	2	3	4	5	6	7	8	9

Bagian IV

Keterangan:

Bagian 1 – Ini merefleksikan kemampuan alamiah anda.

Bagian 2 – Ini merefleksikan kemampuan musik anda.

Bagian 3 – Ini merefleksikan kemampuan logika anda.

Bagian 4 – Ini merefleksikan kemampuan 'Existential' anda.

Bagian 5 – Ini merefleksikan kemampuan 'Interpersonal' anda

Bagian 6 – Ini merefleksikan kemampuan kinastetik anda.

Bagian 7 – Ini merefleksikan kemampuan berbicara anda.

Bagian 8 – Ini merefleksikan kemampuan 'Intrapersonal' anda.

Bagian 9 – Ini merefleksikan kemampuan visual anda.

Catatan :

- Setiap orang memiliki semua jenis kecerdasan diatas.
- Anda dapat memperkuat setiap jenis kecerdasan tersebut.
- Temuan ini dimaksudkan sebagai alat ukur temperorer urutan kecerdasan anda– hal ini dapat berubah.
- Multiple Intelligence (Kecerdasan Majemuk) dimaksudkan untuk memberdayakan, bukan untuk melabeli para pembelajar.

English Version

Multiple Intelligence Inventory

Foreign Languages School at Suranaree University of Technology,

Nakhon Ratchasima, Thailand.

Introduction

I am Anjas Asmara who is pursuing Master Degree at English Foreign Language Schools, Suranaree University of Technology, Thailand. This inventory is intended to second year English Literature students at Teknokrat University, Bandar Lampung, Lampung, Indonesia.

I really hope that you would like to be my respondent in this research by giving the needed information. All the information that I got will be used to this research only which will be useful for Second Language Acquisition.

Thanks for your contribution.

Personal Identity

1. Name   : ....

2. Gender   : ....

3. Address   : ....

4. Age   : ....

5. Email & Phone   : ....

<u>**Multiple Intelligences Inventory**</u>

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<u>**Part I**</u>

Complete each section by placing a "1" next to each statement you feel accurately describes you. If you do not identify with a statement, leave the space provided blank. Then total the column in each section.

Section 1

_____ I enjoy categorizing things by common traits

_____ Ecological issues are important to me

_____ Classification helps me make sense of new data

_____ I enjoy working in a garden

_____ I believe preserving our National Parks is important

_____ Putting things in hierarchies makes sense to me

_____ Animals are important in my life

_____ My home has a recycling system in place

_____ I enjoy studying biology, botany and/or zoology

_____ I pick up on subtle differences in meaning

_____ TOTAL for Section 1

Section 2

_____ I easily pick up on patterns

_____ I focus in on noise and sounds

_____ Moving to a beat is easy for me

_____ I enjoy making music

_____ I respond to the cadence of poetry

_____ I remember things by putting them in a rhyme

_____ Concentration is difficult for me if there is background noise

_____ Listening to sounds in nature can be very relaxing

_____ Musicals are more engagingto me than dramatic plays

_____ Remembering song lyrics is easy for me

_____ TOTAL for Section 2

Section 3

_____ I am known for being neat and orderly

_____ Step-by-step directions are a big help

_____ Problem solving comes easily to me

_____ I get easily frustrated with disorganized people

_____ I can complete calculations quickly in my head

_____ Logic puzzles are fun

_____ I can't begin an assignment until I have all my "ducks in a row"

_____ Structure is a good thing

_____ I enjoy troubleshooting something that isn't working properly

_____ Things have to make sense to me or I am dissatisfied

_____ TOTAL for Section 3

Section 4

_____ It is important to see my role in the "big picture" of things

_____ I enjoy discussing questions about life

_____ Religion is important to me

_____ I enjoy viewing art work

_____ Relaxation and meditation exercises are rewarding to me

_____ I like traveling to visit inspiring places

_____ I enjoy reading philosophers

_____ Learning new things is easier when I see their real world application

_____ I wonder if there are other forms of intelligent life in the universe

_____ It is important for me to feel connected to people, ideas and beliefs

_____ TOTAL for Section 4

Section 5

_____ I learn best interacting with others

_____ I enjoy informal chat and serious discussion

_____ The more the merrier

_____ I often serve as a leader among peers and colleagues

_____ I value relationships more than ideas or accomplishments

_____ Study groups are very productive for me

_____ I am a "team player"

_____ Friends are important to me

_____ I belong to more than three clubs or organizations

_____ I dislike working alone

_____ TOTAL for Section 5

Section 6

_____ I learn by doing

_____ I enjoy making things with my hands

_____ Sports are a part of my life

_____ I use gestures and non-verbal cues when I communicate

_____ Demonstrating is better than explaining

_____ I love to dance

_____ I like working with tools

_____ Inactivity can make me more tired than being very busy

_____ Hands-on activities are fun

_____ I live an active lifestyle

_____ TOTAL for Section 6

Section 7

_____ Foreign languages interest me

_____ I enjoy reading books, magazines and web sites

_____ I keep a journal

_____ Word puzzles like crosswords or jumbles are enjoyable

_____ Taking notes helps me remember and understand

_____ I faithfully contact friends through letters and/or e-mail

_____ It is easy for me to explain my ideas to others

_____ I write for pleasure

_____ Puns, anagrams and spoonerisms are fun

_____ I enjoy public speaking and participating in debates

_____ TOTAL for Section 7

Section 8

_____ My attitude effects how I learn

_____ I like to be involved in causes that help others

_____ I am keenly aware of my moral beliefs

_____ I learn best when I have an emotional attachment to the subject

_____ Fairness is important to me

_____ Social justice issues interest me

_____ Working alone can be just as productive as working in a group

_____ I need to know why I should do something before I agree to do it

_____ When I believe in something I give more effort towards it

_____ I am willing to protest or sign a petition to right a wrong

_____ TOTAL for Section 8

Section 9

_____ Rearranging a room and redecorating are fun for me

_____ I enjoy creating my own works of art

_____ I remember better using graphic organizers

_____ I enjoy all kinds of entertainment media

_____ Charts, graphs and tables help me interpret data

_____ A music video can make me more interested in a song

_____ I can recall things as mental pictures

_____ I am good at reading maps and blueprints

_____ Three dimensional puzzles are fun

_____ I can visualize ideas in my mind

_____ TOTAL for Section 9

Part II

Now carry forward your total from each section and multiply by 10 below :

Section	Total Forward	Multiply	Score
1		x 10	
2		x 10	
3		x 10	
4		x 10	
5		x 10	
6		x 10	
7		x 10	
8		x 10	
9		x 10	

Part III

Now plot your scores on the bar graph provided :

100									
90									
80									
70									
60									
50									
40									
30									
20									
10									
0	Sect 1	Sect 2	Sect 3	Sect 4	Sect 5	Sect 6	Sect 7	Sect 8	Sect 9

Part IV

Key:

Section 1 – This reflects your Naturalist strength

Section 2 – This suggests your Musical strength

Section 3 – This indicates your Logical strength

Section 4 – This illustrates your Existential strength

Section 5 – This shows your Interpersonal strength

Section 6 – This tells your Kinesthetic strength

Section 7 – This indicates your Verbal strength

Section 8 – This reflects your Intrapersonal strength

Section 9 – This suggests your Visual strength

Remember :

- Everyone has all the intelligences!

- You can strengthen each intelligence!

- This inventory is meant as a snapshot in time - it can change!

- MI is meant to empower, not label learners!

APPENDIX B

Indonesian Version

Inventaris Strategi Belajar English Grammar

Petunjuk

Kuesioner strategi belajar English grammar ini disusun untuk mengumpulkan informasi terkait cara belajar mahasiswa tahun kedua, Sastra Inggris Teknorat, Lampung. Silahkan isi biodata terlebih dahulu, kemudian dihalaman berikutnya bacalah setiap pernyataan dengan hati-hati. Pilihlah satu dari 4 pilihan yang paling mencerminkan diri anda dalam belajar grammar. Tidak ada jawaban benar atau salah untuk setiap respon anda. Berikut adalah kriteria dalam merespon setiap pernyataan.

- **4. Selalu**, berarti anda selalu atau hampir selalu melakukan aktifitas yang tergambar dalam pernyataan.

- **3. Sering,** berarti hampir lebih dari 50% anda melakukan aktifitas yang tergambar dalam pernyataan.

- **2. Terkadang,** berarti kurang dari 50% anda melakukan aktifitas yang tergambar dalam pernyataan.

- **1. Tidak pernah,** berarti anda tidak pernah melakukan aktifitas yang tergambar dalam pernyataan.

Biodata Responden

Nama   : ....

Jenis kelamin   : ....

Alamat   : ....

Usia   : ....

Email & Telp   : ....

Strategi Belajar Grammar	Tidak pernah	Ter kadang	Sering	Selalu
1. Saya menghubungkan antara grammar yang baru dipelajari dengan pengetahuan grammar yang sudah diketahui.	1	2	3	4
2. Saya mempraktekkan grammar yang baru dipelajari dalam kalimat, konteks/situasi, dialog, dan gambar agar memudahkan dalam mengingatnya.	1	2	3	4
3. Saya mengingat grammar dengan menggambarnya dalam sebuah gambar atau diagram.	1	2	3	4
4. Saya membayangkan struktur grammar dalam pikiran saat mempelajarinya.	1	2	3	4
5. Saya mengingat dimana saya melihat atau mendengar pertama kali struktur grammar yang baru dipelajari.	1	2	3	4
6. Saya mengulas/mempelajari grammar secara teratur.	1	2	3	4
7. Saya belajar dengan mengkombinasikan suara, gambar, nada, kebisingan suara, dan pengulangan untuk mengingat struktur grammar	1	2	3	4

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yang baru dipelajari.				
8. Saya mengucapkan atau menuliskan dan mengekspresikan struktur grammar yang baru dipelajari secara berulang-ulang untuk melatihnya.	1	2	3	4
9. Saya menggunakan kata-kata yang tak asing untuk belajar grammar.	1	2	3	4
10. Saya yakin struktur grammar yang baru dipelajari akan lebih bermanfaat jika dilihat/didengar dalam konteks yang berbeda.	1	2	3	4
11. Saya suka memperhatikan struktur grammar ketika berkomunikasi diluar kelas.	1	2	3	4
12. Saya menggunakan buku referensi grammar untuk memudahkan dalam memahami nya.	1	2	3	4
13. Saya menulis catatan dikelas saat dosen menjelaskan struktur grammar baru.	1	2	3	4
14. Saya suka belajar grammar dengan mempelajari langsung dari kalimat atau paragraf secara keseluruhan.	1	2	3	4
15. Saya mengingat stuktur grammar yang sering diulang dalam teks bacaan.	1	2	3	4
16. Jika saya mendapatkan struktur grammar	1	2	3	4

baru yang digunakan dikelas, saya akan langsung menulisnya.				
17. Saya menggaris-bawahi, meng-"highlighted", mewarnai atau memberi kode dengan huruf kapital untuk mempertegas bagian penting dari struktur dan penjelasan grammar.	1	2	3	4
18. Saya mencari persamaan dan perbedaan antara struktur grammar di Bahasa Inggris dengan Bahasa Indonesia.	1	2	3	4
19. Saya mencoba memahami apa yang saya dengar atau baca tanpa menerjemahkannya ke Bahasa Indonesia.	1	2	3	4
20. Saya penasaran dan membandingkan tentang konsep sruktuktur grammar di Bahasa Inggris dengan Bahasa Indonesia.	1	2	3	4
21. Ketika dosen saya memperbaiki kesalahan grammar, saya mendengarkan koreksi tersebut dan mengulang hasil koreksiannya	1	2	3	4
22. Saya membangun sendiri pemahaman tentang bagaimana struktur grammar bekerja, meskipun terkadang saya harus mengubah pemahaman tersebut berdasarkan struktur	1	2	3	4

grammar yang baru dipelajari.				
23. Saya mempelajari atau mengidentifikasi terlebih dahulu struktur grammar dari sebuah topik yang akan saya pelajari dikelas.	1	2	3	4
24. Saya belajar untuk mengaplikasikan struktur grammar bersama teman atau keluarga.	1	2	3	4
25. Saya merubah dalam kata-kata sendiri untuk menulis rumus atau aturan dari struktur grammar yang baru dipelajari, karena hal tersebut membantu saya memahami grammar lebih baik.	1	2	3	4
26. Saya mengingat bagaimana struktur grammar berubah bentuk (contoh: dari kata benda ke kata sifat, dari kata sifat ke kata keterangan).	1	2	3	4
27. Saya membandingkan ucapan dan tulisan saya dengan orang yang lebih mahir untuk melihat bagaimana saya dapat mengembangkannya.	1	2	3	4
28. Saat menghadapi kesulitan dalam menulis atau berbicara saya akan melihat langsung struktur grammar secara langsung.	1	2	3	4
29. Ketika seseorang berbicara, saya mencoba	1	2	3	4

berkonsentrasi pada apa yang dikatakan dan bagaimana dia mengatakannya.				
30. Saya memutuskan diawal untuk fokus pada cara bagaimana penutur asli menggunakan struktur grammar tertentu.	1	2	3	4
31. Saya menyusun catatan dengan baik untuk menyimpan informasi tentang struktur grammar yang dipelajari.	1	2	3	4
32. Saya mencoba menandai kesalahan grammar saya dan mencari tahu penyebabnya.	1	2	3	4
33. Saya melakukan latihan soal grammar dirumah.	1	2	3	4
34. Saya bertanya ke orang lain untuk memeriksa tentang pemahaman atau penggunaan grammar tertentu sudah benar atau belum.	1	2	3	4
35. Saya bertanya ke orang lain untuk memperbaiki struktur grammar saya.	1	2	3	4
36. Saya berdiskusi tentang struktur grammar tertentu dengan pembelajar lain atau penutur asli.	1	2	3	4
37. Ketika saya berbicara dan menulis dengan penutur asli, saya mencoba untuk	1	2	3	4

memberitahunya, ketika saya memiliki kesulitan dengan struktur grammar tertentu.				
38. Jika saya mengerti struktur grammar tertentu biasanya saya mampu menjelaskannya ke orang lain.	1	2	3	4
39. Saya belajar dari kesalahan grammar orang lain.	1	2	3	4
40. Saya yakin mengalihkan antara pemahaman tentang apa yang seseorang katakan dan fikirkan tentang grammar yang mereka gunakan adalah mudah.	1	2	3	4
41. Ketika saya belajar struktur grammar baru, saya akan membandingkannya dengan struktur Bahasa Indonesia.	1	2	3	4

Apakah anda memiliki strategi belajar grammar lainnya? Jika ya, jelaskan.

_____

_____

_____

_____ Terimakasih Atas Partisipasi Anda _____

English Version

L2 Grammar Learning Strategy Inventory

Instructions

This L2 grammar learning strategy inventory is composed to collect information about how second year university students at English Letter, Teknokrat University, Lampung, Indonesia learn grammar lessons. Please, complete the personal identity then read carefully the next pages. You must rate yourself by checking (Always, Often, Sometimes, Never) from the statements. There will be no wrong or right answer. Please read these criteria below carefully.

- **4. Always**, means you <u>always or almost always</u> do the described activity in the statement.
- **3. Often,** means <u>more than 50%</u> you do the described activity in the statement.
- **2. Sometimes,** means <u>less than 50%</u> you do the described activity in the statement.
- **1. Never,** means you <u>never</u> do the described activity in the statement at all

---

Personal Identity

Name : ....

Gender : ....

Address : ....

Age : ....

Email & Phone : ....

L2 Grammar Learning Strategies	Never	Sometimes	Often	Always
1. I create associations between new grammar structures and what I already know.	1	2	3	4
2. I put the new structure in a sentence, context/situation, a dialogue, and a picture so I can remember it.	1	2	3	4
3. I remember the structure by drawing a picture or diagram.	1	2	3	4
4. I visualise the new structure in my mind.	1	2	3	4
5. I remember where I first see or hear new structures.	1	2	3	4
6. I review grammar regularly.	1	2	3	4
7. I use a combination of sounds, images, pitch, loudness, and repetition to remember the new structure.	1	2	3	4
8. I say or write new grammatical constructions or expressions repeatedly to practise them.	1	2	3	4

9. I use familiar words to learn new grammar points.	1	2	3	4
10. I find it useful to hear or see a new grammar point used in different contexts.	1	2	3	4
11. I pay attention to my grammar when I communicate outside the classroom.	1	2	3	4
12. I use reference materials such as a grammar book to help me use the language or understand the structure.	1	2	3	4
13. I take notes in class when the teacher shows a new grammar point.	1	2	3	4
14. I like to learn grammar by learning a sentence or a chunk of language as a whole.	1	2	3	4
15. I notice (or remember) structures that are repeated often in the text.	1	2	3	4
16. If I notice a grammatical structure that is new to me being used in class, I write it down.	1	2	3	4

17. I underline, highlight, color-code, use different colors or capital letters to emphasize the important parts of grammar rules and explanations.	1	2	3	4
18. I look for similarities and contrasts between English grammar and the language I'm learning or using.	1	2	3	4
19. I try to understand what I have heard or read without translating it word-for word into English.	1	2	3	4
20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.	1	2	3	4
21. When my teacher corrects my grammar mistakes, I listen to the feedback and repeat the correct form.	1	2	3	4
22. I develop my own understanding of how the grammar works, even if	1	2	3	4

sometimes I have to revise my understanding based on new informations.				
23. I preview or identify key structures of the grammar subjects that will be covered before coming to the class.	1	2	3	4
24. I study grammar by applying grammar rules with a friend or a relative.	1	2	3	4
25. I paraprhase or use my own language to write the rules of a new grammar structure, because I understand them better in my own words.	1	2	3	4
26. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).	1	2	3	4
27. I compare my speech or writing with that of more proficient people to see how I can improve.	1	2	3	4

28. While writing or speaking I make the grammar up if I do not know the right structure to use.	1	2	3	4
29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.	1	2	3	4
30. I decide in advance to focus on the way native speakers use particular grammatical structures.	1	2	3	4
31. I organise my language notebook to record new information such as grammar points.	1	2	3	4
32. I try to notice my grammar errors and find out the reasons for them.	1	2	3	4
33. I do grammar exercises at home.	1	2	3	4
34. I ask other people to verify that I have understood or used a grammar structure correctly.	1	2	3	4
35. I ask other people to correct my grammar.	1	2	3	4
36. I discuss grammatical points	1	2	3	4

with other learners or native speakers.				
37. When I am talking and writing with a native speaker, I try to let him or her know when I need help with my grammar.	1	2	3	4
38. If I understand a grammar point, I can usually explain it to other people.	1	2	3	4
39. I learn from other people's mistakes.	1	2	3	4
40. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.	1	2	3	4
41. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalence in my native language.	1	2	3	4

Do you have other grammar learning strategies? If so, please explain.

_____

_____ **Thanks for your participation** _____

APPENDIX C

Grammar Test for Second Year Students of English Literature at

Teknokrat,

Bandar Lampung, Lampung, Indonesia.

| Name : |
| No. ID : |

There are 3 main sections; 30 Multiple Choice, 10 Fill in the blanks, and 10 Sentence Analysis questions.

Instructions:

1. Write your name and your ID number on the first page of the test.

2. Do all 50 questions on this test paper.

Section One: Multiple Choice (questions 1 – 30)

Instructions: Read each question carefully and choose the best answer.

1. "If the car had been repaired yesterday, our picnic would not have been canceled." The sentence means:

    a. The car was repaired yesterday but they cancelled the picnic.

    b. The car was in a good condition, then they went to picnic.

c. They cancelled the picnic because they wanted to change the car.

d. They did not go to the picnic since they had problem with the car.

2. I .... pick my friends up in my yacht if they .... spend holiday on my island.

a. will, wanting   c. would, wanted

b. will, wanted   d. would, want

3. If you .... studied hard for the test, you .... have passed it.

a. had, would   c. have, will

b. had, will   d. have, would

4. If I found your address, I ....you an invitation.

a. am going to send   c. will send

b. would send   d. would have sent

5. If he .... the first price, his mother .... happy.

a. won, will   c. wins, is

b. won, would   d. wins, will be

6. The father recommended that she .... to go to the cinema alone.

a. not   c. can't

b. is not   d. doesn't

7. My mother suggested that I .... a doctor.

a. should saw   c. must have seen

b. seeing   d. saw

8. The leader demands that we .... him like a god.

a. treats   c. treating

b. treat   d. are treated

9. Both my father...... my mother .... here.

   a. and, is   c. and, are

   b. also, are   d. or, is

10. We will take either an Indonesian language class .... an English class in the next semester.

   a. or   c. and

   b. at   d. as well

11. My mother was very tired because of doing her houseworks, ... she .... to bed earlier last night.

   a. so, went   c. otherwise, went

   b. so, goes   d. however, goes

12. The car stopped on the steet .... the little dog dashed in front of it.

   a. conversly   c. and

   b. because   d. as a result

13. I thank my friend .... helped me a lot for finishing this project.

   a. that is   c. who

   b. who is   d. which

14. The movie .... we watched last night was good.

   a. which   c. who

   b. which was   d. where was

15. I don't know .... car that is.

   a. whom   c. which has

   b. whose   d. who have

16. That's the police man .... I spoke about the stolen car.

    a. where was   c. whom

    b. what was   d. to whom

17. .... you like it or not, we must finish this project together.

    a. Whether   c. What When

    b. Wheather   d. Even though

18. These clothes which my father gives to me are old but ....

    a. beautiful   c. grubby

    b. muddy   d. tangled

19. The woman .... I wanted to see was away on vacation.

    a. who   c.whose who had

    b. whom   d. which who has

20. Almost all the people .... appear on Television wear make-up.

    a. which   c. which is

    b. who is   d. who

21. I know the woman ...... car was stolen.

    a. whose   c. who

    b. which   d. whom

22. My grandfather, ... , has decided to move to Thailand.

    a. he is retired   c. who is retired

    b. which is retired   d. was retired

23. .... you were renovating, did you hire contractors........did you do the work

    yourself?

    a. When, and   c. When, or

b. Neither, nor   d. Either, or

24. The people walked on the street .... the traffic light turned green.

    a. otherwise   c. when

    b. so   d. because

25. Knowing about the place .... she went is none of your business.

    a. when   c. which

    b. what   d. where

26. Next to the university there is a great gym .... you can work out.

    a. is where   c. in where

    b. where   d. where is

27. Motorists must be careful when they drive, ... moose are often in the road.

    a. although   c. because

    b. then   d. otherwise

28. The average person......... 21,600 times everyday.

    a. breathes   c. is breathing

    b. breathing   d. energizing

29. My mother .... me when I was cooking.

    a. is calling   c. calls

    b. is called   d. called

30. I can't afford that watch. It .... too much.

    a. expensive   c. luxurious

    b. costs   d. scarce

Section Two: Sentence analysis (The questions no 31 – 40)

Instruction: In this section, find the mistake in each sentence.

31. We <u>would</u> have <u>swam</u> in the sea if there <u>had</u> not been so many <u>sharks</u> there.

          1   2   3   4

32. If you <u>go</u> by bike <u>more</u> often, you would not <u>be</u> <u>so</u> flabby.

        1   2   3 4

33. We insisted that he <u>honours</u> the <u>terms</u> <u>of</u> <u>the</u> agreement.

            1   2 3 4

34. Mr. Jones <u>has</u> a lot of books, <u>but</u> he is <u>well informed</u> about current <u>events</u>.

        1   2   3   4

35. I <u>count</u> the calories <u>of</u> my meal every time I eat, <u>and</u> I really <u>want</u> sweet dessert.

   1   2   3   4

36. He was in <u>the other</u> room when the phone rang. As soon <u>when</u> he <u>heard</u> it, he ran

<u>to</u>

       1   2   3

<u>the front</u> room to answer it.

   4

37. My grandmother <u>gives</u> us <u>milk</u> and cookies <u>because of</u> we visit <u>her</u> at her house.

<div align="center">

1   2   3   4

</div>

38. Since all of students have done the test poorly, the teacher decided to give it again

     1   2   3

in order to help their final score

        4

39. Marry and Jane like their teacher a lot, but they especially like her when she

              1   2   3

teaches art.

  4

40. The students look very happily after visiting their favorite place that they wanted

to visit.   1   2   3   4

Section Three: Essay/Fill in the blank (Questions 41 - 50)

Instructions: In this section, write the answer in the blank space.

41. If I .... enough time, I write my parents a letter every week.

42. My brother .... buy a sport car if he had the money.

43. It is absolutely essential for the handiccaped to .... special access.

44. He .... to bed immediately lastnight .... he felt so sleepy.

45. We saw several movies .... we were in New York.

46. Compare margarine, which is an edible oil, with butter, ... is made from milk.

47. The pen .... on the table is yours.

48. Ana and Andi realized that Joe was still waiting at the train station .... they were on the bus.

49. .... she rarely brings the ball back, my dog loves to play fletch.

50. My father .... three children and I am his only son.

APPENDIX D

Students' Journal

Name _____   No ID   _____

What was the grammar lesson that you have learned ?

_____

How did you feel about learning that grammar lesson? Difficult or easy? Why?

_____

How do you remember the grammar point?

_____

How do you understand the grammar point?

_____

How do you prepare for grammar test?

_____

What are you thingking of when you are listening the teacher's explanation?

_____

APPENDIX E

Guided Questions for the Semi-structured Interview

1. Do you think learning grammar is important? Why?

2. How do you learn L2 grammar lessons in the class? Memorizing, practising or others?

3. Does the teacher explanation help when studying L2 grammar? Why?

4. What is the most difficult part in learning L2 grammar lessons?

5. Can you understand the grammar lessons by yourselves? Why?

6. If you do not understand particular grammar points, will you ask your teacher directly or discuss with your friend who is higher proficiency than you ?

7. Do you like to focus on meaning or structures/patterns while you are in L2 grammar class? Why?

8. How do you solve the problems?

APPENDIX F

Oxford & Lee's Study

1. Strategies used by learners who are oriented to meaning but occasionally shift attention to form
1. I notice (or remember) structures that cause me problems with meaning or communication.
2. I notice (or remember) structures that are highlighted in the text by italics, boldface, underlining, starring, circling, color-coding, etc
3. I notice (or remember) structures that are repeated often in the text.
4. I notice that are emphasized orally, through pitch, loudness, or repetition.
5. I notice (remember) structures that are repeated extremely frequently in a short time period.
6. I notice (remember) a structure which, when I encounter it, causes me to do something, like check a box or underline the structure.
7. When I do not know the gender of noun, I quickly consider clues like sound, meaning and form.
8. I pay attention to how more proficient people say things and then imitate.
9. I work with others to reconstruct the input text in a 'dictagloss' activity.
10. I keep a notebook of new structures that seem very important or frequent.
11. I notice when someone gives me a corrected version of what I said, listen to how that version differs from my own, and try to improve what I said.
12. I compare my speech or writing with that of more proficient people to see how I can improve.
2. Explicit-inductive L2 grammar learning
13. Based on all possible clues, I try to discover the underlying rule.
14. I participate in rule-discovery discussion in the class.
15. I write down structures on note cards so that I can think about how they work.
16. I keep a notebook of examples of any structure for which I am trying to discern the rule.

17. I create my own hypotheses about how target structures operate and then check my hypotheses.

18. I notice when the teacher leads me into an overgeneralization error, and then I think about what went wrong (garden path technique).

19. I participate in written brainstorming about possible underlying rules.

20. I check with others who are more proficient to make sure my rule interpretation is correct.

21. After discovering a rule, I try to apply it as soon as possible in a meaningful context.

22. I listen carefully for any feedback the teacher gives me about structures I use (metalinguistic feedback).

3. Explicit-deductive L2 grammar learning

23. I preview the lesson to identify the key structures to be covered.

24. I pay attention to the rule that the teacher or the book provides.

25. I try to apply the rule carefully and accurately in specific sentences.

26. I make up new sentences using the rule.

27. I check my new sentences (or ask for help) to see if I understand the rule.

28. I memorize rules about frequently used linguistic forms/structures (for example, verb endings, singular/plural, noun-pronoun agreement, subject-verb agreement).

29. I memorize how structures change their forms (for instance, from a noun to an adjective, from an adjective to an adverb).

30. I color-code different grammar categories in my notebook.

31. I work with a study partner to apply grammar rules.

32. I schedule my grammar reviews by massing them closely at first, then spreading them out.

33. I pharaphrase rules I am given, because I understand them better in my own words.

34. I make grammar information by location on a page in the book.

35. I use newly learnt rules/structures in context as soon as possible.

APPENDIX G

Kemp's Strategic Processing in Grammar Learning

A. Memory for grammar
When learning new grammar . . .
1. I create associations between new grammar structures and what I already know.
2. I put the new structure in a sentence so I can remember it.
3. I remember the structure by drawing a picture or diagram.
4. I visualise the new structure in my mind.
5. I remember where I first see or hear new structures.
6. I review grammar regularly.
7. I use a combination of sounds and images to remember the new structure.
B. Thinking about grammar
8. I say or write new grammatical constructions or expressions repeatedly to practise them.
9. I use familiar words in different combinations to make new sentences.
10. I find it useful to hear or see a new grammar point used in different contexts.
11. I attend to my grammar when I communicate outside the classroom.
12. I use reference materials such as a grammar book to help me use the language.
13. I take notes in class when the teacher shows a new grammar point.
14. I like to learn grammar by learning a sentence or a chunk of language as a whole.
15. I seem to say or write the right grammar without really thinking about it.
16. If I notice a grammatical structure that is new to me being used in class, I write it

down.

C. Analysis of grammar

---

17. I work out the meaning of a word by dividing it into parts I understand.

---

18. I look for similarities and contrasts between English grammar and the language I'm learning or using.

---

19. I try to understand what I have heard or read without translating it word-forward into English.

---

20. I am cautious about transferring grammatical concepts from English to the language I'm learning or using.

---

21. I look for grammatical patterns in the language.

---

22. I develop my own understanding of how the grammar works, even if sometimes I have to revise my understanding based on new information.

D. Communicating using grammar

---

23. When I understand all the words I read or hear but cannot understand the overall meaning, I guess by using any clue I can find, for example, clues from the context or situation.

---

24. I read without looking up every unfamiliar grammatical construction.

---

25. If I am speaking and cannot think of the right expression, I use gestures or switch back into English momentarily.

---

26. I ask the other person to tell me the right way to say something if I cannot think of it in a conversation.

---

27. When I cannot think of the correct expression to say or write, I find a different way to express the idea; for example, I use a synonym or describe the idea.

---

28. I make the grammar up if I do not know the right structure to use.

E. Organising grammar learning

---

29. When someone is speaking the language, I try to concentrate both on what the person is saying and how they are saying it.

30. I decide in advance to focus on the way native speakers use particular grammatical structures.

31. I organise my language notebook to record new information such as grammar points.

32. I try to notice my grammar errors and find out the reasons for them.

F. Using grammar with other people

33. If I understand the words individually, but not the overall meaning, I ask the speaker to slow down, repeat or clarify what was said.

34. I ask other people to verify that I have understood or used a grammar structure correctly.

35. I ask other people to correct my grammar.

36. I discuss grammatical points with other learners or native speakers.

37. When I am talking with a native speaker, I try to let him or her know when I need help with my grammar.

38. If I understand a grammar point I can usually explain it to other people so they understand.

39. I find it easy to spot other people's errors when they write in the language.

40. I find it natural to switch between understanding what someone is saying and thinking about the grammar they use.

APPENDIX H

Gurata's Strategy Types of Grammar Learning Strategies

1. When I learn a new grammar structure, I try to associate it with other structures that I already know.

2. When I learn a new grammar structure, I try to classify it under a group of similar things (e.g. verbs, tenses, etc).

3. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalent in my native language.

4. When I see a new grammar structure, I use the context/situation, the dialogue, or the picture in order to understand its meaning.

5. When I see a new grammar structure, I examine the parts of that structure.

6. When I see a new grammar structure, I try to infer the rules about that structure.

7. If I do not understand my teacher's explanation of a new structure, I ask him/her to repeat.

8. If I do not understand my teacher's explanation, I ask my friends for help.

9. I take notes when my teacher explains a new grammar structure (e.g. I write down the meaning and the usage of the structure).

10. I use my own language to write the rules of a new grammar structure.

11. I underline, use different colors or capital letters to emphasize the important parts of grammar rules and explanations.

12. I draw charts for the grammar rules I learn.

13. I think about the situations in which I can use the newly learnt grammar structures.

14. I say a new grammar structure to myself several times in order to memorize it.

15. I try to notice the new grammar structures that appear in a listening or a reading text.

16. I review the grammar structures I learn regularly.

17. I do grammar exercises at home.

18. I use grammar books in order to review or better understand new grammar structures.

19. I preview the grammar subjects that will be covered before coming to class.

20. I determine the grammar structures that I have trouble with and make an effort to improve them.

21. I examine the mistakes which my instructor has marked.

in a written assignment, and try to correct them.

22. I ask my teacher questions about his/her corrections of

my grammatical mistakes.

23. I study grammar with a friend or a relative.

24. I write one or two sentences using the new grammar.

structure so that I can remember that structure.

25. I remember a new grammar structure by thinking of its location in the book (e.g. in the picture or in the dialogue), in my notebook, or on the board.

26. I remember a new grammar structure by thinking of the context/situation it was used in.

27. I try to practice a new grammar structure in speaking or writing.

28. I write e-mails, letters or compositions in order to practice newly learnt grammar structures.

29. I try to combine the new structure with my previous knowledge to express new ideas or to make longer sentences.

30. I pay attention to grammar rules when I speak or write.

31. I try to notice my grammar mistakes and find out the reasons for them.

32. I ask good speakers of English to correct my grammar when I talk.

33. When my teacher corrects my grammar mistake, I repeat the correct form.

34. While writing or speaking if I am not sure of a grammar structure, I try to use another one.

35. I encourage myself to speak English even when I am afraid of making a grammar mistake.

APPENDIX I

Indonesian Version

Survei Cara Belajar Grammar

Jawablah pertanyaan berikut ini sesuai dengan pengalaman anda saat belajar English grammar. Tidak ada jawaban yang salah atau benar karena pertanyaan dibawah ini bersifat opini.

----

1. Bagaimana anda belajar English grammar dikelas? Misal melalui hafalan, berdiskusi dengan teman, latihan soal atau cara lain? Tolong jelaskan secara singkat.

   _____

2. Bagaimana anda <u>mengingat</u> grammar points yang baru diajarkan dikelas?

   _____

3. Bagaimana anda <u>memahami</u> grammar points yang baru diajarkan dikelas?

   _____

4. Jika anda memiliki kesulitan saat belajar grammar points apa yang anda lakukan untuk mengatasi kendala tersebut?

   _____

English Version

The Survey of L2 Grammar Learning Strategies

Answer these following questions according to your English grammar learning experiences. Remember, there will be no wrong or correct answers .

----

1. How do you learn grammar lessons in your English class? For instances, memorizing, discussing with your classmates, exercising in grammar questions, other ways? Please describe briefly.

   _____

2. How do you <u>memorize</u> new learnt grammar lessons in your class?

   _____

3. How do you <u>understand</u> new learnt grammar lessons in your class?

   _____

4. If you have difficulties when learning grammar lessons, how do you overcome the difficulties?

   _____

APPENDIX J

Table of Specifications

Students: University Students (year II)

Purpose: Pretest of Grammar knowledge

Response types: Multiple Choice (MC), essay, and analysing sentences

Scoring: 1 point for correct; 0 point for incorrect

Time: 60 minutes

Adapted from: Azar, B.S.(2006). *Understanding and Using English Grammar*. New Jersey. Prentice Hall Regents

Topics	MC	Essay	Analysing Sentences
1. Conditional Sentences	8	3	2
2. Subjunctive in Noun Clause	5	2	1
3. Compound Sentences	6	2	2
4. Complex Sentences	7	2	2
5. Simple Sentences	4	1	3
Total Question	30	10	10
Grand Total	50		

APPENDIX K

Item Analysis

ชื่อสถาบัน	มหาวิทยาลัย เทคโนโลยีสุรนารี					
ชื่อวิชา	203461 Indonesian					
ชื่อผู้สอน					วันที่พิมพ์ 5 พฤศจิกายน 2558	

จำนวนผู้สอบ	30	คะแนนต่ำสุด(Min)	9	ค่ามัธยฐาน(Median)	15.000	ค่าเฉลี่ย DIFF index	0.430
กลุ่มสูง	8	คะแนนสูงสุด(Max)	25	ค่าเบี่ยงเบนมาตรฐาน(S.D)	4.794	ค่าเฉลี่ย DISC index	0.303
กลุ่มต่ำ	8	คะแนนเฉลี่ย(Mean)	16.467	ค่าความเชื่อมั่น KR-20	0.673	SEM-20	2.740
จำนวนข้อสอบ	40	ฐานนิยม (Mode)	12	ค่าความเชื่อมั่น KR-21	0.593	SEM-21	3.057

สรุปคุณภาพของข้อสอบ

ข้อสอบที่ดี ควรเก็บไว้ ได้แก่
    1. ข้อที่ค่อนข้างง่าย อำนาจจำแนกดี   มี 6 ข้อ ได้แก่ข้อ
1 9 13 17 29 40
    2. ข้อที่ยากง่ายปานกลาง อำนาจจำแนกดี   มี 9 ข้อ ได้แก่ข้อ
4 7 14 15 21 22 25 26 28
    3. ข้อที่ค่อนข้างยาก อำนาจจำแนกดี   มี 7 ข้อ ได้แก่ข้อ
10 16 19 20 30 35 36

ข้อสอบที่ควรปรับปรุงได้แก่
    1. ข้อที่ง่ายมาก อำนาจจำแนกดี   มี 2 ข้อ ได้แก่ข้อ
11 18
    2. ข้อที่ยากมาก อำนาจจำแนกดี   มี 1 ข้อ ได้แก่ข้อ
38
    3. ข้อที่ความยากปานกลาง อำนาจจำแนกไม่ดี   มี 2 ข้อ ได้แก่ข้อ
23 39

ข้อสอบที่ควรตัดทิ้ง ได้แก่
    1. ข้อที่ยากมากหรือง่ายมาก อำนาจจำแนก ไม่ดี   มี 6 ข้อ ได้แก่ข้อ
2 3 8 27 32 37
    2. ข้อที่ไม่มีอำนาจจำแนก (0)   มี 7 ข้อ ได้แก่ข้อ
5 6 12 24 31 33 34
    3. ข้อที่อำนาจจำแนกเป็นลบ (-)   ไม่มี

		สถาบัน	มหาวิทยาลัย เทคโนโลยีสุรนารี				
		วิชา	203461 Indonesian				
		ผู้สอน				วันที่พิมพ์ 5 พฤศจิกายน 2558	

		จำนวนผู้ตอบ			ค่าความยาก	ค่าอำนาจจำแนก	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory)
ข้อที่	เฉลย	กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ	(p) (Delta)	(r)	วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
1	1	0	0	0	0.000 0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	1	3	4	0.313 0.000	0.375	คำตอบลวง ค่าอำนาจการจำแนกใช้ได้
	3	1	0	0	0.063 0.000	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	*4	6	11	4	0.625 11.700	0.250	ข้อที่คนทั่วไปง่าย ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	Oth	0	0	0	0.000 0.000	0.000	
2	1	0	2	0	0.000 0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	0	1	0	0.000 0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	*3	8	11	7	0.938 6.700	0.125	ข้อที่ง่ายมาก ค่าอำนาจการจำแนกต่ำ (ข้อที่ง่ายมาก) *
	4	0	0	1	0.063 0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000 0.000	0.000	
3	*1	2	6	1	0.188 16.600	0.125	ข้อเฉลย ค่าอำนาจการจำแนกต่ำ (ข้อเฉลย) *
	2	0	1	2	0.125 0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	3	0	0	0	0.000 0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	6	7	5	0.688 11.100	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000 0.000	0.000	
4	1	0	2	1	0.063 0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	*2	7	1	2	0.563 12.200	0.625	ข้อดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	3	1	10	3	0.250 0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	4	0	1	2	0.125 0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000 0.000	0.000	
5	1	8	6	6	0.875 7.900	-0.250	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	0	2	1	0.063 0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	0	5	1	0.063 0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	*4	0	1	0	0.000 0.000	0.000	ข้อที่ยากมาก ไม่มีค่าอำนาจการจำแนก (วิเคราะห์ไม่ได้) *
	Oth	0	0	0	0.000 0.000	0.000	
6	*1	0	0	0	0.000 0.000	0.000	ข้อที่ยากมาก ไม่มีค่าอำนาจการจำแนก (วิเคราะห์ไม่ได้) *
	2	0	0	1	0.063 0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	7	11	6	0.813 0.000	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	1	3	1	0.125 17.700	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000 0.000	0.000	
7	1	1	6	3	0.250 0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	2	0	3	2	0.125 0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	*3	6	3	2	0.500 13.000	0.500	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	4	1	2	1	0.125 17.700	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000 0.000	0.000	

* ข้อความในวงเล็บเป็นการวิเคราะห์จากค่า Delta (Chung Ten Fan 27%)
โดยมีการกระจายเป็นโค้งปกติและมีนักเรียนเท่ากับหรือมากกว่า 100 คน

ฝ่ายประมวลผลและข้อมูลบัณฑิต ศูนย์บริการการศึกษา   หน้าที่ 1

สถาบัน มหาวิทยาลัย เทคโนโลยีสุรนารี
วิชา 203461 Indonesian
ผู้สอน

ข้อที่	เลือก	จำนวนผู้ตอบ			ค่าความยาก (p)	(Delta)	ค่าอำนาจจำแนก (r)	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory) วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
		กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ				
8	1	1	2	3	0.250	0.000	0.250	คำตอบถวง ค่าอำนาจการจำแนกพอใช้
	* 2	1	2	0	0.063	0.000	0.125	ข้อที่ยากมาก ค่าอำนาจการจำแนกต่ำ (วิเคราะห์ไม่ได้) *
	3	5	7	5	0.625	11.800	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	4	1	3	6	0.063	0.000	-0.125	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
6	1	0	3	2	0.125	0.000	0.250	คำตอบถวง ค่าอำนาจการจำแนกพอใช้
	2	0	2	0	0.000	0.000	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	* 3	8	8	4	0.750	9.500	0.500	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	4	0	1	2	0.125	0.000	0.250	คำตอบถวง ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
10	* 1	5	4	1	0.375	14.500	0.500	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	2	0	3	1	0.063	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	3	3	7	6	0.563	0.000	0.375	คำตอบถวง ค่าอำนาจการจำแนกใช้ได้
	4	0	0	0	0.000	0.000	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
11	* 1	8	10	5	0.813	8.800	0.375	ข้อที่ง่ายมาก ค่าอำนาจการจำแนกดี (ข้อที่ง่ายมาก) *
	2	0	0	1	0.063	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	3	0	4	1	0.063	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	4	0	0	1	0.063	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
12	1	0	1	1	0.063	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	2	2	4	1	0.188	16.600	-0.125	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	* 3	5	9	5	0.625	11.800	0.000	ข้อที่ค่อนข้างง่าย ไม่มีค่าอำนาจการจำแนก (ข้อที่ยากพอดี) *
	4	1	0	1	0.125	17.700	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
13	1	1	4	3	0.250	0.000	0.250	คำตอบถวง ค่าอำนาจการจำแนกพอใช้
	2	0	1	0	0.000	0.000	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	* 3	7	7	5	0.750	10.300	0.250	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	4	0	2	0	0.000	0.000	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
14	* 1	6	11	2	0.500	13.000	0.500	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	2	1	1	1	0.125	17.700	0.000	คำตอบถวง ไม่มีค่าอำนาจการจำแนก
	3	1	1	2	0.188	0.000	0.125	คำตอบถวง ค่าอำนาจการจำแนกต่ำ
	4	0	1	3	0.188	0.000	0.375	คำตอบถวง ค่าอำนาจการจำแนกใช้ได้
	Oth	0	0	0	0.000	0.000	0.000	

* ข้อความในวงเล็บเป็นการวิเคราะห์จากค่า Delta (Chung Ten Fan 27%)
โดยมีการกระจายเป็นโค้งปกติและให้นักเรียนเท่ากับหรือมากกว่า 100 คน

สถาบัน มหาวิทยาลัย เทคโนโลยีสุรนารี
วิชา 203461 Indonesian
ผู้สอน

ข้อที่	เลือก	จำนวนผู้ตอบ			ค่าความยาก		ค่าอำนาจจำแนก	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory)
		กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ	(p)	(Delta)	(r)	วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
15	1	2	2	3	0.313	0.000	0.125	คำตอบลวง ค่าอำนาจจำแนกต่ำ
	* 2	6	10	2	0.500	13.000	0.500	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	3	0	2	3	0.188	0.000	0.375	คำตอบลวง ค่าอำนาจการจำแนกใช้ได้
	4	0	0	0	0.000	0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
16	1	2	11	6	0.500	0.000	0.500	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	2	0	3	0	0.000	0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	3	1	0	1	0.125	17.700	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	* 4	5	0	1	0.375	14.500	0.500	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	Oth	0	0	0	0.000	0.000	0.000	
17	* 1	7	5	4	0.688	10.900	0.375	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกดี (ข้อที่ยากพอดี) *
	2	0	5	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	0	2	2	0.125	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	4	1	2	1	0.125	17.700	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
18	* 1	8	10	5	0.813	8.800	0.375	ข้อที่ง่ายมาก ค่าอำนาจการจำแนกดี (ข้อที่ง่ายมาก) *
	2	0	1	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	0	3	0	0.000	0.000	0.000	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	0	0	2	0.125	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
19	1	1	5	5	0.375	0.000	0.500	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 2	6	2	0	0.375	0.000	0.750	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกดีมาก ('วิเคราะห์ไม่ได้') *
	3	1	5	2	0.188	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	4	0	2	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
20	1	0	5	3	0.188	0.000	0.375	คำตอบลวง ค่าอำนาจการจำแนกใช้ได้
	2	3	1	1	0.250	15.900	-0.250	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	3	2	4	3	0.313	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	* 4	3	4	1	0.250	15.900	0.250	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	Oth	0	0	0	0.000	0.000	0.000	
21	* 1	6	6	1	0.438	13.800	0.625	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	2	0	2	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	1	2	3	0.250	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	4	1	4	3	0.250	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	

* ข้อความในวงเล็บเป็นการวิเคราะห์จากค่า Delta (Chung Ten Fan 27%) โดยมีการกระจายเป็นโค้งปกติและมีนักเรียนเท่ากับหรือมากกว่า 100 คน

ฝ่ายประมวลผลและพัฒนาคุณภาพบัณฑิต ศูนย์บริการการศึกษา

หน้าที่ 3

สถาบัน. มหาวิทยาลัย เทคโนโลยีสุรนารี
วิชา 203461 Indonesian
ผู้สอน.

ข้อที่	เลือก	จำนวนผู้ตอบ กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ	ค่าความยาก (p)	(Delta)	ค่าอำนาจจำแนก (r)	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory) วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
22	1	0	2	1	0.063	0.000	0.125	คำตอบถูก ค่าอำนาจการจำแนกต่ำ
	2	1	2	1	0.125	17.700	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	* 3	7	9	2	0.563	12.200	0.625	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	4	0	1	4	0.250	0.000	0.500	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
23	1	3	5	4	0.438	0.000	0.125	คำตอบถูก ค่าอำนาจการจำแนกต่ำ
	2	1	3	1	0.125	17.700	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	* 3	4	4	3	0.438	13.700	0.125	ข้อที่ดี ค่าอำนาจการจำแนกต่ำ (ข้อที่ยากพอดี) *
	4	0	3	0	0.000	0.000	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
24	1	4	4	2	0.375	14.300	-0.250	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	2	0	1	0	0.000	0.000	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	* 3	3	9	3	0.375	14.500	0.000	ข้อที่คนทำถูกมาก ไม่มีค่าอำนาจการจำแนก (ข้อที่ยากพอดี) *
	4	1	0	3	0.250	0.000	0.250	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
25	1	0	8	4	0.250	0.000	0.500	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	2	0	0	0	0.000	0.000	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	3	0	2	3	0.188	0.000	0.375	คำตอบถูก ค่าอำนาจการจำแนกใช้ได้
	* 4	8	4	1	0.563	11.700	0.875	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	Oth	0	0	0	0.000	0.000	0.000	
26	1	0	6	2	0.125	0.000	0.250	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	* 2	7	2	2	0.563	12.200	0.625	ข้อที่ดี ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	3	0	1	2	0.125	0.000	0.250	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	4	1	5	2	0.188	0.000	0.125	คำตอบถูก ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
27	1	4	4	2	0.375	14.300	-0.250	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	2	1	4	2	0.188	0.000	0.125	คำตอบถูก ค่าอำนาจการจำแนกต่ำ
	* 3	2	4	1	0.188	16.600	0.125	ข้อที่ยากมาก ค่าอำนาจการจำแนกต่ำ (ข้อที่ยากมาก) *
	4	1	2	3	0.250	0.000	0.250	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
28	* 1	6	8	3	0.563	12.400	0.375	ข้อที่ดี ค่าอำนาจการจำแนกดี (ข้อที่ยากพอดี) *
	2	0	1	0	0.000	0.000	0.000	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	3	1	2	0	0.063	0.000	-0.125	คำตอบถูก ไม่มีค่าอำนาจการจำแนก
	4	1	3	5	0.375	0.000	0.500	คำตอบถูก ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	

สถาบัน มหาวิทยาลัย เทคโนโลยีสุรนารี
วิชา 203461 Indonesian
ผู้สอน

วันที่พิมพ์ 5 พฤศจิกายน 2558

ข้อที่	เลือก	จำนวนผู้สอบ			ค่าความยาก		ค่าอำนาจจำแนก	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory)
		กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ	(p)	(Delta)	(r)	วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
29	1	1	1	1	0.125	17.700	0.000	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	0	9	1	0.063	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	3	0	1	1	0.063	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	* 4	7	3	5	0.750	10.300	0.250	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	Oth	0	0	0	0.000	0.000	0.000	
30	1	1	3	3	0.250	0.000	0.250	ค่าตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 2	5	8	1	0.375	14.500	0.500	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกดีมาก (ข้อที่ยากพอดี) *
	3	1	0	2	0.188	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	4	1	3	2	0.188	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
31	1	1	3	3	0.250	0.000	0.250	ค่าตอบลวง ค่าอำนาจการจำแนกพอใช้
	2	3	1	2	0.313	15.000	0.125	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	* 3	1	1	1	0.125	17.700	0.000	ข้อยากมาก ไม่มีค่าอำนาจการจำแนก (ข้อที่ยากมาก) *
	4	3	9	2	0.313	15.000	-0.125	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
32	1	3	6	1	0.250	15.900	-0.250	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	1	0	3	0.250	0.000	0.250	ค่าตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 3	2	5	1	0.188	16.600	0.125	ข้อที่ยากมาก ค่าอำนาจการจำแนกพอใช้ (ข้อที่ยากมาก) *
	4	2	3	3	0.313	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
33	1	1	1	2	0.188	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	2	4	1	1	0.313	15.200	-0.375	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	* 3	1	7	1	0.125	17.700	0.000	ข้อที่ยากมาก ไม่มีค่าอำนาจการจำแนก (ข้อที่ยากมาก) *
	4	2	5	4	0.375	0.000	0.250	ค่าตอบลวง ค่าอำนาจการจำแนกพอใช้
	Oth	0	0	0	0.000	0.000	0.000	
34	1	2	3	3	0.313	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	* 2	2	1	2	0.250	15.700	0.000	ข้อที่ค่อนข้างยาก ไม่มีค่าอำนาจการจำแนก (ข้อที่ยากพอดี) *
	3	1	2	1	0.425	17.700	0.000	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	3	6	2	0.313	15.000	-0.125	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
35	1	2	6	4	0.375	0.000	0.250	ค่าตอบลวง ค่าอำนาจการจำแนกพอใช้
	2	0	3	1	0.063	0.000	0.125	ค่าตอบลวง ค่าอำนาจการจำแนกต่ำ
	* 3	3	4	1	0.250	15.900	0.250	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	4	3	1	2	0.313	15.000	-0.125	ค่าตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	

สถาบัน มหาวิทยาลัย เทคโนโลยีสุรนารี
วิชา 203461 Indonesian
ผู้สอน.

ข้อที่	เฉลยฯ	จำนวนผู้ตอบ			ค่าความยาก		ค่าอำนาจจำแนก	ตามทฤษฎีการทดสอบแบบดั้งเดิม(Classical Test Theory)
		กลุ่มสูง	กลุ่มกลาง	กลุ่มต่ำ	(p)	(Delta)	(r)	วิจารณ์ตามค่าสถิติแบบอิงกลุ่ม
36	1	2	0	-1	0.375	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 2	4	8	3	0.375	14.300	0.250	ข้อที่ค่อนข้างยาก ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	3	2	4	1	0.188	16.600	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	0	2	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
37	1	3	3	1	0.250	15.900	-0.250	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	2	0	8	5	0.313	0.000	0.625	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 3	2	2	1	0.188	16.600	0.125	ข้อที่ยากมาก ค่าอำนาจการจำแนกต่ำ (ข้อที่ยากมาก) *
	4	3	1	1	0.250	15.900	-0.250	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	
38	1	0	5	2	0.125	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 2	2	4	0	0.125	0.000	0.250	ข้อที่ยากมาก ค่าอำนาจการจำแนกปานกลาง (วิเคราะห์ไม่ได้) *
	3	4	4	3	0.438	13.700	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	4	2	1	3	0.313	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
39	1	2	3	3	0.313	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	2	2	2	1	0.188	16.600	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	* 3	4	9	5	0.438	13.700	0.125	ข้อที่ดี ค่าอำนาจการจำแนกต่ำ (ข้อที่ยากพอดี) *
	4	0	0	1	0.063	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	Oth	0	0	0	0.000	0.000	0.000	
40	1	0	0	2	0.125	0.000	0.250	คำตอบลวง ค่าอำนาจการจำแนกพอใช้
	* 2	6	6	4	0.625	11.700	0.250	ข้อที่ค่อนข้างง่าย ค่าอำนาจการจำแนกปานกลาง (ข้อที่ยากพอดี) *
	3	1	6	2	0.188	0.000	0.125	คำตอบลวง ค่าอำนาจการจำแนกต่ำ
	4	1	2	0	0.063	0.000	-0.125	คำตอบลวง ไม่มีค่าอำนาจการจำแนก
	Oth	0	0	0	0.000	0.000	0.000	

จำนวนผู้สอบ	30	คะแนนต่ำสุด(Min)	9	ค่ามัธยฐาน(Median)	15.00
กลุ่มสูง	8	คะแนนสูงสุด(Max)	25	ค่าเบี่ยงเบนมาตรฐาน(S.D)	4.79
กลุ่มต่ำ	8	คะแนนเฉลี่ย(Mean)	16.46	ค่าความเชื่อมั่น KR-20	0.673
จำนวนข้อสอบ	40	ฐานนิยม(Mode)	12	ค่าความเชื่อมั่น KR-21	0.593

* ข้อความในวงเล็บเป็นการวิเคราะห์จากค่า Delta (Chung Ten Fan 27%)
โดยมีการกระจายเป็นโค้งปกติและมีนักเรียนเท่ากับหรือมากกว่า 100 คน

ฝ่ายประมวลผลและข้อมูลบัณฑิต ศูนย์บริการการศึกษา   หน้าที่ 6

CURRICULUM VITAE

Anjas Asmara was born on February 26th, 1987 in Lampung, Indonesia. He received his Bachelor's Degree in English Literature from University of Ahmad Dahlan, Yogyakarta, Indonesia. In 2012, he obtained his Master's Degree in Marketing Management from University of Lampung, Indonesia. He has been working in a number of Indonesian local and national TV stations as a news anchor since 2006. Also, he worked in several multinational companies with the last position was a supervisor area in Lampung province. A part of his interest in TV broadcasting, in 2014 he decided to pursue his second Master's Degree in English Language Studies at the School of Foreign languages, Institute of Social Technology, Suranaree University of Technology because he wanted to gain more knowledge about language and learning theories. His interests include teaching methodology which accommodate individual learning differences such as Multiple Intelligence Theory.