ENHANCING THINKING SKILLS IN THAI EFL LEARNERS THROUGH STERNBERG'S TRIARCHIC THEORY INTEGRATED IN ENGLISH GRAMMAR INSTRUCTION

BY

SAOWALUK WONGRAT

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS (ENGLISH LANGUAGE STUDIES)

DEPARTMENT OF ENGLISH

FACULTY OF LIBERAL ARTS

THAMMASAT UNIVERSITY

ACADEMIC YEAR 2025

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was approved as partial fulfillment of the requirements for the degree of Master of Arts

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ABSTRACT

Effective thinking skills, crucial for success in today's dynamic world, empower learners to analyze information critically, solve problems creatively, and make informed decisions. However, Thai middle/high school students often face challenges developing these skills within language classrooms. This study investigated the effectiveness of incorporating Sternberg's Triarchic Theory of Intelligence (Sternberg, 1985) into grammar instruction provided to a group of 21 ninth-graders enrolled in Basic English 5 at a leading public school in Bangkok, Thailand, in 2021. Data collection included a researcher-developed Thinking Skills Test developed from O-NET (2015-2018) and PISA 2018 (OECD, 2018) test content, classroom observations of grammar instruction utilizing the four-stage lesson plan, an attitude survey, and semi-structured interviews. Findings revealed that participants perceived the Critical-Analytical aspect of the Triarchic Theory as particularly beneficial for their grammar learning. They expressed highly positive attitudes towards this type of thinking and somewhat positive attitudes towards Creative and Practical thinking. The study suggests that integrating thinking skills can enhance language learning, fostering a connection between grammar and other language skills.

These results offer valuable insights for developing English language curricula in middle schools and contribute to research exploring the interdependence of thinking skills and language education for young learners.

Keywords: Sternberg's Triarchic Theory, Grammar instruction with integrated thinking skills, Thai EFL learners

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TABLE OF CONTENTS

	Page
ABSTRACT	(1)
ACKNOWLEDGEMENTS	(3)
LIST OF TABLES (If any)	(8)
LIST OF FIGURES (If any)	(9)
LIST OF ABBREVIATIONS (If any)	(10)
CHAPTER 1 INTRODUCTION	1
1.1 Background	1
1.2 Defining Problems	2
1.3 Purpose of the study	4
1.4 Significance of the Study	5
1.5 Definition of Terms	8
CHAPTER 2 REVIEW OF LITERATURE	9
2.1 Approaches to Teaching English Grammar	9
2.2 Triarchic Theory as Intelligence	13
2.3 Approaches to Teaching English Grammar	17
2.4 Integrating Triarchic Theory in Grammar Instruction	20
2.5 Four-Stage Lesson Plan as a Framework for Effective Learning/Teaching	25
2.5.1 Do Now	31
2.5.2 Purpose	31
2.5.3 Work Mode	32

2.5.4 Reflective Thinking 33

CHAPTER 3 RESEARCH METHODOLOGY 37

3.1 Research Context, and the Course 37
3.2 Participants 37
3.3 Research Approach 37
3.4 Data Sources 38
3.5 Research Instruments 38
3.5.1 Instruments for Quantitative Data 38
3.5.1.1 Thinking-Skills Test 38
3.5.1.2 Researcher-Developed Questionnaire 41
3.5.1.3 Student Attitude Questionnaire 41
(1) Participant Background 41
(2) Opinions on Triarchic Thinking 41
(3) Suggestions for Future Use 42
3.5.1.4 Four-Stage Lesson Plan 42
3.5.2 Instruments for Qualitative Data 45
3.5.2.1 Semi-Structured Interviews 45
3.5.3 Teaching and Research Procedure 46
3.6 Data Analysis
3.6.1 Quantitative Data Analysis 47
3.6.2 Qualitative Data Analysis 47

CHAPTER 4 RESULTS AND DISCUSSION 48

4.1 Finding of Research Question One 48
4.2 Finding of Research Question Two 51

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS 60

5.1 Conclusions 60
5.2 Recommendations 61

REFERENCES 65

APPENDICES

APPENDIX A 75
APPENDIX B 76
APPENDIX C 77
APPENDIX D 85
APPENDIX E 87
APPENDIX F 88
APPENDIX G 99
APPENDIX H 100
APPENDIX I 106
APPENDIX J 107
APPENDIX K 108
APPENDIX L 111
APPENDIX M 112
APPENDIX N 115
APPENDIX O 117
APPENDIX P 118
APPENDIX Q 119
APPENDIX R 120

BIOGRAPHY 123

LIST OF TABLES

Tables	Page
2.1 Assignment/Tasks Relating to Three Ways of Thinking Which Each Time Students Choose to Do Only One of Their Preferred Thinking Styles: Present Simple Topic	24
2.2 Assignment/Tasks Relating to Three Ways of Thinking Which Each Time Students Choose to Do Only One of Their Preferred Thinking Styles: Present Continuous Topic	24
2.3: Application of Gagné's Nine Events of Instruction in English Grammar Lessons	26
2.4: Phases of the BSCS 5E Instructional Model with Grammar Instruction Examples	28
2.5: Mapping Sutawong's 4-Stage Learning Cycle to Wilson's Core Lesson Plan Components	30
3.1 Example of pre-post Thinking-Skills Test for ninth-grade students	39
3.2 Thinking Activities / Learning Tasks According to Triarchic Theory Applied to Student Instruction and Assessment Methods	43
3.3 Five-stage teaching and research procedure	46
4.1 Pre-test and Post-test scores of Thinking Skills Test	48
4.2 Comparison of pre-test and post-test scores with independent samples t-test	49
4.3 Comparison of pre-test and post-test scores classified by thinking type	49
4.4 Participants' attitudes toward Critical-Analytical Thinking Skills	37
4.5 Participants' attitude toward Creative Thinking Skills	38
4.6 Participants' attitude toward Practical Thinking Skills	40

LIST OF FIGURES

Figures	Page
2.1 Components of the Triarchic Theory	14
2.2 Four-Stage Lesson plan	34
3.1 One-page (daily) four-stage lesson plan	44
4.1 Percentage of students showing their level of thinking-skill ability during the study classified by three ways of thinking	50

LIST OF ABBREVIATIONS

Symbols/Abbreviations	Terms
OECD	Organisation for Economic Co-operation and Development

CHAPTER 1
INTRODUCTION

> Thinking is skilled work. It is not true that we are naturally endowed with the ability to think clearly and logically - without learning how and without practicing.
>
> (Mander, 1947)

1.1 Background

In today's rapidly changing world, effective thinking skills are crucial for success. These skills enable individuals to analyze information critically, solve problems creatively, and make sound decisions. Developing thinking skills has long been a central goal of education (Arango et al., 2018; Báez, 2004; Nold, 2017). Thailand's Basic Education Core Curriculum (Ministry of Education, 2008) emphasizes the importance of thinking across subjects, aiming to foster learners who are analytical, synthetic, and critical thinkers. Thinking skills are particularly important for language learners. While fluency in conversation is important, a strong grasp of English grammar is a crucial foundation for effective communication and lifelong learning (Richards, 2001). Grammar provides the framework for constructing clear and concise sentences, ensuring messages are understood as intended (Ellis & Johnson, 1994). It goes beyond rote memorization of rules; it equips learners with the ability to analyze language structures, identify errors, and ultimately, express themselves with greater accuracy and sophistication (Nation, 2008).

Effective grammar instruction in the classroom can foster critical thinking skills in Thai middle school students. This is especially important as they navigate learning a new language's structures alongside developing critical thinking (Alibmat & Ayassrah, 2017, Petraki & Hill, 2011). Integrating Robert Sternberg's Triarchic Theory of Human Intelligence (Sternberg, 1985) offers a promising approach. Aligning with cognitive teaching methods, this theory proposes three intelligences: analytical (analyzing components), creative (applying knowledge in new ways), and practical (using knowledge in real-world contexts) (Sternberg & Swerling, 1996;

Vinney, 2020). What makes this theory valuable is its emphasis on applying knowledge in real-world contexts.

Building on this perspective, incorporating the Triarchic Theory into grammar instruction allows educators to move beyond rote memorization and engage students in higher-order thinking tasks that are both linguistically and cognitively enriching (Sternberg, 1985; Sternberg & Swerling, 1996). For instance, analytical intelligence can be developed through tasks such as identifying and correcting grammatical errors, while creative intelligence is activated when students are encouraged to write stories or dialogues using target structures in imaginative contexts (Vinney, 2020). Practical intelligence, in turn, is fostered through role-plays or problem-solving scenarios where learners must use grammar accurately in realistic, meaningful situations (Sternberg & Grigorenko, 2000). Such instructional strategies not only enhance grammar comprehension but also cultivate transferable thinking skills, aligning with Thailand's educational goal of producing more independent and critical learners (Ministry of Education, 2008). By integrating Sternberg's framework, grammar instruction becomes a vehicle for cognitive growth, helping middle school students develop essential skills for academic success and real-world communication.

1.2 Defining Problems

In the current Thai education system, English is a core subject taught from an early age through secondary school, with increasing emphasis on communicative competence in national curricula. Despite this, many Thai students continue to struggle with English proficiency, particularly in grammar usage, which remains one of the weakest skill areas. A key issue lies in the traditional approach to grammar instruction, which is often dominated by rote memorization, teacher-centered lectures, and repetitive drills aimed at exam preparation rather than genuine language use. As a result, students tend to view grammar as a set of rigid rules to be memorized rather than as a meaningful system for communication. This method not only limits learners' ability to apply grammar in real-life situations but also fails to develop essential cognitive and critical thinking skills. Studies have highlighted that such passive instructional practices hinder learners' motivation, engagement, and ability to transfer

grammatical knowledge into productive language skills (Khamkhien, 2010; Noom-Ura, 2013). There is a growing need for more learner-centered, cognitively engaging grammar instruction that aligns with 21st-century learning goals.

To overcome the ongoing issues in grammar instruction within Thai EFL classrooms, it is necessary to adopt more interactive and cognitively engaging teaching methods that promote both language proficiency and higher-order thinking. One effective strategy is to incorporate Sternberg's Triarchic Theory of Intelligence, which supports the development of analytical, creative, and practical skills through targeted instructional design (Sternberg, 1985; Sternberg & Swerling, 1996). This approach encourages students to move beyond rote memorization by analyzing language patterns (analytical), applying grammar in imaginative contexts (creative), and using structures effectively in real-life situations (practical). Unlike conventional grammar instruction focused solely on accuracy and repetition, this model fosters meaningful language use and deeper cognitive engagement (Noom-Ura, 2013; Alibmat & Ayassrah, 2017). By integrating grammar into tasks that involve critical thinking, collaboration, and problem-solving, teachers can create student-centered classrooms that develop transferable skills. These theoretical principles can be effectively implemented through Sutawong's (2018) 4-Stage Learning Cycle, which includes: Do Now, a warm-up or engagement task that activates prior knowledge and sparks curiosity; Purpose, where the teacher introduces clear learning goals and grammar points in context; Work Mode, the main instructional phase where learners practice grammar through analytical tasks, creative language production, or practical role-play; and finally, Reflective Thinking, where students review their learning, identify areas for improvement, and make connections to real-world use. By embedding grammar instruction within this structured yet flexible framework, educators can promote critical thinking, collaboration, and independent language use. This instructional shift not only strengthens grammar proficiency but also supports Thailand's educational priorities of cultivating self-directed, reflective learners equipped with 21st-century skills (Ministry of Education, 2008; Trilling & Fadel, 2009).

However, two limitations hinder the application of the Triarchic Theory in English language learning research. One is the lack of research in lower secondary

education. While the theory has been explored in various contexts (Begley, 1992; Zhang & Sternberg, 2000), few studies investigate its application within the four-stage lesson plans (Do Now, Purpose, Work Mode, Reflective Thinking) common in this age group (Graham et al., 2017). This gap is significant because lower secondary students are at a crucial stage for building foundational language skills (Larsen-Freeman, 2013). Integrating the Triarchic Theory within these familiar structures could enhance learning by fostering critical thinking alongside grammar acquisition.

Another even more critical research gap exists regarding student attitudes towards grammar learning through the Triarchic Theory's three thinking modes (analytical, creative, and practical). While research explores general student attitudes towards grammar (MacIntyre, 1999; Oxford, 1990), few studies examine student perceptions of, and willingness to engage with, grammar exercises designed to specifically target these thinking skills (Yang & Wu, 2018). Understanding student attitudes towards this approach is crucial to gauge its potential success and inform the design of future grammar instruction.

Therefore, integrating the Triarchic Theory into learning management through well-structured lesson plans could be highly beneficial for educational systems (Sternberg, 1999a; Sternberg & Swerling, 1996). This study consequently explores the potential of Robert Sternberg's Triarchic Theory of Intelligence (Sternberg & Swerling, 1996) to develop analytical, creative, and practical thinking skills in intermediate English grammar learners specifically within the framework of a four-stage lesson plan. This research is guided by two key questions:

1.2.1 To what extend do students improve their grammar learning after participating in the English grammar instruction informed by the Triarchic Theory?

1.2.2 What are students' attitudes towards learning English grammar informed by the Triarchic Theory?

The findings offer a lens for investigating how these specific thinking skills can be fostered within the context of English grammar learning.

1.3 Purpose of the study

The purpose of this study is to explore the potential of Robert Sternberg's Triarchic Theory of Intelligence (Sternberg & Swerling, 1996) to develop analytical, creative, and practical thinking skills in intermediate English grammar learners specifically within the framework of a four-stage lesson plan. This study had two purposes:

1. To investigate to what extend students improve their grammar learning after participating in the English grammar instruction informed by the Triarchic Theory.

2. To explore students' attitudes towards learning English grammar informed by the Triarchic Theory.

1.4 Significance of the Study

The study of enhancing thinking skills in Thai EFL (English as a Foreign Language) learners through Sternberg's Triarchic Theory integrated into English grammar instruction is significant for several reasons:

1.4.1 Holistic Cognitive Development

Integrating Sternberg's Triarchic Theory, which includes analytical, creative, and practical intelligence, into English grammar instruction helps develop a well-rounded cognitive skill set in learners (Sternberg, 1985, 1997). This approach fosters not only language proficiency but also critical thinking, problem-solving, and creativity (Sternberg & Grigorenko, 2000), encouraging learners to engage with language on multiple cognitive levels.

1.4.2 Improved Language Proficiency

Using a multifaceted approach to grammar instruction can enhance language acquisition. By engaging analytical, creative, and practical thinking, students can better understand and apply grammatical rules, leading to more effective communication skills in English (Richards & Rodgers, 2014; Sternberg, 1999a). This aligns with communicative language teaching principles, which emphasize understanding form through meaningful use.

1.4.3 Cultural Relevance

For Thai EFL learners, incorporating a theory that acknowledges different types of intelligence can make learning more relevant and engaging. This tailored approach respects cultural differences in learning styles and cognitive preferences (Hofstede, 2001; Wongsothorn et al., 2002), potentially increasing motivation and retention.

1.4.4 Enhanced Critical Thinking Skills

Analytical intelligence, a key component of Sternberg's theory, aligns well with the logical structure of grammar. Teaching grammar through analytical exercises can improve students' ability to critically evaluate language use (Paul & Elder, 2014; Sternberg, 2006), enhancing their overall critical thinking abilities.

1.4.5 Encouragement of Creativity

Creative intelligence is fostered by allowing students to use grammar in innovative ways. This could involve creative writing exercises, language games, and other activities that stimulate imaginative use of language and flexible thinking and help learners see grammar as a tool for expression rather than just a set of rules (Cropley, 2001; Sternberg & Lubart, 1995), making learning more enjoyable and effective.

1.4.6 Practical Application

Practical intelligence focuses on the application of knowledge in real-world contexts. Teaching grammar through practical examples and real-life scenarios helps students understand the relevance of grammar in daily communication, improving their practical language skills (Sternberg et al., 2000).

1.4.7 Interdisciplinary Learning

Integrating Sternberg's theory with grammar instruction promotes interdisciplinary learning by showing how language skills intersect with broader cognitive abilities such as logic, creativity, and social reasoning (Gardner, 1999; Sternberg, 2003). This fosters a more integrated and transferable skill set.

1.4.8 Better Academic Performance

A holistic approach to teaching can lead to improved academic performance. Students who develop strong thinking skills through integrated grammar

instruction are likely to perform better in other subjects as well, benefiting their overall education due to improved reasoning, memory, and problem-solving strategies (Marzano et al., 2001; Sternberg, 2006).

1.4.9 Increased Engagement and Motivation

By addressing different types of intelligence, the integrated approach can cater to diverse learning styles. Learners are more engaged and motivated when their cognitive strengths are recognized and incorporated into instruction (Tomlinson, 2014; Sternberg, 1997).

1.4.10 Preparation for Future Challenges

Developing a range of thinking skills prepares students for real-world challenges in both academic and professional. Sternberg (1999b) emphasizes that successful intelligence—comprising analytical, creative, and practical skills—is crucial for adapting to and shaping one's environment in a globalized world.

In conclusion, the significance of this study lies in its potential to transform EFL education by integrating cognitive development with language instruction. By applying Sternberg's Triarchic Theory to English grammar teaching, educators can enhance the overall cognitive abilities of Thai EFL learners, leading to more effective language learning and broader intellectual growth. This comprehensive approach not only improves language proficiency but also prepares students for a variety of future challenges.

1.5 Definition of Terms

Sternberg's Triarchic Theory is a framework for understanding human intelligence proposed by psychologist Robert Sternberg. The theory posits that intelligence is not a single, general ability but true intellectual ability comprises three distinct components: analytical (critical), creative, and practical thinking skills.

Analytical thinking, also known as critical thinking, involves the ability to judge, evaluate, compare and contrast information, and critique language usage.

Creative thinking is the ability to think out of the box, invent, discover, imagine, suppose, and apply grammar in novel ways.

Practical thinking involves the ability to implement, use, apply, and put into practice what students have learned in real-world scenarios.

Grammar instruction with integrated thinking skills refers to an educational approach that combines the teaching of grammar with activities and exercises designed to enhance various cognitive abilities. This method goes beyond traditional grammar teaching by incorporating tasks that develop critical, creative, and practical thinking, leading to more effective and engaging learning experiences.

Thai EFL learners are students in Thailand who are studying English as a Foreign Language (EFL). EFL refers to the teaching and learning of English in countries where it is not the native language. These learners are usually studying English to use within their own country rather than in an English-speaking environment. Their reasons for learning English may include enhancing their language skills for academic achievements, advancing their careers, or pursuing personal interests.

CHAPTER 2
REVIEW OF LITERATURE

Research on "Integrating Sternberg's Triarchic Theory into grammar instruction to enhance thinking skills in Thai EFL secondary school learners", the researchers have studied articles, textbooks, documents, and related research. It consists of five main topics related to the present study, which are:

2.1 Teaching Approaches for Developing Thinking Skills

2.2 Triarchic Theory as Intelligence

2.3 Approaches to Teaching English Grammar

2.4 Integrating Triarchic Theory in Grammar Instruction

2.5 Four-Stage Lesson Plan as a Framework for Effective Learning/Teaching

2.1 Teaching Approaches for Developing Thinking Skills

Thinking skills are not innate; they are cultivated through intentional teaching design and a supportive learning atmosphere (Varthana, n.d.). Effective teaching approaches goes beyond rote memorization, encouraging students to analyze, evaluate, synthesize, and create knowledge (Mantech Publications, n.d.).

Thinking skills can be defined in many different ways. Primarily defined in psychological perspective, the term includes a number of core thinking that form the foundation for more complex cognitive processes (Pashler et al., 2007), such as attention (Santrock, 2020), memory (Baddeley, 2007), analysis (Bransford et al., 2000), problem-solving (Newell & Simon, 1972), and decision-making (Bechara et al., 1994). Such core thinking skills are closely applied to educational practice. They play a crucial role in engaging learners with new information (Adeyemi, 2017), building a deeper understanding of concepts and making connections between ideas (Facione, 1990). Effective thinking skills are also essential for transferring knowledge to new situations (Bransford et al., 2000), and empowering learners to become self-directed and think critically for themselves (Adeyemi, 2017).

In addition, the concept of human intelligence has been explored from various viewpoints. Traditionally, psychologists like Lewis Terman and Edward L. Thorndike offered distinct, binary definitions: Terman, emphasizing the ability to think abstractly, and Thorndike, focusing on learning and the ability to provide effective responses. However, modern psychologists generally agree that intelligence is about adaptation to the environment (Sternberg, 2020). This perspective suggests that intelligence is the ability to receive information, process it effectively, and generate sound solutions. As Sternberg (1990) highlights, various theories of intelligence exist, and a review of those will be the focus of this section in the context of the present study.

Several instructional approaches can foster thinking skills in the classroom. Johnston et al. (2011) categorize these approaches based on how thinking skills are developed and applied. The first is the enrichment approach, which focuses on developing general thinking skills through dedicated programs like Feuerstein Instrumental Enrichment (FIE) (Higgins, 2015). Enrichment programs provide targeted activities to enhance cognitive abilities. Another approach is infusion integrating thinking skills directly into existing curriculum content. For example, Edward de Bono's "Six Thinking Hats" framework (Higgins, 2015) encourages students to consider different perspectives while tackling a problem. The third one is the dispositional approach, aiming to cultivate a "thinking disposition" in students. By encouraging students to go beyond their perceived limitations and embrace challenges, this approach fosters a love of learning and critical thinking (Tishman & Andreade, 1995). These approaches can significantly enhance student learning by equipping them with the necessary skills to analyze information, solve problems, and think critically.

Building on these foundational approaches, several specific strategies can further cultivate thinking skills: collaborative learning is another key factor in improving cognitive skills. Through group activities, students not only gain exposure to a variety of perspectives but also face the challenge of clearly expressing their ideas and collaborating on problem-solving. Vygotsky's social development theory (1978) emphasizes the importance of social interaction in cognitive growth, asserting that learning through dialogue helps students internalize and apply new ideas effectively.

Furthermore, project-based learning (PBL) is another highly effective teaching method where students tackle real-world problems that demand both cognitive and practical problem-solving skills. According to Thomas (2000), PBL promotes deeper learning by encouraging students to actively build knowledge and apply it in relevant, real-life situations, thereby fostering a combination of analytical reasoning and creative thinking.

Moreover, metacognitive strategies—where students monitor, control, and reflect on their thinking processes—also contribute to the development of higher-order thinking skills (Flavell, 1979). Teachers can facilitate this by prompting students to think about their thinking, encouraging self-regulation and strategic decision-making in complex tasks. These metacognitive approaches can further enhance the efficacy of the enrichment, infusion, and dispositional strategies, ensuring that students not only learn content but also develop the skills to apply and reflect upon it.

Concept-based teaching is another powerful way to build thinking skills. Instead of just memorizing facts, this approach pushes students to focus on underlying concepts, leading to a deeper understanding of the subject (Schwartz, 2012). By highlighting how concepts connect, students learn to think more abstractly and organize knowledge in a way that lets them apply it in different situations. For instance, in language learning, students might explore the broader ideas of meaning, communication, and context rather than just isolated grammar rules, giving them a richer understanding of the language. This method fits well with constructivism, which suggests learning is best when students actively build knowledge through experiences (Piaget, 1973).

Inquiry-based learning also stands out as a highly effective approach for developing thinking skills. Building on the Socratic tradition, it guides students to formulate questions, delve into, and examine topics through systematic research and hands-on experimentation. This methodology places students in control of their learning journey, a factor proven to enhance both their motivation and their capacity for critical thought (Bransford et al., 2000). The act of questioning and pursuing answers ensures that students acquire not just factual knowledge but also vital competencies in problem-solving, analysis, and evaluation. Moreover, integrating this

process with real-world scenarios through project-based inquiry ensures students tackle authentic, multifaceted problems. As noted by Hannafin and Land (1997), inquiry-based learning nurtures critical and creative thinking by providing structured opportunities for students to investigate problems, compile evidence, and articulate conclusions—skills indispensable in today's information-saturated environment.

Integrating technology into the classroom is recognized as a potent way to cultivate thinking skills. Digital tools give students immediate access to vast amounts of information and enable them to collaborate with classmates globally (Jonassen et al., 2008). Technology-rich learning settings can support higher-order thinking through interactive simulations, virtual experiments, and opportunities for collaborative problem-solving. Furthermore, digital tools facilitate personalized learning paths, letting students' progress at their own speed and interact with content tailored to their learning styles. For example, using educational software to analyze grammar in real-world contexts or produce multimedia projects can uniquely deepen students' grasp and application of language skills. As Papert (1980) suggested, technology empowers learners by allowing them to create instead of just consume information, which encourages both creative and critical thinking.

Complementing other teaching strategies, critical pedagogy plays a crucial role in cultivating thinking skills. Rooted in the ideas of Paulo Freire (1970), it emphasizes developing a critical consciousness—meaning the capacity to question and challenge established ideologies and power structures. Within this pedagogical framework, students are encouraged to apply critical thought not just to academic subjects but also to their position in the world and the broader societal frameworks. By nurturing critical inquiry and self-reflection, this approach aids in making students more socially aware and intellectually self-reliant, thereby enhancing their overall cognitive development. Freire's notion of the dialogical classroom, which facilitates open discussions on societal issues, advances critical thinking by urging students to explore various perspectives and participate in substantive debates. The inherent focus on social justice and empowerment within critical pedagogy further supports the cultivation of a commitment to lifelong learning.

Lastly, promoting thinking skills involves creating a classroom environment that is both supportive and intellectually stimulating. This idea is deeply

rooted in Vygotsky's (1978) Zone of Proximal Development (ZPD) theory, which suggests students thrive when presented with challenges slightly beyond their current capabilities but achievable with the proper guidance from teachers or peers. This approach highlights the role of scaffolding, where teachers provide structured support that gradually diminishes as students become more independent. The ZPD also emphasizes the value of collaborative learning, where peer interactions are crucial for problem-solving and cognitive growth. A well-organized classroom that fosters open dialogue, debate, and inquiry cultivates a culture of critical thinking, helping students build confidence in their intellectual abilities. Moreover, when students are encouraged to share their ideas, receive feedback, and reflect on their learning, they are better able to internalize concepts and refine their critical thinking.

2.2 Triarchic Theory as Intelligence

The Triarchic Theory of Intelligence, developed by American psychologist Robert J. Sternberg, emerged as a significant alternative to traditional, psychometric approaches to intelligence (which often emphasize a single "g" or general intelligence factor). This concept of a general intelligence factor subsequently formed the basis for many standardized intelligence tests. These tests typically characterize intelligence as a fixed and measurable quality that can be assessed using psychometric techniques (Deary, 2001; Jensen, 1998). Sternberg (1985) argued that these traditional tests primarily assessed analytical capabilities, failing to capture other vital facets of intelligence crucial for real-world success. His own experience with test anxiety in elementary school, which led to a poor performance on an intelligence test and a subsequent retest, fueled his curiosity about the validity and limitations of such assessments.

Sternberg (1984) first proposed his theory in a 1984 article titled *Toward a Triarchic Theory of Human Intelligence*, published in *Behavioral and Brain Sciences Journal*, and further elaborated on it in his books *Beyond IQ: A Triarchic Theory of Human Intelligence* (1985) and *The Triarchic Mind: A New Theory of Human Intelligence* (1988b). His model represents a broader, more comprehensive understanding of intelligence by moving beyond a fixed, innate ability and proposing

a dynamic and multifaceted approach incorporating analytical, creative, and practical dimensions. This dynamic framework, as detailed in the Triarchic Theory of Human Intelligence (Sternberg, 1985), posits a unique perspective on cognitive processing. It suggests a common set of underlying mental processes that fuel all aspects of problem-solving, regardless of cultural background. While the solutions considered 'intelligent' may differ across cultures, the fundamental need to define problems and develop strategies to solve them remains universal.

The theory is comprised of three subtheories, each contributing to a distinct type of intelligence (Fig. 2.1). The first is Componential Subtheory (Analytical Intelligence). It focuses on the mental processes involved in analyzing information and solving problems effectively (Sternberg & Swerling, 1996). It essentially equips us with the critical thinking skills to evaluate situations and find solutions. The second subcategory is Experiential Subtheory (Creative Intelligence), emphasizing the ability to generate new ideas and think outside the box. It fuels our creativity and allows us to approach problems from novel perspectives (Sternberg & Swerling, 1996). Third, Contextual Subtheory (Practical Intelligence) highlights the ability to adapt to different contexts and apply our knowledge effectively in real-world situations. It's essentially our 'street smarts' that help us navigate daily life (Sternberg & Swerling, 1996).

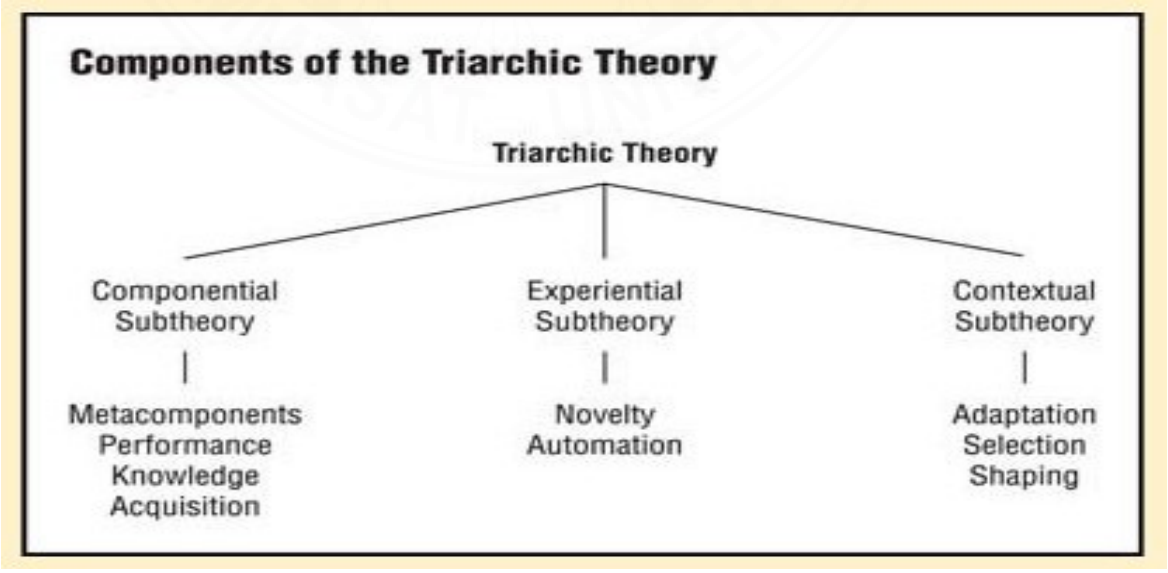

Fig. 2.1: Components of the Triarchic Theory (Sternberg, 1985, p. 109)

2.2.1 The Componential Subtheory: Analytical intelligence

The subtheory focusing on analytical intelligence—the cognitive processes involved in analyzing, evaluating, and comparing information (Sternberg, 1985). This subtheory addresses how individuals tackle well-structured problems with clear solution paths. Sternberg (1985) identified three key elements within this component: metacomponents, which are higher-order cognitive processes for planning, monitoring, and evaluating problem-solving strategies; performance components, which are the specific mental operations used to execute a solution, such as identifying patterns or applying rules; and knowledge-acquisition components, which refer to the processes involved in learning new information, including recognizing patterns and organizing knowledge. Individuals strong in analytical intelligence typically excel at tasks requiring abstract reasoning, logical problem-solving, and the application of learned knowledge to similar situations (Sternberg, 1985). While frequently emphasized in traditional assessments like IQ tests and academic exams, Sternberg highlights that analytical intelligence, though crucial, represents only one part of a complete intellectual profile.

2.2.2 The Experiential Subtheory: Creative Intelligence

It often referred to as the creative component of the Triarchic Theory, focuses on creative intelligence. It describes people who are good at coming up with new solutions and adjusting to fresh situations. This kind of intelligence is crucial for tackling ill-structured problems—those that are complex, open-ended, and lack straightforward answers. According to Sternberg (1985), this subtheory highlights the importance of both novelty and automaticity in creative problem-solving. Novelty refers to the capacity to think unconventionally and generate unique solutions to problems not encountered before, while automation or automaticity is the ability to perform tasks with minimal cognitive effort, thereby freeing up mental resources for higher-level thinking or more intricate aspects of a problem. Sternberg (1985) suggests that creative intelligence involves two kinds of tasks: insight tasks, which demand spontaneous "thinking on one's feet," and automaticity tasks, where individuals apply well-practiced skills but adapt them creatively to new contexts. For instance, in language learning, creative intelligence might appear when students

experiment with new grammatical structures or devise unique ways to express themselves. While analytical intelligence is essential for understanding established patterns and solving structured problems, creative intelligence is indispensable for adapting to novel situations and thinking flexibly. In educational environments, cultivating creative intelligence can help students move beyond rigid thinking and encourage innovative solutions to both academic and real-world challenges by incorporating creative tasks, such as brainstorming sessions, design thinking exercises, or project-based learning.

2.2.2 The Contextual Subtheory: Practical Intelligence

This subtheory, often called practical intelligence, highlights our ability to effectively navigate, adapt to, and influence real-world environments. It involves using personal knowledge and experience to solve everyday problems, make good decisions, and respond to changing social, cultural, or situational demands (Sternberg, 2003). This intelligence includes three key abilities (adaptation, selection, shaping): adapting to new conditions, selecting environments that align with your strengths and goals, and shaping your environment to better fit your needs. Practical intelligence is closely tied to tacit knowledge—the kind learned through experience rather than formal schooling—making it especially valuable in unclear or unpredictable situations like relationships or workplace challenges (Sternberg, 1985). Even though it is important, practical intelligence is often missed by traditional education, which usually favors analytical reasoning and standardized tests. However, including real-world tasks like group projects, simulations, or community-based learning can help develop practical intelligence, giving students crucial life and problem-solving skills beyond the classroom.

Sternberg's Triarchic Theory, by integrating analytical, creative, and practical intelligences, offers a complete approach to developing intelligence in education. To cultivate well-rounded students capable of thriving in diverse situations, it's vital to address all three aspects of intelligence. For instance, project-based learning (PBL) and collaborative activities can effectively combine them: Analytical intelligence grows through structured problem-solving and critical thinking tasks (Sternberg, 1985). Creative intelligence is nurtured through assignments that encourage novel solutions and abstract thinking (Sternberg, 1997). Practical

intelligence is developed through real-world applications, simulations, or activities requiring students to navigate social and environmental challenges (Sternberg et al., 2000).

These subtheories, though distinct, are interrelated. They represent three crucial aspects of intelligence: the Internal World, referred to as an individual's mental processes and cognitive abilities, the External World, which is the environment and context in which an individual operates, and the Experience of the Individual, considering how an individual's past experiences influence their approach to problems (Sternberg, 1985). These interconnected sub-categories allow individuals to leverage all three types of intelligence – analytical, creative, and practical – depending on the specific situation they face. By incorporating all three parts of Sternberg's Triarchic Theory, educators help students develop a balanced set of skills—not just for academic achievement, but also for creativity, adaptability, and practical problem-solving in various situations.

2.3 Approaches to Teaching English Grammar

Effectively teaching English grammar involves a thoughtful balance between different approaches . While traditionally, the focus was on rote memorization of rules or grammar-translation method (Richards, 2001), more innovative approaches emphasize communication and active learning, known as communicative language teaching or CLT (Littlewood, 2014).

In Grammar-Translation Method, teachers tended to focus on explicit grammar rules and their translation equivalents in the target language. Students practice drills and exercises to memorize rules and sentence structures (Richards, 2001). Unlike this traditional approach, Communicative Language Teaching (CLT) emphasizes communication and using language in real-world context. Grammar is taught implicitly through meaningful tasks and activities that encourage students to use the language functionally (Littlewood, 2014). As a result, a number of teachers try to find success by combining elements of both traditional and more innovative approach. For instance, in English for Secretaries, teachers might explicitly introduce

a grammar rule before having students practice it through communicative activities. This provides a clear foundation while fostering practical application.

There are two more interesting approaches to grammar instruction. It has been debated whether grammar should be taught through a deductive or inductive approaches. Deductive approaches present the rule first, followed by example. However, inductive approaches lead students to discover the rule through examples (Thornbury, 1999). Teachers can choose the approach that best suits their students and learning objective. Also, the Technology-Assisted Learning approach accounts grammar instruction. Online platforms and interactive exercises can supplement traditional grammar instruction and provide engaging practice opportunities (Chapelle, 2015).

These various instructional methods often combine or lead to more integrated approaches, such as Task-Based Language Teaching (TBLT). TBLT centers on the completion of meaningful, real-world tasks, like planning a trip or solving a mystery, with grammar serving as a necessary tool for successful task achievement (Ellis, 2003; Nunan, 2004). Instead of presenting grammar rules in isolation before a task, TBLT typically integrates grammar instruction during or after task completion, often through a "focus on form" phase. In this stage, the teacher draws attention to specific linguistic features that may have influenced communication or could improve clarity and accuracy (Long & Robinson, 1998). This method promotes learning through discovery and contextual use, as learners become aware of their grammatical needs naturally while attempting to express meaning within authentic tasks (Skehan, 1998).

Building on the principle of integrating language with meaningful activity, Content-Based Instruction (CBI) integrates language development with the study of academic subject matter, such as history, science, or literature (Brinton, Snow, & Wesche, 1989). In this approach, the subject content itself becomes the primary vehicle for language acquisition, allowing grammar to be learned naturally as students engage with authentic materials and communicate about academic topics. Teachers may draw attention to relevant structures as they arise, helping students see grammar as a necessary tool for understanding and expressing complex ideas within the subject area (Richards & Rodgers, 2001). This approach ensures that grammar instruction is

both purposeful and contextual, supporting language acquisition through meaningful communication.

In addition to methods that integrate grammar into larger tasks or content areas, the Text-Based Approach uses authentic or semi-authentic written or spoken texts as its core learning material. This approach differs from teaching grammar in isolation by directly situating grammar within these texts, effectively "con-text-ualizing" it (Halliday & Hasan, 1985). Through this method, learners are guided to identify and analyze grammatical features as they naturally occur in language, allowing them to understand how specific structures contribute to meaning within a given text. This process helps students grasp the purpose and function of grammar more clearly than when it's taught as abstract rules.

While the Text-Based Approach encourages observation, Discovery Learning, often called "Grammar Discovery," takes this concept further. It is a highly guided form of inductive learning where teachers present language examples and then lead students to figure out the grammatical rules on their own (Darussalam & Fahrinawati, 2023). Instead of just telling students the rules, teachers offer carefully selected data, like sentences or dialogues, that naturally use the target grammar. Students then actively analyze these examples to "discover" the underlying patterns or rules. This method promotes deeper thinking and better retention because learners are directly involved in building their understanding of the grammar.

Building on the concept of discovery, Consciousness-Raising, also known as "Awareness-Raising," specifically focuses on bringing learners' explicit attention to particular linguistic features, including grammar, that they might otherwise overlook (Ellis, 1995). Activities in this approach are designed to make learners consciously aware of a specific grammatical point. This is achieved through techniques such as analyzing language, comparing different sentences, or engaging in problem-solving tasks that require them to examine how grammar operates (Smith, 2020). The immediate objective of this method is usually the recognition and comprehension of a grammatical concept, rather than its spontaneous production. This mechanism helps learners build a conscious, explicit understanding of how the language works grammatically, which can then inform and support their implicit learning and eventual production (Norris & Ortega, 2001; Lightbown & Spada, 1999).

Building upon the idea of raising awareness, Focus on Form (FonF) is a broad methodological principle that involves strategically drawing learners' attention to linguistic forms, such as grammar or vocabulary, within communicative contexts, contrasting with traditional "focus on forms" which teaches grammar in isolation (Long, 1991). In FonF, attention to form arises incidentally or strategically during communication-focused tasks, allowing grammar instruction to remain embedded in authentic language use. This may occur through teacher prompts, clarification requests, or concise explanations when learners encounter difficulties or errors (Long & Robinson, 1998). The underlying principle of FonF is that explicit attention to language form can significantly support acquisition, as long as it complements, rather than disrupts, the communicative flow and aligns with natural language learning processes.

Finally, for productive skills, the Process Approach, particularly prominent in teaching writing and speaking, views grammar primarily as a tool for effective communication rather than an isolated subject to be mastered (Byrne, 1991). For instance, in writing instruction, learners are typically guided through a series of stages—including brainstorming, drafting, revising, and editing—each serving a distinct purpose in the development of written communication. Grammatical accuracy is often addressed during the later editing phase, following earlier stages that prioritize the generation and organization of ideas (Seow, 2002; Hyland, 2003). By postponing grammar correction until the final stage, learners are encouraged to focus first on conveying meaning and developing content. This sequencing situates grammar within a meaningful context, where it serves the functional goal of refining and clarifying a communicative message rather than being treated as an isolated skill. Such an approach helps learners view grammar as a tool for enhancing the effectiveness and precision of their writing, rather than as a barrier to expression (Ferris & Hedgcock, 2014).

In classroom teaching, it could be very difficult to define the " best " approach to teaching English grammar as it depends on various factors including teacher belief, student age, level, learning styles, and curriculum objectives. However, by combining traditional and modern methods, integrating critical thinking skills, and considering innovative resources, teachers can create a well-rounded learning

experience that fosters both grammatical knowledge and the ability to use language effectively.

2.4 Integrating Triarchic Theory in Grammar Instruction

Sternberg's Triarchic Theory (Sternberg, 2001) provides a framework for integrating analytical, creative, and practical thinking into grammar lessons. These components include 3 aspects of thinking. The first is analytical thinking, where students judge, evaluate, compare and contrast information, and critique language usage (Sternberg, 2001). In teaching, teachers need to help students to achieve this aspect. After students read a passage or learn language, teachers can guide students to analyze character relationships by drawing a family tree and discussing character motivations (Sternberg, 2001). This activity combines grammar skills (e.g., past tense verbs) with critical thinking about plot and character development. In another example, teachers can encourage students' analytical thinking using comparative texts, asking them to compare and contrast different writing styles by analyzing sentence structure and vocabulary choices in various texts (Alidmat & Ayassrah, 2017). This activity encourages analytical thinking through identifying patterns and stylistic differences. The use of analytical thinking skills in grammar teaching could also be demonstrated in the study by Alidmat and Ayassrah (2017), investigating critical analysis of grammar through carefully chosen writing tasks fostering critical thinking skills in Maritime English students at Aqaba College in Jordan. Their qualitative study, using in-depth interviews with 10 final-year undergraduate students, revealed a disconnect between the writing tasks and the intended development of critical thinking skills. The tasks, the study found, focused more on mechanics than on encouraging critical thought (Alidmat & Ayassrah, 2017). Although the researchers demonstrated the benefits of critical thinking in grammar instruction for college students, applying these findings to the present study with younger learners might require further investigation. The effective use of analytical thinking could also be found in a problem-based learning (PBL) approach Chiou (2019) used in enhancing grammar competence and motivation in low-achieving English learners. This study involved 50 students divided into teams and assigned a scenario-based task related to

relative clauses. The research employed a pre-test/post-test design, classroom observation checklists, and writing assignments. The results showed a significant increase in student engagement and grammar skills in the PBL group compared to the control group. Interestingly, the study also found that student-generated solutions often emphasized employment-related aspects, potentially reflecting their real-world priorities.

In the second aspect of thinking, creative thinking, students invent, discover, imagine, and suppose, applying grammar in novel ways (Sternberg, 2001). Here teachers can incorporate a number of activities to foster students' creative thinking. Teachers can let students to write a letter describing a special event to a friend who couldn't attend, fostering empathy and creative storytelling while using specific grammatical structures (Sternberg, 2001). Also, with teachers' guidance, students brainstorm catchy headlines for a newspaper article based on a story, applying creative thinking and conciseness while considering audience engagement (Sternberg, 2001). Students can even be challenged in a problem-based approach by creating scenarios where they must apply specific grammatical structures to solve real-world challenges (Chiou, 2019). This fosters creative thinking and reinforces practical application of grammar. This focus on fostering creativity aligns well with the approach advocated by Thornbury (2007) in his book, Teaching Grammar Creatively. This practical resource offers a variety of engaging lessons and activities designed for everyday use in English language classrooms. Thornbury's (2007) aim is to stimulate students' imagination, humor, and overall creativity, ultimately enhancing the effectiveness of grammar practice. The book provides over 50 complete lessons covering a wide range of grammar structures, catering to diverse learner levels and age groups. Each lesson is structured with two main sections: Language Awareness Activities and Creative Grammar Practice (Thornbury, 2007). In addition, the study conducted by Maley and Peachey (2010) demonstrates well how creativity plays a central role in effective language learning. In this study, the researchers argue that the core of creativity lies in 'making something new'– a concept that can be readily applied to grammar instruction. One of the earliest frameworks for understanding creativity comes from Wallas (1926), who proposed a four-stage process: Preparation, Incubation, Illumination, and Verification. In the context of grammar learning, the

preparation stage involves immersing oneself in the target language structure (Sadler-Smith, 2015; Wallas, 1926).

The final aspect is practical thinking. Students implement, use, apply, and put into practice what they have learned in real-world scenarios (Sternberg, 2001). Teachers can design grammar instruction engaging students to real-world situations. For example, teachers lead student brainstorm preparations that are needed for a family reunion, considering logistics, communication, and potential problems that might require on-the-spot solutions (Sternberg, 2001). This activity integrates grammar skills with planning and problem-solving in a practical context. Role-play could also be helpful for this kind of thinking. Teachers can address students role-playing in handling everyday situations that require clear communication and grammatical accuracy, such as ordering food at a restaurant or resolving a misunderstanding (Sternberg, 2001). This practical application reinforces grammar in an interactive and relevant way. Despite limited research on applying Sternberg's Triarchic Theory (2001) to grammar instruction, particularly its emphasis on the Practical Thinking type, exploring this aspect in the classroom holds promise. While the Practical Thinking type deals with applying knowledge to future situations, its complexity makes it an area for preliminary exploration in this study. As such, we take a preliminary look at this aspect as part of the current study, examining the self-evaluation the participants revealed within the research. This initial exploration can serve as a foundation for future studies delving deeper into the application of Sternberg's Practical Thinking type in grammar teaching.

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In order to elevate a higher level of thinking skills in grammar teaching, Sternberg and Swerling (1996) stated that:

> Students learn better when they think effectively about the material they are studying (p.2). Being intelligent involves thinking well in one or more of three ways: analytically, creatively, and practically. Intelligence encompasses more than just IQ and can be developed and modified (p.7). These three modes of thinking—critical-analytic, creative, and practical—are essential for developing thinking skills in language education (p.6).

Integrating Sternberg's Triarchic Theory into an English classroom can significantly enhance students' thinking abilities in both their academic performance and practical life skills. As educators, teachers aim to optimize each student's chances of success by designing a variety of activities that allow them to explore different types of intelligence, identify their strengths, and strive to master them all (Anwar & Mumthas, 2014). Throughout the study, students participated in group work sessions where they chose their preferred thinking styles to tackle various activities. Lessons were enriched with authentic materials that were integrated into exercises, providing practical contexts for learning. To illustrate how Sternberg's Triarchic Theory can be applied in practice, the following tables present differentiated assignment choices for a 'Present Simple' and 'Present Continuous' grammar topics. Students are empowered to select one task that aligns with their preferred thinking style: analytical, creative, or practical intelligence.

Table 2.1: Assignment/Tasks Relating to Three Ways of Thinking Which Each Time Students Choose to Do Only One of Their Preferred Thinking Styles: Present Simple Topic

Topic	**Analytic**	**Creative**	**Practical**
Present Simple	**Analyze** steps you take in writing an informal letter.	**Create** an informal letter to someone who make you feel amazing.	Tell How to **apply** the Present Simple Tense used in daily

			life

Table 2.2: Assignment/Tasks Relating to Three Ways of Thinking Which Each Time Students Choose to Do Only One of Their Preferred Thinking Styles: Present Continuous Topic

Topic	**Analytic**	**Creative**	**Practical**
Present Continuous	Investigate the reading passage on page 10, then **compare** the differences between the sentences showing “an action happening now” and "a future arrangement"	**Imagine** that you are a tour guide trying to explain what is happening in a painting with role plays in which the people on the tour keep on asking more and more questions.	Tell ways / the best way to **apply** Present Continuous Tense **in practice**.

All in all, Sternberg's Triarchic Theory (2001) demonstrates the effectiveness of this approach. Effectively integrating thinking skills into grammar instruction requires considering factors like the topic, student needs, and language level. By designing engaging activities and promoting active learning, teachers can boost student motivation, enthusiasm, and most importantly, their critical thinking abilities alongside their grammatical competence. As Fisher (2008) argues, fostering thinking skills is at the heart of education, a sentiment echoed by Dewey (1966) who emphasized the development of ‘ability to think’ as a core educational objective. This study consequently investigates a promising approach to grammar instruction that can provide a strong foundation for EFL middle school learners.

2.5 Four-Stage Lesson Plan as a Framework for Effective Learning/Teaching

Lesson planning is a cornerstone of effective teaching. It provides a roadmap for educators, outlining learning objectives, teaching methods, and assessment strategies. While various lesson plan formats exist to suit diverse subjects, learning styles, and time constraints, their models share a common goal: to guide

learners through a logical progression from initial engagement to independent mastery. Three prominent models—Gagné's Nine Events of Instruction, Madeline Hunter's 7-Step Lesson Design, and the BSCS 5E Instructional Model—alongside foundational instructional concepts like Direct Instruction, the Gradual Release of Responsibility ("I Do, We Do, You Do"), and a Traditional/Basic Lesson Plan Format, all contribute to this overarching objective. At their core, effective lesson plans consistently feature Goals and Objectives, appropriate Teaching Methods, and robust Assessment (Wilson, 2021).

Gagné's Nine Events of Instruction provide a comprehensive systematic approach to instructional design, mirroring how learners process information. This model sequences learning from gaining attention and informing learners of objectives to stimulating recall of prior learning, presenting content, providing guidance, eliciting performance, giving feedback, assessing performance, and finally, enhancing retention and transfer (Center for Instructional Technology and Training, n.d.). For instance, in grammar instruction, a teacher might first capture attention with a humorous error, state the lesson's goal, activate prior tense knowledge, then deliver content supported by guided examples and corrective feedback. This multi-step process ensures support for both immediate knowledge acquisition and long-term skill development.

Table 2.3: Application of Gagné's Nine Events of Instruction in English Grammar Lessons

Event	Purpose	Example in Grammar Instruction
1. Gaining Attention	Capture interest and prepare learners to focus	Show a humorous grammar mistake or use a surprising sentence
2. Informing Learners of the Objective	Clarify the learning goal	Today we'll learn how to form and use the present perfect tense
3. Stimulating Recall of Prior Learning	Activate background knowledge	Review past tense forms or related structures previously taught
4. Presenting the Content	Introduce new material in a structured way	Explain rules for forming the present perfect (have/has + past

		participle)
5. Providing Learning Guidance	Support learning with cues and examples	Use timelines, sentence frames, and visual aids
6. Eliciting Performance	Allow students to practice the skill or knowledge	Students complete guided exercises or dialogues using the new tense
7. Providing Feedback	Reinforce correct responses and address errors	Teacher gives immediate corrections and praise during activities
8. Assessing Performance	Check student understanding formally or informally	Give a short quiz or ask students to write sentences using the tense
9. Enhancing Retention and Transfer	Help students apply knowledge in new situations	Assign real-life writing tasks or speaking activities using the structure

Note. Adapted from *Gagné's 9 events of instruction,* by the Center for Instructional Technology and Training, n.d. (https://citt.ufl.edu/tools/gagnes-9-events-of-instruction/).

Similarly, Madeline Hunter's 7-Step Lesson Design offers a structured framework for delivering effective direct instruction, emphasizing a logical flow from initiating engagement to independent application (Hunter, 1982). This model begins with an *Anticipatory Set* to engage students and activate prior knowledge, followed by clearly stating the lesson's *Objective/Purpose*. The new content is then presented through *Instructional Input* and solidified via *Modeling* a skill or process. Crucially, *Checking* for Understanding occurs frequently to assess comprehension, leading into *Guided Practice* where students apply new learning with teacher support. The lesson culminates with *Independent Practice*, allowing students to demonstrate mastery autonomously. While often presented sequentially, Hunter herself viewed these as flexible "decisions" for maximizing learning.

Complementing these structured approaches, the Direct Instruction Model (Engelmann & Carnine, 1982; Rosenshine, 2012; Stockard et al., 2020) provides a highly explicit and teacher-centered method for teaching new skills or factual information. It typically moves from an *Opening* (gaining attention, reviewing, stating objectives) to a meticulous *Presentation* of new material with modeling, followed by

Guided Practice with immediate feedback, and concluding with *Independent Practice* and a *Closing summary*. This systematic framework, with its emphasis on small steps and ample practice, is particularly effective for foundational skills and managing cognitive load to facilitate long-term memory.

In contrast, the BSCS 5E Instructional Model (BSCS, 2006; Bybee, 1997) champions a five-phase learning cycle designed to promote deep understanding through inquiry and reflection. Its phases—Engage, Explore, Explain, Elaborate, and Evaluate—guide students from sparking curiosity and activating prior knowledge (Engage), through firsthand investigation without direct instruction (Explore), to formal concept clarification (Explain), application in new contexts (Elaborate), and finally, assessment and reflection (Evaluate). For example, students might sort incorrect sentences to deduce grammar rules in the Explore phase before the teacher introduces the correct structure in the Explain phase. This inquiry-based approach fosters autonomy and the transfer of knowledge to real-world situations.

Table 2.4: Phases of the BSCS 5E Instructional Model with Grammar Instruction Examples

Phase	Purpose	Example in Grammar Instruction
Engage	Spark interest & connect to prior knowledge	Show unusual verb use and ask students to analyze it
Explore	Students discover patterns independently	Classify sentences and find grammar rules
Explain	Share findings; teacher clarifies	Discuss rules for present perfect; confirm usage
Elaborate	Apply knowledge in context	Role-play, write mini-biographies, interviews
Evaluate	Assess understanding	Exit tickets, quizzes, peer feedback

Note. Adapted from *BSCS 5E instructional model,* by BSCS Science Learning, n.d. (https://bscs.org/bscs-5e-instructional-model).

Underpinning many of these instructional models, especially the structured practice phases, is the "I Do, We Do, You Do" framework, also known as the Gradual Release of Responsibility (Pearson & Gallagher, 1983; Fisher & Frey, 2014). This powerful scaffolding model systematically shifts the learning burden from the teacher to the student. It begins with the "I Do" phase, where the teacher explicitly models a new skill; progresses to the "We Do" phase, involving collaborative guided practice with decreasing teacher support; and concludes with the "You Do" phase, where students independently apply the skill to demonstrate mastery. This flexible model ensures comprehensive understanding and skill acquisition by providing tailored support.

The Traditional/Basic Lesson Plan Format (Burden & Byrd, 2013; Ormrod, 2016) serves as a fundamental blueprint that integrates these core components. It consistently outlines clear *Objectives*, outlining the specific knowledge or skills students are expected to acquire by the lesson's end. Following this, the *Materials* section lists all necessary resources, from textbooks to technology, required for the lesson's execution. The core of the plan lies in the *Procedures/Activities*, which offer step-by-step instructions detailing the sequence of instructional actions and student engagement. Learning is then evaluated through Assessment, specifying the methods used to measure student comprehension and mastery of the objectives. Finally, *Closure* provides a concluding segment to summarize key learning points, reinforce concepts, and often connect to future lessons. This foundational template, while adaptable, ensures a logical flow and comprehensive preparation for any teaching scenario

Finally, Wilson, (2021) assets that effective lesson plans need to contain three components. The primary one is *Goals and Objectives*. This initial step defines the desired learning outcomes for the lesson. What specific knowledge, skills, or understanding should students acquire by the end? Clearly articulated objectives provide both teachers and students with a focused learning target. Another main component is *Teaching Methods*, where teachers choose the instructional strategies that will best facilitate student learning. This might involve lectures, discussions, group activities, demonstrations, or technology integration. The chosen methods should align with the learning objectives and cater to different learning styles. The

final component is *Assessment* essential for gauging student comprehension and ensuring the lesson's effectiveness. Teachers utilize various assessment tools like quizzes, projects, observations, or discussions. This feedback loop allows educators to adjust instruction and personalize learning experiences.

To implement these components in actual practice, the concepts are spelled out to a more practice use. Sutawong (2018) suggests a four-stage learning cycle consisting of Do Now, Purpose, Work Mode, and Reflective Thinking. The first stage, Do Now, is opening activity which sets the stage for learning. It might involve a quick quiz, a thought-provoking question, or a problem-solving task related to the upcoming lesson. The goal is to activate prior knowledge and pique student interest. Then, Purpose, the second stage, explicitly outlines the learning objectives for the lesson. Students clearly understand what they are expected to learn and achieve by the end of the class period. In the third stage, Work Mode, students actively engage with the new material through teacher-led instruction, independent practice, or collaborative activities. This is where the core learning takes place. The final stage, Reflective Thinking, is very important in the sense that the lesson needs to conclude with a reflective component. Students might summarize key takeaways, answer questions, or discuss their learning experience. This fosters critical thinking and metacognition (thinking about thinking) (Sutawong, 2018).

This particular model is chosen because it not only provides a practical and actionable sequence for classroom implementation but also inherently aligns with fundamental principles of effective lesson planning, such as those articulated by Wilson (2021) regarding the essential roles of clear objectives, appropriate teaching methods, and robust assessment. By using Sutawong's stages, the framework moves beyond theoretical components to offer a systematic pathway for designing lessons that are both pedagogically sound and practically executed, thereby maximizing student engagement, learning, and measurable outcomes."

Table 2.5: Mapping Sutawong's 4-Stage Learning Cycle to Wilson's Core Lesson Plan Components

Sutawong's 4-Stage Learning Cycle (2018)	Aligned Wilson's Core Components (2021)	Description and Purpose

1. Do Now	Goals and Objectives (indirectly), Assessment (formative)	This initial stage serves to quickly engage students, activate prior knowledge, and often includes a brief, low-stakes activity that can also serve as a formative check of readiness related to the lesson's upcoming objectives.
2. Purpose	Goals and Objectives	In this stage, the teacher clearly articulates the specific learning outcomes for the lesson, ensuring students understand *what* they are expected to learn and *why* it is relevant.
3. Work Mode	Teaching Methods	This is the core instructional phase where various teaching strategies (e.g., lectures, discussions, group activities, demonstrations) are implemented to facilitate student learning and achieve the stated objectives.
4. Reflective Thinking	Assessment (formative & summative), Goals and Objectives (reinforcement)	This concluding stage provides opportunities for students to consolidate learning, demonstrate understanding through various tasks, and reflect on their progress. It serves as an ongoing feedback loop and reinforces the attainment of objectives.

Note. *This table illustrates how Sutawong's (2018) four-stage learning cycle operationalizes the fundamental components of effective lesson planning as identified by Wilson (2021).*

The following elaborates on each of these crucial stages, providing insights into their practical application.

2.5.1 Do Now

The first stage is the opening activity which serves to quickly engage students, activate prior knowledge, and often includes a brief, low-stakes activity that can also serve as a formative check of readiness related to the lesson's upcoming objectives. It might involve a quick quiz, a thought-provoking question, or a problem-solving task related to the upcoming lesson. The goal is to activate prior knowledge and pique student interest. It is critical that teachers begin lessons by grabbing the attention of students and invoking students' interest. It is an activity introduced into the lesson--like the Introduction phase--which stimulates students' thinking for opening a new topic (Sarawut Sutawong, 2018, p. 9). Teachers open the discussion of focus by emphasizing that an effective lesson is framed by the standards. After discussion of the standards, teachers ask, “What were your goals for this lesson?” and “What were the students supposed to know or be able to do by the

end of the lesson?" (Clement, 2016). According to Bloom's taxonomy, Anderson and Krathwohl's revision of Bloom's taxonomy (2001), recalling and retention of knowledge become very important. It is also based on Gagne's nine levels of learning: level 1--gain attention and activate prior knowledge (1992). Teachers may have students express their thoughts from what they have learned in the last period (write/draw) for 5-10 minutes. Teachers no need to explain more, but the instructions of 'Do Now' have to be easy and clear enough (Sarawut Sutawong, 2018, p. 9). When teachers find a creative way to connect a core concept to students' prior knowledge, the brain opens up, sees meaning and is ready to place incoming information into long-term memory (Coletta, 2021).

2.5.2 Purpose

Then, the second stage, the teacher clearly articulates the specific learning outcomes for the lesson, ensuring students understand what they are expected to learn, why it is relevant, and achieve by the end of the class period. It is the stage where teachers inform students about the purpose along with reasons of study like the Presentation phrase, for example, "Today we will learn about.....because (give reasons)….." and then teachers introduce the content relating the new material to students' previous knowledge and experiences, and models examples of the tasks that will be expected of students during the 'Work Mode' or the practice phase of the lesson. Teachers can present information in either an 'Inductive' manner where examples are presented and the students draw conclusions based on them, or a 'Deductive' manner where the teacher states a rule or generalization and proceeds to explain or illustrate it (Coletta, 2021; Oxford University Press ELT, 2015), or mixed which lasts 10-15 minutes (whole phase). During the stage, teachers check intermittently students' comprehension (Sarawut Sutawong, 2018, p. 9). Variety is the key; sometimes the teacher will provide new material directly, but other times inquiry and discovery learning work well (Clement, 2016). Teachers must ensure that students know what they need to learn, and that they understand why they're about to learn this new information. The step was based on Gagne's Nine Levels of Learning: level 2--informing learners of the objective or specifying objective (1992), and explicit knowledge that can be learned by people consciously, and it can be expressed by language (Krashen,1982). A key to effective teaching of new material is

visualization, such as projecting vocabulary on the screen or creating word walls (Clement, 2016).

2.5.3 Work Mode

In the third stage, students actively engage with the new material through teacher-led instruction, independent practice, or collaborative activities. This is the core instructional phase where various teaching strategies (e.g., lectures, discussions, group activities, demonstrations) are implemented to facilitate student learning and achieve the stated objectives. It is a practice and production stage where teachers have students do activities for students to understand the content they are learning (What will the teacher ask the students to do for students to understand the content?) by using different thinking tools to make students understand more and practice thinking skills as well. The stage lasts 20-30 minutes (Sarawut Sutawong, 2018, p. 9) and includes all types of practice for students. During the stage, teachers implement assignments that focus on the development of thinking skills. Make sure practice is guided by the teacher; students need much feedback and practice (Clement, 2016). During the stage, teachers check intermittently students' comprehension (Sarawut Sutawong, 2018, p. 9). John Dewey (1938) believed that the most effective education involves learning through doing, commonly referred to as "learning by doing." Vygotsky (1978, p. 86) asserted that when a student is within the zone of proximal development for a particular task, providing appropriate assistance can significantly enhance the student's ability to complete the task. Teachers often use rubrics to evaluate the quality of completed tasks. A rubric is a set of criteria (Routman, 1995 as cited in Coletta, 2021) presented to students at the beginning of a lesson or unit, outlining what their work must include to achieve a certain grade. Clement (2016) recommended activities such as paired tasks, short discussions, and problem-solving exercises. Students might solve problems, write independently, edit peers' writing, or create something. "Think, pair, and share" activities are also beneficial, as they give students time to process information.

2.5.4 Reflective Thinking

The final stage, Reflective Thinking, is very important in the sense that the lesson needs to conclude with a reflective component. Students might summarize key takeaways, answer questions, or discuss their learning experience.

This fosters critical thinking and metacognition (thinking about thinking) (Sarawut Sutawong, 2018). It is a conclusion stage or evaluation and expansion stage where teachers ask questions or find the information from students. The examples of the question are: “What have you learned today?”; “What is one thing you have done well?”; “What is one thing you could do better next time?”; “What will you change if you do it again?”; and “What will you like to do next?” (Sarawut Sutawong, 2018, p. 9). Dewey (1933) suggests that reflective thinking is an active, persistent, and careful consideration of a belief or supposed form of knowledge, of the grounds that support that knowledge, and the further conclusions to which that knowledge leads. Learners are aware of and control their learning by actively participating in reflective thinking – assessing what they know, what they need to know, and how they bridge that gap – during learning situations. It is the processes of analyzing and making judgments about what has happened.

To implement the four-stage lesson plan as a framework the stages are presented below:

FOUR-STAGE LESSON PLAN NO. 1

Learning Area: **Foreign Languages**
Levels: **( ) Upper (X) Lower** **Grade level:** **M3**
Semester: **2 Academic Year: 2021** **(X) Foundation ( ) Additional**
Subject Code: **EN23102** **Subject: Basic English 5**
Topic: **Orientation to teaching thinking** **Time: 90 minutes**
Teacher: **Ms. Saowaluk Wongrat**

---

1. **Essential Questions:**
   ♣

2. **Learning Objectives:**
   ♣

3. **Lesson Activities:**

   <u>Do now</u> (5-10 minutes)

Purpose (10-15 minutes)

Work Mode (50-60 minutes)

Reflective Thinking (1-5 minutes)

4. **Assessment:**

♣

Figure 2.2: Four-Stage Lesson plan

While Sternberg's Triarchic Theory offers a valuable framework for understanding intelligence, its application in Southeast Asian classrooms, particularly in Thailand, appears limited. Most existing studies focus on the elementary level and subjects other than English. For instance, Poangpaiboon (1998) found that sixth graders exhibited improved thinking skills after implementing the theory. Similarly, Wiboonyodsarin (2000) reported significant enhancements in creative problem-solving and academic achievement among five elementary students when utilizing Sternberg's Triarchic Teaching Model in life experiences. Wen-Chu (2009) aimed at improving school achievement prior to higher education integrates the triarchic theory of intelligence—analytical, creative, and practical—into English writing instruction at a Taiwanese university. This approach is particularly relevant at the higher education level, where the impact of national testing decreases, and the focus shifts to developing students' critical thinking skills. It addresses university students' expectations of job market preparation post-graduation (p.1). The study demonstrates that using a creative teaching approach in creative writing sessions and emphasizing an analytical approach in essay writing towards the end of the intervention significantly enhances students' motivation to learn. This method successfully transformed students' perspectives on English writing from negative to positive in both analytical and creative groups. Liu (2009) utilized an action research methodology over three consecutive semesters to explore the implementation of Sternberg’s Triarchic Theory of Intelligence—comprising analytical, creative, and practical components—in into grammar and English writing instruction for university students in Taiwan. The initial objective was to design and apply lesson plans

addressing all three types of intelligence. However, difficulties in effectively developing lessons targeting practical intelligence prompted a refinement of the study's focus. Through structured essay writing and critical error analysis, students not only improved their academic performance but also developed more positive attitudes toward English learning. Consequently, the research redirected its inquiry toward examining and comparing the learning experiences of two student groups: one taught through analytically oriented instruction and the other through creatively focused methods. These findings support the applicability of analytical instruction in fostering higher-order thinking skills, particularly within Asian EFL environments where structured approaches can enhance both linguistic competence and learner motivation. Thammasaranyakun et al. (2012) investigated mathematical problem-solving using a combination of Sternberg's four-step model and the heuristic concept with sixth-graders. Students in the experimental group exhibited higher scores on a post-test compared to a pre-test.

However, research on the effectiveness of the four-stage learning cycle specifically for grammar acquisition in lower secondary education appears scarce, although grammar instruction remains a cornerstone of most English as a Foreign Language (EFL) programs (Ellis, 2006), This gap in knowledge presents a valuable opportunity to explore how the four-stage cycle, which typically involves activating prior knowledge, acquiring new information, applying the knowledge, and reflecting on learning (Helmich, 2001) could benefit lower secondary learners in their quest to master English grammar. Investigating its application in EFL grammar instruction, alongside the multifaceted approach offered by Sternberg's Triarchic Theory, could hold promise for promoting deeper understanding and long-term retention of grammatical concepts.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Context, and the Course

This study's research context was a leading Bangkok public school known for its academic excellence. The school serves students in grades 7 through 12, offering both a standard Thai national curriculum program and an English-medium Gifted Program. The specific course investigated was Basic English 5, a required grammar-focused course for second-semester Gifted Program students.

3.2 Participants

This study involved 21 ninth-grade students enrolled in Basic English 5 in 2021. Convenience sampling was employed to recruit willing participants whose learning records and classwork were analyzed to gain insights into their learning

experiences (Creswell, 2014). All participants were identified as Gifted Program students with a cumulative GPA exceeding 3.0 on a 4.0 scale. To supplement the data obtained from regular class participation and questionnaire responses, seven female students volunteered for qualitative interviews, allowing for richer data and detailed perspectives (Merriam, 2009).

3.3 Research Approach

This study employed a one-group pretest-posttest quasi-experimental design with mixed methods analysis (Creswell, 2014). A control group was not included due to ethical considerations. Withholding potentially beneficial instruction, such as critical thinking emphasis, from a control group would be unethical (Shadish et al., 2002).

3.4 Data Sources

Triangulation was employed to gather data from multiple sources, strengthening the research's credibility (Jick, 2014). Quantitative data were collected through a pre-test and post-test using a thinking-skills test. Additionally, a questionnaire measuring student attitudes toward being taught thinking skills based on Sternberg's Triarchic Theory was administered (Sternberg, 1985). Qualitative data were obtained through two methods: student-created mind maps and semi-structured interviews.

3.5 Research Instruments

To obtain quantitative data, we employed three instruments for quantitative data collection: a Thinking-skills test, a Student-attitude survey (toward thinking skills after the intervention), and a four-stage lesson plan (analyzed for its quantitative aspects).

3.5.1 Instruments for Quantitative Data

3.5.1.1 Thinking-Skills Test

This researcher-developed test measured students' knowledge and thinking abilities aligned with the Basic Education Core Curriculum B.E. 2551 (A.D. 2008) (Ministry of Education, Thailand, 2008). While the Ordinary National Educational Test (O-NET) from the National Institute of Educational Testing Service (2021) assesses overall academic proficiency, the current test specifically focused on thinking skills.

The test development process involved five steps. First, we developed thinking-skill-related questions from O-NET test papers from 2015 to 2018 (National Institute of Educational Testing Service, 2021), and the PISA 2018 test paper (Organisation for Economic Co-operation and Development, OECD, 2018), both standardized assessments for Grades 6, 9, and 12. Second, we also developed additional test items to complement the selected questions. Third, three applied linguistics experts with over 30 years of English teaching experience at a leading Bangkok public school assessed the test's content validity using the Index of Item-Objective Congruence (IOC) developed by Rovinelli and Hambleton (1977). Fourth, the test was revised based on the experts' feedback. Finally, the final IOC score was computed, where the IOC result of the Thinking-Skills Test was 0.9, indicated strong content validity.

To assess the participants' thinking skills, we employed a thinking rubric framework by Sternberg's Triarchic Theory of Intelligence (Sternberg, 1988a). This rubric aligned with the theory's three components. First, the Analytical Thinking involves applying intelligence to compare and contrast information, analyze complex ideas, explain reasons for events, and identify problem causes. Second, the Creative Thinking emphasizes originality and divergent thinking, this component focuses on the ability to generate new ideas, imagine possibilities, and elaborate on concepts. Third, the Practical Thinking assesses how effectively learners can apply their knowledge and skills to solve real-world problems or complete tasks in a practical manner.

Table 3.1: Example of pre-post Thinking-Skills Test for ninth-grade students

Pre-Post Thinking-Skills Test

Direction: Choose the best answer to each question. (30 Questions)

PART I: Analytical Skill

3. Analyze this sentence: "My son is going to ten next month."
Which sentence is correct?

1. It should be '...is going to be ten...
2. This sentence is of future continuous time.
3. 'Next month' should be cut off from the sentence.
4. We should use 'will' instead of 'going to' to describe things that we believe will happen.

7. Read the text and **judge** which of the following is TRUE?

Russians generally don't celebrate birthdays before the actual day because this is ' - considered bad luck. There is a belief that the birthday boy or girl who celebrates a birthday in advance may not live to see his or her special day. Also, many people don't celebrate the 40th because this number is associated with death.

In Russia, a birthday celebration is usually a great dinner with many dishes. It is a custom for the birthday person to provide the feast, and this includes paying for dinner if the celebration takes place in a restaurant.

Russians do not give some kinds of presents to birthday persons. Knives and scissors symbolize future conflict and are therefore seen as a bad omen. Likewise, scarves and handkerchiefs represent sorrow and clocks are a sign of departure. An empty purse is believed to cause poverty. Flowers given for a birthday celebration must be in odd number. An even number of flowers indicates misfortune and even death.

7. According to the passage, please **judge** which of the following is TRUE?

1. If Russians celebrate their 40th birthdays, they will surely die.
2. Russians do not normally give anything sharp as a birthday present.
3. A Russian girl will likely be glad to receive a Thai silk scarf on her birthday.
4. In Russia, expenses on one's birthday celebration are usually split among friends.

PART 2: Creative Skill

15. Apply grammar in novel way: if we replace 'he was playing' by 'he played' in the sentence below

'He broke his leg when he was playing rugby'.
'He broke his leg when he played rugby'.

Is the meaning of the sentence still the same?

1. Yes, it is.
2. No, it isn't. If we use the continuous form (was playing) then we mean that the accident happened during a game. If we use the simple form (played) then we only know that the accident happened during the period of his life when he was a rugby player.
3. No, it isn't. We can't use the continuous form (was playing) after "when" If we use "when", we have to use only with the simple form (played).
4. No, it isn't. If we use the continuous form (was playing) then we mean for something that happened before and after another action in the past: If we use the simple form (played) then we know that something started in the past and continues in

the present.
16. Imagine if you arrive home and see hot food on the table and that your mother has just finished washing her hands. How to say for this situation? 1. My mother had been cooking when I arrived. 2. My mother was cooking when I arrived. 3. My mother has just cooked when I arrived. 4. My mother finished cooking when I arrive.
PART 3: Practical Skill
21. **Use:** Which sentence can be used when we are looking back from a point in the past to something earlier in the past? 1. They wanted to buy a new computer, but they hadn't saved enough money. 2. Most evenings, we used to stay at home and watch DVDs. 3. It was just after ten. I was watching the news on TV. 4. He broke his leg when he was playing rugby.
27. **Put into practice:** Hannah had stayed at a friend's house for a week, but she left a briefcase there, which had several important documents in it. In a letter to her friend, Jeremy Simmons, she asks him to send her the briefcase as soon as possible. Which of the following would be a suitable closure for the letter? 1. Yours Faithfully 2. Yours Sincerely 3. Warm Regards 4. All of the above

3.5.1.2 Researcher-Developed Questionnaire

We created a questionnaire to ask the students' attitudes toward learning English grammar through the three ways of thinking by the Sternberg's Triarchic Theory framework (Sternberg, 1996). The knowledge from literature review in relation to using this theory in enhancing students' thinking skills was mainly incorporated into the questionnaire contents or questions. Following McLeish (2009), we created a three-section questionnaire, participants' background, their opinions toward teaching through the three-way of thinking, and suggestions for future use. The second section was the main one with a five-point rating scale design, used in eliciting students' opinion ranging from (strongly agree (5); agree (4); undecided (3); disagree (2); and strongly disagree (1) (DeVellis, 2017). The section drew the information on three ways of thinking. First, Critical-Analytic abilities are involved in analyzing, evaluating, critiquing, and comparing and contrasting things. Second, Creative abilities are involved in creating, exploring, discovering, inventing, imagining and supposing. Third, Practical abilities are involved in applying, using, implementing and putting into practice (Sternberg, 1999a, pp. 438-439). After

completion, the questionnaire was validated by the same three experts who also helped with the thinking skills text. Using the index of item-objective congruence (IOC) (Rovinelli & Hambleton, 1977) in validation process, the IOC result was 0.86, which met the standard of the instrument quality.

3.5.1.3 Student Attitude Questionnaire

To assess student attitudes towards learning English grammar through Sternberg's Triarchic Theory (Sternberg, 1996), a researcher-developed questionnaire was employed. Information from the literature review on using this theory to enhance thinking skills informed the questionnaire content.

The questionnaire, following McLeish (2009), consisted of three sections:

(1) Participant Background

This section gathered basic information about the participants.

(2) Opinions on Triarchic Thinking

This main section used a five-point Likert scale (Strongly Agree - Strongly Disagree) adapted from Russell & Hollander (1975) to gauge student opinions on learning through Sternberg's (1996) three thinking types. The first type is a Critical-Analytic aspect, which includes important actions like analyzing, evaluating, critiquing, and comparing/contrasting. A Creative aspect is the second type that contains certain actions: creating, exploring, discovering, inventing, imagining, and supposing. The final type, a Practical one, involves related actions: applying, using, and implementing.

(3) Suggestions for Future Use

This section invited students' suggestions for future application of this approach.

The questionnaire's validity was established using the Index of Item-Objective Congruence (IOC) (Rovinelli & Hambleton, 1977) by the same three experts who validated the thinking-skills test. An IOC score of 0.86 indicated good instrument quality.

3.5.1.4 Four-Stage Lesson Plan

This study employed a four-stage lesson plan framework adapted from Sutawong (2018). The plan consisted of four stages: Do Now, Purpose, Work Mode, and Reflective Thinking. These stages were implemented over eight, one-and-a-half-hour learning sessions held on Fridays during the thinking-school club. Due to COVID-19 and student scheduling conflicts, the original eight sessions were condensed into five units focusing on specific verb tenses: present simple, present continuous, past simple, past simple vs. present perfect, and passive voice. Despite the adjusted schedule, all learning content was covered, with opportunities for after-class questions. The first and last sessions were mandatory and involved creating mind maps for present simple and passive voice, respectively. The remaining four sessions focused on specific thinking skills (critical-analytic, creative, and practical) aligned with Sternberg's Triarchic Theory (Sternberg, 1996). In each session, students worked in groups, selecting their preferred thinking style to complete the activities. Authentic materials, including exercises based on these materials, were incorporated into each lesson.

Table 3.2 Thinking Activities / Learning Tasks According to Triarchic Theory Applied to Student Instruction and Assessment Methods

Week	**Thinking activities / Learning tasks**		
	Analytical	Creative	Practical
2 Present Simple	Mind mapping		
3 Present Simple	**Analyze** steps you take in writing an informal letter.	**Create** an informal letter to someone who make you feel amazing.	Tell How to **apply** the Present Simple Tense used in daily life
4 Present Continuous	Investigate the reading passage on page 10, then **compare** the differences between the sentences showing “an action happening now” and "a future arrangement"	**Imagine** that you are a tour guide trying to explain what is happening in a painting with role plays in which the people on the tour keep on asking more and more questions.	Tell ways / the best way to **apply** Present Continuous Tense **in practice**.
5 Past Simple	**Analyze** how the event on the 26th December (p.20) lead to the great loss of life or homes?	**Imagine** an alternative ending to “True Stories on p.20”.	**What lessons you have learned** from the events in Phi Phi Don Island (p.20) in

			Thailand today?
6 Past Simple vs Present Perfect	**Compare and contrast** Past Simple vs Present Perfect	**Create** a dialogue using the Present Perfect Tense with 'Have you ever...?' to ask your classmates questions. When your partner answers 'yes', follow-up with information questions in the past simple tense. **Select 3 topics to be in your dialogues.** 1. travel in a foreign country 2. eat something that made you sick 3. lose your money, wallet, or purse 4. study a foreign language 5. play an instrument	Tell how to **use** what is an action which finished in the past or started in the past and continues up to now? (Do exercise 10 p.33 and explain to your friend.)
7 The Passive Voice	Mind mapping		

Note. Adapted from *Teaching for Thinking* (p. 67), by R.J. Sternberg & L.S. Swerling, 1996, Washington: American Psychological Association.

The four-stage lesson plan includes the following components:

1. Grade level and subject
2. Duration
3. Topic
4. Essential Questions
5. Learning Objectives
6. Lesson Activities (4 stages)
7. Assessment

Below is an example of one-page (daily) four-stage lesson plan. A full lesson plan will be provided in Appendix C.

FOUR-STAGE LESSON PLAN NO. 5

1. **Essential Questions:**

♣ How do we use and form the past tenses of verbs?

2. **Learning Objectives:**

♣ To understand the usage, form, and time markers of the past simple tense. Students will be able to use the past tense to tell about states that happened in the past, and form questions using the past tense.

3. Lesson Activities:

Do now (5-10 minutes)

1. Teacher opens a short cartoon in Youtube using past simple
2. Ask students "What verb is used in the cartoon?"
3. Ask students about the story of the cartoon.
4. Teacher gives one point for each answer.

Purpose (10-15 minutes)

1. Write on the board: Past Simple
2. Have students read aloud
3. Introduce the usage, form, and time markers

Work Mode (50-60 minutes)

1. Divide students in a group of three and read the true stories on p20.
2. Teacher assigns tasks relating to three-ways of thinking:
   Analytical (**Analyze** how the event on the 26th December led to the great loss of life or homes);
   Creative (**Create** an alternative ending to "True Stories p20); and **Practical** (**What lessons have you learned** for events in Phi Phi Don Island in Thailand today?)
3. Each group selects just one task that is not repeated the same skill as last time and write in the given worksheet.
4. Students present their work to the class.

Reflective Thinking (1-5 minutes)

1. Each student shares what they have learnt in class today or what they think about their work (not repeated others).

4. Assessment:

♣ Presentation of students' work to the class

Figure 3.1: One-page (daily) four-stage lesson plan

3.5.2 Instruments for Qualitative Data

3.5.2.1 Semi-Structured Interviews

Following the intervention, semi-structured interviews were conducted to gather in-depth information about student experiences (Merriam, 2009). This method allowed participants to respond freely and openly to a set of seven interview questions (Creswell, 2014). The questions built upon the student attitude questionnaire, providing an opportunity to express more nuanced opinions about the instructional methods and their preferences (Denzin & Lincoln, 2018). Adapted from Hoang (1995), who structured a framework for data organization and categorization from initial expectations to final evaluation, the interview questions explored the following:

(1) Expectations for a thinking classroom: This question aimed to understand student perceptions of an ideal learning environment focused on developing thinking skills.

(2) Preferred learning style: Understanding student preferences for learning English can inform instructional design (Oxford, 2011).

(3) Preferred analytic thinking activities: This question focused on specific activities students enjoyed within the analytic thinking component.

(4) Preferred creative thinking activities: Similarly, this question explored student preferences for activities related to creative thinking.

(5) Preferred practical thinking activities: This question investigated student preferences for activities focused on practical application of learning.

(6) Advantages and disadvantages of the three-way thinking approach: This question aimed to identify student perspectives on the strengths and weaknesses of the instructional approach based on Sternberg's Triarchic Theory (Sternberg, 1996).

(7) Implementation challenges and opportunities: This question explored potential difficulties or favorable circumstances students anticipated related to implementing the new instructional methods.

The interview questions were validated by the same three experts who assisted with the development of the thinking-skills test and the student attitude questionnaire, ensuring content validity (Jick, 2014).

Since the participants were Thai, interviews were conducted in their native language. To ensure accurate analysis, we employed thematic analysis (Braun & Clarke, 2006) on the original Thai transcripts. Thematic analysis of excerpts can enable a clear articulation of the expectations, benefits, and challenges associated with the new grammar instruction method, offering a comprehensive understanding of its impact on student learning and engagement. Following analysis, key excerpts were translated into English for inclusion in the findings. To preserve participant meaning, we maintained the original organization of the interview content. Our analysis focused primarily on extracting the intended meaning from the participants' responses.

3.5.3 Teaching and Research Procedure

This section outlines the research process, which involved five key stages, as presented in Table 3.3

Table 3.3: Five-stage teaching and research procedure

Stages	Descriptions
1. Pre-test	Students participated in a pre-test to assess their baseline thinking skills using a researcher-developed thinking-skills test (see Instruments for Quantitative Data section).
2. Intervention	Students participated in eight, 180-minute instructional sessions focused on developing thinking skills through English grammar instruction aligned with Sternberg's Triarchic Theory (Sternberg, 1996) (see Four-Stage Lesson Plan section).
3. Post-test	A post-test using the same thinking-skills test was administered to assess any changes in students' thinking skills after the intervention.
4. Questionnaire Administration	Following the post-test, students completed a questionnaire to gauge their attitudes towards learning English grammar through the three thinking styles (see Student Attitude Questionnaire section).
5. Online Interviews	Semi-structured online interviews were conducted with a subset of participants to gather in-depth information about their experiences with the instructional methods (see Semi-Structured Interviews section).

3.6 Data Analysis

This study employed a mixed methods approach, utilizing both quantitative and qualitative data analysis techniques (Creswell, 2014).

3.6.1 Quantitative Data Analysis

Statistical Package for the Social Sciences (SPSS) software was used to perform descriptive statistics, including calculating percentages, means, and standard deviations. Additionally, dependent t-tests were conducted to analyze pre-

test and post-test scores on the thinking-skills test, assessing potential intervention effects (Field, 2013).

3.6.2 Qualitative Data Analysis

Thematic analysis (Braun & Clarke, 2006) was employed to analyze data from the semi-structured interviews and the student responses of open-ended questionnaires (Creswell, 2014). This process involved coding the data based on relevant themes and categories to identify patterns and insights related to student experiences with the instructional methods (Elo & Kyngäs, 2008). The analysis focused particularly on aspects of student behavior that reflected the development of thinking skills during group work activities.

CHAPTER 4
RESULTS AND DISCUSSION

This section is outlined by the two research questions explored.

4.1 Finding of Research Question One

To what extend do students improve their grammar learning after participating in the English grammar instruction informed by the Triarchic Theory?

In this Research Question, we assessed student learning in intermediate English grammar through a researcher-created thinking skills test administered as both a pretest and a posttest. To measure the impact of the instruction, we compared the mean scores of the pretest and posttest results, presented in Tables 4.1 - 4.3.

Table 4.1: Pre-test and Post-test scores of Thinking Skills Test

Student number	Pre-test score (30)	Post-test score (30)	Increased	Decreased	Stayed the same
1	11	9	✓		
2	9	10	✓		
3	24	26	✓		
4	14	9		✓	
5	10	4		✓	
6	10	11	✓		
7	12	17	✓		
8	9	12	✓		
9	6	10	✓		
10	7	15	✓		
11	13	20	✓		
12	11	17	✓		
13	16	16			✓
14	14	21	✓		
15	13	19	✓		
16	12	13	✓		
17	9	18	✓		
18	15	20	✓		
19	10	20	✓		
20	15	13		✓	
21	13	17	✓		
Total	253.00	315.00	**17**	**3**	**1**

Table 4.1 shows that there are 17 students having higher post test scores. Three students get lower post test scores and only one student gets the same score.

Table 4.2: Comparison of pre-test and post-test scores with independent samples t-test

	N	Mean ($\bar{x}$)	S.D.	t	Sig.
Pre-test	21	12.05	3.81	-3.18	.008*
Post-test	21	15.10	5.22		

* $P < .05$, one tail test

Table 4.2 shows a statistically significant improvement in posttest scores compared to pretest scores ($p < .05$). This suggests that the Triarchic Theory integrated within the four-stage lesson plan effectively facilitated the participants' grammar learning.

Table 4.3: Comparison of pre-test and post-test scores classified by thinking type

Ways of Thinking	Full Scores	Pre-test		Post-test		t	Sig.
		$\bar{x}$	S.D.	$\bar{x}$	S.D.		
Analytic Thinking	10	4.09	1.95	5.71	2.17	-3.60	.002
Creative Thinking	10	3.19	1.75	3.85	1.31	-1.73	.100
Practical Thinking	10	4.76	1.76	5.52	2.69	-1.25	.225

* P < .05, one tail test

The analysis revealed a significant improvement in Critical-Analytical thinking scores between the pre-test and post-test ($p < .05$), as shown in Table 4.2. However, there were no statistically significant differences in the mean scores for Creative Thinking and Practical Thinking between the two tests.

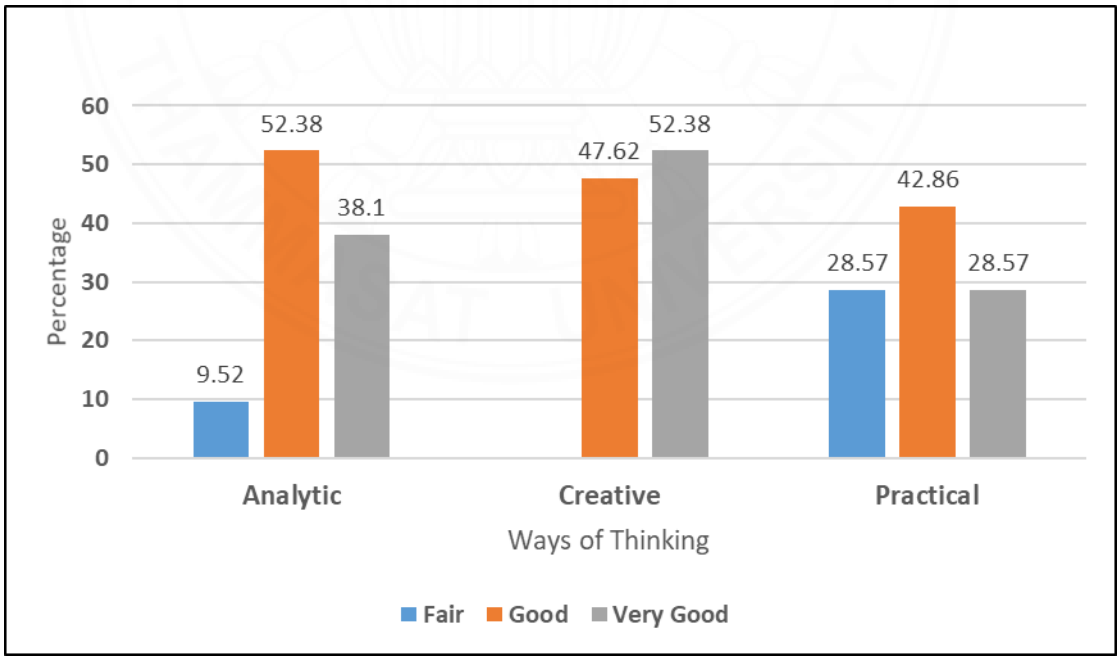

Figure 4.1 Percentage of students showing their level of thinking-skill ability during the study classified by three ways of thinking

Figure 4.1 shows that during the thinking-skill practice, most of the students accounted for 52.38 percent show the analytical thinking ability at a good level. 52.38 percent of students demonstrate creative thinking ability at a very good level, and 47.62 percent of students shows the ability at a good level. In case of practical thinking, 42.86 percent of the students shows a good level of thinking, and the thinking abilities at very good and fair level are 28.57 percent of students.

The lack of significant improvement in Creative and Practical Thinking skills may be due to several factors. First, Critical-Analytical thinking skills are often emphasized in traditional classroom activities and assessments, including language and grammar instruction and tests. Creative Thinking, on the other hand, might be more complex and require different assessment methods beyond standardized tests. Finally, Practical Thinking focuses on long-term application of knowledge, and students may not yet be aware of how the learned concepts will benefit them in the future. This lack of awareness could make it difficult for them to accurately self-assess their progress in these areas.

The study suggests that participants primarily associated their learning with the Critical-Analytical Thinking aspect of the Triarchic Theory. This emphasis can be attributed to the inherent nature of analytical thinking itself. According to Sternberg (2001), this type of thinking encourages students to make judgments, evaluate critical points in learning materials, compare and contrast ideas, and critique questionable information. Grammar teachers who understand the importance of thinking skills naturally integrate these aspects into their instruction (Thornbury, 2007). Through such integration, students are guided to conceptualize key points by applying Critical-Analytical Thinking, ultimately achieving desired learning objectives (Sternberg, 2001).

While limited to grammar instruction, these findings support previous research advocating for the simultaneous development of student thinking and language skills, as seen in Alidmat and Ayassrah's study (2017). Furthermore, considering the emphasis on thinking skills in Thailand's Ordinary National Educational Test (O-NET) administered by the National Institute of Educational Testing Service (2021), we are certain that participants could be well-prepared for

such assessments. With continued practice, they may further develop their ability to hold both strong language knowledge and critical thinking skills

However, we realized that the participants may need more training in terms of the Creative and Practical Thinking types. This study highlights the need for further exploration in developing Creative and Practical Thinking skills alongside the Analytical Thinking skills addressed here. This finding can inform educators and future researchers about the importance of incorporating a wider range of thinking skills into instruction to enhance overall student development.

4.2 Finding of Research Question Two

What are students' attitudes towards learning English grammar informed by the Triarchic Theory?

The key finding of this research question is presented in Table 4.4.

Table 4.4: Participants' attitudes toward Critical-Analytical Thinking Skills

Questionnaire items	Mean	S.D.	Interpreted meaning
1. I willingly participate in analytic-thinking activities / assignments.	4.19	.634	Somewhat positive
2. I prefer that my teachers use more group activities / assignments whilst practicing analytic-thinking skill.	4.42	.504	highly positive
3. Analytic-thinking activities / assignments help me to: have the abilities to compare and contrast; analyze; evaluate; critique; ask why; explain why; explain causes; and evaluate assumptions more.	3.96	.774	somewhat positive
4. Analytic-thinking activities / assignments enhances good working relationships among students.	3.88	.711	somewhat positive
5. I feel more confident, dare to think, think about everything rationally, and become a good thinker.	3.96	.774	somewhat positive
Grand mean	4.08	.679	somewhat

			positive

N=21
Criteria for interpretation
1.00-1.80: strongly negative
1.81-2.60: negative
2.61-3.40: neutral
3.41-4.20: somewhat positive
4.21-5.00: highly positive

The researcher-designed questionnaire used a 5-point Likert scale (see Table 4.4 for interpretation). The overall mean score (4.08) indicates that participants had somewhat positive attitudes towards the four-stage lesson plan designed to promote thinking skills based on the Triarchic Theory (Sternberg, 1996).

Delving deeper into specific questionnaire items, we found that participants held particularly positive attitudes when teachers incorporated more group activities during Critical-Analytical Thinking skill development (mean = 4.42). This positive perception is further supported by interview data. Participants expressed a deeper understanding of their critical and analytical thinking skills thanks to the program. For instance, Student 1 referred to the class as a "thinking classroom," while Student 5 described applying these skills to craft emails for coursework and even her YouTube content creation.

> *I was able to think more analytically. I expect something that is not in the frame because everyday life and life in the classroom are not the same. When we go outside the class, sometimes we can't think of it. So this class is thinking classroom. It is not just learning grammar.* (Student 1' s interview data)

> *One activity that I like and I have applied it in real life is formal and informal letter writing where the teacher let students analyze the pattern of the letter and try to write the informal letter. I have actually used it. Even if the world has changed, the style of writing a letter is still the same. I have my own Youtube channel and I wrote an e-mail to request the copyright of the song. And the record label responded me to give the permission to use that song which that e-mail was written in the same format that had been taught in the classroom.* (Student 5's interview data)

For the remaining questionnaire items, the participants reported somewhat positive attitudes. These included participation in Analytical thinking

activities/assignments (mean = 4.19), the perceived benefit of activities enhancing their abilities and confidence in Critical-Analytical Thinking skills (both means = 3.96), and the positive aspects of group work (mean = 3.88). One student's open-ended response exemplifies this: "I Like the thinking activities in groups in the room that we help each other to analyze and answer questions and get the points. That was so exciting and really fun." This suggests that collaborative learning could be a valuable element for teachers to consider when fostering Critical-Analytical thinking skills in the classroom.

Then, the data in Table 4.5 reveal the participants' attitudes toward Creative Thinking type.

Table 4.5: Participants' attitude toward Creative Thinking Skills

Questionnaire items	Mean	S.D.	Interpreted meaning
1. I willingly participate in creative activities / assignments.	4.42	.504	Highly positive
2. I prefer that my teachers use more group activities / assignments whilst practicing creative skill.	4.45	.766	Highly positive
3. Creative-thinking activities / assignments help me to: have the abilities to create; invent; imagine; design; show how; suppose, and say what would happen if… more.	4.28	.634	Highly positive
4. Creative-thinking activities / assignments enhances good working relationships among students.	4.19	.857	Somewhat positive
5. I feel more confident, dare to think, think about everything rationally, and become a good thinker.	3.97	.513	Somewhat positive
Grand mean	4.26	.654	Highly positive

N=21
Criteria for interpretation
1.00 - 1.80: strongly negative
1.81-2.60: negative
2.61-3.40: neutral
3.41-4.20: somewhat positive
4.21-5.00: highly positive

The participants demonstrated the most positive attitudes towards the Creative Thinking type (overall mean = 4.26). Similarly, their responses indicated highly positive views on participating in Creative Thinking activities (mean = 4.42), teachers incorporating group activities (mean = 4.45), and the perceived benefits

gained from these activities (mean = 4.28). Attitudes towards fostering good relationships and confidence in creative thinking through the activities were somewhat positive (means = 4.19 and 3.97, respectively). A potential factor influencing these responses could be the teacher's openness as a teaching style, as exemplified by Student 1's opinion.

> *Creative thinking activities are something my friends and I like the most because the teacher is open to students to think outside the box e. g. informal letter writing in group. One of my friends' groups wrote to Doraemon. We thought free, unlike learning in the normal system. The activity makes us know that our brain is the best. It can think something unbelievable. And I would like to know that how far we can go. (*Student 1' s interview data)

Student 1's comment exemplifies the value of teachers encouraging students to "think outside the box." This approach aligns with Maley and Peachey's (2010) finding that creativity plays a crucial role in language learning activities, particularly when students are challenged to "make something new." Creative learning environments can potentially boost student motivation for the subject matter and even foster self-directed learning in the future.

Table 4.6: Participants' attitude toward Practical Thinking Skills

Questionnaire items	Mean	S.D.	Interpreted meaning
1. I willingly participate in practical activities / assignments.	3.68	1.137	Somewhat positive
2. I prefer that my teachers use more group activities / assignments whilst practicing practical skill.	4.10	.831	Somewhat positive
3. Practical-thinking activities / assignments help me to: apply; show how we can use something; implement; utilize; and demonstrate how in the real world more.	4.03	.752	Somewhat positive
4. Practical-thinking activities / assignments enhances good working relationships among students.	3.88	.711	Somewhat positive
5. I feel more confident, dare to think, think about everything rationally, and become a good thinker.	3.87	.846	Somewhat positive

Grand mean	3.91	.855	Somewhat positive

N=21
Criteria for interpretation
1.00-1.80: strongly negative
1.81-2.60: negative
2.61-3.40: neutral
3.41-4.20: somewhat positive
4.21-5.00: highly positive

The data suggests somewhat positive attitudes towards Practical Thinking (grand mean = 3.91). This trend is consistent across all individual questionnaire items. The participants expressed a moderate preference for group work in this context (mean = 4.10), along with seeing the value of applying learned knowledge to new situations (mean = 4.03). Their responses indicated a somewhat positive perception of improved work relationships (mean = 3.88) and increased confidence in approaching future situations (mean = 3.87). However, their willingness to actively participate in these activities was the least positive aspect (mean = 3.68).

Among the three thinking skills, participants exhibited the most positive attitudes towards activities promoting Creative Thinking (grand mean = 4.26). Their attitudes towards the other two types, Critical-Analytical Thinking (grand mean = 4.08) and Practical Thinking (grand mean = 3.91), were somewhat positive.

These self-reported attitudes aligned with the Thinking Skills Test results from Research Question 1. The consistency between findings from both Research Questions suggests the data more strongly supports the development of Critical-Analytical thinking skills. This makes sense, as participants likely received prior training in critical-analytical thinking through various courses, not just English language classes.

An intriguing aspect of the data is the participants' comparatively lower positive attitudes towards Practical Thinking. While still somewhat positive, this finding is reasonable. Since Practical Thinking involves applying learned knowledge to future situations, participants might find it difficult to gauge its applicability. Student 2, for example, expressed that the application of knowledge might be limited

by the specific context (areas of implication). Their current learning might seem more relevant to academic settings than everyday life.

> *Practicing practical thinking could be ok but it was hard for practice. We applied what we learned and used it in daily life. We can think faster or speaking to foreigners faster. However, it is too academic and it is in a bit rut. We put a little pressure on being academic.* (Student 2' s interview)

However, the participants generally held positive views towards the grammar instruction based on Triarchic Theory. This approach fostered increased class engagement, with students like Student 3 demonstrating greater confidence in actively participating. Interestingly, collaborative work provided students with diverse perspectives, as highlighted by Student 8. Furthermore, the instruction potentially enhanced affective learning, evident in Student 12's enjoyment of grammar comprehension.

> *Thinking skill activities help promote students dare to think, dare to do, and dare to speak more English because teacher encourages you to think all the time.* (Student 3's interview data)

> *In thinking classroom, you exchanged ideas or knowledge with friends in the room, you need to brainstorm ideas which you can know that it makes more diverse ideas that you cannot think of.* (Student 8's interview data)

> *Thinking activities while learning grammar is fun because those activities was inserted into teaching, making it not boring and make it very understandable. Moreover, it makes us understand how to use English grammar better which has been adjusted to suit the situation.* (Student 12's interview data)

The interview data revealed three key insights for teaching methods. The first involves incorporating self-evaluation into classroom activities. Student 4, for example, suggested a friendly approach where students are encouraged to identify areas for improvement through self-evaluation. This process fosters self-assessment, a crucial element for student learning.

> *I suggested that before the beginning of the lesson, teacher and all students come and talk to each other friendly, no pressure. Let everyone analyze their own flaws, not flaws but how to develop our weaknesses. We will have classes or teachers will have inserted during the course. Students will recognize their own shortcomings and develop along with the teacher.* (Student 4's interview data)

Student interviews also highlighted the value of an integrative teaching approach. The participants advocated for incorporating grammar instruction into other language skills, such as listening, speaking, reading, and writing. This suggests a move away from isolated grammar lessons and towards a more integrated approach that participants believe would be more beneficial. The interview data below demonstrate their opinion:

> *I would like to have communication between teachers and students. It doesn't have to be grammar or verbal, just saying it and can be used in real life*. (Student 3's interview data)

> *I want to practice all English skills: listening, speaking, reading and writing in the class.* (Student 4's interview data)

This view aligns with Thornbury's (2007) emphasis on more creative grammar instruction that enhances learner awareness of the language. This could involve an inductive approach, where grammar rules and other skills act as supportive scaffolding. Learners can then grasp the language and develop other skills simultaneously.

The student interviews also revealed a desired change in both teaching methods and assessment approaches. The participants, like Student 5, expressed concern that current evaluation methods might not reflect how they are taught. While Student 5 enjoyed the class activities, they found the exams lacking in connection to the thinking skills developed in class. This suggests a potential need to move away from traditional exams and explore alternative assessment methods.

> *In fact, there are many advantages, but there is only one disadvantage is that the current education system, either in schools or others. Although in the thinking classroom, teachers are open-minded, when taking exam at school, it returns to the original system. As a result of the teacher does not issue the exam alone, students have to sit and memorize the tenses, which we use very little in our daily life. It is therefore quite difficult to change all of the school systems. Not all systems can be replaced. If there is the cooperation between many parties, it will be very good.* (Student 5's interview data)

While the present study did not directly address assessment, the positive impact of the thinking classroom on grammar instruction highlights the potential for a more holistic approach to learning evaluation. Future research should explore how to integrate thinking skills into assessment practices.

This study suggests that integrating Critical-Analytical Thinking Skills into lessons can lead to very positive learning outcomes. This reinforces the importance of incorporating this type of thinking in English-related courses. Including learning tasks that reflect real-world practices, such as the problem-based approach used by Chiou (2019), can strengthen students' grammatical knowledge and prepare them to solve real-world challenges in their future careers, echoing the experiences of participants in Chiou's study.

However, the findings also suggest that further exploration is needed to develop methods for enhancing students' Creative and Practical Thinking Skills within lesson plans. Focusing on these areas in future research has the potential to yield even more positive results.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This study explored the effectiveness of integrating Sternberg's Triarchic Theory of Intelligence (1985) into an English grammar curriculum for a group of 21 ninth-graders enrolled in Basic English 5 at a prominent public school in Bangkok, Thailand. The data collection took place in 2021. The findings indicate that a four-stage lesson plan promoting these thinking skills can successfully enhance student learning in English grammar. Participants highlighted Critical-Analytical Thinking as particularly beneficial to their learning, expressing highly positive attitudes towards it. They also viewed Creative and Practical Thinking positively, although to a lesser extent. The study revealed that students found the activities enjoyable and motivating. Group work fostered a sense of comfort and reduced anxiety, encouraging them to share ideas and collaborate. Additionally, internet research exposed them to a rich English environment, encouraging them to read, write, and critically evaluate information in English. This immersive experience contributed to improvements is not just thinking skills but also their overall English grammar, reading, and writing abilities. The study aligns with the growing body of research emphasizing the importance of integrating thinking skills into language learning activities (Chiou, 2019; Thornbury, 2007). By incorporating aspects of Sternberg's Triarchic Theory, teachers can create engaging and effective learning experiences that cater to diverse student needs and promote holistic language development.

However, we acknowledge some limitations. Firstly, data collection took place outside regular class hours due to school scheduling limitations. Future studies could benefit from conducting the research during regular class time. Secondly, the thinking skills test relied on content from the past four years of O-NET and PISA tests (OECD, 2018). While the content quantity may be adequate, using tests spanning a decade or more raises concerns about content trends and test validity. Future

researchers are encouraged to consider the test content history within a longer timeframe to ensure a more reliable test set.

Despite these limitations, the findings serve as a springboard for further research. Teachers of secondary schools can utilize these findings to explore incorporating thinking skills into their language learning curricula. Additionally, these results can guide further investigations into grammar instruction that combines diverse perspectives to enhance Thai EFL learners' language abilities and thinking skills, which are ultimately valuable assets for higher education and future careers.

5.2 Research Application

The study's primary goal is to enhance analytical, creative, and practical thinking skills among Thai EFL learners by integrating Sternberg's Triarchic Theory into English grammar instruction. This approach aims to make grammar learning more engaging and effective by addressing different aspects of learners' cognitive abilities and helping them apply what they learn in diverse and practical ways. The research application is thus organized in four parts as follows:

5.2.1 Application of Triachic Thinking Skills in English Grammar Instruction

Integrating Sternberg's Triarchic Theory into English grammar instruction provides a multifaceted approach to learning that caters to different aspects of intelligence. This method encourages the development of analytical skills through the study and application of grammar rules and structures. It fosters creative skills by prompting students to use grammar in innovative ways, such as through story creation and imaginative writing exercises. Additionally, it enhances practical skills by having students apply grammar in real-world contexts, like conversations, emails, and other practical tasks. By addressing these three dimensions of intelligence, the Triarchic Theory-based instruction aims to create a more engaging and effective learning experience for Thai EFL learners, potentially leading to improved grammar proficiency and greater student satisfaction (Sternberg, 1985; Sternberg & Swerling,

1996). Presented below are some examples of the application and activities for each type of thinking skill.

5.2.1.1 Analytical thinking

(1) Application: Design grammar exercises that require students to analyze sentence structures, pattern of formal/informal letter, identify grammatical errors, and solve grammatical problems.

(2) Activities: Sentence diagramming, error correction tasks, and logical reasoning puzzles related to grammar rules.

5.2.1.2 Creative thinking

(1) Application: Incorporate activities that encourage students to use grammar creatively, enhancing their ability to think innovatively with the language.

(2) Activities: Creative writing assignments, role-playing scenarios, and language games that involve generating new sentences or stories.

5.2.1.3 Practical thinking

(1) Application: Provide real-life contexts where students can apply grammar rules in practical situations, improving their ability to use English effectively in everyday life.

(2) Activities: Writing emails, preparing presentations, and engaging in discussions that simulate real-world communication.

5.2.2 Implementation Strategies

The successful integration of Sternberg's Triarchic Theory into English grammar instruction necessitates a comprehensive and strategic approach. By focusing on curriculum design, diverse teaching methods, multifaceted assessment tools, and professional development for educators, we can create a dynamic learning environment that promotes the development of analytical, creative, and practical thinking skills among Thai EFL learners. Each of these components plays a crucial role in fostering a holistic educational experience that goes beyond traditional grammar instruction (Sternberg, 1985; Sternberg & Grigorenko, 2000; Noom-Ura, 2013).

5.2.2.1 Curriculum Design

Develop a curriculum that integrates grammar instruction with activities designed to enhance all three types of intelligence. This might include project-based learning, interdisciplinary connections, and real-life application scenarios.

5.2.2.2 Teaching Methods

Use diverse teaching methods such as problem-solving tasks, creative projects, and practical exercises. Encourage active participation and critical thinking.

5.2.2.3 Assessment

Create assessment tools that measure not only grammar proficiency but also improvements in analytical, creative, and practical thinking skills. This could involve both formative and summative assessments.

5.2.2.4 Professional Development

Train teachers to effectively integrate Sternberg's Triarchic Theory into their grammar instruction. This includes understanding how to design and implement activities that enhance different thinking skills.

5.2.3 Expected Outcomes

The implementation of Sternberg's Triarchic Theory in English grammar instruction is anticipated to yield several significant outcomes. Firstly, it is expected to enhance thinking skills, leading to improved analytical, creative, and practical thinking abilities among Thai EFL learners (Sternberg, 1985; Sternberg & Grigorenko, 2000). Secondly, students are likely to achieve better language proficiency, demonstrating an increased ability to understand and use English grammar in various contexts (Alibmat & Ayassrah, 2017). Additionally, the approach should result in increased engagement, offering more engaging and relevant grammar instruction that captures students' interest and motivation. Ultimately, this method aims to foster holistic development, providing a more comprehensive educational experience that supports overall cognitive and language development (Trilling & Fadel, 2009).

5.2.4 Research Evaluation

To assess the effectiveness of the integrated approach to grammar instruction, a structured research evaluation process will be employed as follows:

5.2.4.1 Data Collection

Data collection will involve gathering comprehensive data through various methods, including assessments, surveys, and interview. These tools will provide insights into the effectiveness of the instruction in enhancing students' grammar proficiency and thinking skills.

5.2.4.2 Analysis

Analysis will focus on evaluating the impact of the integrated instruction on both grammar knowledge and the development of analytical, creative, and practical thinking abilities. By examining these aspects, the study will determine the efficacy of the instructional approach.

5.2.4.3 Feedback

Feedback will be an essential component of the evaluation process, with input collected from both students and teachers. This feedback will be used to refine and improve the instructional methods and activities, ensuring that they meet educational objectives and address any areas for enhancement.

In summary, the research application focuses on enhancing Thai EFL learners' thinking skills by integrating Sternberg’s Triarchic Theory into English grammar instruction. This approach aims to create a more effective and engaging learning experience that develops students’ analytical, creative, and practical abilities while improving their grammar skills.

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APPENDIX A
PERSONS INTERVIEWED

Nuntanarat Jitpapatsorn

Khemthit Chaiphet

Karistha Chawengprasert

APPENDIX B

THINKING ACTIVITIES / LEARNING TASKS TO TRIARCHIC THEORY APPLIED TO STUDENT INSTRUCTION AND ASSESSMENT METHODS

Week	Thinking activities / Learning tasks		
	Analytic	Creative	Practical
2 Present Simple	Mind mapping		
3 Present Simple	**Analyze** steps you take in writing an informal letter.	**Create** an informal letter to someone who make you feel amazing.	Tell How to **apply** the Present Simple Tense used in daily life
4 Present Continuous	Investigate the reading passage on page 10, then **compare** the differences between the sentences showing "an action happening now" and "a future arrangement"	**Imagine** that you are a tour guide trying to explain what is happening in a painting with role plays in which the people on the tour keep on asking more and more questions.	Tell ways / the best way to **apply** Present Continuous Tense **in practice**.
5 Past Simple	**Analyze** how the event on the 26th December (p.20) lead to the great loss of life or homes?	**Imagine** an alternative ending to "True Stories on p.20".	**What lessons you have learned** from the events in Phi Phi Don Island (p.20) in Thailand today?
6 Past Simple vs Present Perfect	**Compare and contrast** Past Simple vs Present Perfect	**Create** a dialogue using the Present Perfect Tense with 'Have you ever...?' to ask your classmates questions. When your partner answers 'yes', follow-up with information questions in the past simple tense. **Select 3 topics to be in your dialogues.** 1. travel in a foreign country 2. eat something that made you sick 3. lose your money, wallet, or purse 4. study a foreign language 5. play an instrument	Tell how to **use** what is an action which finished in the past or started in the past and continues up to now? (Do exercise 10 p.33 and explain to your friend.)
7 The Passive Voice	Mind mapping		

Note. Adapted from *Teaching for Thinking* (p. 67), by R.J. Sternberg & L.S. Swerling, 1996, Washington: American Psychological Association.

APPENDIX C
FOUR-STAGE LESSON PLAN

FOUR-STAGE LESSON PLAN NO. 1

Learning Area: **Foreign Languages**
Levels: **( ) Upper (X) Lower** **Grade level: M3**
Semester: **2 Academic Year: 2021** **(X) Foundation ( ) Additional**
Subject Code: **EN23102** **Subject: Basic English 5**
Topic: **Orientation to teaching thinking** **Time: 90 minutes**
Teacher: **Ms. Saowaluk Wongrat**

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1. **Essential Questions:**

   ♣ What do you know about teaching thinking?

2. **Learning Objectives:**

   ♣ Students know about the three ways of thinking

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Write on the board: Thinking Classroom.
2. Students **analyze** the benefits of thinking skills for their daily life and future careers.
3. Students tell how they will **apply** or develop their thinking skills.
4. Tell students what this subject is all about, topics they will study, and how to assess and evaluate them.

<u>Purpose</u> (10-15 minutes)

1. Tell students that we will first do a questionnaire asking about the students' attitudes toward teaching the three ways of thinking
2. Ask students to do a questionnaire.

<u>Work Mode</u> (50-60 minutes)

1. Have students do a pre-test (thinking-skill test).

<u>Reflective Thinking</u> (1-5 minutes)

1. Ask a volunteer or volunteers to reflect their ideas about teaching thinking

4. **Assessment:**

   ♣ Students' questionnaire means and pre-test scores

FOUR-STAGE LESSON PLAN NO. 2

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Present Simple**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

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1. **Essential Questions:**
   ♣ How do we use and form the present tenses of verbs?

2. **Learning Objectives:**

♣ To understand the usage and time markers of the present simple tense, Students can **discover** its form. Students will be able to conclude the use of the present simple tense with their own mind maps.

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Ask students: "Who knows about 'Tenses'?"
2. Ask students: "What tense do they know about?"
3. Ask students: "What tense is used more frequently or used the most in daily life?"

<u>Purpose</u> (10-15 minutes)

1. Write on the board: Present Simple
2. Have students read aloud
3. Introduce the usage, form, and time markers

<u>Work Mode</u> (50-60 minutes)

1. **Creative thinking: Create** an English mind map of Present Simple in one page.

<u>Reflective Thinking</u> (1-5 minutes)

1. Each student shares what they have learnt in class today (not repeated others).

4. **Assessment:**

♣ Students' mind maps scores

FOUR-STAGE LESSON PLAN NO. 3

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Present Simple**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

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1. **Essential Questions:**

♣ How do you write an informal letter?

2. **Learning Objectives:**

♣ Students will be able to use the present simple tense to write an informal letter, and form questions using the present simple tense.

3. **Lesson Activities:**

Do now (5-10 minutes)

1. Divide students in a group of three.
2. Teacher introduce "How Often-Question Activity"
3. One student in the first group comes to the front of the class.
4. Other groups ask a question beginning with "How often…." to a friend in front of the class.
5. Each group gets one point for asking one question. If which group can ask to let the friend in the front answer as the word, such as sometimes, often, etc. shown in TV. That group gets more three points.

Purpose (10-15 minutes)

1. Write on the board: Penfriends, Pen pals.
2. Tell students that today we will look at Present Simple used in an formal letter.
3. Have students look at the components of informal letter in Youtube
4. Teacher points out the parts and language used in the letter.

Work Mode (50-60 minutes)

1. Teacher assigns tasks relating to three-ways of thinking:
   Analytical: Analyze steps you take in writing an informal letter.
   Creative: **Create** an informal letter to someone who make you feel amazing; and
   Practical: Tell How to **apply** the Present Simple Tense used in daily life
2. Each group selects just one task and write in the given worksheet.
3. Students present their work to the class.

Reflective Thinking (1-5 minutes)

1. Each student shares what they have learnt in class today or what they think about their work (not repeated others).

4. **Assessment:**

♣ Presentation of students' work to the class

FOUR-STAGE LESSON PLAN NO. 4

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Present Continuous**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

1. **Essential Questions:**
   ♣ What are the differences between "Present Simple" and "Present Continuous"?

2. **Learning Objectives:**
   ♣ Students will be able to define 'present continuous verb', recognize a present continuous verb, and use a present continuous verb in a sentence.

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Teacher shows two sentences in TV, one written in present and another in present continuous.
2. Ask students to point out the differences between two sentences.
3. Teacher gives one point for each answer.

<u>Purpose</u> (10-15 minutes)

1. Write on the board: Present Continuous
2. Have students read aloud. Introduce the usage, form, and time markers

<u>Work Mode</u> (50-60 minutes)

1. Divide students in a group of three.
2. Teacher assigns tasks relating to three-ways of thinking:
   Analytical (**Compare and contrast**: Investigate reading passage on page 10, then list the sentences showing "an action happening now" and "a future arrangement");
   Creative (**Imagine** that you are a tour guide trying to explain what is happening in a painting with role plays in which the people on the tour keep on asking more and more questions.); and
   Practical (Tell ways / the best way to apply Present Continuous Tense in practice.)
3. Each group selects just one task that is not repeated the same skill as last time and write in the given worksheet.
4. Students present their work to the class.

<u>Reflective Thinking</u> (1-5 minutes)

1. Each student shares what they have learnt in class today or what they think about their work (not repeated others).

4. **Assessment:**

♣ Presentation of students' work to the class

FOUR-STAGE LESSON PLAN NO. 5

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**

Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Past Simple**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

1. Essential Questions:

♣ How do we use and form the past tenses of verbs?

2. Learning Objectives:

♣ To understand the usage, form, and time markers of the past simple tense. Students will be able to use the past tense to tell about states that happened in the past, and form questions using the past tense.

3. Lesson Activities:

<u>Do now</u> (5-10 minutes)

1. Teacher opens a short cartoon in Youtube using past simple
2. Ask students "What verb is used in the cartoon?"
3. Ask students about the story of the cartoon.
4. Teacher gives one point for each answer.

<u>Purpose</u> (10-15 minutes)

1. Write on the board: Past Simple
2. Have students read aloud
3. Introduce the usage, form, and time markers

<u>Work Mode</u> (50-60 minutes)

1. Divide students in a group of three and read the true stories on p20.
2. Teacher assigns tasks relating to three-ways of thinking:
   Analytical (**Analyze** how the event on the 26th December (p.20) lead to the great loss of life or homes);
   Creative (**Imagine and Create** an alternative ending to "True Stories p20); and
   Practical (**What lessons you have learned** from the events in Phi Phi Don Island (p.20) in Thailand today?)
3. Each group selects just one task that is not repeated the same skill as last time and write in the given worksheet.
4. Students present their work to the class.

<u>Reflective Thinking</u> (1-5 minutes)

1. Each student shares what they have learnt in class today or what they think about their work (not repeated others).

4. Assessment:

♣ Presentation of students' work to the class

FOUR-STAGE LESSON PLAN NO. 6

Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**

Topic: **Past Simple vs Present Perfect** **Time: 90 minutes**
Teacher: **Ms. Saowaluk Wongrat**

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1. **Essential Questions:**
   ♣ What are the differences between "Past Simple" and "Present Perfect"?

2. **Learning Objectives:**
   ♣ Students will be able to compare and contrast the use of past simple and present perfect through a guided discovery based on a short reading about the weather titled "Cool Spots" in Access 3 textbook on page 32.

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Teacher elicits the prior knowledge of past simple & present perfect
2. Have students discuss about a short reading titled "Cool Spots" in Access 3 textbook on page 32.
3. Teacher shows some example sentences on TV and students tells that it is right or wrong, if wrong, correct it.

<u>Purpose</u> (10-15 minutes)

1. Write on the board: Past Simple vs Present Perfect
2. Have students read aloud and review the usage, form, and time markers

<u>Work Mode</u> (50-60 minutes)

1. Divide students in a group of three.
2. Teacher assigns tasks relating to three-ways of thinking:
   Analytical (**Compare and contrast** Past Simple vs Present Perfect);
   Creative (**Create** dialogue using the present perfect with 'Have you ever...' to ask your classmates questions. When your partner answers 'yes', follow-up with information questions in the past simple. Select three topics to be in your dialogues (1) travel in a foreign country (2) eat something that made you sick (3) lose your money, wallet, or purse (4) study a foreign language (5) play an instrument; and
   Practical (**Implement**: Tell how to **use** what is an action which finished in the past or started in the past and continues up to now? Do ex 10 p 33 and explain to your friend.)
3. Each group selects just one task that is not repeated the same skill as last time and write in the given worksheet.
4. Students present their work to the class.

<u>Reflective Thinking</u> (1-5 minutes)

1. Each student shares what they have learnt in class today or what they think about their work (not repeated others).

4. **Assessment:**

♣ Presentation of students' work to the class

FOUR-STAGE LESSON PLAN NO. 7

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Past Simple**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

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1. **Essential Questions:**
   ♣ How do we use passive voice in sentences?

2. **Learning Objectives:**
   ♣ Students will be able to distinguish between active and passive voice in sentences, create sentences in the passive voice and conclude the use of the passive voice with their own mind maps.

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Teacher opens a short video cartoon in Youtube using the passive voice
2. Ask students "What verb is used in the cartoon?"
3. Ask students about the story of the cartoon.
4. Teacher gives one point for each answer.

<u>Purpose</u> (10-15 minutes)

1. Write on the board: The Passive Voice
2. Have students read aloud
3. Review the usage, form, and time markers

<u>Work Mode</u> (50-60 minutes)

1. **Creative**: **Create** an English mind map of the passive voice in one page.

<u>Reflective Thinking</u> (1-5 minutes)

1. Each student shares what they have learnt in class today (not repeated others).

4. **Assessment:**

♣ Students' mind maps scores

FOUR-STAGE LESSON PLAN NO. 8

Learning Area:	**Foreign Languages**	
Levels:	**( ) Upper (X) Lower**	**Grade level: M3**
Semester:	**2 Academic Year: 2021**	**(X) Foundation ( ) Additional**
Subject Code:	**EN23102**	**Subject: Basic English 5**
Topic:	**Post-test (thinking-skill test)**	**Time: 90 minutes**
Teacher:	**Ms. Saowaluk Wongrat**	

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1. **Essential Questions:**
   ♣ What do you get from "Thinking Classroom"?

2. **Learning Objectives:**
   ♣ Students will be able to tell which thinking skill they like to practice and tell the reasons why. Students' scores on post-test are higher than pre-test.

3. **Lesson Activities:**

<u>Do now</u> (5-10 minutes)

1. Ask students for the benefits of teaching thinking skill for their daily life and future careers.
2. Ask students to tell which thinking skill they like to practice and tell the reasons why.

<u>Purpose</u> (10-15 minutes)

1. Tell students that we will again do the questionnaire asking about the students' attitudes toward teaching the three ways of thinking
2. Ask students to do a questionnaire.

<u>Work Mode</u> (20-30 minutes)

1. Have students do a post-test (thinking-skill test).

<u>Reflective Thinking</u> (1-5 minutes)

1. Ask a volunteer or volunteers to reflect their ideas about teaching thinking or what they think about their test (not repeated others) or how much they can do the test.

4. **Assessment:**

   ♣ Students' questionnaire means and post-test scores

APPENDIX D

QUESTIONNAIRE:

ATTITUDES TOWARD LEARNING ENGLISH GRAMMAR THROUGH THE THREE-WAY OF THINKING

The aim of this questionnaire is to explore the students' attitudes toward learning English grammar through the three kinds of thinking--critical-analytic, creative, and practical. It consists of three parts; I: Status; II: Your agreement toward learning English grammar through the three-way of thinking model; and III: Suggestions. The questions were adapted from McLeish (2009, p. 77).

Part I: Status

1. **Sex:** ☐ Male ☐ Female

Part II: Your agreement toward learning English grammar through the three-way of thinking model

1. Please evaluate **your attitudes** into five categories:
   (5) Strongly Agree (4) Agree (3) Undecided (2) Disagree (1) Strongly

Item	Indicate your level of agreement with the following statements:	5	4	3	2	1
	Critical-Analytic thinking					
1	I willingly participate in analytic-thinking activities / assignments.					
2	I prefer that my teachers use more group activities / assignments whilst practicing analytic-thinking skill.					
3	Analytic-thinking activities / assignments help me to: have the abilities to compare and contrast; analyze; evaluate; critique; ask why; explain why; explain causes; and evaluate assumptions more.					
4	Analytic-thinking activities / assignments enhances good working relationships among students.					
5	I feel more confident, dare to think, think about everything rationally, and become a good thinker.					
	Creative thinking					
6	I willingly participate in creative activities / assignments.					
7	I prefer that my teachers use more group activities / assignments whilst practicing creative skill.					
8	Creative-thinking activities / assignments help me to: have the abilities to create; invent; imagine; design; show how; suppose, and say what would happen if… more.					
9	Creative-thinking activities / assignments enhances good working relationships among students.					
10	I feel more confident, dare to think, think about everything rationally, and become a good thinker.					

Item	Indicate your level of agreement with the following statements:	5	4	3	2	1
Practical thinking						
11	I willingly participate in practical activities / assignments.					
12	I prefer that my teachers use more group activities / assignments whilst practicing practical skill.					
13	Practical-thinking activities / assignments help me to: apply; show how we can use something; implement; utilize; and demonstrate how in the real world more.					
14	Practical-thinking activities / assignments enhances good working relationships among students.					
15	I feel more confident, dare to think, think about everything rationally, and become a good thinker.					
Overall results						
16	In general, I have a good feeling toward learning English.					
17	In general, I have a good feeling toward practicing thinking skills.					
18	In general, I have a good feeling toward practicing thinking skills through learning English.					
19	Teaching thinking in three ways (critical-analytic, creative, practical) help you understand the various kinds of thinking that you never know before and you can apply these understandings to your daily life. You feel interested in them every time you practice for them.					
20	You have more confidence and positive self-esteem in your thinking-abilities that someone can be slow in school but think well outside it, and vice versa.					

Note. Likert response–format items from "A biology attitude scale," by S. Russell, and S. Hollander, 1975, *Am Biol Teach, 37*, pp. 270–273.

Part III: Suggestions

_____

_____

_____

_____

_____

APPENDIX E
INTERVIEW PROTOCOLS

The following questions were adapted from Hoang (1995, p. 28).

You have five minutes to answer each question.

1. What do you expect from a thinking classroom?

_____

_____

2. What is your preferred way of learning English? Why?

_____

_____

3. What activities do you like in analytic thinking activities?

_____

_____

4. What activities do you like in creative thinking activities?

_____

_____

5. What activities do you like in practical thinking activities?

_____

_____

6. Do you think what are the advantages and the disadvantages of the three ways of thinking approach?

_____

_____

7. Can you suggest the difficulties or the favorable circumstances that might happen to the implementation of the new methods?

_____

_____

APPENDIX F
PRE-POST (THINKING-SKILLS TEST)

Direction: **Choose the best answer to each question. (30 Questions)**

PART I: **Analytical Skill (Questions 1-10)**

1. **Analyze:** Which of the following is grammatically correct?
    1. Peter walk to school with his brother every day.
    2. Dorothy and Viv lives at the white house with green shutters.
    3. Dorothy, Viv, and their sisters travels for most of the year.
    4. Peter runs home ahead of his brother every day.

2. **Analyze** two questions for the sentence. Complete the correct words.

    Joan made a delicious chocolate cake yesterday.

SUBJECT QUESTION: Who _____ this delicious chocolate cake?

OBJECT QUESTION: What _____ Joan _____ for dessert yesterday?

1. made / did / make
2. make / do / made
3. made / do / make
4. making / did / make

3. **Analyze** this sentence: “My son is going to ten next month.”

    Judge which sentence is <u>correct</u>?

    1. It should be '...is going to be ten...
    2. This sentence is of future continuous time.
    3. ‘Next month’ should be cut off from the sentence.
    4. We should use 'will' instead of ‘going to’ to describe things that we believe will happen.

4. **Analyze** this sentence: “The school term starts next week.”

    Why the present simple is used in this sentence?

    1. It is something that is fixed in the future.
    2. It is something that is true in the present.
    3. It is something that happens regularly in the present.
    4. It is something that you can edit a schedule in the future.

ONET 2560 (Analyze Questions 5-6)

It was the day of the big sale. Rumors of the sale and some advertising in the local paper were the main reason for the long line. The line was formed by 8:30 in the morning in front of the store. A small man pushed his way to the front of the line. But he was pushed back with loud and colorful curses.

On the man's second attempt, he was punched at the jaw and knocked around a bit. He was then thrown to the end of the line again. As he got up the second time, he said to the person at the end of the line, "That does it! If they hit me one more time, I don't open the damn store!"

5. Why were so many people waiting in front of the store?

1. To buy discounted things
2. To be on strike
3. To follow the store regulations
4. To break into the store

6. What would most likely happen to the man in the end?

1. He would go back home.
2. He would remain at the back of the line.
3. He would wait until the line was shorter.
4. He would be allowed to go in front of the line and open the store.

ONET 2560 (Question 7)

Russians generally don't celebrate birthdays before the actual day because this is ' - considered bad luck. There is a belief that the birthday boy or girl who celebrates a birthday in advance may not live to see his or her special day. Also, many people don't celebrate the 40th because this number is associated with death.

In Russia, a birthday celebration is usually a great dinner with many dishes. It is a custom for the birthday person to provide the feast, and this includes paying for dinner if the celebration takes place in a restaurant.

Russians do not give some kinds of presents to birthday persons. Knives and scissors symbolize future conflict and are therefore seen as a bad omen. Likewise, scarves and handkerchiefs represent sorrow and clocks are a sign of departure. An

empty purse is believed to cause poverty. Flowers given for a birthday celebration must be in odd number. An even number of flowers indicates misfortune and even death.

7. According to the passage, please **judge** which of the following is TRUE?

1. If Russians celebrate their 40th birthdays, they will surely die.
2. Russians do not normally give anything sharp as a birthday present.
3. A Russian girl will likely be glad to receive a Thai silk scarf on her birthday.
4. In Russia, expenses on one's birthday celebration are usually split among friends.

PISA 2018

Cow's Milk (Analyze Questions 8-9)

The Nutritional Value of Milk: *Countless Benefits!*

Farm to Market Dairy milk products contain key nutrients: calcium, protein, vitamin D, vitamin B12, riboflavin, and potassium. These vitamins and minerals make *Farm to Market Dairy* milk products an important part of a healthful diet. Consuming *Farm to Market Dairy* milk products every day is a great way to ensure that you get the vitamins and minerals your body needs.

Consuming *Farm to Market Dairy* milk products increases weight loss and helps maintain a healthy weight. Milk increases bone strength and density. It even improves cardiovascular health and helps prevent cancer. One glass of milk is packed with vitamins, minerals, and a wealth of health benefits.

According to Bill Sears, MD, Associate Clinical Professor of Pediatrics at the University of California at Irvine, milk contains many important nutrients in one

convenient place. The International Dairy Foods Association (IDFA) supports this idea. In fact, the IDFA suggests that many health professionals and groups would also agree.

Milk contains a complete nutrient package of nine essential nutrients. In addition to being an excellent source of calcium and vitamin D, it is a good source of vitamin A, protein and potassium. Dairy is recommended by doctors. Dairy's role in a healthy diet has long been established by the nutrition and science community. This includes the National Osteoporosis Foundation, the Surgeon General, the National Institutes of Health, the American Medical Association's Council of Scientific Affairs and many other leading health organizations.

International Dairy Foods Association, September 27, 2007

8. Analyze: According to the IDFA, with which statement do leading health professionals and organizations agree?

1. Consuming milk and milk products leads to obesity.
2. Milk is a good source of essential vitamins and minerals.
3. Milk contains more vitamins than minerals.
4. Drinking milk is a leading cause of osteoporosis.

9. Analyze: What is the main purpose of this text?

1. To argue that milk products increase weight loss.
2. To compare Farm to Market Dairy milk products to other dairy products.
3. To inform the public of the risks associated with heart disease.
4. To support the use of Farm to Market Dairy products.

10. Judge. Is this sentence sound concise?

If not, how to rephrase to sound more concise?

"Thanks for running an event that was very fun."

1. Yes.
2. No. Thanks that was very fun.
3. No. Thanks for running a very fun event.

4. No. Thanks for running an event very fun.

PART 2: Creative Abilities (Questions 11-20)

For questions 11-12

Line 1 "I Have a Dream" is a public speech delivered by American civil rights activist Martin Luther King Jr. during the March on Washington for Jobs and Freedom on August 28, 1963, in which he calls for an end to racism in the United States and called for civil and economic rights. Delivered to over 250,000 civil rights supporters from the steps of the Lincoln Memorial in Washington, D.C., the speech was a defining moment of the civil rights movement.

Line 7 Beginning with a reference to the Emancipation Proclamation, which freed millions of slaves in 1863, King observes that: "one hundred years later, the Negro still is not free". Toward the end of the speech, King departed from his prepared text for a partly improvised peroration on the theme **"I have a dream"**, prompted by Mahalia Jackson's cry: "Tell them about the dream, Martin!" In this part of the speech, which most excited the listeners and has now become its most famous, King described his dreams of freedom and equality arising from a land of slavery and hatred.

Line 14 Jon Meacham writes that, "With a single phrase, Martin Luther King Jr. joined

Jefferson and Lincoln in the ranks of men who've shaped modern America". The speech was ranked the top American speech of the 20th century in a 1999 poll of scholars of public address.

(Source: https://www.mbarendezvous.com/reading-comprehension-passages/)

11. In lines 10, **imagine** what made King say, " I have a Dream"?

1. He was encouraged by Mahalia Jackson.
2. He was overwhelmed by the crowd.
3. He forgot his speech.
4. He couldn't contain himself.

12. Create the King's speech title.

1. I have a dream.

2. Freedom from racism
3. The Emancipation Proclamation
4. Modern America

ONET 61

Read the news report. (Question 13)

13.00 - 14.30 *u.*

LONDON: Oxford Dictionaries recognized the power of the millennia] generation on Friday with its 2017 word of the year: 'youthquake'.

Oxford lexicographers say there was a fivefold increase in use of the term between 2016 and 2017. It is defined as "a significant cultural, political, or social change arising from the actions or influence of young people".

The word, coined almost 50 years. ago by Diana Vreeland, then the editor of Vogue magazine, has been used to describe phenomena including surging youth support for Britain's Labour Party and the election of30-something leaders in France and New Zealand.

Each year, Oxford University Press tracks how the English language is changing and chooses a word that reflects the annual mood. Oxford Dictionaries president Casper Grathwohl said youthquake has "yet to land firmly on American soil, but strong evidence in the UK calls it out as a word on the move".

13. Create the best headline for this news.

1. Power of Youth
2. Era ofYoung Leaders
3. Youthquake: Word on the Move
4. Words of the Year of Oxford Dictionaries

ONET 2561

Read the joke. (Question 14)

Last week, Vicky, a distressed wife, went to the local police station in Wigan, Lancashire, along with her next-door neighbor, Pauline, to report that her husband was missing.

The policeman asked for a description of the missing man.

Vicky described him clearly and in detail, "He is 35 years old, 6 feet 4 inches, has dark eyes, dark wavy hair, an athletic build, weighs 185 pounds, is softly-spoken and is fabulous with the children."

Pauline interrupts her protesting, "Why Vicky, your husband is 5 feet 8 inches, overweight, bald, has a big mouth, and is horrid to your children."

Vicky replied, with a sigh, "Yes, but who wants HIM back?"

14. Imagine what did Vicky mean when she said, "Yes, but who wants HIM back?"

1. She didn't really want her own husband.
2. She wanted to know if anybody wanted her husband back.
3. She intended to ask Pauline if she wanted to take her husband.
4. She really wanted to know if anybody could help her husband.

15. Apply grammar in novel way: if we replaced 'he was playing' by 'he played' in the sentence below

"He broke his leg when <u>he was playing</u> rugby". ➡ 'He broke his leg when <u>he played</u> rugby'.

Is the meaning of the sentence still the same?

1. Yes, it is.

2. No, it isn't. If we use the continuous form (was playing) then we mean that the accident happened during a game. If we use the simple form (played) then we only know that the accident happened during the period of his life when he was a rugby player.
3. No, it isn't. We can't use the continuous form (was playing) after "when" If we use "when", we have to use only with the simple form (played).
4. No, it isn't. If we use the continuous form (was playing) then we mean for something that happened before and after another action in the past: If we use the simple form (played) then we know that something started in the past and continues in the present.

16. Imagine if you arrive home and see hot food on the table and that your mother has just finished washing her hands. How to say for this situation?

1. My mother had been cooking when I arrived.
2. My mother was cooking when I arrived.
3. My mother has just cooked when I arrived.
4. My mother finished cooking when I arrive.

17. Create the sentence that talks about something that happened in the past but is important in the present?

1. I've lost my keys.
2. I received several mails this morning.
3. I sometimes go to the cinema.
4. The train leaves at 19.45 this evening.

O-NET 2558

Situation: **Daughter:** Mom, I'm going shopping with my friends at Chatuchak Weekend Market.

Mother: Beware of pickpockets. There are a lot of people there.

Daughter: Thank you, mom.

18. Discover why the mother says that because ____.

1. she doesn't want her daughter to go there
2. she wants her daughter to take good care of her purse
3. she doesn't want to let her daughter go there alone
4. she wants her daughter to be careful when buying things

O-NET 2558 (Question 19-20)

Situation: A group of tourists has been looking for the Bangkok map for quite a while.

19. Create the expression you will say.

1. What are you doing?
2. Do you want to take a taxi?
3. Where are you from?
4. Can I help you?

Situation: You want to ask your co-worker for his opinion about your presentation.

20. Create the expression you will say.

1. Am I good enough?
2. What do you think of it?
3. Is my presentation a good one?
4. Do you have any idea?

PART 3: Practical Abilities (Question 21-30)

21. Use: Which sentence can be used when we are looking back from a point in the past to something earlier in the past?

1. They wanted to buy a new computer, but they hadn't saved enough money.
2. Most evenings, we used to stay at home and watch DVDs.
3. It was just after ten. I was watching the news on TV.
4. He broke his leg when he was playing rugby.

22. Use: Which sentence can’t you use in the Present Perfect?

1. Have you seen Helen today?
2. We have lived here since 2017.

3. I have seen that film yesterday.
4. We have bought a new car this week.

23. Put into practice: What do you mean if you say "He's meeting Peter in two this afternoon"?

1. “He” has already spoken with Peter and they have a plan to meet at two.
2. “He” is talking about the activity at the moment of speaking.
3. “He” has met in the past and continues in the present.
4. “He” is talking about something that is fixed, cannot be changed by him in the future.

O-NET 2558 (Put into practice Question 24-27)

24. Your friend asks your advice about how to lose weight.
What will you say?

1. Your problem is that you weigh too much.
2. You need some good food for a happy life.
3. The best way to do is to exercise more.
4. If I were you, I'd gain some more weight.

25. Supote : What’s the matter? You look upset.
Somchai : The bus broke down so I arrived late this morning.
Supote : Why didn’t you _____
Somchai : It would take much too long.

1. break the glass?
2. fix the broken seat?
3. check with the bus driver?
4. walk to school instead?

26. You want to write an informal letter to someone who make you feel amazing, what Is not appropriate in an informal letter?

1. “Dear Mrs. Alex” can be the greeting.

2. The letter overall should maintain a friendly tone.
3. Invite the reader to write back or reply to your letter.
4. Begin the letter by telling your purpose of the writing.

27. Hannah had stayed at a friend's house for a week, but she left a briefcase there, which had several important documents in it. In a letter to her friend, Jeremy Simmons, she asks him to send her the briefcase as soon as possible. Which of the following would be a suitable closure for the letter?

1. Yours Faithfully
2. Yours Sincerely
3. Warm Regards
4. All of the above

O-NET 2559 (Use: Question 28-30)

Situation: In the library

Andy: Why don't we take a break from studying and get something to eat?
Bob: Yeah, __28__.
Cathy: Me too.
Andy: __29__?
Bob: I could go for a burger and some fries ... and maybe a milkshake.
Cathy: Ugh. I think we should get something a little healthier.
Andy: __30__.
Cathy: Say a salad and some fruit.
Andy: O.K.

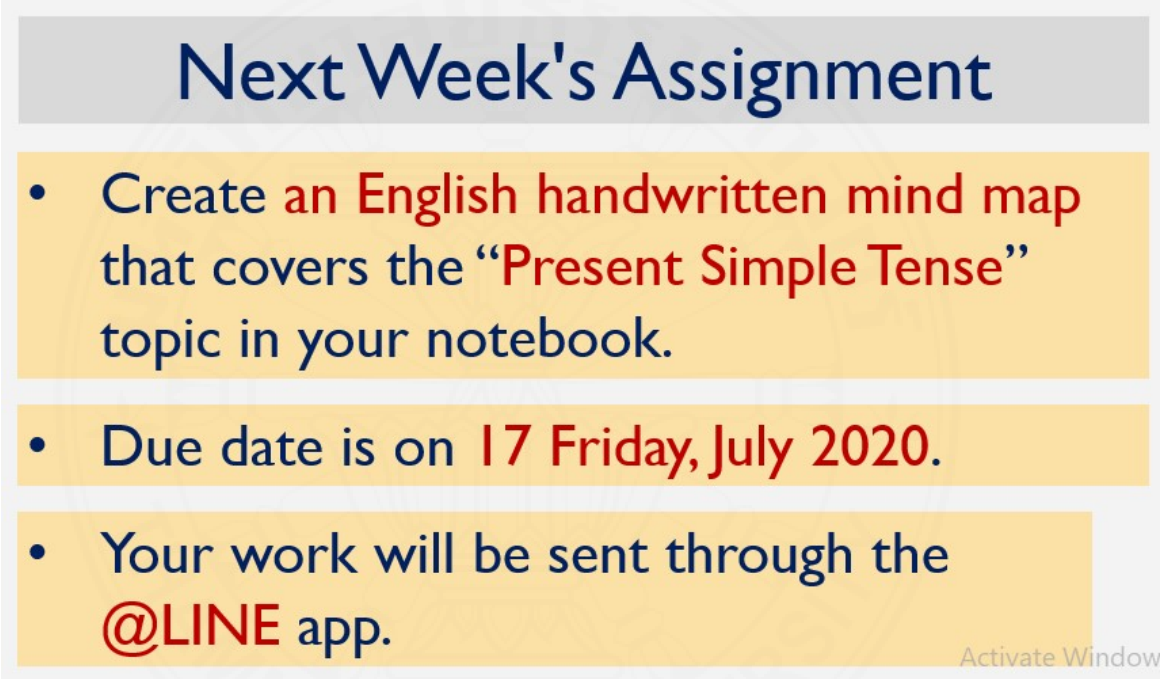
28.
1. I hope so.
2. I'm hungry
3. I can hear you
4. I have

29.
1. What are you like
2. What does it look like
3. What do you feel like eating
4. What would you like to make up for

30. 1. What do you know 2. What is your question
3. What is there left to say 4. What do you have in mind

****

APPENDIX G
EXAMPLE OF ACTIVITIES / TASKS
(WEEK 2)

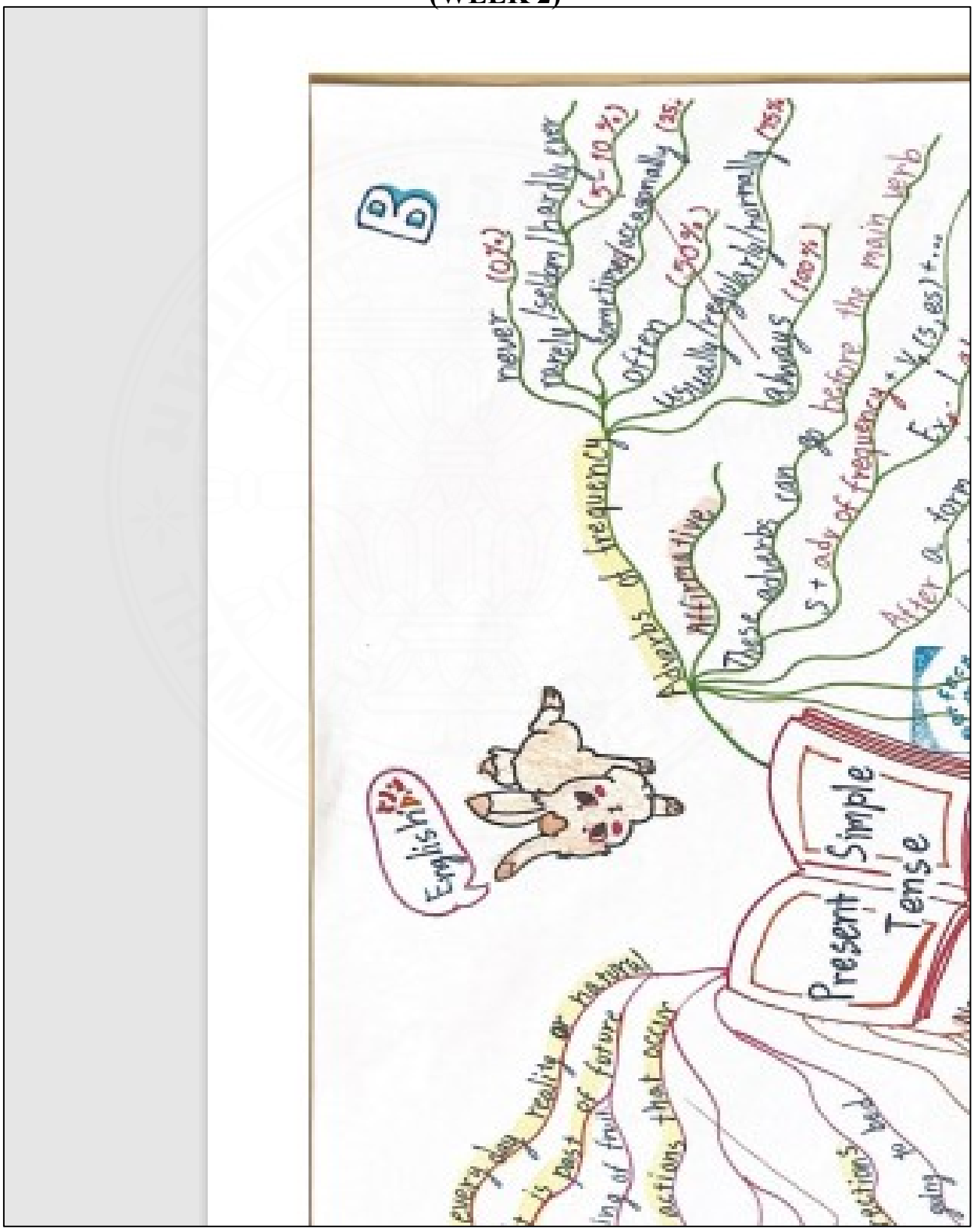


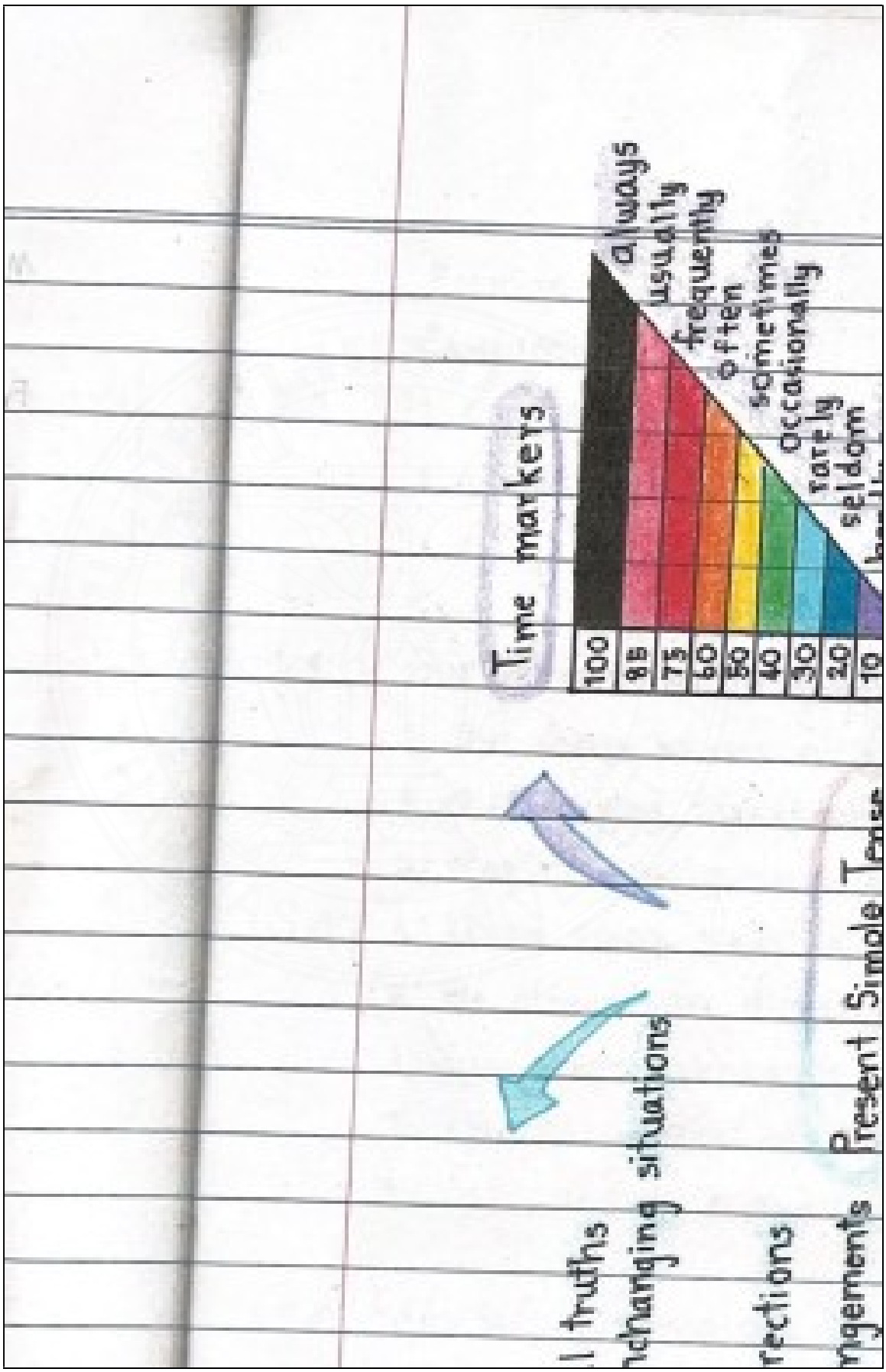
APPENDIX H

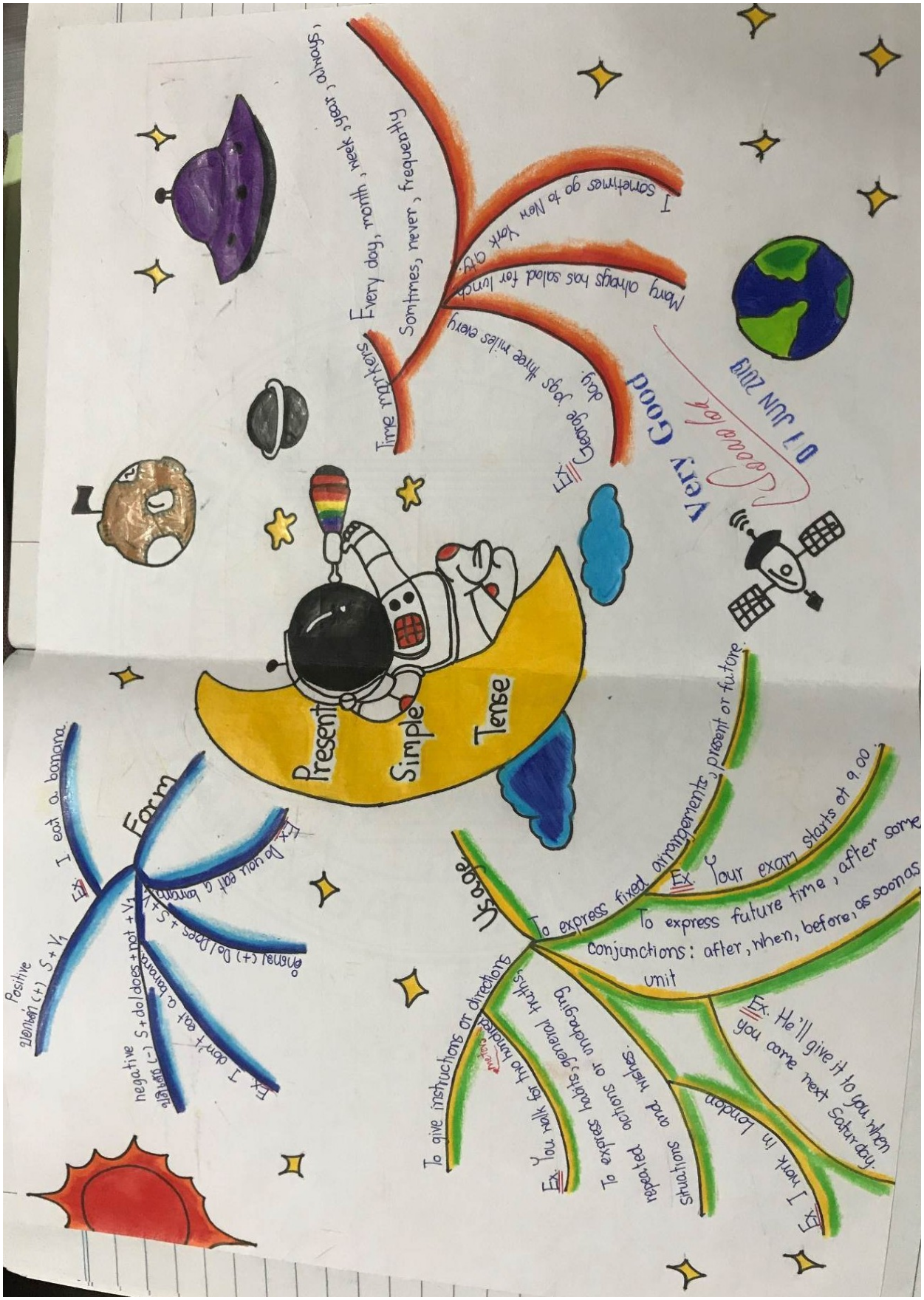
STUDENTS' WORK

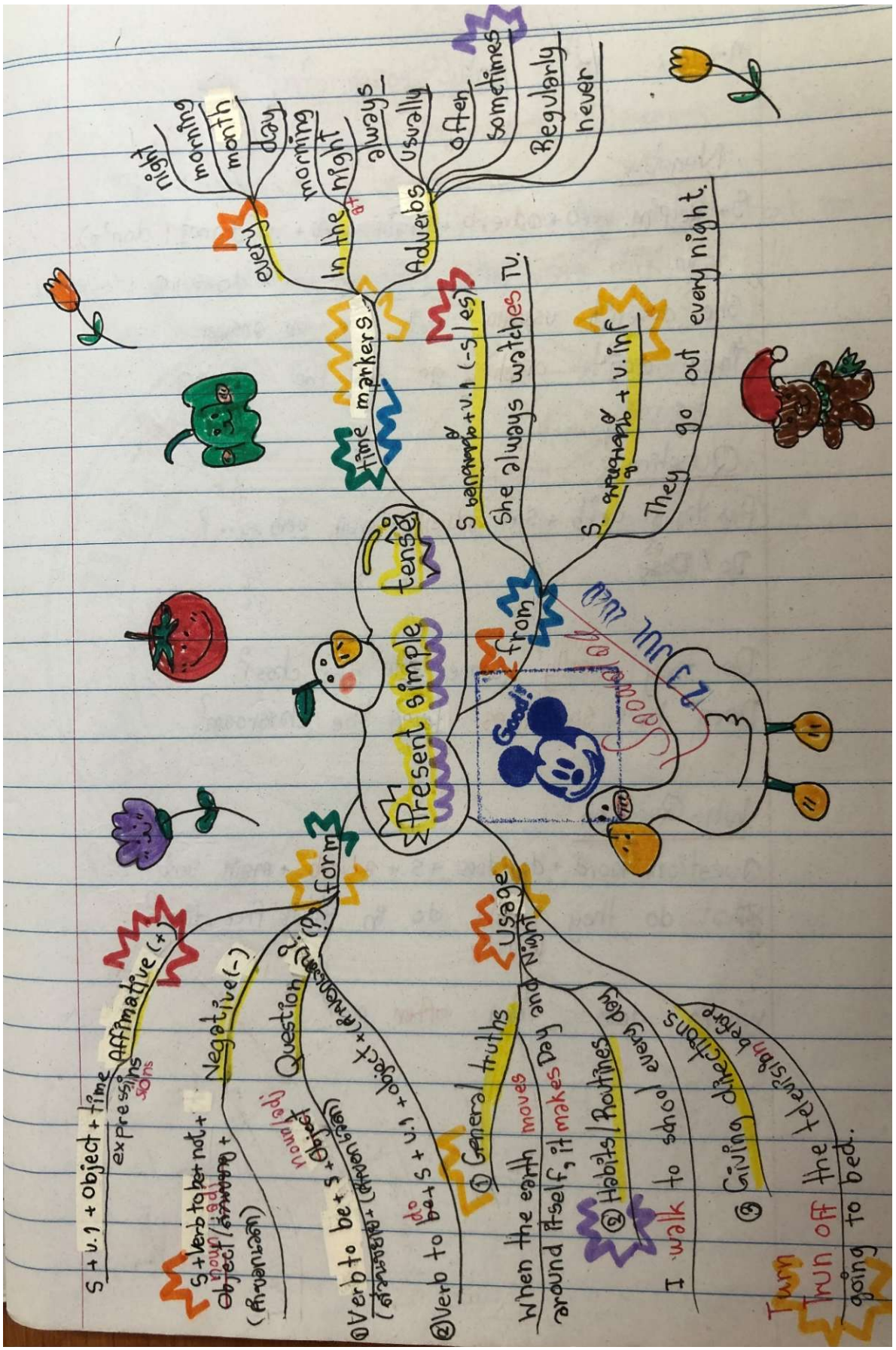
MIND MAP (PRESENT SIMPLE TENSE)

(WEEK 2)









APPENDIX I
READING IN THE TEXT BOOK (ACCESS 3)
PURPOSE STAGE (WEEK 3)

P 8

Dear Steve,

Thanks for your letter. I hope we get to know each other well.

First of all, let me tell you a few things about myself. I am 15 years old and I live in Barcelona, Spain. My mum is a doctor. She works at the local hospital. My dad is a police officer. They both work long hours. I'm a student at Reading Secondary School. I have a sister, Laura, who is 17. We get along quite well.

School starts at 8:30. I wake up every day at 7:00, have breakfast and go to school on foot. Sometimes my dad takes me in the car, especially when the weather is bad. I get back home at 3:30 in the afternoon. I usually do my homework in the evenings for an hour or two. Then, I often watch TV. On Mondays and Tuesdays, I have karate lessons. On Saturdays, I always go out with friends. We like going to the cinema.

What about you? What kind of films do you like? What kind of music do you like? Please write soon!

Yours,
Pedro

Activity Time 👍☺

Question Competition

Each group comes up with a question about the story and the other groups have to answer.

APPENDIX J
EXAMPLE OF ACTIVITIES / TASKS
WORK MODE STAGE (WEEK 3)

For Odd numbers (First Half) Date _____

Class _____ Name_____Number _____

Name_____Number _____

Name_____Number _____

Select only one option, discuss your finding, write down your answer and then share with your class.

Topic	Analytic	Creative	Practical
Present Simple	**Analyze** steps you take in writing an informal letter.	**Create** an informal letter to someone who make you feel amazing.	Tell How to **apply** the Present Simple Tense used in daily life

_____

_____

_____

_____

_____

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_____

_____

_____

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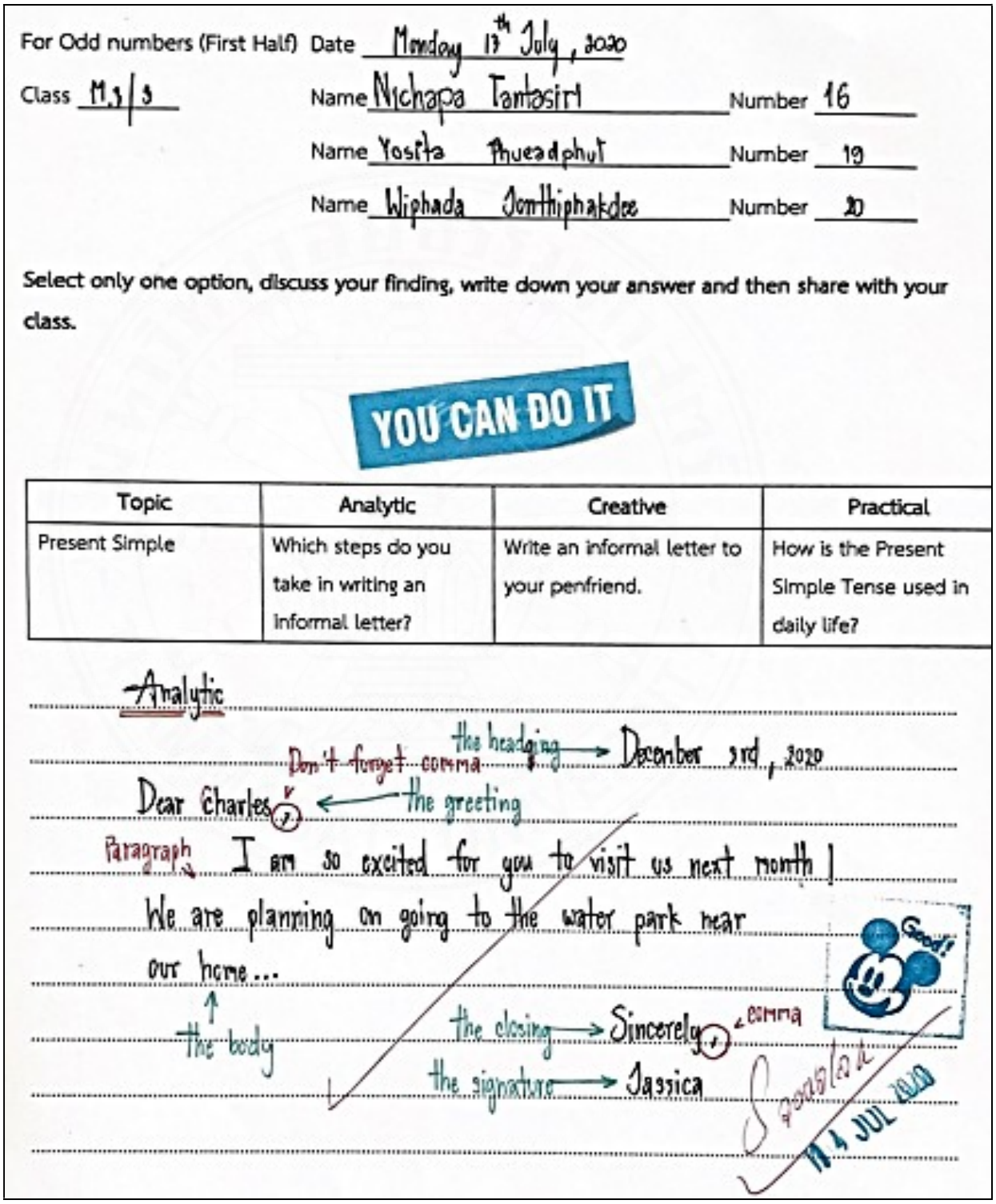
_____

_____

APPENDIX K
STUDENTS' WORK
(PRESENT SIMPLE TENSE) (WEEK 3)



For Odd numbers (First Half) Date Monday 13th July, 2020

Class M.3/3 Name Nichapa Tantasirt Number 16

Name Yosita Phueadphut Number 19

Name Wiphada Jomthiphakdee Number 20

Select only one option, discuss your finding, write down your answer and then share with your class.

YOU CAN DO IT

Topic	Analytic	Creative	Practical
Present Simple	Which steps do you take in writing an informal letter?	Write an informal letter to your penfriend.	How is the Present Simple Tense used in daily life?

Analytic

Don't forget comma — the heading → December 3rd, 2020

Dear Charles, ← the greeting

Paragraph I am so excited for you to visit us next month! We are planning on going to the water park near our home...

↑ the body

the closing → Sincerely, ← comma

the signature → Jessica

Good!

Congrats

14 JUL 2020

For Odd numbers (First Half) Date _____

Class 3/3 Name Pawintakorn Wilaipornrattana Number 3

Name Peerapat Singsaohae Number 9

Name Karistha Chawengprasend Number 13

Select only one option, discuss your finding, write down your answer and then share with your class.

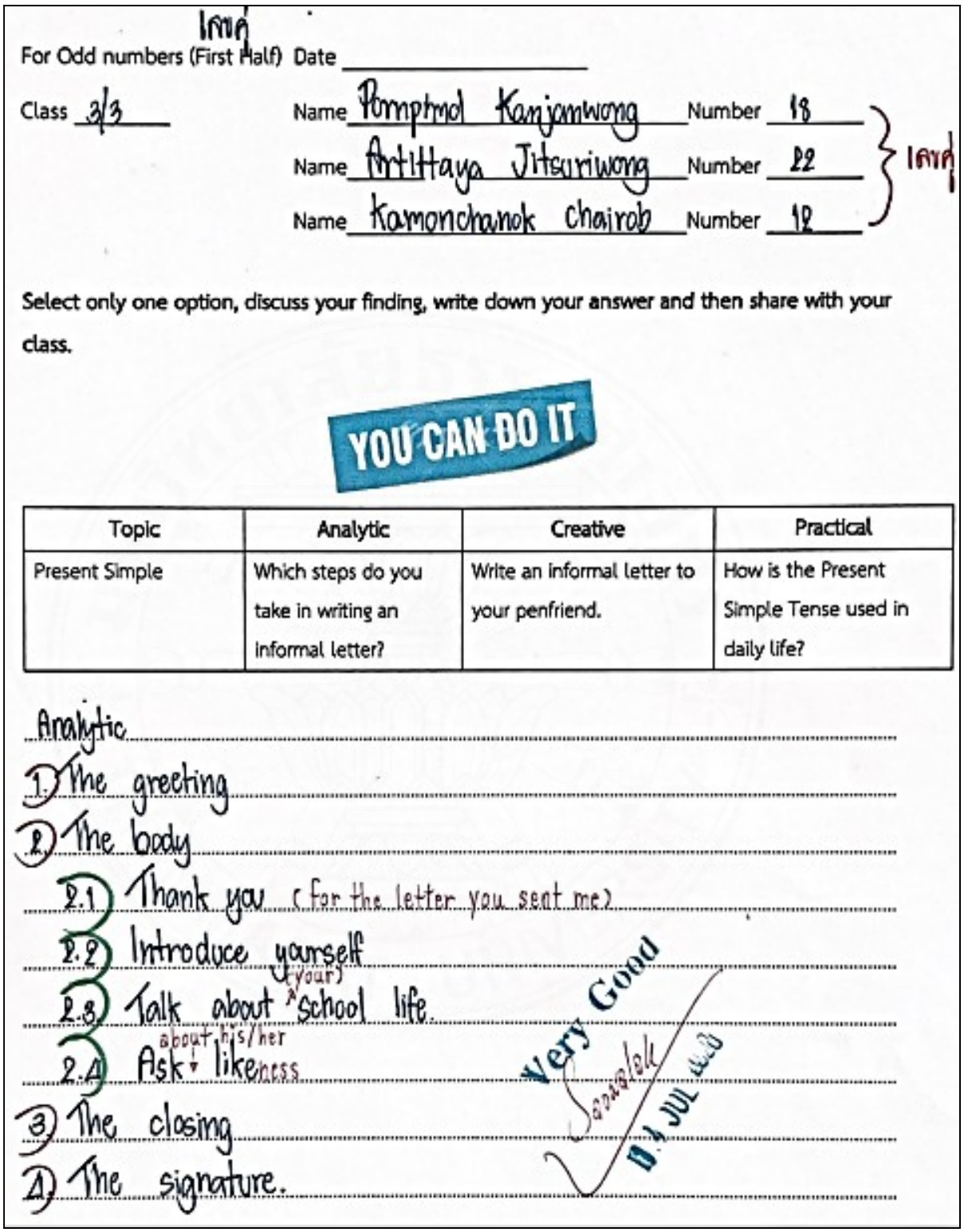
Topic	Analytic	Creative	Practical
Present Simple	Which steps do you take in writing an informal letter?	Write an informal letter to your penfriend.	How is the Present Simple Tense used in daily life?

July 13th / 2020

Dear Doraemon,

I miss you so much, Doraemon. I hope you will come back and find something to play together. I miss your magics. I wanna take you to see some rats.

You are so creative!!
very Good
Sincerely,
Nobita



Inw

For Odd numbers (First Half) Date _____

Class 3/3

Name Pomphol Kanjanwong Number 18

Name Arthaya Jitsuriwong Number 22

Name Kamonchanok Chairob Number 12

Inw

Select only one option, discuss your finding, write down your answer and then share with your class.

YOU CAN DO IT

Topic	Analytic	Creative	Practical
Present Simple	Which steps do you take in writing an informal letter?	Write an informal letter to your penfriend.	How is the Present Simple Tense used in daily life?

Analytic

1. The greeting
2. The body
   - 2.1 Thank you (for the letter you sent me)
   - 2.2 Introduce yourself
   - 2.3 Talk about (your) school life.
   - 2.4 Ask about his/her likeness
3. The closing
4. The signature.

Very Good

Sasalak

8 JUL 2563

APPENDIX L
EXAMPLE OF ACTIVITIES / TASKS
(WEEK 4)

For Odd numbers (First Half) Date _____

Class _____ Name_____Number _____

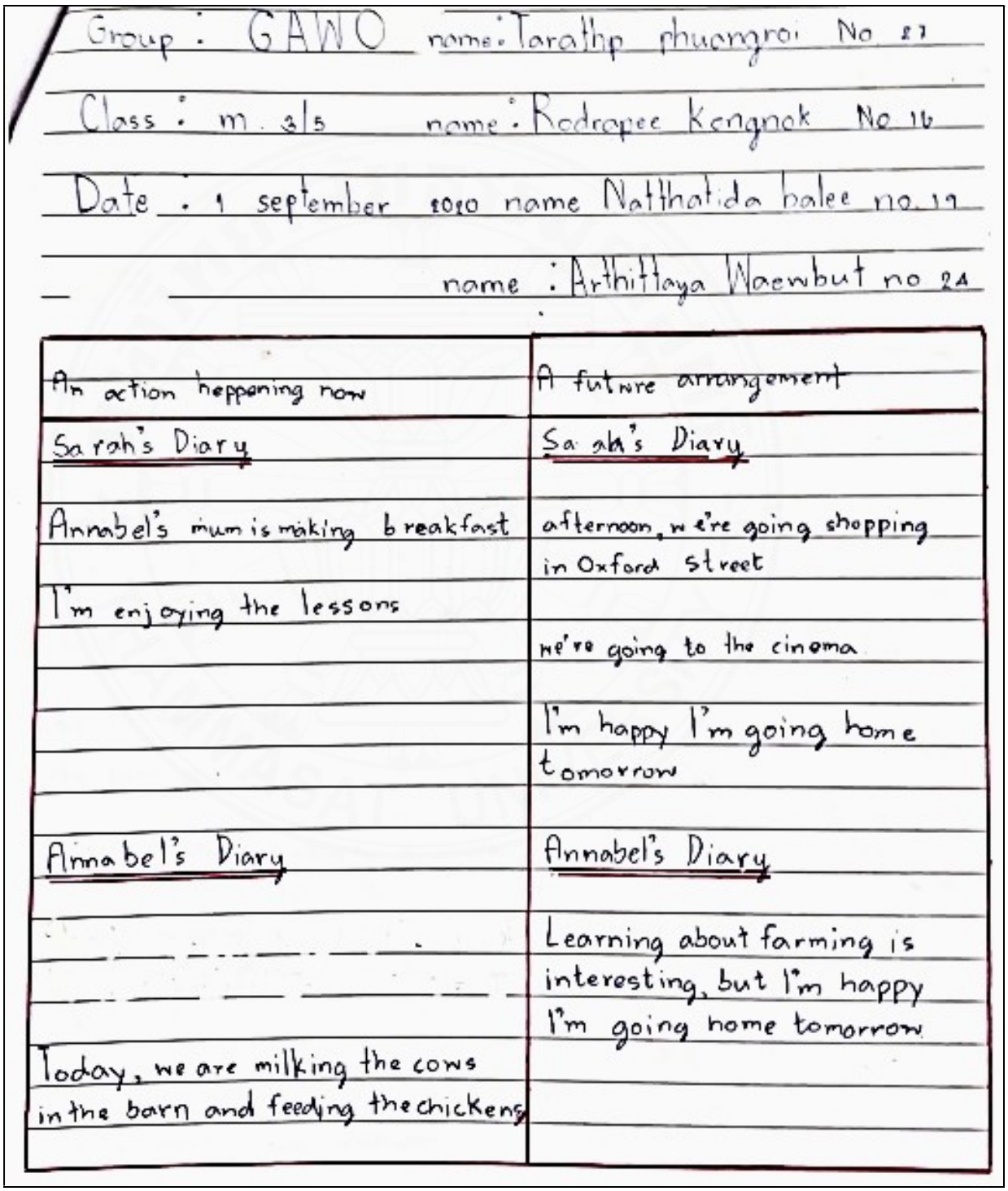
Name_____Number _____

Name_____Number _____

Select only one option, discuss your finding, write down your answer and then share with your class.

Topic	**Analytic**	**Creative**	**Practical**
Present Continuous	Investigate the reading passage on page 10, then **compare** the differences between the sentences showing “an action happening now” and "a future arrangement"	**Imagine** that you are a tour guide trying to explain what is happening in a painting with role plays in which the people on the tour keep on asking more and more questions.	Tell ways / the best way to **apply** Present Continuous Tense **in practice**.

APPENDIX M
STUDENTS' WORK
(PRESENT CONTINUOUS TENSE) (WEEK 4)



Group : GAWO name : Tarathp phuangroi No 27

Class : m. 3/5 name : Rodrapee Kengnak No 16

Date : 1 september 2020 name Natthatida balee no 19

name : Arthittaya Waenbut no 24

An action happening now	A future arrangement
Sarah's Diary	Sarah's Diary
Annabel's mum is making breakfast	afternoon, we're going shopping in Oxford street
I'm enjoying the lessons	
	we're going to the cinema
	I'm happy I'm going home tomorrow
Annabel's Diary	Annabel's Diary
	Learning about farming is interesting, but I'm happy I'm going home tomorrow
Today, we are milking the cows in the barn and feeding the chickens	

Date 31 August, 2020

Class 6/3

Name Nichapa Tantasiri Number 14

Name Yasita Prasadpaut Number 41

Name Nipada Jonthiphakdee Number 20

Select only one option, discuss your finding, write down your answer and then share with your class.

Topic	Analytic	Creative	Practical
Present Continuous	Investigate reading passage on page 10, then list the sentences showing "an action happening now" and "a future arrangement"	Imagine that you are a tour guide trying to explain what is happening in a painting with roleplays in which the people on the tour keep on asking more and more questions.	What are ways / is the best way in practice with Present Continuous Tense?

Tour guide: Welcome to .. Aquarium, Hello My name is View. I'm a guide from Aquarium.

Tourist 1: Yeyy !! Tourist 2: Yahn--

Tourist 3: What are we doing today ?

Tour guide: Walk around the aquarium for study aquatic animals

Tourist 1: OK.! wow that is dolphin, What is it doing?

Tour guide: It's swimming and collect the ball Tourist 3: Oh~ so cute ~~

Tourist 2: Where we are going ?

Tour guide: We are going to see highlight show of seals.

Tourist 2: Wow !! The seals good in swimming

Tour guide: Now .. end show. Thank you all very much.

Date 31/09/2020

Class 3/3

Name Kamonchanok Chairak Number 12

Name Parawee Kolakit Number 17

Name _____ Number _____

Select only one option, discuss your finding, write down your answer and then share with your class.

Topic	Analytic	Creative	Practical
Present Continuous	Investigate reading passage on page 10, then list the sentences showing "an action happening now" and "a future arrangement"	Imagine that you are a tour guide trying to explain what is happening in a painting with roleplays in which the people on the tour keep on asking more and more questions.	What are ways / is the best way in practice with Present Continuous Tense?

1. remember the sentence structure

Affirmative S + is,am,are + V-ing + right now, now, at this moment

at this time, this week, this month

today, next week

Negative S + is/am/are + not + V-ing

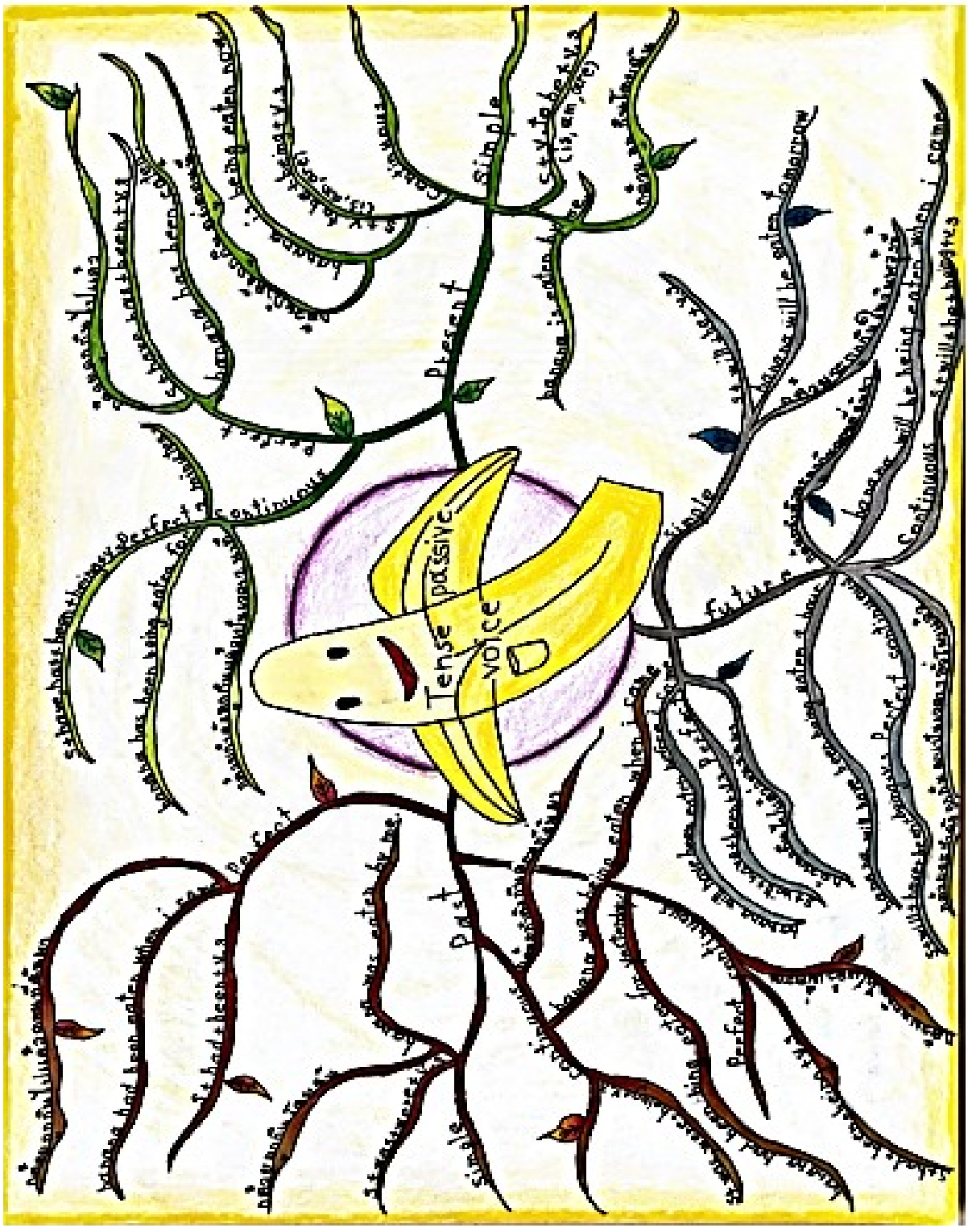
Question Is/Am/Are + S + V-ing

2. listening

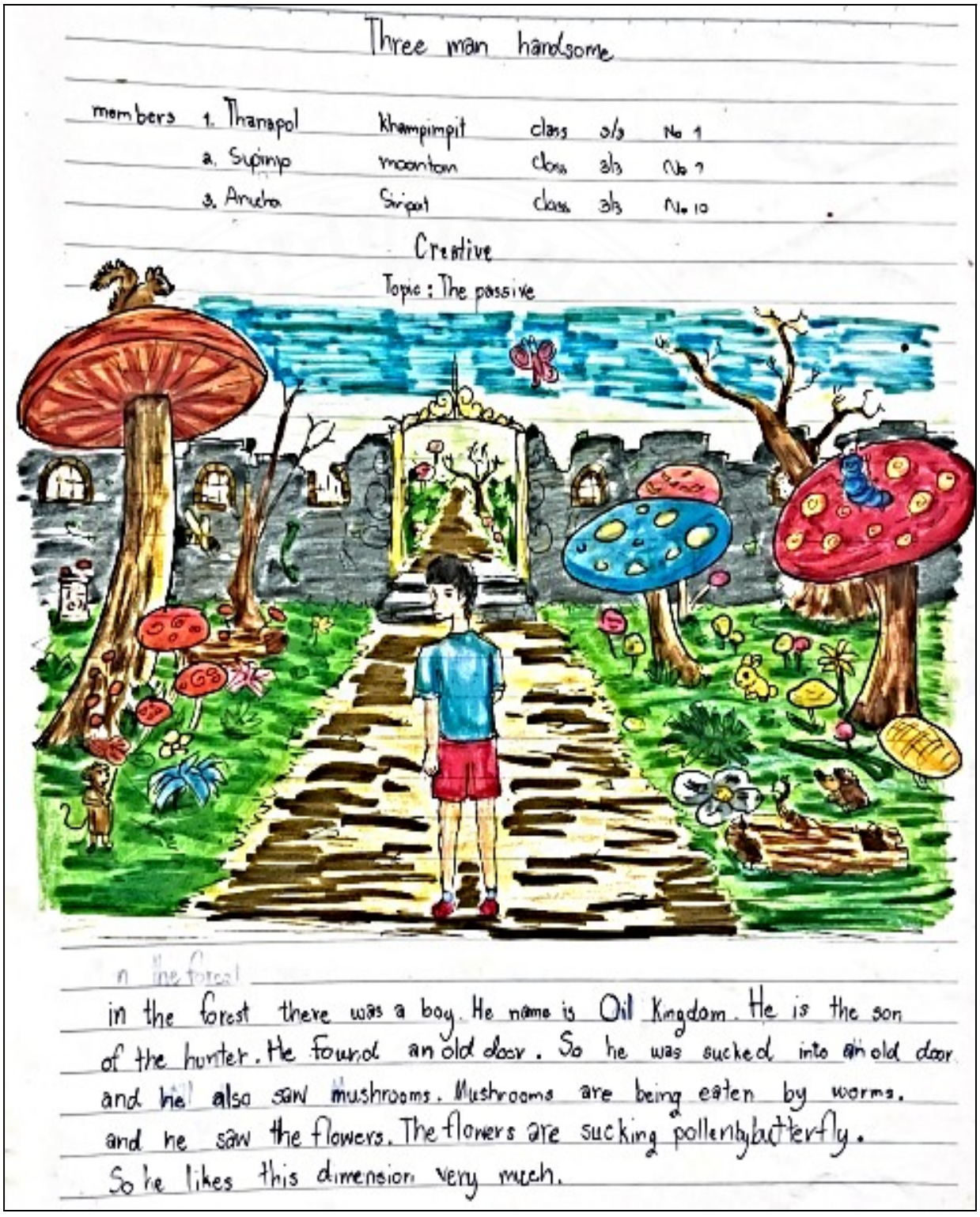
3. Practice reading

4. Have confidence in yourself

APPENDIX N
STUDENTS' WORK
MIND MAP (THE PASSIVE VOICE) (WEEK 7)



APPENDIX O
STUDENTS' WORK
CREATIVE SKILL (WEEK 7)



Three man handsome

members 1. Thanapol Khampimpit class 3/3 No 1
2. Supimp moontan class 3/3 No 7
3. Anucha Siripat class 3/3 No 10

Creative

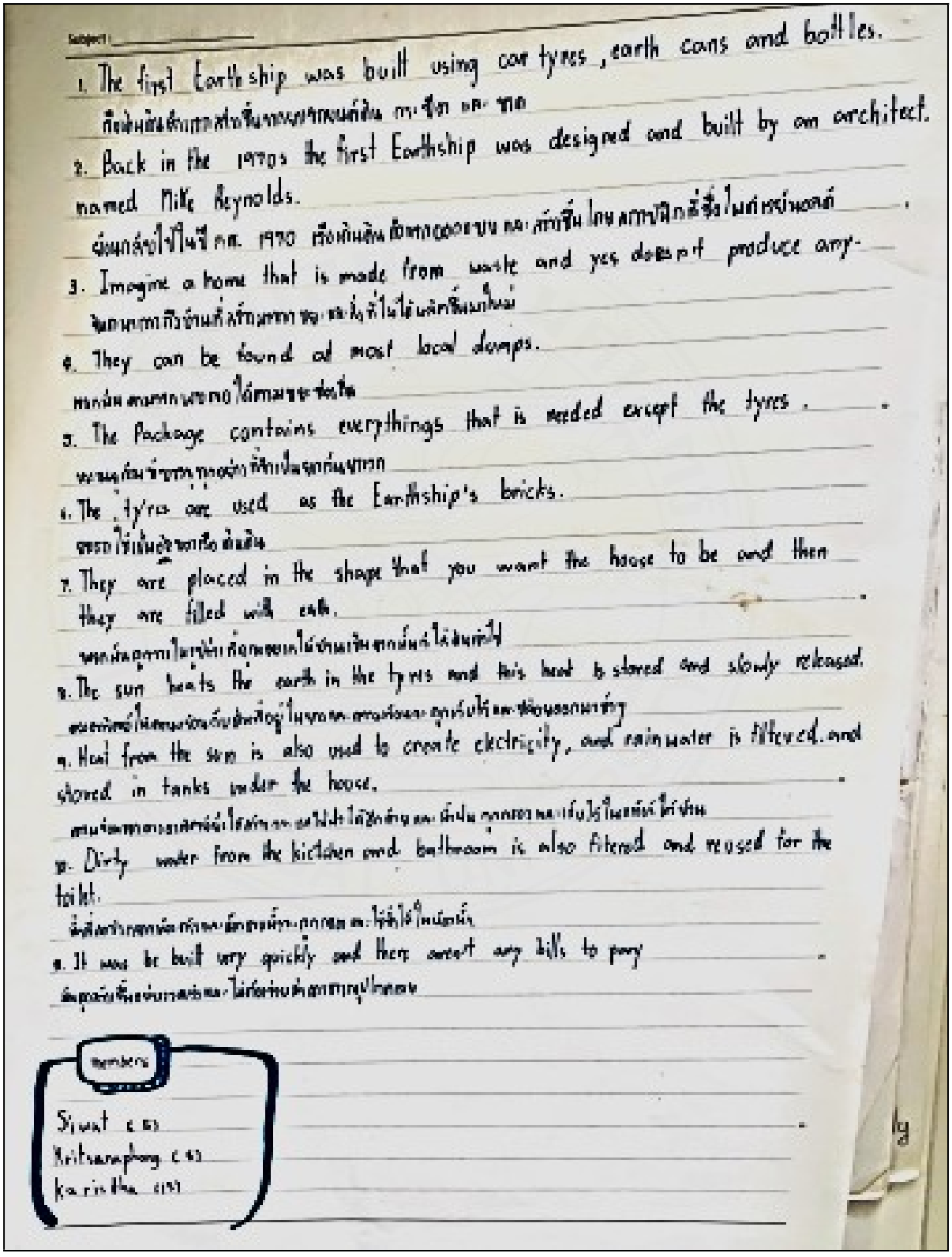
Topic : The passive

In the forest

in the forest there was a boy. He name is Oil Kingdom. He is the son of the hunter. He found an old door. So he was sucked into an old door and he also saw mushrooms. Mushrooms are being eaten by worms. and he saw the flowers. The flowers are sucking pollenbybutterfly. So he likes this dimension very much.

APPENDIX P

STUDENTS' WORK
ANALYTICAL SKILL (WEEK 7)


Subject:

1. The first Earthship was built using car tyres, earth cans and bottles.
2. Back in the 1970s the first Earthship was designed and built by an architect named Mike Reynolds.
3. Imagine a home that is made from waste and yes doesn't produce any-
4. They can be found at most local dumps.
5. The Package contains everythings that is needed except the tyres.
6. The tyres are used as the Earthship's bricks.
7. They are placed in the shape that you want the house to be and then they are filled with earth.
8. The sun heats the earth in the tyres and this heat is stored and slowly released.
9. Heat from the sun is also used to create electricity, and rain water is filtered and stored in tanks under the house.
10. Dirty water from the kitchen and bathroom is also filtered and reused for the toilet.
11. It was be built very quickly and then doesn't any bills to pay

members

Siwat (...)
Kritsanaphong (...)
Kanin tha (...)

APPENDIX Q

SAMPLE OF INFORMED CONSENT FORMS

แบบขอหนังสือผู้ปกครองให้นักเรียนเข้าร่วมกิจกรรม Thinking Classroom

โรงเรียนสิริวัฒนาธร

วันที่ ๑ พฤษจิกายน ๒๕๖๓

เรื่อง ขออนุญาตให้นักเรียนเข้าร่วมกิจกรรม Thinking Classroom

เรียน ผู้ปกครองนักเรียน

ด้วยข้าพเจ้านางสาวเสาวลักษณ์ วงษ์ราช ครูผู้สอนรายวิชา อ๒๓๒๐๑ ภาษาอังกฤษพื้นฐาน ๕ กลุ่มสาระการเรียนรู้ภาษาต่างประเทศ โรงเรียนสิริวัฒนาธร ได้จัดกิจกรรม Thinking Classroom โครงการพัฒนาผลสัมฤทธิ์ทางวิชาการของผู้เรียน (ภาษาต่างประเทศ) ในภาคเรียนที่ ๑ ปีการศึกษา ๒๕๖๓ กิจกรรมดังกล่าวเป็นส่วนหนึ่งของงานวิจัยในระดับปริญญาโทของข้าพเจ้า เรื่อง "Using Triarchic Theory of Human Intelligence to Enhance Thinking Skills of Students at Sirivattanathorn School." ในสาขาวิชา ภาษาอังกฤษศึกษา (English Language Studies) ณ มหาวิทยาลัยธรรมศาสตร์ โดยจะมีการจัดกิจกรรมที่ส่งเสริมทักษะการคิดใน 3 รูปแบบ ได้แก่ Analitic, Creative, Practical การสอบถามทัศนคติของผู้เรียนต่อการเรียนการสอนแบบเน้นทักษะการคิด การสัมภาษณ์ (สุ่มตัวอย่าง) และการทำแบบทดสอบเพื่อวัดทักษะการคิด ก่อนและหลังเรียน

ในการนี้ ข้าพเจ้าจึงขออนุญาตให้นักเรียนระดับชั้น ม.๔/๓ นักเรียนในความปกครองของท่านได้เข้าร่วมกิจกรรม Thinking Classroom ซึ่งการเข้าร่วมกิจกรรมในครั้งนี้ นักเรียนจะได้รับความรู้ การฝึกฝนทักษะการคิดเพื่อให้เป็นแนวทางในการนำไปใช้ประโยชน์ในชีวิตประจำวัน ในโอกาสศึกษาต่อและการทำงานต่อไป โดยมีครูจำนวน ๑ คน คือ นางสาวเสาวลักษณ์ วงษ์ราช เป็นผู้ดำเนินงานวิจัย เบอร์โทรศัพท์ ๐๒๓-๘๘๘๕-๘๘๘

จึงเรียนมาเพื่อโปรดพิจารณาอนุญาต

ขอแสดงความนับถือ

(นางบุสบง พรหมจันทร์)

ผู้อำนวยการโรงเรียนสิริวัฒนาธร

โทร. ๐๒-๒๗๔-๔๔๘๗

.....โปรดกรอกแบบตอบรับส่งคืนสถานศึกษา.....

ข้าพเจ้า (นาย/นาง/นางสาว) .....นามสกุล.....

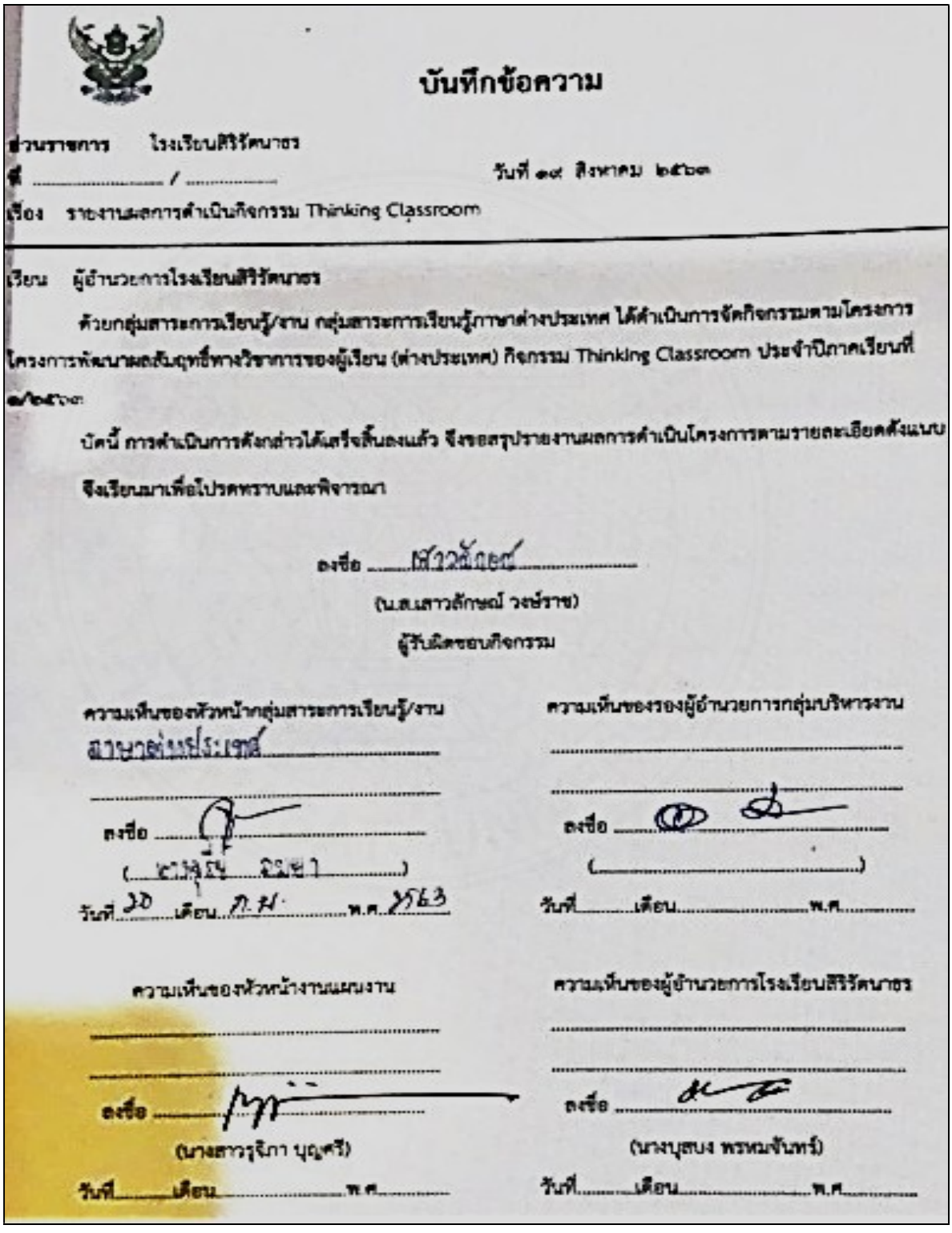
ผู้ปกครองของ .....นามสกุล.....เลขที่.....

☐ อนุญาต ☐ ไม่อนุญาต ให้นักเรียนเข้าร่วมกิจกรรม Thinking Classroom

ลงชื่อ.....ผู้ปกครอง

เบอร์ติดต่อ.....

APPENDIX R
OFFICIAL LETTERS OF PERMISSION
TO CONDUCT RESEARCH



บันทึกข้อความ

ส่วนราชการ โรงเรียนสิริรัตนาธร

ที่ ...../..... วันที่ ๑๙ สิงหาคม ๒๕๖๓

เรื่อง รายงานผลการดำเนินกิจกรรม Thinking Classroom

เรียน ผู้อำนวยการโรงเรียนสิริรัตนาธร

ด้วยกลุ่มสาระการเรียนรู้/งาน กลุ่มสาระการเรียนรู้ภาษาต่างประเทศ ได้ดำเนินการจัดกิจกรรมตามโครงการ โครงการพัฒนาผลสัมฤทธิ์ทางวิชาการของผู้เรียน (ต่างประเทศ) กิจกรรม Thinking Classroom ประจำปีภาคเรียนที่ ๑/๒๕๖๓

บัดนี้ การดำเนินการดังกล่าวได้เสร็จสิ้นลงแล้ว จึงขอสรุปรายงานผลการดำเนินโครงการตามรายละเอียดดังแนบ

จึงเรียนมาเพื่อโปรดทราบและพิจารณา

ลงชื่อ .....

(น.ส.เสาวลักษณ์ วงษ์ราช)

ผู้รับผิดชอบกิจกรรม

ความเห็นของหัวหน้ากลุ่มสาระการเรียนรู้/งาน

ภาษาต่างประเทศ .....

ลงชื่อ .....

(.....)

วันที่ 20 เดือน ก.ค. พ.ศ. 2563

ความเห็นของรองผู้อำนวยการกลุ่มบริหารงาน

.....

ลงชื่อ .....

(.....)

วันที่ ..... เดือน ..... พ.ศ. .....

ความเห็นของหัวหน้างานแผนงาน

.....

ลงชื่อ .....

(นางสาวรุจิภา บุญศรี)

วันที่ ..... เดือน ..... พ.ศ. .....

ความเห็นของผู้อำนวยการโรงเรียนสิริรัตนาธร

.....

ลงชื่อ .....

(นางบุสบง พรหมจันทร์)

วันที่ ..... เดือน ..... พ.ศ. .....

รายละเอียดกิจกรรม

โครงการ / งาน	โครงการพัฒนาผลสัมฤทธิ์ทางวิชาการของผู้เรียน (ต่างประเทศ)
กิจกรรม	Thinking Classroom
ลักษณะงาน / โครงการ	☑ โครงการต่อเนื่อง ☐ โครงการใหม่ ☐ ยกระดับมาตรฐาน ☐ รักษามาตรฐาน ☐ พัฒนาสู่ความเป็นเลิศ
ประเภท	☑ กิจกรรมใหม่ ☐ กิจกรรมต่อเนื่อง ☐ งานประจำ
การดำเนินโครงการ	☑ เสร็จสิ้นแล้ว ☐ กำลังดำเนินการ ☐ ยังไม่ได้ดำเนินการ
หน่วยงานที่รับผิดชอบ	กลุ่มสาระการเรียนรู้ภาษาต่างประเทศ
ผู้รับผิดชอบ	น.ส.เสาวลักษณ์ วงษ์ราช
ภาคเรียนที่ 1/2563	ปีงบประมาณ 2563 ปีการศึกษา 2563
วันที่ประมาณการ	01/11/2562 - 28/02/2563
วันที่ดำเนินการจริง	01/11/2562 - 28/02/2563
สถานที่ดำเนินการ	โรงเรียนสิริรัตนาธร
งบประมาณ	0.00 บาท

พันธกิจ	พัฒนาการบริหารจัดการตามหลักธรรมาภิบาล จัดการศึกษาระดับมัธยมศึกษา เพื่อสร้างผู้เรียนให้มีคุณภาพตามมาตรฐานการศึกษาขั้นพื้นฐานเทียบเคียงมาตรฐานสากล และมีทักษะการเรียนรู้ในศตวรรษที่ 21 ส่งเสริมให้ผู้เรียน ครูและบุคลากรน้อมนำหลักปรัชญาของเศรษฐกิจพอเพียงไปใช้ในการดำเนินชีวิต ส่งเสริมกิจกรรมที่ปลูกฝังให้ผู้เรียนมีความรู้ควบคู่คุณธรรม และมีค่านิยมบนพื้นฐานความเป็นไทย พัฒนาครูและบุคลากรทางการศึกษาให้มีทักษะในการจัดการเรียนการสอนที่เน้นผู้เรียนเป็นสำคัญและมีประสิทธิภาพในการปฏิบัติงานอย่างมืออาชีพ
เป้าประสงค์	การบริหารงานของโรงเรียนมีประสิทธิภาพและเกิดประสิทธิผล ผู้เรียนมีผลสัมฤทธิ์ทางการเรียนตามเกณฑ์มาตรฐานการศึกษาขั้นพื้นฐาน เทียบเคียง มาตรฐานสากล และมีทักษะการเรียนรู้ในศตวรรษที่ 21 ครูและบุคลากรทางการศึกษาสามารถปฏิบัติงานได้อย่างมีประสิทธิภาพเต็มตามศักยภาพ บรรยากาศและสภาพแวดล้อมเอื้อต่อการเรียนรู้ ผู้เรียนมีคุณสมบัติตามมาตรฐานนักเรียนสิริรัตนาธร ได้แก่ จิตอาสา สามัคคี มีวินัย
กลยุทธ์	กลยุทธ์ที่ 1. พัฒนาคุณภาพผู้เรียนให้มีทักษะการเรียนรู้ในศตวรรษที่ 21 สู่มาตรฐานสากลตามหลักปรัชญาของเศรษฐกิจพอเพียง
อัตลักษณ์	"จิตอาสา สามัคคี มีวินัย"

ทรัพยากรและค่าใช้จ่ายกิจกรรม

ที่	รายการค่าใช้จ่าย	งบที่ตั้งไว้	งบที่ใช้จริง	ผลต่าง	ประเภทเงิน
1					
	รวม				

สรุปงบประมาณ

บาท

รวม บาท

ปัญหา/ข้อเสนอแนะ

ตัวชี้วัดที่ 1 - นักเรียนที่เข้ารับการฝึกทักษะการคิดมีความพึงพอใจเฉลี่ยอยู่ในระดับดีมากขึ้นไป ตัววัด จำนวน

จากทั้งหมด : 5 เกณฑ์ที่ผ่าน : 4 ผลที่ทำได้ : 4

คิดเป็น 67.50 % ผ่าน

ลงชื่อ สรุปผลกิจกรรม Thinking Classroom

ภายใต้โครงการ / งาน โครงการพัฒนาผลสัมฤทธิ์ทางวิชาการของผู้เรียน (ต่างประเทศ)

ผู้รับผิดชอบกิจกรรม

เสาวลักษณ์

(น.ส.เสาวลักษณ์ วงษ์ราช)

ตำแหน่ง คณะผู้รับผิดชอบกิจกรรม

แผนงานหมวด/กลุ่ม

(นางสาวศิรินธร พุทธโม)

หัวหน้าแผนงานกลุ่มสาระการเรียนรู้ภาษาต่างประเทศ

ผู้เห็นชอบกิจกรรม

(นางสาวรุจิภา บุญศรี)

หัวหน้างานนโยบายและแผน

ผู้เห็นชอบกิจกรรม

(นางบุสบง พรหมจันทร์)

ผู้อำนวยการโรงเรียนสิริรัตนาธร

ผู้อนุมัติกิจกรรม

(นางบุสบง พรหมจันทร์)

ผู้อำนวยการโรงเรียนสิริรัตนาธร

BIOGRAPHY

Name	Saowaluk Wongrat
Educational Attainment	Academic Year 2025: Master of Arts (English Language Studies), Faculty of Liberal Arts, Thammasat University, Thailand
Work Position	Government Teacher
Work Experiences	2021-Present: Sutheewittaya School
Publications	2018-2020: Sirirattanathorn School
	2013-2017: Satriwithaya School