DEVELOPMENT OF READING INSTRUCTIONAL MODEL THROUGH TASK BASED APPROACH INTEGRATING WITH COLLABORATIVE STRATEGIC READING (CSR) AND SCAMPER TECHNIGUES TO ENHANCE CREATIVE THINKING OF VOCATIONAL DIPLOMA STUDENTS

By
MRS. Richavee CHATVIRIYAWONG

A Thesis Submitted in Partial Fulfillment of the Requirements
for Doctor of Philosophy (CURRICULUM AND INSTRUCTION)
Department of Curriculum and Instruction
Graduate School, Silpakorn University
Academic Year 2017
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การพัฒนารูปแบบการสอนอ่านแบบเน้นภาระงานบูรณาการการสอนอ่านเชิงกลยุทธ์แบบร่วมมือและเทคนิคสแคมเปอร์เพื่อส่งเสริมความคิดสร้างสรรค์แก่ผู้เรียนอาชีวศึกษา

โดย
นางฤชวี ฉัตรวิริยาวงศ์

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต
สาขาวิชาหลักสูตรและการสอน(การสอนภาษาอังกฤษ) แบบ 2.1 ปรัชญาดุษฎีบัณฑิต
ภาควิชาหลักสูตรและวิธีสอน
บัณฑิตวิทยาลัย มหาวิทยาลัยศิลปากร
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ลิขสิทธิ์ของบัณฑิตวิทยาลัย มหาวิทยาลัยศิลปากร

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Title	Development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Technigues to Enhance Creative Thinking of Vocational Diploma Students
By	Richavee CHATVIRIYAWONG
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55254907 : Major (CURRICULUM AND INSTRUCTION)
Keyword : Task Based Approach, Collaborative Strategic Reading (CSR), SCAMPER

MRS. RICHAVEE CHATVIRIYAWONG : DEVELOPMENT OF READING INSTRUCTIONAL MODEL THROUGH TASK BASED APPROACH INTEGRATING WITH COLLABORATIVE STRATEGIC READING (CSR) AND SCAMPER TECHNIGUES TO ENHANCE CREATIVE THINKING OF VOCATIONAL DIPLOMA STUDENTS THESIS ADVISOR : ASSOCIATE PROFESSOR WISA CHATTIWAT, Ph.D.

The objectives of this research were to; 1. construct the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students, 2. investigate the effectiveness of the Reading Instructional Model based on the assigned criteria 80/80, 3. compare students' reading comprehension ability between pre-test and post-test after the treatment of the Reading Instructional Model, 4. evaluate students' creative thinking ability after using the Reading Instructional Model, and 5. study multiple reading comprehension strategy usage of students after using the Reading Instructional Model. The samples of this research were 40 of 1st year diploma students majoring in Accounting, who enrolled in Academic year B.E. 2560 for the course of Business English at Rayong Technical College, selected by Random Sampling technique. The experiment was carried out for 18 weeks, 54 hours in total. The research instruments employed in this research were 1) 8 units of lesson plans, exercises and a teacher's manual, 2) Reading comprehension tests, 3) Self-report questionnaire for students' perceived use of reading strategies, 4) Think-aloud assessment form, and 5) Creativity evaluative form with Rubric score. The quantitative data were analyzed by mean (x), standard deviation (S.D.), and t-test dependent. The qualitative data were analyzed by content analysis.

The research results were as follows:

1. The Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students consisted of 4 components; principles, objectives, teaching and learning procedures, and evaluation and was named the "CRTE Model". The Model composed of four steps: "Conceptualizing" (C), "Reacting" (R), "Thinking Creatively" (T), and "Evaluating" (E),

2. The efficiency of the model was 83.03/ 82.90, meeting the set criteria at 80/80,

3. The students' reading comprehension abilities scores obtained in post-test were significantly higher than pre-test at .01 level of statistical significance,

4. The students' creative thinking performance after using the Reading Instructional Model passed the set criteria (70%), at the satisfactory level,

5. The students' usage of multiple reading comprehension strategies after the implementation of the Reading Instructional Model in overall was at the highest level, and

6. The Reading Instructional Model was verified by the experts at the highest level of congruence to the theories' rationality and the probability.

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ACKNOWLEDGEMENTS

This dissertation had accomplished largely from generous supports of many persons extended to me. I owe a great deal of gratitude to my advisor, co-advisors, and dissertation committee. I would like to express the deepest appreciation to Assoc. Prof. Wisa Chattiwat, Ph.D for her patient guidance, encouragement and assistance throughout the study. Her encouragement, critical insight, and intellectual availability made this entire study possible. I also want to thank my other co-advisors, Assoc. Prof. Wilairat Kirin Ph.D., who kindly sacrificed her valuable time to give me knowledge and comments throughout my doctoral studies and Assoc. Prof. Chaiyos Paiwithayasiritham, Ed.D, who mainly guided me with the useful statistical methods, as well as the Committee of Thesis Defense namely; Professor Patteera Thienpermpool, Ph.D., Asst. Prof. Wipada Prasarnsup, D. Ed., for their time, comments, and generosity throughout this process.

I own deepest thanks to the experts of my dissertation, who provided thoughtful, professional perspectives on my instructional model and made possible the complete of my study. I would like to deeply thank Dr. Mujalin Binchai for her research and statistic advices, Mr. Elvet Glyn Prosser for his proof of language use, and I would like to express my gratitude to the advices and supports of Dr. Chaluay Muangpruan, Dr. Wipada Poolsakworasan, Dr. Prapon Juntawites, Dr. Usa Mahamad, Dr, Hataichanok Ngerndee, Lt.Col.Dr. Pranee Onsri Dr. Somchai Thamrongsuk, and Dr. Prateep Pholjun-Ngam

I would like to thank all colleagues, who involved in the needs analysis interview, and to all my students who willingly were my subjects for this research.

Finally, my special appreciation is dedicated to my beloved family for all their continued encouragement, and support. All errors and omissions are mine and mine alone.

Richavee CHATVIRIYAWONG

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CHAPTER I

INTRODUCTION

Statements and significance of the problems

Since the era of globalization, our world has faced enormous challenges. People worldwide intercommunicate through the expansion of global economy, multinational trading, wider open of societies, more immigrants including but not limited to rapid progress in information and communication technologies. This has led today's life to be increasingly more complicated and complex than it has ever been.

As we all recognized for the rapid changes of our interconnected global community, it is anticipated that to efficiently and effectively survive and prosper in the information-laden future, the new generations need to master the skills, knowledge and expertise matched to the dynamic environments of the 21st Century(Shrum & Glisan, 2000) .

Many educators express their concerns that current educational system was developed for an economy and a society that no longer exists. "What was considered a good education 50 years ago, however, is no longer enough for success in college, career, and citizenship in the 21st century", stated by NEA(Division & Relations, 2000). Thus what students have learnt today may be unpractical in their future career and life. It is also anticipated that most of them will enter workforce for the careers that have not yet existed in today's world. Young people are needed to be well prepared for the unique demand of a 21st century world by helping them to reach their full potential(Division & Relations, 2000).

There have been a number of attempts to identify the competencies needed to succeed in the 21st century. The Partnership for 21st Century Skills, a public-private leading advocacy organization focused on infusing 21st century skills into education, created the Framework for 21st Century Learning. The Framework depicts the knowledge, skills and expertise students must master in order to succeed in future work and life. A blending of content knowledge, specific skills, expertise and literacy are presented as the vision for the 21st century student outcomes(Co-operation & Development, 2010; Soulé & Warrick, 2015). According to the Framework, apart from the traditional needed literacy three Rs (reading, writing and arithmetic) a new

set of literacy (four Cs; creativity and innovation, critical thinking and problem solving, communication and collaboration) are defined as the need for students' readiness in the 21st century.

With congruence to numerous studies and reports having emerged over the past decade that seek to identify the life, career, and learning skills and that define the skills needed for success in the 21st century world, a unique study to examine the readiness of new entrants to the workforce in United States, titled "Are They Really Ready To Work?; Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce", had done by the Conference Board, Corporate Voices for Working Families, Partnership for 21stCentury Skills, and the Society for Human Resource Management, surveying over 400 employers across the United States in 2006. These employers refer to the skill sets that new entrants to the labor force recently graduated from high school, two-year colleges or technical schools, and four-year colleges—need to succeed in the workplace. The findings indicate that while the "three Rs", such as Reading Comprehension and Mathematics are still needed, for any new workforce entrant's ability to do the job, employers emphasize that applied skills like Teamwork/Collaboration and Critical Thinking are "very important" to success at work(Co-operation & Development, 2010).

> *Year by year, economies are more globalized, work more delocalized, and information more decentralized. A shared language is a necessary tool when communication is no longer tied to geography. English is that tool, now more than ever.*

No argument will probably confute to this statement of Education First(First, 2013). It is apparent for the increasing demand of English proficiency since it has become the world language. English is the primary tool for international communication in more diverse situations than ever before. Besides, the upcoming of ASEAN Community has pressed Thai people to be well prepared, especially in terms of English communication ability.

As labor market has involved with more and more international transactions; more employers are multinational organizations or local entrepreneurs try harder to expand their market toward global arena. Thus workers have been required to be able

to communicate in English; to have conversations with their foreign colleagues, to read and understand work manuals or related documents or to present their ideas in working etc. Better English proficiency has high association with higher incomes, more exports, an easier environment for doing business, and more innovation(First, 2013). As more occupations involve more technical and accelerating rats of changes, it is needed for vocational technical education programs that enable learners to reach occupational competence fulfilling the needs of economic activities. For the sake of education, English opens access to tremendously resources and opportunities. The ability to communicate sufficiently well in English to utilize this enormous pool of online information is an advantage for the competent ones over the ones who lack it. Besides, creative people usually share their work online, which English is inevitably a medium for them in communication. This has driven the rapid proliferation of ideas and innovations around the world, leaving behind those who are unable to access online or communicate in English.

While such trend seems to provide an auspicious opportunity for better quality of life to Thai society, however, a number of Thai people have long been struggling in learning English. Although they have spent many years in schools and large proportion of budget both of individuals and of the government, most of them still have limited ability for English communication. This has been evidenced by the reports for English Proficiency Index (EPI), the world's largest ranking of English skills conducted by Education First (EF). The 2012 reports for English Proficiency Index revealed that Thailand was ranked in number 53 with 44.36 scores in very low proficiency level from 54 countries around the world and ranked the last in Asian countries(Noom-Ura, 2013). The same result happened in the 2013 reports for English Proficiency Index, out of 60 countries, Thailand was ranked in number 55 with 44.44 scores in very low proficiency level(First, 2013). further evidence hammering in the crisis of Education in Thailand the PISA 2012 Results, OECD Programme for International Student Assessment (PISA); PISA assesses the extent to which 15-year-old students have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment focuses on reading, mathematics, science and problem-solving, measuring the extent that students can reproduce what they have learned, how well they can extrapolate from what they have learned and

apply that knowledge in unfamiliar settings, both in class and in their real world. The result revealed that Thai learners' performance is far more under average of the test; the OECD average mean score for reading is 496, while the scores from Thailand is 441(Co-operation & Development, 2013).

There is no exception for vocational students. The low performance in English of vocational students has been revealed through the results of the V-net test; the Vocational National Education Test formally starting in 2012. According to the reports of the National Institute of Educational Testing Service, the 2014 V-Net test taken by vocational students countrywide has the average score of English of 26.64% out of 100%. This result is corresponding to various studies conducted by related organizations (Office of the National Economic and Social Development Board (NESDB), 2005, Senator Educational Committee, 2012, Office of National Economic and Social Development Committee, 2014), which revealed that the workforces produced by vocational education system in Thailand could not match the demand of the country, as many students decided to move on to study in higher education level, aside from the problem that the students do not have sufficient basic knowledge due to their weak academic background, their English ability is limited and thus is the main obstruction to compete with manpower of other countries(Gerawatanakaset, 2008).

EFL learners' low engagement in reading class and poor reading proficiency has been a long lasting and widespread problem challenging English teachers in Thailand, especially in Vocational Education. Traditional English teaching approaches have proven unsuccessful to enhance learners' English proficiency (Chomchaiya & Dunworth, 2008). Thus, it is obvious that vocational education in Thailand is in demand for urgent development. Toward this end, The Office of the Vocational Education Commission (OVEC) is responsible for tailoring vocational education and training to the needs of labor markets and national economic growth in accordance with the manpower production policy and the National Economic and Social Development Plan with vocational institutes throughout the country. OVEC responds to current government policy focusing on the use of improved technology, higher productivity and enhanced skills, among a better paid workforce. With the impending ASEAN Community, much emphasis is given to language and

occupational skills through education policy and programs geared towards “Education for Employment”. Strategies for changing in teaching, learning, and assessing methodologies are enhanced in order that students will be provided with required competencies as identified by industrial clusters or occupational groups. Students learn to integrate and apply related subjects through innovative teaching methods.

To enhance academic performance and to prepare learners for readiness in their future workplaces, reading is considered as one of essential skills since it is through reading that they acquire much of their knowledge and understanding of the different subject areas. Learning to read and reading to learn should be happening simultaneously and continuously. Learners in the 21st century have increasing need for comprehension skills both as independent learners and to succeed in educational settings. Reading comprehension is thus one of the pillars of reading abilities; it is essential to life. In order to survive and thrive in today’s world, individuals must be able to comprehend basic texts such as bills, maps, bus or train schedules, travel directions, instruction on packaging etc. Reading comprehension is a critical component of functional literacy for it helps people not only to live safely and productively, but also to continue to develop socially, emotionally and intellectually. Furthermore, for college students, the ability to read academic texts is considered one of the most important skills that they need to acquire. They are expected to read and understand various kinds of texts from paragraphs to passages and simplified articles.

Reading comprehension is quite complex and multifaceted. It therefore takes time to develop ability of readers to comprehend texts quickly and independently. Researches indicate that people build comprehension through the teaching of comprehension strategies and environments that support an understanding of text. Comprehension strategies are mental tools that readers use to aid their understanding of a text before, during, and after reading. Reading comprehension strategies must be taught over an extended period of time and must be refined, practiced and reinforced continually throughout life. As reading materials become more diverse and challenging, learners need to learn new tools for comprehending theses texts. Content areas materials such as textbooks and newspaper, magazine and journal articles pose different reading comprehension challenges for young people and thus require different comprehension strategies. Shih (1992) states that employing reading

strategies requires thought and practice in a content approach. It seems when a student tries to think with a content-based strategy, they increase their metacognitive control over reading and studying process, so that they can use these strategies in academic content classes.

Researchers of foreign language reading have long recognized the importance of reading strategies (Brantmeier, 2002). They contend that strategy use is different in more and less proficient readers, who use the strategies in different ways (Carrell, 1989). Moreover, it has been acknowledged that reading strategies can be taught and that reading strategy instruction can benefit all students (Janzen, 2001).

Research has also shown that although each of the strategies is beneficial when used alone, instruction is even more effective when several strategies are combined or used together in a flexible, responsive interaction between the teacher and the students (Gaskins, 1998). In more recent studies, there has been increased interest in instructional approaches that focus on multiple comprehension strategies instruction (Dole, Nokes, & Drits, 2009) or called MCSI by Davis (2012) concerning the approach to teach students to deploy several strategies so they are better equipped to handle the complex demands of text comprehension in a way that resembles the cognitive and metacognitive reading processes of experienced and skilled readers. MCSI is thought to be more beneficial than single strategy instruction because it helps students develop a repertoire of strategies that can be deployed in conditionalized ways.

For these reasons, Collaborative Strategic Reading (CSR); a kind of multiple comprehension strategy instruction drawing from the concepts of reciprocal teaching and cooperative learning is a promising instructional approach to address the low English reading performance of vocational students, since it was initially developed to help struggling readers including L2 learners (Klingner, Vaughn, Arguelles, Tejero Hughes, & Ahwee Leftwich, 2004).

Furthermore, to enhance students' communicative language ability and skills in performing various English tasks, task-based instruction is deemed as an appropriate approach for classroom teaching and learning (Lee, Cheung, & Chen, 2005). Task-based instruction is a second/foreign language teaching approach which takes a strong view of communicative language teaching (Ellis, 2003). In this type of

instruction, teachers employ *tasks* (see the definition provided later in this chapter) as the central units in the syllabus with its primary focus on meaning, rather than on forms, and *tasks* are used by teachers as tools for communicative acts. Through learning *by* communicating in task-based instruction, as opposed to learning *for* communicating, students have greater opportunities for communicative language experience and intellectual growth (Ellis, 2003). It is also extensively acclaimed by research that tasks create the conditions for second language acquisition (SLA), and that doing tasks enable learners to develop the language and skills in line with their own internal syllabi. In addition, task-based instruction is advocated for foreign language teaching contexts, including Thailand, where there are limited occasions outside classrooms for students to gain authentic communicative experience.

Based on one significant principle of Task-Based learning; authentic task, the learning environments are heavily based on topics of general interest to the learner. Task-based learning involves those instructions in which classroom activities are tasks similar to those which learners may engage in outside the second language classroom or in their real life. A task-based lesson usually provides the learner with an active role in participating and creating the activities, and consequently increases their motivation for learning. A task-based lesson offers more opportunities for the students to display their thinking through their actions. The teacher can also be more open to the needs of the students. TBL allows students to use the knowledge they have learnt and apply it productively in the task context (procedural knowledge). This practical experience helps learners to appreciate why certain academic questions are important and provide an experiential substrate for the development of a further academic discourse.

The most remarkable aspect in the process of the task-based instruction is the encouragement of learners' creativity. By exploiting creative activities, the learning lessons are significantly more efficient and more interesting. Task-based instruction gets learners involved immediately or almost immediately in working individually or together on tasks that have some relationship to the real world. Through accomplishing the tasks, learners are required to exchange personal information, solve a problem, or make a collective judgment, which forms a relationship to things that happen outside the classroom in a way that differs from

doing traditional learning activities. Teachers can use tasks to foster the process of negotiating, modifying, rephrasing, and experimenting with language, the process involved in second language acquisition (Rodgers, 2001).

According to sociocultural theory, tasks serve as meditational tools for creating an activity setting for learners to co-construct knowledge and interact socially, thus, stimulating language development to occur. Learners can be involved in problem-solving tasks through resolving conflicts. Having elaborated on the reading texts with the goal for accomplishing the creative tasks, the teacher will definitely empower the learners to conceive their world better, to discover their own solutions, thus boosting their creative thinking skills and insights they are in need of while dealing with conflicts themselves (Khatib, Derakhshan, & Rezaei, 2011). Consequently, the merits of Task-Based learning do not only enhance English language competency but also nurture creative thinking through the flexible, student-centered and creative thinking stimulating activities, purposely designed and organized by teachers.

Creative thinking skill is another area, heavily emphasized by scholars and educators whose vision is that it will be one of the crucial skills in the 21st century. Educators are now generally agreed that it is in fact possible to increase students' creative thinking capacities through instruction and practice. Novelty and originality may be the characteristics most immediately associated with creativity. It is taking an idea and putting it into action. It is bringing something unprecedented into being, solving a problem, inventing new techniques or dreaming up innovative products or services. Appropriate teaching strategies and learning environments facilitate their growth as do student persistence, self-monitoring, and open-minded, flexible attitudes.

Creativity involves divergent and convergent thinking to produce new ideas (Goodson, 2000). Its place in the network of higher order thinking skills was well articulated in Pasteur's observation that "chance favors only the prepared mind" because "only a trained mind can make connections between unrelated events, recognize meaning in a serendipitous event," and produce a solution that is both novel and suitable.

Creativity involves the consistent use of basic principles or rules in new situations, such as Benjamin Franklin's application of conservation and equilibrium (Goodson, 2000); Picasso's creation of "Guernica," resulting from sketches and modifications of previous work; Watson and Crick's discovery of the DNA double helix structure; and Edison's invention of an electric lighting system. Creativity also involves discovering and solving problems. Innovative approaches are used to accurately evaluate shortcomings, and actions are taken to remedy those weaknesses (Goodson, 2000). Besides, creativity concerns selecting the relevant aspects of a problem and putting pieces together into a coherent system that integrates the new information with what a person already knows (Sternberg & Davidson, 1995). In a basic sense, it involves a series of decision-making choices between "two or more competing alternatives of action," each having "several pros and cons associated with it" (Goodson, 2000).

Creativity overlaps with other characteristics, such as "intelligence, academic ability, dependability, adaptiveness, and independence" and can "evolve within each of the seven intelligences" (Goodson, 2000). Creativity requires many of the same conditions for learning as other higher order thinking skills. The learning processes are enhanced by supportive environments and deteriorate with fears, insecurities, and low self-esteem. Creativity deteriorates with extrinsic motivation, restraint on choice, and the pressure of outside evaluation (Goodson, 2000).

With the intention to nurture creative thinking skill for learners through learning various contents, some newly formed lessons have been designed using SCAMPER; the creative thinking strategies that encourage students to think creatively and increase their understanding the lessons or reading texts by deciding how to change story parts or change something in the reading texts, for example in response to one of the SCAMPER challenges. SCAMPER is a mnemonic acronym that stands for: Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, and Reverse. The strategy provides a structured way to assist students and teachers with understanding creative problem solving and developing extension-building activities based on prior ideas and processes (Hale-Evans, 2006). The SCAMPER technique offers a systematic and practical way to stimulate divergent thinking, imagination,

originality, and intuition while scaffolding students' creative thinking for independent use on other tasks and assignments (Glenn, 1997).

Some recent studies on across subject contents using SCAMPER technique to foster creative thinking reveal the efficiency of the application of the instructional design prepared via the SCAMPER techniques (Toraman, 2013).

With an attempt to prepare vocational learners to be ready for the complex, sophisticated, and promising future workplaces and society, this current study focuses on instructional model development based on task based learning approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER to enhance capabilities of vocational students on reading comprehension and creative thinking with the expectation that the findings of this research can be used as a guideline for English learning and teaching development to elevate English proficiency of vocational students.

Conceptual Framework

The Development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER to Enhance Creative Thinking of Vocational Diploma Students is based on the following fundamental concepts;

1. Communicative Language Teaching (CLT) (Ellis, 1997; S. D. Krashen, 1981, 1982; S. D. Krashen & Terrell, 1983; Rodgers, 2001)

CLT here means the language teacher uses communication as a teaching approach to enhance students' communicative competence. In relation to this, Ellis (1997) also supports that the pedagogical rationale for the use of communicative approach in a language teaching class depends in part on the claim that they will help develop learners' communicative skills and in part on a claim that they will contribute incidentally to their linguistic development. Here, it becomes clear that in relation to being able to communicate, language teaching not only needs the mastering of linguistic knowledge, but also communicative competence

CLT emphasizes the process of communication and leads learners to roles different from the traditional approach. The role of the learner is negotiator between the self, the learning process, and the object of learning. Learners are actively engaged in negotiating meaning by trying to make them understood and in understanding

others within the classroom procedures and activities (Rodgers, 2001). Teachers also take particular roles in the CLT approach. First, the teacher facilitates the communication process between all participants in the classrooms. The teacher is also a co-communicator who engages in communicative activities with the students (Larsen-Freeman, 2000). In addition, the teacher acts as analyst, counselor, and group process manager (Rodgers, 2001).

CLT has been reformed gradually as a result of the influence of several hypotheses in SLA. These hypotheses include S. D. Krashen (1985) comprehensible input hypothesis, Swain (2005) output hypothesis, and S. M. Gass and Mackey (2007) interactional hypothesis.

2. Task-based Approach (Ellis, 2003; Nunan, 2006; Prabhu, 1987; Van den Branden, 2006; Willis & Willis, 2013)

This study follows the concepts and frameworks provided by (Willis, 1996) consisting of 3 phases; 1) Pre-task; Introduction to topic and task, 2) Task Cycle; 2.1) Task: Tasks can be done by students as pair works or group works under the supervision of the teacher, 2.2) Planning: Students brainstorm and discuss to report to the class presenting the task performance, what they decided or discovered. 2.3) Report: Students make presentation in their own styles, or exchange written reports, and compare results. 3) Language focus; 3.1 Analysis: Students check and discuss specific features of the text or transcript of what has been recorded, 3.2) Practice: Teacher emphasizes the practice of new words, phrases and patterns occurring in the data, either during or after the analysis.

3. Comprehension Reading Strategies Instruction

Research on reading comprehension has demonstrated that readers differ in how they approach reading and the meaning they construct from text. Researchers have found that good readers use specific strategies to comprehend text, and those instructional programs that explicitly teach these strategies have been successful in improving students' comprehension. Comprehension strategies are specific procedures learners can use to help them 1) become aware of how well they are comprehending text as they read 2) improve their understanding and learning from text by summarizing, using background knowledge to make predictions, constructing visual representations for example. The strategies are used as a vehicle for coordinating

dialogue about text. Thus, a great deal of discussion of text content occurs as teachers interact with students, reacting to students' use of strategies and prompting additional strategic processing.

The goal for strategy instruction is to prepare students to become active and purposeful readers who think about their text before, during and after reading. The Instructional model composes of instructional procedures that help students learn how to coordinate key comprehension strategies. In comprehension strategy instruction, teachers explicitly teach comprehension strategies and reading skills through mental modeling, scaffolding, thinking aloud, and application. By learning comprehension strategies, most readers know how to use certain skills and approaches to make a text more comprehensible, meaningful, and memorable.

4. Multiple reading Strategies Instruction (V. Anderson & Roit, 1996; A. L. Brown, Palincsar, & Armbruster, 1984; Dole, Duffy, Roehler, & Pearson, 1991; Pressley et al., 1992)

Instructional approaches to teaching multiple comprehension strategies together have been a focus of research(Block, 1986; Dole et al., 1991; Duffy, 2009). Researchers began by teaching readers how and when to use several different text comprehension strategies in coordination with each other. Researchers made a point to teach readers how to use them in coordinated, flexible ways because good readers use strategies in that way. Other research (Bereiter & Bird, 1985; Dewitz, Jones, & Leahy, 2009; McKeown, Beck, & Blake, 2009; Souvignier & Mokhlesgerami, 2006) focused on the development of teachers in the processes of teaching students how to use multiple strategies.

Methods of instruction were proven effective in fostering comprehension when taught by researchers and/or teachers. The well-known methods were reciprocal teaching (A. L. Brown et al., 1984), direct explanation (Duffy, 2009), and Transactional Strategy Instruction (TSI),(R. Brown, 2008; R. Brown, El-Dinary, Pressley, & Coy-Ogan, 1995; Pressley, 2003).

5. Collaborative Strategic Reading (Bremer, Vaughn, Clapper, & Kim, 2002; Davis, 2012; Klingner et al., 2004)

Collaborative Strategic Reading (CSR) is a Multiple Comprehension Strategy Instruction (MCSI) approach that was based on the concepts of Reciprocal Teaching,

Collaborative Learning and Transactional Strategies Instruction.(Davis, 2012) CSR focuses explicitly on student-led cooperative learning instead of teacher-led groups more than Reciprocal Teaching and Transactional Strategies Instruction (Klingner et al., 2004).

Collaborative Strategic Reading includes elements identified as critical for enhancing the performance of students with learning difficulties, such as: (a) making instruction visible and explicit, (b) implementing procedural strategies to facilitate learning, (c) using interactive groups and/or partners, and (d) providing opportunities for interactive dialogue among students and between teachers and students (Fuchs, Mock, Morgan, & Young, 2003; Vaughn et al., 2011; Vaughn et al., 2013).

In CSR, students learn to use four major strategic procedures while reading content area texts: a previewing procedure (skimming title and subheadings, making predictions, and recalling background knowledge), a strategy procedure known as "click and clunk" (identifying and clarifying difficult, or "clunky" words), a "get the gist" procedure (identifying and stating main ideas), and a wrap-up procedure (summarizing the text and asking teacher-like questions). These strategies are first modeled and explained by the teacher, and then students practice them in small groups of four to six students. The group works of students are based on the cooperative learning principles. Each member in the group work has an assigned role to be responsible for the given task.

6. Creative Thinking (Conklin, 2011; Wendy Conklin, 2012; Dacey & Conklin, 2013; Michalko, 2006)

According to Paul and Elder (2008a), critical and creative thinking are both achievements of thought; they are inseparable aspects of excellence of thought. They are interwoven. Each without the other is of limited use; creativity without criticality is mere novelty while criticality without creativity is bare negativity. However, focusing solely on creativity, it refers to mastery in a process of making or producing, criticality a process of assessing or judging. The definition of "creative" implies a crucial element (e.g., "having or showing imagination and artistic or intellectual inventiveness"). In sum, sound thinking requires both imagination and intellectual standards.

For the purpose of the present study, creative thinking or creativity will be seen as the intertwining of thought to critical thinking and deemed as higher order thinking. It may involve divergent and convergent thinking to produce new ideas. The outcome of creative thinking may be in forms of products; both tangible and intangible, or processes demonstrating originality and appropriateness of such outcome. What produced with creativity can be derived by an individual, a group, or an organization. In the sense of education, creative thinking is listed in the top three levels of Bloom's Taxonomy of the Cognitive Domain. A creative thinker is supposed to possess the abilities to think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and know what strategies and skills to use for each situation. They are open-minded for diverse views. With their flexible thinking, they are enabled to seek for solution in any new situation. Then the products of their thinking in any form are innovative in some dimensions and meaningful in any sense.

7. SCAMPER is an acronym that provides a structured way for understanding creative problem solving(Eberle, 1996; Eberle & Stanish, 1996; Glenn, 1997; Michalko). According to Michalko (2006) to use SCAMPER, just follow these rules;

1. Isolate the challenge or subject you want to think about.
2. Ask SCAMPER questions about each step of the challenge or subject and see what new ideas emerge.

"Asking the questions is like tapping all over the challenge with a hammer to see where the hollow spots are" as suggested by Michalko (2006).

The S in SCAMPER stands for *substitute*. It suggests asking questions such as "What could I use instead?" or "What other ingredients, materials, or components could I use?" Many new products and solutions to problems large and small are the result of substitution.

The C stands for *combine*. Questions being asked are, "How can I combine parts or ideas? Are there two things I could blend rather than come up with something new?", for instance. Many common products are derived by the combinations.

The A stands for *adapt*. It uses questions such as “What else is like this?” or “Could we change or imitate something else?” In adapting, we change something known to solve the current problem.

The M includes various meanings. It can stand for *modify*. In modifying questions used are, “Could we change a current idea, practice, or product slightly and be successful?”

The M can also stand for *magnify* or *minify*. Magnifying leads us to ask, “How could I make it bigger, stronger, more exaggerated, or more frequent?” It could result to ever-larger things. Magnifying common objects to many times their size also can spur original works of art. Seen at that size, structure gets to be more paramount than capacity, permitting us to see the object in another way. To minify is on the contrary. To go in this direction, we ask, “How can I make it smaller, more compact, lighter, or less frequent?” Examples of Minifying are namely RitzBitz (bite-size crackers), 3-inch video screens, and 10-second commercials.

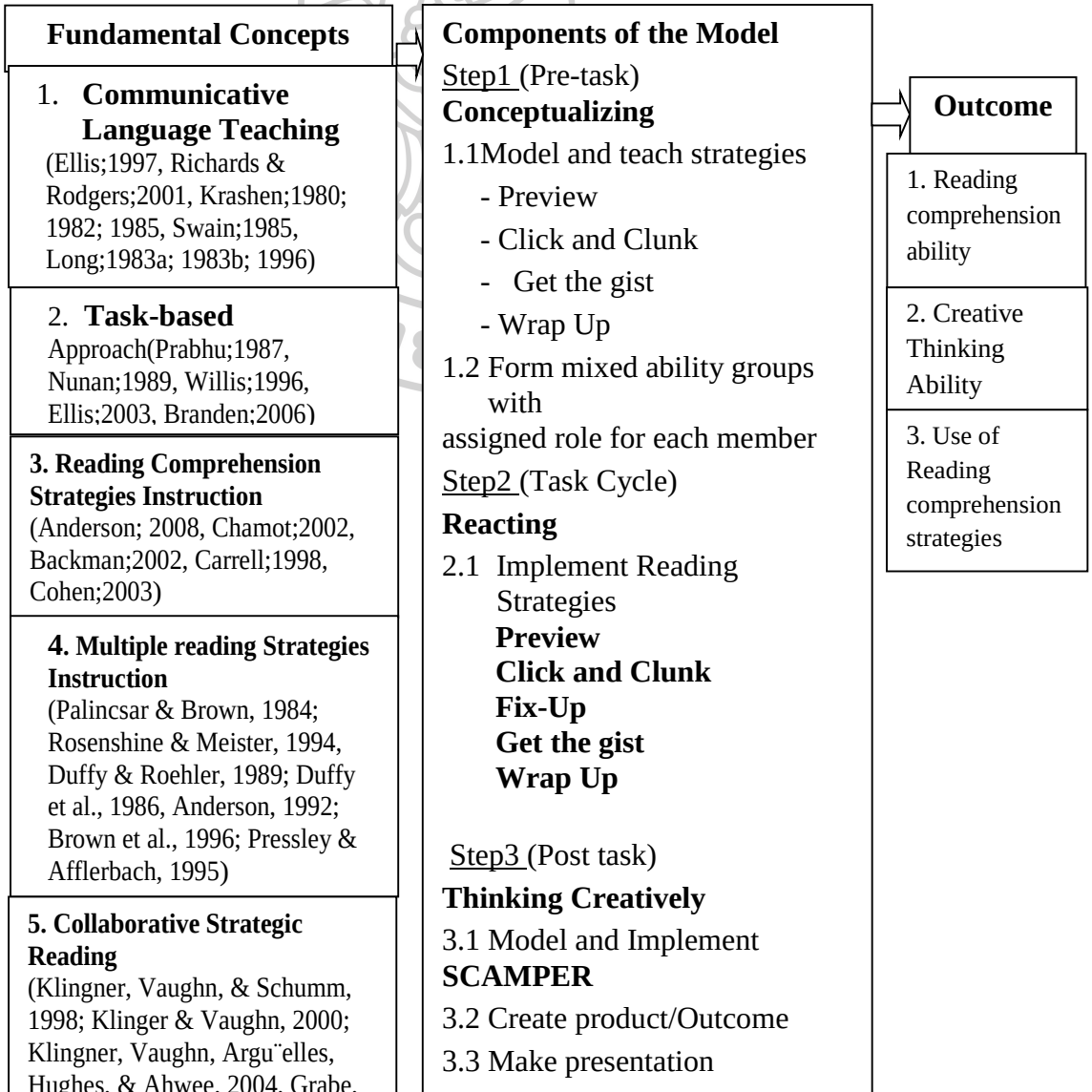
The P stands for *put* to other uses. It suggests that we ask, “How can I use this in a new way?”

The E is for eliminating. It allows us to ask, “What can be omitted or eliminated? Are all the parts necessary? Is it necessary to solve this problem at all?”

Finally, the R stands for rearrange or reverse. It utilizes questions such as “Could I use a different sequence? Could I interchange parts? Could I do the opposite? What would happen if I turned it upside down, backward, or inside out?” Left -handed scissors, knives, and garden tools are examples of rearranging or reversing.

Conceptual Framework

Thesis Title: Development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students

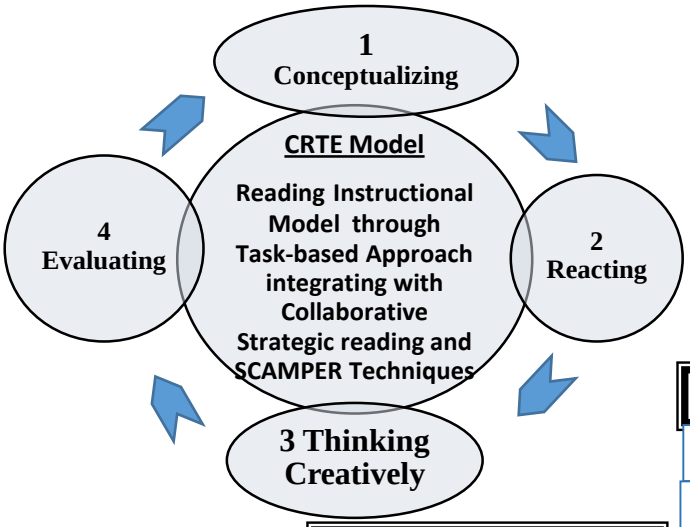


6. Creative Thinking
(Conklin, Wendy, 2012, Starko, Alane J.,2010, Michalko,2006, MyIdeaGuy, 2005**)**

7. SCAMPER Technique
(Osborne;1953, Eberle;1977, 1996, Conklin, Wendy; 2012, Starko, Alane J;2010, Michalko;2006, MyIdeaGuy 2005)

Figure 1 Conceptual Framework

t of Reading Instructional Model through Task Based
Collaborative Strategic Reading (CSR) and SCAMPER
Techniques to Enhance Creative Thinking of Vocational Diploma Students



Principle

Task-based reading instruction model integrating with Collaborative Strategic Reading and creative thinking strategies can help to develop students' reading competence and strategies use in order to achieve their learning purposes. It can motivate learners to use the language in real-life situations. Task-based activities allow students using meaning focused more than form focused. Students develop their competence through collaborative reading and apply creative thinking strategies

Objective

To enhance students' reading comprehension ability and employment of reading and creative thinking strategies used after using task-based reading instruction

Model of Teaching Procedures

Components of the Model
Step1 (Pre-task)
Conceptualizing
1.1Model and teach strategies
- Preview
- Click and Clunk
- Get the gist
- Wrap Up

1.3 Form mixed ability groups with assigned role for each member
Step2 (Task Cycle)
Reacting
2.2 Implement Reading Strategies
Preview
Click and Clunk
Fix-Up
Get the gist
Wrap Up
Step3 (Post task)
Thinking Creatively
3.1 Model and Implement

Outcome

Reading comprehension abilities

(a) Predicting ability; finding clues in the title, subheading, pictures and content of passage, (b) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (c) dealing with vocabularies, (d) recall of details, and main ideas,(e) making inferential and summarizing

Creative Thinking abilities

SCAMPER Techniques
1. Fluency
2. .Flexibility
3. Originality
4. Effectiveness

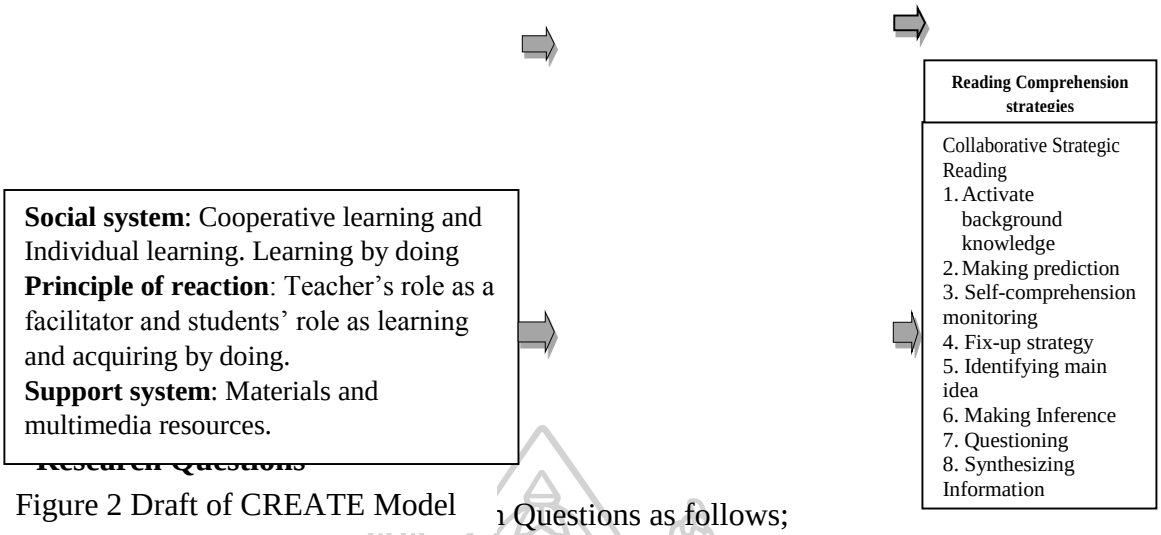


Figure 2 Draft of CREATE Model

Research Questions

The research questions are Questions as follows;

1. What are the components and teaching procedures of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

2. Is there the efficiency on the assigned criteria 80/80 of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

3. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the reading comprehension ability of students?

4. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the creative thinking skill of students?

5. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance students' usage of reading comprehension strategies?

6. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students be verified by experts at high level?

Objective of Research
General objective

To develop the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students.

Specific objectives

1. To construct the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students

2. To investigate the effectiveness of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students based on the assigned criteria 80/80.

3. To compare students' reading comprehension ability between pre-test and post-test after the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

4. To evaluate students' creative thinking ability after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

5. To study multiple reading comprehension strategy usage of students after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students

Research Hypotheses

Research hypotheses of the present study are as follows:

1. The efficiency of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques reaches the set criteria of 80/80.

2. The students' reading comprehension score of post-test is higher than the

pre-test and the prescribed criteria after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques.

3. The students' score on creative thinking is higher than the prescribed criteria; not lower than 8 out of 12 scores at the satisfactory level, after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques.

Scope of the Study

This study investigated the effectiveness of the designed Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students with the scope and limitation as follows;

1. Populations

There are about 10 classes of total 300 students who study in Vocational Diploma level of Rayong Technical College in the first semester of 2017 and register for the course of Business English.

2. Samples

Samples were 40 first year of Vocational Diploma students at Rayong Technical College, majoring in Accounting, and had enrolled in Business English in second semester of 2017, taught by the researcher. The sample were selected by Simple Random Sampling for 1 classroom as a sampling unit.

3. The variables in this study were as follows:

3.1 Independent variables were the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking.

3.2 Dependent variables were namely;

3.2.1 Reading comprehension ability,

3.2.2 Creative thinking ability,

3.2.3 Use of Multiple reading comprehension strategies,

4. Duration

The study was conducted over a semester of 4 month period, from October 2017 to January 2018 with three hours of class time per week. An introduction to experiment, a pre-test and post-test were included in the duration of the research.

Definition of Terms

Terms defined in this study were as follows

1. Task means a work plan designed by a teacher with expectation that learners will achieve the learning objectives. Learners are required to complete tasks so that they can be assessed by their productive outcomes. Various tasks are assigned to an individual or a group of students from the step of pre-task to the step of post task with different learning objectives. In pre-task step, tasks are assigned to practice students for "Preview" strategy. During task step, students perform tasks to implement "Click and Clunk" and "Get the Gist" strategies, while in post task step, tasks are carried out not only to employ "Wrap up" strategy but also to think for creative solutions from the texts they read, implementing SCAMPER techniques.

2. Task-based learning (TBL) refers to a method of English teaching that requires learners to use authentic language through a communicative approach to achieve a desired outcome. Task- based instruction is designed in the light of the cognitive approach and administered to the experimental group students to develop their reading proficiency based on the TBL framework of Willis (1998); it consists of 3 phases 1) Pre-task, 2) Task Cycle and 3) Post task. The synthesis of task based learning framework used in this study is as follows;

1) Pre-task; to present and demonstrate the task (reading and using reading and creative thinking strategies), prepare students for the assigned roles in mixed ability groups and implement the before-reading strategy (Preview Strategy).

2) During –task; the teacher provides guided practice and develop reading and creative thinking strategies through having students do reading tasks applying Click and Clunk Strategy and Get the Gist Strategy and write in their own words for the Gist.

3) Post-task; 3.1 students implement Wrap Up Strategy to generate questions from the text, review what they learned and then write down in the learning logs and share with the class. 3.2 to encourage students to think for creative solutions the teacher and students discuss positive and negative sides of notions

from the texts. Students brainstorm using SCAMPER Techniques to generate creative /innovative solutions based on the reading text. The groups summarize or write sentences or a short passage to describe changes made to the proposed solutions and present to the class.

4) Evaluation; 4.1 have students reflect their strategies use and the teacher reflect for improvement. 4.2 the solution/products/outcomes of students are evaluated or scored by (1) peers, (2) the teacher, and (3) self- assessment..

3. Multiple Comprehension Strategic Instruction refers to instructional approaches for teaching multiple comprehension strategies together by practicing readers how and when to use several different text comprehension strategies in coordination with each other. The Collaborative Strategic Reading Approach integrated in the reading instructional model is one type of the multiple comprehension strategies because it includes different types of strategies.

4. Collaborative Strategic Reading (CSR) refers to a Multiple Comprehension Strategy Instruction (MCSI) approach that was based on the concepts of Reciprocal Teaching, Collaborative Learning and Transactional Strategies Instruction. Collaborative Strategic Reading includes elements identified as critical for enhancing the performance of students with learning difficulties, such as: (a) making instruction visible and explicit, (b) implementing procedural strategies to facilitate learning, (c) using interactive groups and/or partners, and (d) providing opportunities for interactive dialogue among students and between teachers and students. In CSR, students learn to use four major strategic procedures while reading content area texts: a previewing procedure (skimming title and subheadings, making predictions, and recalling background knowledge), a strategy procedure known as “click and clunk” (identifying and clarifying difficult, or “clunky” words), a “get the gist” procedure (identifying and stating main ideas), and a wrap-up procedure (summarizing the text and asking teacher-like questions). These strategies are first modeled and explained by the teacher, and then students practice them in small groups of four to six students. The group works of students are based on the cooperative learning principles. Each member of the group work has an assigned role to be responsible for the given task.

5. Creative Thinking Strategies means the strategies implemented in the research which adapted from SCAMPER Technique. SCAMPER is an acronym that provides a structured way for understanding creative problem solving. Through the guideline questions, students brainstorm to generate ideas and then their products in any form as assigned by the teacher will be assessed based on aspects showing their creative thinking abilities.

6. Creative Thinking Abilities refers to the intertwining of thought to critical thinking and deemed as higher order thinking. It may involve divergent and convergent thinking to produce new ideas. The outcome of creative thinking may be in forms of products; both tangible and intangible, or processes demonstrating originality and appropriateness of such outcome. What is produced with creativity can be derived by an individual, a group, or an organization. In the sense of education, creative thinking is listed in the top three levels of Bloom's Taxonomy of the Cognitive Domain. A creative thinker is supposed to possess the abilities to think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and know what strategies and skills to use for each situation. They are open-minded for diverse views. With their flexible thinking, they are enabled to seek for solutions in any new situation. Then the products of their thinking in any form are innovative in some dimensions and meaningful in any sense.

After learning through the instructional model, creative thinking abilities of learners, will be evaluated through the creative evaluative rubric on learners' outputs identifying in the following aspects or traits (a) Fluency: number of ideas generated, (b) Flexibility: variety of ideas generated, (c) Originality: novelty of ideas. and (d) Effectiveness: potential value of ideas. The rubric is composed of 3 scales namely; Exemplary = 3 scores, Satisfactory = 2 scores, and Unsatisfactory = 1 score.

7. Reading Comprehension Ability means a reader's or student's ability to understand what he/she is reading as evidenced by the records in their CSR learning log, the achievement in assigned reading tasks, and reading exercises for formative assessment and reading comprehension test for summative assessment. Based on the strategies instructed through the model, reading comprehension abilities will be assessed in the following aspects; (a) predicting ability; finding clues in the title,

subheading, pictures and content of a passage, (b) recall of details, main ideas, sequence, comparison, cause and effect relationships and character traits, (c) inferential comprehension, and (d) summarizing.

8. Use of reading strategies means the ability of a student to employ reading comprehension strategies learned from the reading instructional model while reading (1Activate background knowledge, 2 Making prediction, 3 Self comprehension monitoring, 4 Using Fix-up strategy, 5 Identifying main idea, 6 Making Inference, 7 Questioning and 8 Synthesizing Information). After teaching through the model, Student Comprehension Strategy Use Survey adapted from the work of Reutzel, Brandt, Fawson, and Jones (2014) is used to assess the reading strategies used while reading in 3 scales; Always, Sometimes, and Never.

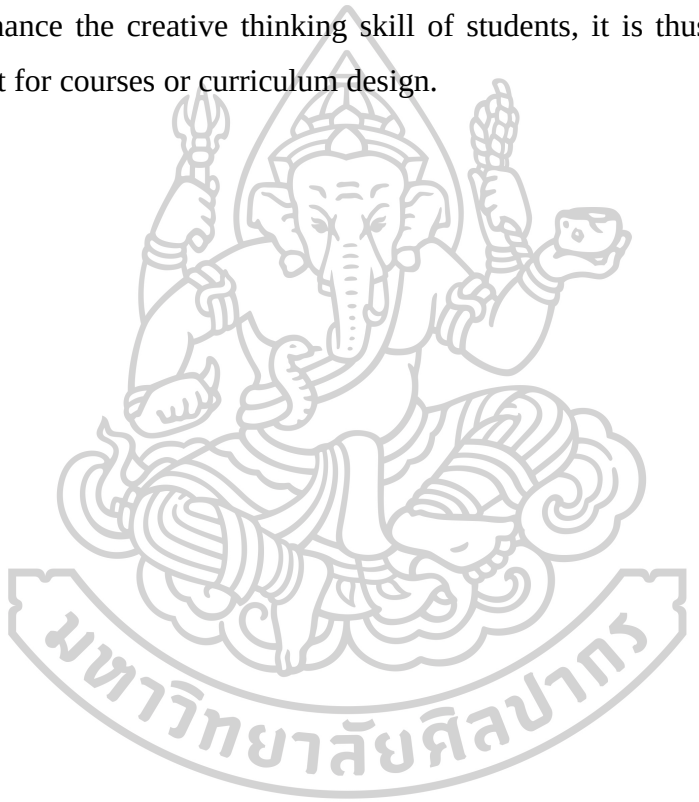
9**.** The Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is the instructional model development which integrates task-based language teaching with Collaborative Strategic Reading (CSR) and SCAMPER. The 4 steps of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques are namely Step1 (Pre-task) **Conceptualizing**, Step2 (Task Cycle) **Reacting**, Step3 (Post task) **Thinking for Creative solution**, and Step4 **Evaluation**.

10. The efficiency of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques. The standard criterion effectiveness E1/E2 at 80/80 means the criterion used to evaluate the efficiency of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques. The first 80 is a percentage of mean score in formative evaluation and the second 80 means a percentage of mean score in summative evaluation.

11. Students mean vocational diploma students who study the course of Business English of Rayong Technical College in the Academic year of 2017.

Significance of the Study

It is expected that this study will provide information about what students' reading strategies are, and whether these strategies are effective or not for Pre-reading, during-reading and post-reading stages which enhances their reading comprehension skills. Such information can be used as a guideline for teachers to find the best technique for teaching effective reading as well as developing appropriate materials for the reading course. The model also fosters creative thinking skill through creative strategy teaching. In addition, this study will prove the effectiveness of the task-based approach which are not only suitable for an English learning environment but also enhance the creative thinking skill of students, it is thus useful for further development for courses or curriculum design.



CHAPTER II
REVIEW OF THE LITERATURE

This chapter includes a review of literature relevant to the development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students. The synthesis of theoretical framework and related research is as follows:

1. Theories of Second Language Acquisition
   1.1 Vygotsky's Theory of Zone of Proximal Development
   1.2 Chomsky's Input Theory
   1.3 Krashen's Input Hypothesis Model
2. Communicative Language Teaching (CLT)
   2.1 Characteristics and Principles of CLT
   2.2 The Input Hypothesis
   2.3 The Output Hypothesis
   2.4 The Interaction Hypothesis
   2.5 The Noticing Hypothesis
3. Constructivism
4. Task Based Learning
   4.1 Definition of task
   4.2 Task components
   4.3 Classifications of tasks
   4.4 The Task-Based Learning (TBL) Framework
   4.5 The Advantages of Task-Based Teaching
   4.6 Criticisms on Task-Based Learning
   4.7 Task-based assessment
   4.8 The objectives of task-based assessment
5. Nature of reading
   5.1 Reading Definitions
   5.2 Reading comprehension
   5.3 Models of Reading

5.4 Types of Reading

5.5 Schemata and Reading Comprehension

5.6 Metacognitive Theory

5.7 Metacognition and reading comprehension

5.8 Assessing Reading Comprehension

6. Reading strategies

6.1 Definition of Reading Strategies

6.2 The Importance of Reading Strategies

6.3 Diverse interpretations on comprehension strategies

6.4 Reading Strategies of Learners with Different L2 Reading

6.5 Reading Strategy Instruction as well as Explicit Instruction

6.6 Essential Requirements for Reading Strategy Instruction

6.7 Multiple Strategies Instruction

6.8 Collaborative Reading Strategy

6.9 Reading Strategy Assessment

7. Creative thinking abilities

7.1 Defining Creativity

7.2 The Creative Process

7.3 Nurturing Creative Thinking

8. Related research

8.1 Related research on Task-based Learning

8.2 Related research on Metacognition and reading comprehension

8.3 Related research on Collaborative Reading Strategy

8.4 Related research on Creative Thinking

1. Theories of Second Language Acquisition

Theories of language acquisition are important for two major reasons. One is that most language teaching methodologies have grown out of a particular theoretical framework of second language acquisition. Hence, is helpful for teachers to understand some of the premise underlying those approaches so they are able to evaluate them. The other reason for understanding underlying second language theories is that these understandings can provide support to teachers in developing their own beliefs for language teaching.

Several theories are significant for language learning and acquisition. Menyuk (2003) claims that theories of language acquisition that stress the cognitive development and how input affecting development have obvious importance for the teaching of language arts. Learner input underscores the importance of communicative interaction as a vehicle for language growth.

1.1 Vygotsky's Theory of Zone of Proximal Development

Vygotsky's theory of the zone of proximal development (ZPD) highlights the role of social interaction in learning and development, including second language learning. The ZPD can be defined as "the distance between the actual development level as determined by independent problem solving, and level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1987). In simple terms, the ZPD is the learner progress from the actual development level to a higher potential developmental level through interaction with others; therefore, between the actual developmental level and the potential developmental level is the learner's zone of proximal development. The ZPD represents the opportunity for growth in which children require support or facilitation from others. These "others" could be adults, parents, older children or peers with more expertise related to the learning task. These assistants in the social setting take control of those portions of a task beyond the learners' current level of competence, thus allowing the learners to focus on the elements within their range of ability. Providing support for movement from a current level of development to the potential level of development is referred to as scaffolding (Dunn & Lantolf, 1998; Wink & Putney, 2002).

Scaffolding strategies can be provided in form of questions, prompts, rephrasing, demonstrations, gestures, visual resources, graphic organizers, dramatizations, tasks, designing the environment to facilitate practice of a particular skill, talking, explaining, and comprehension monitoring. These strategies enable students to sustain active participation in learning activities (Crawford, 2003). If the skill under study is outside children's ZPD, the child may ignore scaffolding strategies or fail to use the strategy or piece of information appropriately. For this reason, teachers must be sensitive to learners' reactions to the strategies being used (Hammond, 2001)

Students can successfully acquire language through scaffolding provided by other learners. Language and social interaction can act as a go-between for learners and the world around them. Vygotsky further proposes that, while learning is facilitated by external use of language, learners are also capable of using internal dialoging called “private speech” or “speech for the self.” Private speech aids second language learners as they look for, plan, and organize thoughts for problem solving, especially when cognitive difficulty is encountered. Private speech is also instrumental in language play in which the learner experiments with grammatical, phonological and features of language (Menyuk, 2003).

Vygotsky’s theory of proximal development has several implications for schools and classrooms. First, it is essential that teachers plan instruction that is developmentally appropriate for learners. For example, in language interaction, the teacher may provide more complex sentences than the learner is capable of producing to allow them to add to the vocabulary repertoire. Teachers should create socially constructive opportunities for students practice amongst themselves in a context of an activity. This promotes collaboration upon which language can be acquired. Children’s ZPD’s are not uniform and may differ in children from activity to activity; hence they may assume different expert-novice relationships at various tasks in their interactions.

Teachers should provide opportunities for learners to interact meaningfully with others with comprehensible input of the target language. Students can work in groups to share knowledge with each other with the teacher alongside facilitating, scaffolding, pointing students in the proper directions, and assisting learners in negotiating meaning in the target language. Learners can participate in completing tasks mediated by artifacts used in real life situations such as books, visuals, audios or audiovisuals to support the development of language skills. The teacher should plan instruction that will keep the learning as close to actual practice as possible (Hung & Nichani, 2002). Knowledge of children’s ZPD is also important for assessment; it helps the teacher understand the child’s best performance and give a more accurate estimate of the child’s abilities than the grading that is realized through tests.

1.2 Chomsky's Input Theory

The second theorist is Chomsky, who, like Vygotsky, acknowledges the role of input in the language acquisition process. Chomsky theorized that all humans are born with a special ability to process language through an innate language acquisition device (LAD). Chomsky suggests that this device contains the principles that are universal to all languages. Children acquire their first language by hearing it spoken by people in their environment including family, friends and others. They synthesize the grammar of the language as they move through the natural development process. It is believed that the LAD is strong during early childhood, but weakens once the critical period for learning a language has passed, and for this reason, adults have difficulties in learning new languages ((Chomsky, 1967).

Chomsky's theory implies that both first and second language learners need large amounts of contextualized meaningful input in order to acquire language. Learners who experience face-to-face conversation in a natural setting acquire language more quickly and more successfully than those exposed exclusively to exercises that focus on structure alone (Chomsky & Peters, 1972). Chomsky's theory also implies that teaching of a second language should be introduced to young children while the LAD is still strong and active. Children are capable of learning any language and social interaction should be provided to allow opportunities for learners to interact meaningfully with others and get as much input as possible.

1.3 Krashen's Input Hypothesis Model

Krashen's input hypothesis model extends' Vygotsky's and Chomsky's theories. His monitor model put forward five hypotheses. These are: (a) the acquisition-learning hypothesis, (b) the natural order hypothesis, (c) the input hypothesis, (d) the monitor hypothesis, and (e) the affective filter hypothesis. First, the acquisition-learning hypothesis describes the difference between the natural subconscious in acquiring a primary language and the conscious learning of a second language that usually occurs in schools. Secondly is the natural order hypothesis. It claims that grammatical structures are acquired in a conventional order, implying that certain understandings of language are usually acquired before others (Crawford, 2003). This is evidenced in the similarity of the order in which first and second

languages are acquired, although not identical. Krashen does not state whether or not this sequencing element has implications for teaching and learning of a second language.

Similar to Vygotsky's ZPD, Krashen's third hypothesis is the input hypothesis, which suggests that language acquisition is possible when the learner gets comprehensible input at a slightly higher level than what the child already understands. Grammatical structures are a part of this input, just as infants acquire their primary language in the natural setting (S. Krashen, 1994).

Krashen further explains that input must be built and be negotiated in relation to what the learner already knows for the purpose of supporting the construction of meaning related to the input. Fourth is the monitor hypothesis, which describes how the learner makes corrections in language during the processes of speaking or writing in order for learners to make these corrections, there must be adequate time, knowledge of grammatical form and understandings of the rules being applied(Porter, 1986). Fifth, the affective filter hypothesis suggests that language learning is most likely to be successful if it occurs in a secure environment that is free from anxiety, where error correction is minimized and where encouragement is maximized.

Although Krashen's theories have been criticized for their lack of empirical evidence, they are known and respected for their strong implications for classroom learning, such as minimizing error correction because the goal is language acquisition. Consequently, some researchers have extended Krashen's ideas and have suggested that simplifying and modifying input to the level of the learners and allowing them to make connections between form and meaning. This instructional goal can be realized by focusing on how learners perceive and process input through presenting one concept at a time, keeping meaning in focus, moving from sentence to connected discourse, using both oral and written input, having the learner actively involved with utilizing input, and keeping learner processing strategies in mind (Schütz, 2007).

1.4 Implications of the Language Theories for Classroom Teaching

Vygotsky's, Chomsky's and Krashen's theories have several overall implications concerning classroom second language learning. Across all of these theories, there is the sociocultural perspective on language instruction suggesting that learners must have ample opportunities to interact meaningfully with others while

making use of the second language. The teacher should provide understandable input in the target language, create an interactive environment that models and presents a variety of social, linguistic, and cognitive tools for structuring and interpreting participation in talk, and providing opportunities for learners to negotiate meaning in the target language which is socially constructed and context-dependent. This can be accomplished by facilitating collaboration between students and teachers, students and published authors, writers and readers, and among students themselves (Newman, 1985).

These interactions provide chances for learners to interact communicatively with one another in the target language through conversations and tasks that are purposeful and meaningful to the learner. Teachers should provide a non-threatening environment that encourages self-expression to facilitate language learning (Russell, McPherson, & Martin, 2001). The target language has to be used as naturally as possible so that learners can deal with it the same way they have already learned to process their first language – that is, approaching language learning as a whole rather than fragmenting the process. Lastly, teachers should understand the role that children's first languages play in the process of acquiring and learning a second language.

2. Communicative Language Teaching (CLT)

Different researchers have presented their understandings in relation to communicative language teaching. Ying (2010) argues that CLT is an approach to the teaching of second languages that emphasizes interaction as both the means and the ultimate goal of learning a language. It is also referred to as a "communicative approach to the teaching of foreign languages" or simply as the "communicative approach" (Ying, 2010). In relation to this, Larsen-Freeman (2000) argues that CLT aims broadly at the theoretical perspective of a communicative approach by enabling communication. Communicative competence is the goal of language teaching by acknowledging the interdependence of language and communication.

It is clear to see that CLT here means that the language teacher uses communication as a teaching approach to enhance students' communicative competence. In relation to this, Ellis (1997) also supports that the pedagogical rationale for the use of communicative approach in a language teaching class depends

in part on the claim that they will help develop learners' communicative skills and in part on a claim that they will contribute incidentally to their linguistic development. Here, it becomes clear that in relation to being able to communicate, language teaching not only needs the mastering of linguistic knowledge, but also communicative competence.

It also states that communicative competence is the ability to understand the logical basis of linguistic competence (Finch, 2003). According to Finch, there are three kinds of logic: the first one is formal logic, which is connected with the rules which govern valid argument and gets us so far in understanding the basis of communication. Then to be fully competent, we need knowledge of natural logic, which means understanding what people are trying to do through language. In addition to these two logics, we also need to understand the force of our utterance, which requires us to understand the meaning of our utterances according to its social context or particular situational settings. (Gonzales, 2010) supports this, by arguing that communicative competence includes mastery of language that is needed to handle various situations.

Therefore, when it is deliberately taught to students, the language teaching will create language appropriate for such language-use situations as ordering in restaurants, giving directions or applying for a job. To summarize, communicative competence not only includes good mastery of linguistic knowledge, but also the ability to understand the logic to handle realistic situations. Furthermore, the other researchers also argue that there is considerable debate as to appropriate ways of defining CLT, and no single model of CLT is universally accepted as authoritative (McGroarty, 1984). However, according to Rodgers (2001), CLT starts with a theory of language as communication, and its goal is to develop learners' communicative competence.

2.1 Characteristics and Principles of CLT

CLT has become popular and widespread in second foreign language teaching. Contrary to the teacher-centred approach, in which teachers are regarded as knowledge-givers and learners as receivers, CLT reflects a more social relationship between the teacher and learner. This learner-centred approach gives students a

greater sense of “ownership” of their learning and enhances their motivation to learn English((H. Brown, 1994).

CLT emphasizes the process of communication and leads learners to roles different from the traditional approach. The role of the learner is negotiator between the self, the learning process, and the object of learning. Learners are actively engaged in negotiating meaning by trying to make them understood and in understanding others within the classroom procedures and activities (Richards & Rodgers, 1986). Teachers also take particular roles in the CLT approach. First, the teacher facilitates the communication process between all participants in the classrooms. The teacher is also a co-communicator who engages in communicative activities with the students (Larsen-Freeman, 2000)). In addition, the teacher acts as analyst, counselor, and group process manager.

CLT began because of the need for communication. It was developed in different stages, and the ideas of CLT have been expanded since the mid-1970s. In fact, CLT has been reformed gradually as a result of the influence of several hypotheses in SLA. These hypotheses include Krashen’s (S. Krashen, 1994; S. D. Krashen, 1985) comprehensible input hypothesis, Swain‘s (Swain, 2005) output hypothesis, and Long‘s (Long, 1998) interactional hypothesis.

2.2 The Input Hypothesis

Krashen (1985;1994) proposes the input hypothesis that states input plays a significant role in SLA, and only comprehensible input can lead to successful acquisition. So, the input hypothesis is concerned with acquisition rather than learning. According to Krashen’s (1985;1994) acquisition versus learning hypothesis, acquisition is different from learning in that acquisition takes place implicitly or naturally, whereas learning occurs through explicit instruction. The learned knowledge is only used to monitor or edit learners’ grammar, and it cannot replace the acquired knowledge, according to his monitor hypothesis.

In the input hypothesis, Krashen also proposes *i*+1, meaning acquisition takes place when learners are given input that is slightly beyond their current proficiency level. Some SLA scholars challenged Krashen’s *i*+1 theory. S. Gass (1997) argues that it is unknown what *i*+1 is, because level *i* cannot be pin pointed. Nevertheless, (S. Krashen, 1994) also claim that the only way learners acquire a L2 is through

comprehensible input and that such input alone is adequate for L2 learning. However, Krashen (1994) revises this statement in his later work and clarifies that comprehensible input is significant, but it is not enough for L2 development. He emphasizes that input must fit the condition of *i+1*, and that it is necessary for learners to receive it with a low affective filter or with low anxiety.

2.3 The Output Hypothesis

Contrary to the point that comprehensible input is the only important factor in the process of SLA, (Swain, 2005; Swain & Lapkin, 1995) output hypothesis stresses that output is equally as significant as comprehensible input in language development. Learners acquire a L2 through producing output, especially under circumstances in which learners reformulate their language, due to communication breakdown (Swain & Lapkin, 1995). Swain proposes the output hypothesis based on her observations of students in a French immersion program. She states that these students received a significant amount of comprehensible input and understood the input very well, but their speech and writing were grammatically problematic due to the lack of opportunities to produce the language. Swain (1995) emphasizes that output urges learners to pay attention to forms that they may otherwise neglect in input when the focus is on meaning. In other words, output helps learners go beyond comprehension because they pay attention to different aspects of the target language.

Researchers ((Pica, 1994; Pica, Lincoln- Porter, Paninos, & Linnell, 1996; Toth, 2006) have examined output in the L2 learning process and concluded that output modifications, as a result of interaction, are important in SLA. In other words, output facilitates SLA because output directs learners' attention to the features of the target language. In addition, an experimental study by Ellis and He (1999) provides evidence that output enhances greater language development than input alone. In the study, they compared the effects of pre-modified input, interactional modified input, and modified output on the understanding of input and vocabulary acquisition of 50 intermediate level English as a second language (ESL) students. The participants were all given pictures of an apartment and furniture. Both input groups were asked to listen to a direction of where to place the furniture, whereas the output group was asked to give a direction of where to place the furniture in the apartment. The results showed that the modified output group outperformed both of the input groups on

comprehension and vocabulary acquisition. Ellis (1999) explained that the subjects in the modified output condition showed greater comprehension because they had a chance to process and choose new vocabulary, while the input groups' vocabulary was chosen by the teacher. Thus, this study shows that output has an important role in SLA because learners need to move from simply understanding the language to processing and producing it.

However, when explaining the role of output, (VanPatten & Williams, 2014) point out that there is not a significant relationship between output and SLA. Although it may seem like common sense that practice makes perfect,' this adage is not entirely true when it comes to SLA, whatever role learner production plays in acquisition, there are constraints on the role‖ (p. 12). They stress that input is necessary for language learning; input leads to a large amount of learning, especially when learners' focus is on meaning.

2.4 The Interaction Hypothesis

The interaction hypothesis, proposed by Long (1998) has a great influence on CLT. The hypothesis consists of input, output, interaction, and feedback in SLA. The hypothesis includes certain elements of Krashen' (1985; 1994) input hypothesis and Swain's (1995; 2005) output hypothesis. Thus, the interaction hypothesis accounts for a learners' process of receiving input and feedback and of producing output during interaction (S. M. Gass & Mackey, 2007).

The significance of interaction in L2 learning originated in a paper written by (Donato, 1994), in which he hypothesizes that interaction helps learners understand and comprehend grammar. He also suggests that SLA researchers look into how interaction assists learners in learning different forms of the target language. The early version of the interaction hypothesis, proposed by (Long, 1983) , was influenced by Krashen's (1985; 1994) input hypothesis. Research to the mid-1990s focused heavily on how comprehensible input is obtained and how negotiation of meaning takes place during interaction (Long, 1998; Spada, Barkaoui, Peters, So, & Valeo, 2009). Negotiation of meaning is an important aspect of the interaction hypothesis. Long (1998) defines negotiation as the process in which, in an effort to communicate, learners and competent speakers provide and interpret signals of their own and their interlocutor's perceived comprehension, thus provoking adjustments to linguistic

form, conversational structure, message content, or all three, until an acceptable level of understanding is achieved.

Simply put, negotiation of meaning allows learners to receive comprehensible input and have a chance to make their output comprehensible during interaction. The strategies of negotiation of meaning include clarification requests (e.g., ―Pardon me?), comprehension checks (e.g., ―Is that what you‘re trying to say?), confirmation checks (e.g., ―Do you see what I mean?), repetition, elaboration, and simplification.

Long (1983) states that interactional modification, such as strategies to avoid communication failure, are more vital for learners to acquire a L2 than input alone. A body of research from the 1980s to the mid-1990s examined the interaction between non-native speakers as well as between non-native speakers and native speakers with a focus on how negotiation of meaning occurred in different task types or in different conditions during a task (Ellis, Tanaka, & Yamazaki, 1994; Long, 2000; Loschky, 1994; Pica, Young, & Doughty, 1987). The different types of tasks include one-way tasks versus two-way tasks, and conditions include pre-modified input versus interactional input. A one-way task refers to one person obtaining information from another who has it; a two-way task (also known as an information exchange task) requires both participants to exchange information to complete a task.

Pre-modified input is modified prior to a task by simplification and/or elaboration, and interactional input is made comprehensible through negotiation of meaning during interaction. In his study, Long (1983) stated that the importance of negotiation of meaning is the result of interaction. In the study, the participants were asked to perform an information exchange task (a task that requires students to exchange information with each other) and a non-information exchange task. The results showed a more frequent use of interaction strategies in the information exchange task than the other. Long concluded that information exchange tasks facilitate SLA because learners receive comprehensible input and produce modifications of output.

Pica et al. (1987) conducted the first empirical study that tested if interactional input can lead to comprehensible input. They studied the comprehension of English of sixteen non-native English speaking students, who were in low-intermediate ESL classes, under two conditions during a task. The conditions were pre-modified input

and interactional modified input. The non-native speakers were asked to listen to the native speakers ‘directions. The pre-modified input group listened to the direction once with pauses, while the interactional modified input group heard the same direction, and they were encouraged to interact with the native speakers if they could not follow the directions. The results showed that the subjects comprehended more when input was modified during interaction. Pica et al. (1987) explained that confirmation checks and clarifications during interaction were commonly used by the native speakers to help the NNSs understand the input. They further claimed that interaction assists comprehension, suggesting that confirmation, comprehension checks, and clarification requests are essential to obtain comprehensible input during interaction.

Besides looking at the effects of pre-modified input and interactional modified input on comprehension, some researchers also investigated if these conditions promote acquisition. Loschky (1994) conducted a study regarding the relationship between comprehensible input and SLA and found that pre-modified input is not the best way to provide comprehensible input. In Loshky’s study, she investigated different input conditions using Japanese as the L2 with learners whose L1 was English. In addition to the pre-modified input and interactional modified input conditions in the study of Pica et al. (1987), an unmodified input group with interaction was also investigated in this study. The subjects had to perform an information gap task. Their comprehension of input and acquisition of the vocabulary and forms were compared. The results showed that the interaction group outperformed the two other groups in comprehension, but there was no difference in the acquisition of vocabulary and forms among these three groups on the pre-test and post-test.

However, another study conducted by Ellis et al. (1994) found that interactional modified input facilitated both comprehension and vocabulary acquisition. Therefore, Ellis et al. (1994) concluded that input modification during interaction helps learners notice the language which is correspondent to Gass’s comment (1997): learners may not notice all input provided for them, but only through interaction does input become noticeable to them.

The results of the above studies are important because they provide evidence

that comprehensible input alone is inadequate to achieve SLA and that interaction plays an important role in the process of learning.

In the 1980s, attention to language pedagogy switched to what Howatt (1984) called a strong version of CLT that focuses heavily on meaning but not structures. The phenomenon remained until the mid-1990s when Long (1996) proposed a revised version of the interaction hypothesis (Spada & Lightbown, 2009). The revised interaction hypothesis emphasizes how comprehensible input is obtained through interaction. The hypothesis highlights learners' attention to language forms in response to feedback, as well as the repair that may occur during interaction. Long (1996) states that interaction enhances SLA because a learner ―connects input, internal learner capacities, particular selective attention, and output in productive ways. In other words, interaction allows learners to receive input and feedback, produce output, and pay attention to the details of the target language.

2.5 The Noticing Hypothesis

Long's (1996) revised interaction hypothesis stresses the importance of noticing language features during interaction. Scholars have devoted a great deal of work studying the effects of noticing on learning. Some researchers emphasize that noticing facilitates learning, while others stress that noticing is required for learning (Robinson, 2003; W. Wong, 2001). Schmidt (1993) noticing hypothesis emphasizes that noticing is not only a facilitator for learning, but it is also necessary for learning to occur.

He also points out that there are two levels of awareness: a low level and a high level. The former refers to noticing, and it is the basis of all learning; the latter refers to understanding. Schmidt (1995) also explains that input and interaction are necessary in language learning, but learners are not able to learn all aspects of the target language if their attention is solely on meaning. Learners not only need input and interaction to foster their communicative skills, but they also need to notice and understand the features of the target language. In his words, while input and interaction are important to establish a secure level of communicative proficiency, this is not because language learning is unconscious, but because input and interaction, attention, and awareness are all crucial for learning, and when understanding and application are poorly synchronized, there will be problems: fluency but premature

stabilization in the case of completely meaning-focused learning, abstract knowledge but limited ability to perform in the case of overly conscious learners or those have been instructed with an excessive focus on form.

The noticing hypothesis states that in order for acquisition to occur, learners must notice the features of the target language; when input is noticed, it becomes intake. Thus, noticing is required for language acquisition to take place (Schmidt, 1993). One essential way to help learners notice their language gap is through feedback because it helps learners pay attention to the errors of their output (Gass and Mackey, 2007). There is a great deal of research that examines the effectiveness of corrective feedback that teachers provide. They include: a) explicit correction, which means learners are given the correct form directly; b) prompts, through which students are given opportunities to self-correct; c) metalinguistic feedback, which means learners are given grammatical explanations of their errors; d) elicitation, in which teachers elicit the correct form from learners; e) repetition, in which teachers repeat students‘ errors with intonation; and f) recasts, through which teachers repeat learners‘ mistakes in a correct way without changing the meaning (Lightbown & Spada, 1999).

The type of feedback that has received a great deal of attention in literature is recasts (e.g., Ellis, 2007; Long, 2007; McDonough & Mackey, 2006). According to Nicholas, Lightbown, and Spada (2001), recasts are defined as ―utterances that repeat a learner‘s incorrect utterance, making only the changes necessary to produce a correct utterance, without changing the meaning. The purpose of recasting is to draw learners’ attention to language forms without disrupting their communication (Long, 1996). A number of studies (Doughty & Varela, 1998; Leeman, 2003; Long, Inagaki, & Ortega, 1998) have indicated that the use of recasts is effective in bringing students ‘attention to the language.

However, several studies have shown an opposite result for recasts. For example, Lyster and Ranta (1997) study did not show a positive effect on students ‘learning with recasts. He found recasts to be an ineffective technique in raising students ‘consciousness on their errors receiving feedback on various linguistic forms also, the feedback on each type of error was given infrequently. In other words, a recast does not have a salient effect for bringing students ‘attention to the changes

provided in the feedback. In contrast, recasts were effective in Doughty and Varela‘s (1998) study because the teacher focused on only two target forms, and the teacher provided a combination of recasts and rising intonation to indicate an error was used.

Some studies have also shown that recasts were ineffective when compared to other corrective feedback. For example, Lyster (2004) compared the effects of prompts and recasts on the learning of French students by two groups of learners in an immersion program. One group received recasts and the other received prompts. The results of the study indicated that the group who received prompts did better than the recast group, in both written and oral post-tests. Ammar (2008)found that learners who received prompts performed better in the post-tests than those in the recast groups. Long (2007) explains that prompts are more effective than recasts because students often do not perceive recasts to be a correction, but a reaffirmation of what they said, and typically do not provide an opportunity for learners to repair their utterance. Oliver and Mackey (2003) also states that recasts cannot provide reliable indicators of whether learners have the ability to repair their language after a recast because they may not have the opportunity to correct their language during a conversation.

Other problems with recasts are indicated in Song (2007) study. The participants in the study were two beginning level Korean learners of English. Their mistakes on morphological items—such as possessives, plurals, syntactic items, articles, and prepositions—were corrected through recasts for four months. The results showed that the participants did not always notice the changes in recasts. Song (2007) explains that the effectiveness of recasts depends on the amount of correction in the recasts and the saliency of the language items. As such, she concludes that recasts work more effectively when: 1) changes are not complex to the learners’ language proficiency; 2) quantity of changes in the recasts does not exist in learners’ memory load; and 3) language forms are salient to the learners.

Research has shown that comprehensible input, output, interaction, and feedback have significant roles in building learners ‘language ability. Lee et al. (2005) points out those teachers in CLT classrooms create communicative environments that promote students ‘communicative competence, which is an essential goal of language teaching for CLT. In the next section, the literature on communicative competence

will be reviewed. The primary principles of communicative competence are effectiveness and appropriateness of speech during the process of interaction, as described by Rickheit and Strohner (2008). The term communicative competence was first used by Hymes (1974) to refer to a speakers' capability to speak a language with linguistic proficiency and to use language appropriately in different social contexts. Since then, there has been a growth in research on the development of communicative competence in SLA (Scarcella, Andersen, & Krashen, 1990). Savignon (1972) defines communicative competence ―as the ability to function in a truly communicative setting—that is, in a dynamic exchange in which linguistic competence must adapt itself to the total informational input, both linguistic and paralinguistic, of one or more interlocutors‖. Simply put, communicative competence refers to native speakers 'abilities that allow them to communicate with other speakers effectively and spontaneously. Such abilities include the use of the language in different cultural contexts and the interpretation of body language.

To describe communication competence in more detail, Savignon (1972) characterizes it into the following conditions: a) it depends on the negotiation of meaning between speakers; b) it is context specific; c) it applies to both written and spoken language; and d) it requires using appropriate registers and styles. Communicative competence is dependent on the negotiation of meaning between speakers because communication is spontaneous, as Savignon (1997) mentions. Speakers need to negotiate meaning based on what is unclear to them. It is context specific because communication occurs in various situations and with different people who have different cultural backgrounds and social statuses. Thus, strategies that are used will be different, depending on the context given.

Communicative competence applies to both spoken and written language because communication takes place in both forms. Holtgraves (2008) demonstrates the importance of spoken utterances for both listeners and speakers in communicative competence in his research. Speakers need to organize their language so that their listeners can understand them, whereas listeners need to comprehend and interpret the utterances conveyed to them. Likewise, written language also plays a central role in communicative competence because writers need to formulate their words for readers 'comprehension, and readers need to have the ability to understand and interpret the

written messages and information.

Lastly, communicative competence requires the use of appropriate registers and styles because how we talk depends on the social status of the other speaker. Different registers and styles are required when talking to the president or to a friend. Therefore, speakers need to know what is appropriate to use when interacting with different people.

To achieve communicative competence, learners need to be competent in four aspects: linguistic, sociolinguistic, discourse, and strategic competence (Swain & Lapkin, 1995). Linguistic competence, which is also called grammatical competence, concerns learners 'use of lexis, syntax, and structures. Although knowing grammatical rules is important, mastering the rules without knowing how to use them in effective communication is problematic Hymes (1974). Sociolinguistic competence concerns learners 'appropriate use of language in different situations and settings. Such appropriateness includes politeness, rejection, and expression of feelings (Scarcella et al., 1990).

The basic definition of discourse competence, as offered by Swain (1995), refers to the speakers 'ability to combine language to form meaning. Scarcella, Anderson, and Krashen (1990) suggest that the term also includes the ability to form oral and written language appropriately and meaningfully. This implies that discourse competence consists of not only language, but also nonverbal behaviors, such as gestures and facial expressions during communication. Nonverbal behaviors are important in communication because human beings tend to rely on other devices to comprehend meanings when utterances are not clear (Rickheit & Strohner, 2008). As suggested by the term itself, strategic competence relates to the use of strategies that make up for the inadequate abilities in other aspects of competence (Savignon, 1997).

Researchers have investigated the acquisition of each competence (Lapkin & Swain, 2013; Rintell, 1990; Sato & Kleinsasser, 1999). These studies provide evidence that each competence plays a significant role in the acquisition of communicative competence. For this reason, researchers have looked into how a L2 classroom environment assists learners in developing communicative competence. Despite the fact that classroom interaction provides means for learners to develop communicative competence in context, it is important to teach students

communication strategies, and to provide them with examples and explanations of acceptable and appropriate language use in diverse contexts.

After reviewing the literature, Saengboon (2006) summarizes that CLT is: 1) a focus on message meaning, resulting in language lessons involving communicative functions; 2) the use of authentic materials; 3) learner-centered and experienced-based views of L2 acquisition/learning; 4) a focus on meaningful tasks in which learners play the role of negotiator of messages rather than on linguistic items; and 5) the use of pair/group activities carried out in a learner-friendly atmosphere. K. Johnson (2013) also points out five major characteristics of CLT: 1) it is a study of the appropriate use of language in different settings; 2) it focuses on information exchange; 3) it promotes students 'cognitive and SLA development; 4) it encourages students to take risks, and 5) it emphasizes free practice techniques. Simply put, the goal of CLT is to develop students' SLA and to prepare them in using the L2 appropriately through meaningful contexts in which they may encounter.

3. Constructivism

The constructivist school of thought appeared early in the 20th century and has roots in psychology and physiology. The constructivist school of thought, unlike the behaviorist one, does distinguish the study of human behavior from that of the animal. The constructivist school of thought emphasizes the role of social interaction in cognitive development (Piaget, 1970).

A number of foundational thinkers under the constructivist school contributed to our understanding of how learning takes place from various perspectives. However, this study is not intended to emphasize the differences among the constructivist school foundational thinkers or to support one vision over another, but instead, outlines the major assumptions and principles of constructivism and which embody the treatment (Task-Based Language Teaching) of this study as going to be demonstrated later on. A fundamental assumption underlies the constructivist school is that human processes can be understood only by considering where they occur in growth (Vygotsky, 1978). This assumption involves a genetic or developmental method that higher mental (cultural) processes in the individual have their own origin in social processes and the claim that mental processes can be understood by identifying the tools and signs that mediate them. In other words, human behavior

(i.e., learning) occurs according to a genetic development within the child accompanied by the trigger of culture and which are supported by unique tools of humans (such as speech) that mediate learning. Development of human behavior (learning) can be understood when examining the chronological order of speech and action. At an early stage the child's action precedes his/her speech while in a later stage the child's speech precedes his/her actions.

Another assumption that interacts with learning is that, within society, individuals have the property of the *Zone of Proximal Development* (ZPD) which refers to the phase between what the child could do alone and what s/he can do or learn with the help of a more knowledgeable other(Vygotsky, 1978). This assumption necessarily infers that "learning oriented toward developmental levels already reached is ineffective from the viewpoint of a child's overall development. [Learning] does not aim for a new stage of the developmental process but rather lags behind this process" (p. 89). In other words, the *Zone of Proximal Development* (ZPD) suggests that learning should be in advance of development. To conclude, the Vygotskian vision, as a fundamental component of the constructivist school of thought, sees that learning is socially constructed. Learners build their own reality or at least interpret it based upon their perceptions of experiences. Knowledge, then, is a function of prior experiences, mental structures, and beliefs that are used to interpret objects and events. Another vision of learning under the constructivist school of thought was that learning was more cognitive than social but included maturational variables that were affected or shaped by the environment (Piaget, 1970). This vision of learning proposed three types of experience: (a) exercise that is self-directed and self-rewarded; (b) *physical experience*, which is a process of learning about the properties of objects; and (c) *logico-mathematical*, which is a higher type of learning. These experiences yield knowledge that is spontaneous and directly related to the maturation of the brain. Thus, cognitive perspective of learning suggests that learning involves (a) *equiliburation*, which is responsible for development (defined as the physical and social experience of the environment); (b) *assimilation*, which is the process of adding new experiences or inputs to old and existing ones; and (c) *accommodation*, which involves building new experiences by integrating new and old ones. Cognitive development is highly emphasized under this vision of learning proposing four stages

of development (Piaget, 1970). In the first one, *sensorimotor* period, from birth to two years old, the child progresses from unintentional behavior to learning from "trial and error" and begins thinking of symbols and causality. In the second one, *pre-operational* period, from two to seven years old, the child begins to show some conceptual behavior. In the third one, *a concrete operation, from seven to eleven years old, the child displays* reversible thinking and understands the change in the appearance of some substances. In the fourth one, *a formal operation, from eleven to fifteen years old, the child arrives* at *a higher-order schema* by going beyond the immediate sensory experience and thinking abstractly.

A very important vision under the constructivist school of thought emphasized the role of experience arguing that individuals learn though activities (Dewey, 1938). This argument sees that when the child is involved in activities he or she will gradually learn their meanings and can do his/her own part in relation to them. This vision of learning sees learning to be a continuous process: The present affects the future anyway. The persons who should have some idea of the connection between the two are those who have achieved maturity. Accordingly, upon them devolves the responsibility for instituting the conditions for the kind of present experience which has a favorable effect upon the future.

One more vision of learning under the constructivist school of thought is the emphasis of meaning construction through culture. This vision sees that *reality* is synonymous with learning and the product of meaning-making that was shaped by traditions and culture (Bruner, 1984). In other words, culture could not be excluded and that individuals were only *mirrors* that reflected culture. A vital component of this vision for learning is interaction which provides "a communal cast to individual thought and impose[d] certain unpredictable richness on any culture's way of life, thought, or feeling". Education, in this regard, is to aid individuals in making meaning and constructing reality and that the best way to learn is through the exercise of meaningful problem-solving.

To conclude, the constructivist school of thought emphasized for learning the roles of culture, interaction, cognitive development, experience, and meaning making. Making meaning is an active process in which meaning is constructed via personal experience and conceptual growth comes out of the negotiation. Recently,

constructivism has received greater status and appreciation by educators around the world and has started to influence schools and instructional practices with the above constructivist stated assumptions. Some of the considerable implications of the constructivist school of thought include emphasis on comprehension rather than memorization, group work rather than solo or individualized learning, and imitation of real life experiences. The principles of the constructivist school of thought underlie the principles of TBLT which forms the conceptual framework of this study.

4. Task Based Learning

Task-based learning was first developed by N. Prabhu in Bangladore, southern India. Prabhu believed that students may learn more effectively when their minds are focused on the task, rather than on the language they are using (Prabhu, 1987). Task-based instruction is a language teaching approach, which has been widely used by teachers during the emerging era of communicative language teaching. Using this approach, *tasks* are employed by teachers as the central units of syllabus design or as the instructional focal point (Willis, 1996). The following section defines task and illustrates the way in which it is used.

4.1 Definition of task

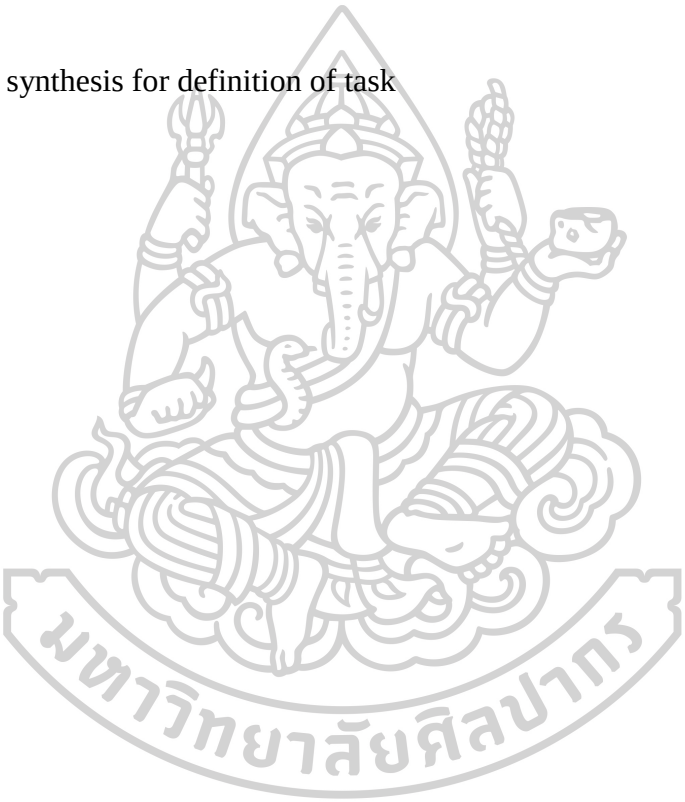
In the literature, the definition of task has been provided by many scholars and authors on various perspectives. Listing from the more generic to the more specific definition of the term "task", beginning by definition of Long (1985) postulating that 'a task is a piece of work undertaken for oneself or for others, freely or for some reward.' Tasks can be activities or actions of painting a fence, dressing a child, filling out a form, buying a pair of shoes, making an airline reservation, borrowing a library book, etc. Thus, "task" is referred to what people do in everyday life, at work, at play, and in between. According to Richards, Platt, Weber, Inman, and Inman (1986), 'a task is an activity or action which is carried out as the result of processing or understanding language, i.e. as a response.' Tasks may or may not involve the production of language.

Tasks are used by teachers as a tool for a purposeful communicative lesson and then the successful completion of the task will be specified by the teacher in order

to assess the learning achievement. Drawing a map while listening to a tape and listening to an instruction and performing a command, are examples of tasks in the view of Richards et al. (1986). Whereas Prabhu(1987) emphasized more on a piece of work or an activity with a specified objective or outcome from given information through some process of thought derived as part of an educational course. Definition by Breen (2001), quite accords with the views suggested by Samuda and Bygate (2008); Skehan (2003); (Swain, 2001) and Willis (1996) in that a task is a structured plan used to enhance target language with emphasis on meaning, to attain an objective via a set of communicative, differentiated, sequenciable, problem-posing activities.

A task can be a brief practice exercise or a more complex work plan that requires spontaneous communication of meaning. Similarly, Ellis (2003) views that 'task' is a work plan that requires learners to process language pragmatically in order to achieve an outcome. Apart from primary attention to meaning, the target language use and authenticity are also emphasized by Ellis (2003) pertinent to productive or receptive, and oral or written skills, and also various cognitive processes. Meanwhile, in the perspective of constructivism, Candlin (1987) mentioned task as 'involving learners' procedures applied to existing and new knowledge in the collective exploration and pursuance of foreseen or emergent goals within a social milieu.' In the present study definition of task is partly adopted from Ellis' (2003) and Candlin' (1987) as 'Task is a work plan designed by a teacher with expectation that learners will achieve the learning objectives. Learners are required to complete tasks so that they can be assessed by their productive outcomes. The task is carried out through the use or processing of target language with an authentic activity or action. Through the spontaneous communication, the focus is on meaning rather than forms. Learners then acquire the target language through the use, motivation and exposure to target language. Learners can also be enhanced to construct their own knowledge and experiences by accomplishing creative tasks. The synthesis for definition of task is depicted in the following table;

Table 1 The synthesis for definition of task



Author	Definition of Task	The synthesis of task definition
Prabhu (1987)	A task is an activity which required learners to arrive at an outcome from given information through some process of thought, and which allowed teachers to control and regulate that process.	Learners then acquire the target language through the use, motivation and exposure to target language. Learners can also be enhanced to construct their own knowledge and experiences by accomplishing creative tasks.
Candlin (1987)	One of a set of differentiated, sequencable, problem-posing activities involving learners' cognitive and communicative procedures applied to existing and new knowledge in the collective exploration and pursuance of foreseen or emergent goals within a social milieu.	
Breen (2001)	A task is a structured plan for the provision of opportunities for the refinement of knowledge and capabilities entailed in a new language and its use during communication. A task can be a brief practice exercise or a more complex work plan that requires spontaneous communication of meaning.	
Willis (1996)	Activities where the target language is used by the learner for a communicative purpose (goal) in order to achieve an outcome.	
Samuda and Bygate (2008)	A task is an activity which requires learners to use language, with emphasis on meaning, to attain an objective.	
Ellis (2003)	A work plan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate prepositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their own linguistic resources, although the design of the task may predispose them to choose particular forms. A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills, and also various cognitive processes.	

Table 1: The synthesis for definition of task (continued)

Author	Definition of Task	The synthesis of task definition
Long (2000)	A task is a piece of work undertaken for oneself or for others, freely or for some reward. Thus examples of tasks include painting a fence, dressing a child, filling out a form, buying a pair of shoes, making an airline reservation, borrowing a library book, etc. in other words, by "task" is meant the hundred and one things people do in everyday life, at work, at play, and in between. "Tasks" are things people will tell you they do if you ask them and they are not applied linguists.	Task is a work plan designed by a teacher with expectation that learners will achieve the learning objectives. Learners are required to complete tasks so that they can be assessed by their productive outcomes. The task is carried out through the use or processing of target language with an authentic activity or action.
Richards et al. (1986)	A task is an activity or action which is carried out as the result of processing or understanding language, i.e. as a response. For example, drawing a map while listening to a tape, and listening to an instruction and performing a command, may be referred to as tasks. Tasks may or may not involve the production of language. A task usually requires the teacher to specify what will be regarded as successful completion of the task. The use of a variety of different kinds of tasks in language teaching is said to make teaching more communicative…since it provides a purpose for classroom activity which goes beyond practice of language for its own sake.	

4.2 Task components

Nunan (2006), Finch (2003), and A. L. Brown et al. (1984) define specification of four components of a language learning task, namely;

4.2.1 Goals are the general intentions behind any given task. They may relate to a range of general outcomes or may directly describe teacher or learner behavior. Goals may not always be explicitly stated and for some complex tasks, they may cover a range of activities in order to develop learners towards several goals.

4.2.2 Input refers to the data that form the point of departure for the tasks which can be derived from various sources, for example, articles from newspapers, magazines and journals, reports to different kinds of groups, radio and television scripts, recipes or puppet plays. Such inputs are deemed as authentic since they have not been produced for the purpose of language teaching. Proponents of authentic materials suggest that texts and dialogues prepared for classroom learning do not sufficiently serve learners to meet the need of language use in the real world. Thus exposure to authentic aural or written texts is more likely to develop learners to have appropriate proficiency levels.

4.2.3 Activities determine what learners will actually do with the input in relation to the learning task. The three general ways to characterize activities are; rehearsal for the real world; skills use; and fluency/accuracy. .

4.2.4 Roles means the part that learners and teachers are desired to play in performing learning tasks including the aspects of the social and interpersonal relationships between the participants. For learners, it is important to develop an awareness of themselves as learners. Any activities which provide opportunities for learners to think about the nature of language and ways of learning indicate a more critical and reflective learner role than the activities that heavily emphasize on memorizing or manipulating language.

4.2.5 Teacher roles according to Rodgers (2001), are related to the types of functions teachers are expected to fulfill; whether that of practice director, counselor or model, the degree of control the teacher has over how learning takes place, the degree to which the teacher is responsible for content and the interactional patterns that develop between teachers and learners. The roles of teachers and learners are, in many ways, complementary.

4.2.6 Setting refers to the classroom arrangements as specified in the task, and it also requires consideration of whether the task is to be performed in whole or in part outside the classroom. Nunan (2006) defines two different aspects of the learning situation as ‘mode’ and ‘environment’. Mode refers to the task operation on an individual or group basis, which self-pace or self- directed may be heavily or slightly concerned. Environment refers to where the learning actually takes place; it might be in a typical classroom or in a community for instance.

4.3 Classifications of tasks

Tasks can be labeled according to the type of activity they impose on learners, or according to the language skills they focus on, or pursuant to the type of discourse they are intended to elicit, or even have their own unique names, for example, ‘spot-the-different’ and dictogloss’. Task classification is essential in many ways. It helps ensuring variety of task types for syllabus designers included into the course. It can also used to identify the task types to suit the specific needs or preferences of particular groups of learners. Moreover, it provides a framework for teachers to systematically employ tasks in their classrooms (Ellis, 2003). It is apparent that tasks can be grouped in different ways:

There are four approaches to classifying tasks: (1) pedagogic; (2) rhetorical; (3) cognitive; and (4) psycholinguistic, according to Ellis (2003). Each classification is concisely described in the followings.

Firstly, the pedagogic classification is based on the language skills (listening, speaking, reading and writing) and general teaching activities (for example, ordering, comparing, problem-solving, and sharing personal experience) to label different kinds of tasks. Willis (1996) suggested types of tasks belonging to the pedagogic classification namely:

1. Listing: Including a brainstorming and fact-finding, the outcome is a completed list or draft mind map. This type of task can help enhance students' comprehension and induction ability.

2. Ordering, sorting: Including sequencing, ranking and classifying, the outcome is a set of information ordered and sorted according to specific criteria. These types might elevate comprehension, logic and reasoning ability.

3. Comparing: This type of task includes matching, finding similarities, or differences. The outcome can be appropriately matched or assembled items. This type of task fosters students' ability of differentiation.

4. Problem solving: This type of task includes analyzing real situations, reasoning, and decision-making. The outcome involves solutions to the problem, which can then be evaluated. These tasks help nurture students' reasoning and decision-making abilities.

5. Sharing experience: These types of tasks include narrating, describing, exploring and explaining attitudes, opinions, and reactions. The outcome is usually social. These tasks help students to share and exchange their knowledge and experience.

6. Creative tasks: These include brainstorming, fact finding, ordering and sorting, comparing and many other activities. The outcome is an end product that can be appreciated by a wider audience. Students cultivate their comprehensive problem-solving abilities as well as their reasoning and analyzing abilities.

In second classification; the rhetorical, tasks are classified according to discourse domains and text genre – narrative, instructions, description, reports, for example. This classification is typically found in language courses for academic purposes and is often with the linkage to the specific language functions.

Thirdly, the cognitive classification, Prabhu (1987) classifies three general types of tasks based on cognitive activity, namely; (1) Information gap activity involves ‘a transfer of given information from one person to another or from one form to another or from one place to another. When one conversation partner has knowledge relevant to the situation discussed, which is unknown by the other partner, an 'information gap' is said to exist. The need to acquire the information triggers communication between the two which bridges the 'information gap' (McDonough & Mackey, 2000; Slimani-Rolls, 2005), (2) Reasoning gap activity involves deriving some new information from given information through the process of inference or deduction and interacting with others to deliver these inferred new information, and (3) Opinion gap activity involves identifying and articulating a personal preference, feeling, or attitude for any specified scenario. The task may require using factual information, formulating arguments, and justifying one's opinions (Ellis, 2003).

Lastly, the psycholinguistic classification, is composed of 4 dimensions; (1) Interaction relationship, focusing on who holds the information to be exchanged and who requests it and supplies it in order to achieve the task goals, (2) Interaction requirement, focusing on whether the interaction was required in task completion, (3) Goal orientation, focusing on whether the task needed an agreed goal and collaboration result, and (4) Outcome options, determining whether a single or several outcomes were accepted in a task.

There are more classifications of tasks by many scholars for instance; Scarcella et al. (1990) distinguishes tasks into Pair/ Group tasks: a pair task involves students' work one-on-one with others in class. On the other hand, group tasks involve more than two students.

Nunan (2006) and Willis (1996) likewise classify tasks into Closed/ open tasks: Closed tasks have just a single correct answer. They are very structured and have very specific goals. On the other hand, open tasks are more loosely structured, with a less specific goal, for example exchanging anecdotes on a theme.

It is obvious that all these classifications are partly overlapped between different types of tasks; most of the previously explained tasks can fall under more than one category. The following table depicts some task classifications of scholars.

Table 2 The synthesis for Task classifications

Scholars	**Task classifications**
Ellis (2003)	(1) pedagogic; (2) rhetorical; (3) cognitive; and (4) psycholinguistic
Willis (1996)	1. Listing, 2. Ordering, 3. Comparing, 4. Problem solving, 5. Sharing experience, and 6. Creative tasks
Prabhu (1987)	(1) Information gap activity (2) Reasoning gap activity (3) Goal orientation
Scarcella et al. (1990)	Pair/ Group tasks
Willis (1996) and Nunan (2006)	Closed/ open tasks

4.4 The Task-Based Learning (TBL) Framework

The TBL framework explains the stages that guide the implementation of TBL lesson. Ellis (2003) asserted that the design of a task-based lesson involves consideration of the stages or components of a lesson that has a task as its principal component. Various designs have been proposed (for example, Prabhu, 1987; Skehan 1998; Willis, 1998; Ellis, 2003).

Prabhu (1987) presents the way to implement task-based lessons into two phases: (1) Pre-task; to present and demonstrate the task, assess its difficulty for the learners in question, adapt the main task if necessary, and, vary importantly, 'let the language relevant to the task to come into play, and (2) Task; the task proper would be transacted by students, with task outcome being the major goal that preoccupied the learners.

According to Willis (1998), stages involves in task based teaching shall be arranged in the following orders;

Pre-task: Introduction to topic and task;

Teacher explores the topic with the class, highlights useful words and phrases, helps students understand task instructions and prepare. Students may hear a recording of others doing a similar task.

Task Cycle: three sub steps are to be followed, namely 1) Tasks can be done by students as pair works or group works under the supervision of the teacher, 2.2) Planning: Students brainstorm and discuss to report to the class presenting the task performance, what they decided or discovered. 2.3) Report: Students make presentation in their own styles, or exchange written reports, and compare results.

Language focus : it composes of two sub steps, 1) Analysis: Students check and discuss specific features of the text or transcript of what has been recorded, 2) Practice: Teacher emphasizes the practice of new words, phrases and patterns occurring in the data, phrases and patterns occurring in the data, either during or after the analysis.

Ellis (2003) Ellis concluded 3 phases reflecting the chronology of a task based lesson as follows;

1) Pre-task; it concerns the various activities that teachers and students can undertake before they start the task. Alternatively, this phase can be performed in one

of four ways: (1) supporting learners in performing a task similar to the task they will perform in the during task phases of the lesson; (2) asking students to observe a model of how to perform the task; (3) engaging learners in non-task activities designed to prepare them to perform the task; and (4) strategic planning of the main task performance.

2) During-task; it centers on the task itself and affords various instructional options, including whether students are required to operate under time pressure or not. There are two basic kinds of methodological options, namely; (1) 'task performance options' relating to how the task is to be undertaken that can be taken before the actual performance of the task and thus planned for by the teacher., 'process options' involving online decision making by the teacher and students about how to perform the task as it is being completed.

3) Post task; it involves procedures for following up on the task performance. There are a number of options with three major pedagogic goals: (1) to provide an opportunity for a repeat performance of the task; (2) to encourage reflection on how the task was performed; and (3) to encourage attention to form, in particular to those forms that proved problematic to the learners when they performed the task.

Willis and Willis (2013) explain that a task-based lesson would not probably contain a single task, but rather a sequence of tasks, which relate to one another. The teacher led- introduction is deemed as a task in itself. A *task sequence* made up of several tasks that occur in a pre-specified order enable learners to navigate activities and negotiate meanings effectively. The tasks help preparation or priming learners for the next stage. During this process, learners can scan input for language which might be useful as output at a later stage. It is referred to as '*Facilitating tasks'.* They are carried out before the primary task. Facilitating tasks are an integral part of the task sequence according to Willis and Willis, because they 'prime' and 'prepare' the learners for the target or classroom task. Then the next task is the class discussion which leads to the following task, reading. The important point, however, is a focus on meaning at all stages. When it comes to the last sequence, the stage of focus on form serves three functions: it helps learners to make sense of the language they have experienced; it emphasizes useful forms for future acquisition; and it creates motivation.

The sequence of tasks according to Willis and Willis (2013) then can be arranged through: (1) Priming; (2) Preparation; (3) Target task and (4) Focus on form.

There are also other sequences of task or TBL framework proposed by several scholars, however, the established and widely accepted frameworks are ones mentioned above.

The following table summarizes components of task-based learning framework suggested by scholars and the synthesis of task based learning framework used in this study.

Table 3 The synthesis of Task-based learning Framework

Scholars	**Task-based learning Framework**	**The Synthesis of Task-based learning Framework**
Prabhu (1987)	1. Pre-task; to present and demonstrate the task, assess its difficulty for the learners in question, adapt the main task if necessary, and, vary importantly, 'let the language relevant to the task to come into play, 2. Task; the task proper would be transacted by students, with task outcome being the major goal that preoccupied the learners.	1. Pre-task; to present and demonstrate the task (reading and using reading and creative thinking strategies), prepare students for the assigned roles in mixed ability groups and implement the before-reading strategy (Preview Strategy). 2. During –task; the teacher provides guided practice and develop reading and creative thinking strategies through having students do reading tasks applying Click and Clunk Strategy and Get the Gist Strategy and write in their own words for the Gist.
Willis (1996)	1. Pre-task; Introduction to topic and task Teacher explores the topic with the class, highlights useful words and phrases, helps students understand task instructions and prepare. Students may hear a recording of others doing a similar task. 2. Task Cycle Task: Students do the task, in pairs or small groups. Teacher monitors from a distance.	

Table 3: The synthesis of Task-based learning Framework (continued)

Scholars	**Task-based learning Framework**	**The Synthesis of Task-based learning Framework**
Willis (1998)	Planning: Students prepare to report to the whole class (orally or in writing) how they did the task, what they decided or discovered. Report: Some groups present their reports to the class, or exchange written reports, and compare results. Students may now hear a 3. recording of others doing a similar task and compare how they all did it.Language focus Analysis: Students examine and discuss specific features of the text or transcript of the recording. Practice: Teacher conducts practice of new words, phrases and patterns occurring in the data, either during or after the analysis.	3. Post-task; students implement Wrap Up Strategy to generate questions from the text, review what they learned and then write down in the learning logs and share with the class.
Ellis (2003)	1. Pre-task; Alternatively, this phase can be performed in one of four ways: (1) supporting learners in performing a task similar to the task they will perform in the during task phases of the lesson; (2) asking students to observe a model of how to perform the task; (3) engaging learners in non-task activities designed to prepare them to perform the task; and (4) strategic planning of the main task performance. 2. During-task; There are two basic kinds of methodological options, namely; (1) 'task performance options' relating to how the task is to be undertaken that can be taken before the actual performance of the task and thus planned for by the teacher., 'process options' involving online decision making by the teacher and students about how to perform the task as it is being completed.	

Table 3: The synthesis of Task-based learning Framework (continued)

Scholars	**Task-based learning Framework**	**The Synthesis of Task-based learning Framework**
	3. Post task; it involves procedures for following up on the task performance. There are a number of options with three major pedagogic goals: (1) to provide an opportunity for a repeat performance of the task; (2) to encourage reflection on how the task was performed; and (3) to encourage attention to form, in particular to those forms that proved problematic to the learners when they performed the task.	
Willis and Willis (2013)	1. Priming Prepare learners background knowledge and vocabularies for the coming lesson by sharing ideas. 2. Preparation Learners make a written list to plan ahead of doing task. 3. Target task Learners accomplish a sequence of tasks which have different characteristics and purposes design by the teacher. 4. Focus on form Some specific forms which are to be produced in a controlled fashion are focused, explained and practiced. 5. Evaluation Engage learners in class discussion and check their reaction at the end of the lessons to get qualitative information for lesson improvement.	

4.5 The Advantages of Task-Based Teaching

Task-Based Language Teaching is an application of second language teaching informed by the most recent research findings on second language acquisition. As such, it plays an important role in current language pedagogy (Solares, 2006).

A task-based lesson usually provides the learner with an active role in participating and creating the activities, and consequently increases their motivation for learning. A task-based lesson offers more opportunities for the students to display their thinking through their actions. The teacher can also be more open to the needs of the students. TBL allows students to use the knowledge they have learnt and apply it productively in the task context (procedural knowledge). This practical experience helps learners to appreciate why certain academic questions are important and provide an experiential substrate for the development of a further academic discourse.

The task usually requires the selection of some objects as an outcome. This can provide a shared focus for which students can work together. In the process, different participants, including peer learners in the team and the tutor, can project different views on the same situation and develop meaningful discussion on the matter. The task will usually generate objects that are also open to cross group evaluation. The students can present their own products and evaluate others. Everyone can take part in evaluating the strengths and weaknesses of the work generated within the classroom community. This will induce reflection as well as the development of critical awareness in the students.

4.6 Criticisms on Task-Based Learning

Few people would question the pedagogical value of employing tasks as a vehicle for promoting communication and authentic language use in second language classrooms. This approach, however, has its own drawbacks.

Swan (2005) states that the claim that Task-Based Learning is an advanced teaching approach, firmly based on the findings of current theory and research, cannot be continuous. The hypotheses frequently associated with TBL, to the effect that second-language acquisition happens totally as a result of noticing during communicative activity, and are controlled by inflexible developmental sequences,

are supported neither by convincing theoretical argument nor by experimental evidence, and are contradicted by common language-learning experience.

TBL offers a different rationale for the use of tasks as well as different criteria for the design and use of tasks. It depends on tasks as a primary source of pedagogical input in teaching and lacks of a systematic grammatical or the type of syllabus that characterizes current versions of TBLT. Moreover, many aspects of TBLT have not been justified, such as proposed schemes for task types, task sequencing, and evaluation of task performance. Therefore, in line with what Swan (2005) suggested above, according to Rogers (2001) the basic assumption of Task-Based Language Teaching, that it provides for a more effective basis for teaching than other language teaching approaches, remains in the domain of ideology rather than fact.

According to Skehan (1996), task-based learning holds some dangers if implemented carelessly. Especially, it is likely to create pressure for instant communication rather than interlanguage change and growth. Speakers may resort to use some communication strategies such as paraphrase, repetition, word coinage, etc. Furthermore Norris (2002) and Hudson (2005) argue task-based learning does not provide any basis for making interpretations beyond the particular task/test context and it cannot simulate all of the factors that define actual language use situations. Moreover, the elicited performances may depend on abilities or knowledge rather than language itself.

It should also be said that task-based interaction is mainly narrow and learners put great emphasis on communicating meanings, but not necessarily worry about the exact form that they use. Therefore, the whole organization of the interaction is equipped for establishing a tight and selected focus on the achievement of the task. There are a large number of different varieties of interaction in the world outside the L2 classroom, where there is certainly a lot more to communication than performing tasks.

4.7 Task-based assessment

Norris (2002) defined tasks as real world activities “that people do in everyday life and which require language for their accomplishment”. In this definition, a test task is a real-world activity. On the other hand, Bachman and Palmer (1996) consider

tasks as “an activity that involves individuals in using language for the purpose of achieving a particular goal or objective in a particular situation”. Their definition is broader as it encompasses tasks specifically designed for assessment and instruction as well as real-world activities. Task-based testing is part of a broader approach to assessment called performance assessment. There are three essential characteristics of performance assessment. Firstly, it must be based on tasks; secondly, the tasks should be as authentic as possible; and finally, ‘success or failure in the outcome of the task, because they are performances, must usually be rated by qualified judges.

Task-based tests are defined as any assessments that “require students to engage in some sort of behavior which stimulates, with as much fidelity as possible, goal-oriented target language use outside the language test situation. Performances on these tasks are then evaluated according to pre-determined, real-world criterion elements (i.e., task processes and outcomes) and criterion levels (i.e., authentic standards related to task success)”.

Task-based testing fits within the definition of performance testing. Moreover, any discussions of performance testing will necessarily include some discussion of task-based testing, but the reverse will not necessarily be true.

Task-based assessment can be defined as an approach that attempts to assess as directly as possible whether test takers are able to perform specific target language tasks in particular communicative settings. Task-based assessment does not merely utilize the real-world tasks as a means for eliciting the production of particular components of the language system, which are then measured or evaluated. Instead, the construct of interest in task-based assessment is the performance of the task itself. If language tasks are defined as being real-life activities that require meaningful language for their performance, assessment tasks ideally should be motivating and authentic tasks that relate to what learners are expected to be able to do with the target language in real life.

4.8 The objectives of task-based assessment

Task-based test developers aim to devise tests that provide direct information on test takers’ target language performance in specific language use situations, but they will never reach a stage of perfection. In fact, tests can, at best, be semi-direct. An

underlying premise to virtually all of discussions of task-based language assessment is that the inferences we want to make are about underlying ‘language ability’ or ‘capacity for language use’ or ‘ability for use’. Thus, Brindley (1994, cited in Bachman, 2002) explicitly includes, in his definition of task-based language assessment, the view of language proficiency as encompassing both knowledge and ability for use.

Task-based tests are ‘new’ to many of the teachers involved: in more than one way, they deviate from the kind of tests typically included in available teaching methods or from the tests traditionally developed by teachers themselves, especially those who had been working in a more ‘linguistic’, forms-focused tradition. The task-based tests were intended as models for the teachers, showing them how reading, listening, writing and speaking proficiency can be assessed in a functional way. Since some of these tests could be directly linked to the task-based, functional attainment goals, the tests also showed great potential for heightening teachers’ sensitivity for functional goals, in fact, the introduction of task-based tests may have great potential in ‘pushing’ teachers to make one of the main paradigm shifts that is involved in replacing or supplementing traditional teaching and testing practices with task-based ones. Some teachers may actually be more sensitive to changes with regard to their testing practices than to innovations directly trying to affect their teaching practices, because of the high importance they attach to the former. In this case, the wash back effect of task-based tests on teachers’ pedagogical approaches may not be direct, but mediated by their heightened awareness of the essential attainment goals they have to pursue. Over the years, measurement theorists (Bachman & Palmer, 1996) have discussed a large number of sources of variation, or factors that may affect test performance. One example of such a formulation is that provided by Bachman (1996), who identifies several distinct sets of factors (language ability of the test-taker, test-task characteristics, personal characteristics of the test taker and random/ unpredictable factors) which are hypothesized to affect test performance. This formulation recognizes that these factors may well be correlated with each other to some degree (except for the random factors, which are by definition uncorrelated with anything else). In this formulation there is no factor identified as ‘difficulty’.

A different conceptualization has been proposed in which task difficulty is conceptualized as the classification of tasks according to an integration of ability requirements and task characteristics. Skehan (1998) proposes three sets of features that he hypothesizes affect performance on tasks: code complexity: the language required to accomplish the task; cognitive complexity: the thinking required to accomplish the task; and communicative stress: the performance conditions for accomplishing a task (Skehan, 1998).

It is hypothesized that these task difficulty features can affect the difficulty of a given task (ostensibly for all learners, regardless of individual differences), and can be manipulated to increase or decrease task difficulty'. One of the first attempts at sequencing tasks from simple to complex was advanced by R. Brown (2008). They distinguished among three different types of tasks which they presented as ranging from easy to difficult. The first type, static tasks, was proposed as the easiest type. In this kind of tasks, all the information to be exchanged is presented to the speaker in the materials for carrying out the task (e.g. a map task in which the speaker has to give directions to the listener). The second type, dynamic tasks, also presents the speaker with all the information in stimulus materials, but the tasks can present problems. In such tasks, characters, events, and activities change, and this change forces the speaker to fully describe the stimulus material, and be explicit, discriminating, and consistent in his or her use of language (e.g. a story in a comic strip in which characters appear and disappear or change places and behaviors). The last type, abstract tasks, is the most difficult one since the stimulus material does not contain the content to be communicated. It involves making reference to abstract concepts, establishing connections between ideas, and providing reasons for certain statements or behaviors (e.g. an opinion task in which learners must choose the most suitable candidate for a scholarship out of a closed list of candidate descriptions).

5. Nature of reading

Members of modern societies must be good readers to be successful. Although, reading skills do not promise accomplishment for anybody, yet achievement is much harder to come by without being a skilled reader. The rise of new technologies has not undermined the significance of reading. It has instead expanded the requirement for

effective reading skills and strategies as we strive to cope with the expansive amounts of information made available to us (W. P. Grabe & Stoller, 2013).

Students need some support for constructing meanings from a text. For this reason, it is required that teachers clearly gain insight for the process of reading. Generally speaking, we can say that reading refers to the active process of extracting and interpreting information and messages from different written materials. To overcome any reading hindrances or difficulties, above all, it has better to begin with understanding what reading is.

5.1 Reading Definitions

There are different ways of defining reading conducted by several scholars from their distinctive perspective.

Beck and McKeown (1999) explain reading as a complex process containing a number of interacting sub-processes and abilities, whereas Pang, Muaka, Bernhardt, and Kamil (2003) describes reading as a "complex activity that involves both perception and thought". Furthermore, according to Schoenbach, Greenleaf, Cziko, and Hurwitz (1999), reading is a complex process of problem solving, which engages in working to build up a sense from a text, and not just a sense from the words and sentences appeared in the text, but it enlightens ideas, memories and knowledge recalled by such words and sentences. Thus, the aforesaid definitions have at least one common notion that reading is a complex process.

Aebersold and Field (2000) give very close definition to the one explained by Alderson (2000). Aebersold and Field (2000), by citing Rumelhart (1977), say that reading involves the reader, the text and the interaction between reader and text; readers engage in the reading process by using their past experience; texts exhibit various characteristics that can facilitate or hinder reader's comprehension; and interactions between readers and texts happen when people look at such texts and assign meaning to the written symbols in those texts. Alderson (2000) extends such definition to include product of reading; although different readers may engage in very different reading processes, the understanding they end up with will be similar.

The most comprehensive one is provided by W. P. Grabe and Stoller (2013). He states that reading is a complex combination of ten processes, namely (1) a rapid process: we read most materials at about 250-300 wpm, (2) an efficient process: when

we read, we coordinate rapid and autonomic word recognition, syntactic parsing, meaning formation, text comprehension building, inference, critical evaluation and linkages to prior knowledge resources. We do this seemingly without effort, (3) a comprehending process: we read to understand what the writer intended to convey in writing, (4) an interactive process: reading is an interaction between the reader and the writer, (5) a strategic process: a number of the skills and processes used in reading call for effort on the part of the reader to anticipate text information, select key information, organize and mentally summarize information, monitor comprehension, repair comprehension breakdown, and match comprehension output to reading goals, (6) a flexible process: as reader purposes shifts, as comprehension is impeded, or as interest varied, the reader adjusts reading processes and goals, (7) a purposeful process: the alignment between processes and purposes indicate that reading is and always a purposeful process, (8) an evaluative : we evaluate how well we are reading or monitor our reading, (9) a learning process: with almost any text we read, the evaluation process makes reading a learning process as we make decisions about how to respond to the text, (10) a linguistic process: it is not possible to read without making graphemic -phonomic connections, without recognizing the words to be read and the structural phrases organizing the words, and without having a reasonable store of linguistic knowledge of the language of the text.

The following table depicts definitions of reading by scholars and the synthesis of definition of reading that this study is based on.

Table 4 The synthesis of definition of reading

Scholars	Definition of Reading	Synthesis of Definition of Reading
Beck and McKeown (1999)	Reading is explained as a complex process containing a number of interacting sub-processes and abilities.	Reading is a complex process involving a reader, a text and an interaction between the reader and the text. Such interaction requires using a number of sub-processes, abilities and knowledge from past experience to effectively construct the meaning from the text.
Pang et al. (2003)	Reading is described as a "complex activity that involves both perception and thought".	
Schoenbach et al. (1999)	Reading is a complex process of problem solving, which engages in working to build up a sense from a text, and not just a sense from the words and sentences appeared in the text, but it enlightens ideas, memories and knowledge recalled by such words and sentences.	
Aebersold and Field (2000)	Reading involves the reader, the text and the interaction between reader and text; readers engage in reading process by using their past experience; texts exhibit various characteristics that can facilitate or hinder reader's comprehension; and interactions between readers and texts happen when people look at such texts and assign meaning to the written symbols in those texts.	

Table 4: The synthesis of definition of reading (continued)

Scholars	Definition of Reading	Synthesis of Definition of Reading
Alderson (2000)	Reading includes process: what we mean by 'reading proper'; the interaction between a reader and the text, and product of reading; although different readers may engage in very different reading processes, the understanding they end up with will be similar.	
W. P. Grabe and Stoller (2013)	Reading is a complex combination of ten processes, namely (1) a rapid process, (2) an efficient process, (3) a comprehending process (4) an interactive process, (5) a strategic process, (6) a flexible process, (7) a purposeful process, (8) an evaluative, (9) a learning process, (10) a linguistic process	

5.2 Reading comprehension

It is essential to know what is actually happening when a reader comprehends or how comprehension occurs therefore we can teach students to do it. Irwin (2007) points out that at least five types of processes occur simultaneously during comprehension: understanding sentences, connecting sentences, understanding the whole, elaborating, and metacognition. She also defines and depicts comprehension as 'the process that a reader chunks words into phrases and recalls ideas in each

sentence, understand and/or infer relationships between clauses and/or sentences, organizes and synthesizes the recalled ideas into general ideas, and make inference not necessarily intended by the author. The reader controls and adjusts these processes according to the immediate goal (metacognitive processes). All these processes occur virtually simultaneously, constantly interacting with each other, and result in cognitive, imaginative and emotional meaning construction'.

Likewise, W. P. Grabe and Stoller (2013) explains that comprehension is not a sole phenomenon; on the contrary, it involves a family set of skills and activities. The substance of comprehension lies on our ability to mentally interconnect different events in the text and construct the meaning of the text. Grabe further describes the main component abilities of higher-order comprehension processing that include; a text model of reader comprehension, a situational model of reader interpretation, and a set of reading skills and resources under the command of the executive control mechanism in working memory (strategies, goals, inferences, background knowledge, comprehension monitoring).

Almasi and Fullerton (2012) describe comprehension in the same way that it involves simultaneous processes in which readers must be able to decode and identify words to understand the literal meaning of a text. Readers also require using their prior knowledge to make connections to the text, drawing inferences, and using higher-order thinking to critically evaluate the text for meaning construction as the ultimate goals. By citing the Construction-Integration (CI) Model of comprehension of Kintsch (1998), Almasi and Fullerton (2012) put more enlightenment on comprehension that 'readers derive a mental model of text, or construct meaning, simultaneously from two sources. The first source is a set of propositions derived from the text at the level of sentences by sentence and propositions derived from the proposition derived by considering the organization of the whole text. Collectively, this set of text-derived propositions form the *text base*. The second source, that readers concurrently use, includes propositions from long-term memory, which relevant information held in prior knowledge and experience (i.e., schemata) is recalled which help readers comprehend and make connections to the text and thereby arrive at personal interpretations of the text. The mental model that is concurrently

constructed from the text base and the connections between it and related prior knowledge from long term memory constitute the situation model.

While there is the present of strategy use in the CI model of comprehension, a strategy is “simply a piece of knowledge that is stored in long-term memory which occasionally activated and retrieved during the integration process”. The declarative, procedural, and conditional knowledge related to strategies is part of the knowledge base that readers retrieve to it as they incorporate the text base with their prior knowledge to construct meaning. Readers have to make inferences and connections between the tex tbase and prior knowledge in the integration process to comprehend the text. While reading, readers are thinking and making strategic decisions in an attempt to make sense of the text. (Almasi and Fullerton, 2012).

In a nutshell, it can be said that comprehension is an active process involving a reader, a text and an interaction between the reader and the text as well as a number of sub-processes in which readers filter understanding through the lens of their motivation, knowledge, cognitive abilities and experiences. Effective readers have a purpose for reading, and use their background knowledge and experiences to relate to the text: readers don’t comprehend unless they draw connections between what they read and their background knowledge.

5.3. Models of Reading

Reading models were mainly set to describe the way a reader uses to construct meaning from printed texts i.e.; these models aim to find out how readers translate prints into meanings. When it comes to the study of English language, reading has usually been at the center of debates among teachers and researchers. Therefore, an attempt will be made to define reading as a communicative process by following certain relevant descriptive frameworks in this area. There are three main "models" being proposed to explain the nature of foreign learning to read: (1) bottom-up processing model, which is so called because it focuses on developing the basic skill of matching sounds with letters, syllables, and words written on a page; (2) top-down processing model, which focuses on the background knowledge that a reader uses to comprehend a text; and (3) the third model called "interactive" model which incorporates both top-down and bottom-up processing models and regards text processing as a non-linear, constantly developing phenomenon where both the former

explanations constantly react and influence one another (W. P. Grabe & Stoller, 2013; Hood, Solomon, & Burns, 1996).

Current reading research claims that L1 and L2 readers use a similar cognitive process when they read (W. Grabe, 2004; O'Donnell). Therefore, in this section, all the three reading models will be described.

5.3.1 Bottom-up Reading Model

This reading model is developed by Gough (1991) who claims that reading is a process of decoding letter-by-letter. After readers begin to decode the letters of word level and syntactic features of text, they can build their textual meaning. They read texts by ways of focusing on linguistic forms at the level of word and sentence. As familiarities with the words increase, the readers will automatically recognize the words. This helps them to read fluently. On top of this, comprehension is produced when readers decode the letter, encode the sound and then construct the meaning from the text. Though this model is convincing, researchers ((W. Johnson & Bouchard Jr, 2005) still do not vehemently support it, pointing out that the spelling-sound correspondence is complex and unpredictable. They argue that this process of reading causes slow and laborious reading because of short-term memory overload, and readers' easily forgetting what they have read at the end of the reading.

According to Bamford and Day (1998), if a reader cannot keep a sentence long enough in the short-term memory, comprehension will be less satisfactory. Therefore, readers may remember only isolated facts but cannot integrate them into a cohesive understanding. Another limitation of this model is that the information contained at this level cannot interact with the higher level information (Rumelhart, 1994).

Though the bottom-up reading process has been criticized as having covered only unilateral aspects of the reading process, it still has a great deal of contribution to reading research (Alderson, 2000).

The roles of the bottom-up skills or ability in vocabulary, grammar, background knowledge, and reading skills are also crucial in L2 reading comprehension (Hunt & Beglar, 2005; Park, 2004). On the whole, L1 and L2 reading research showed that bottom-up reading processing is still vital for reading comprehension.

5.3.2 Top-down Reading Model

This model is contrasted with the bottom-up model, because it emphasizes “from brain to text” . According to this model, what readers bring to text is more important than what the text brings. The main characteristic of this model is that the reader relies more on existing knowledge and makes minimal use of written information. Readers’ predictions and background knowledge play a significant role in their reading (Pratontep & Chinwonno, 2008). In this process, readers read in a cyclical process, making guesses about the message of the text and checking the text for confirming or rejecting cues, based on personal schemata and contextual clues. While reading, they fit the text information into their existing knowledge structure (Carrell, 1989).

The top-down reading model has a great deal of influence on both L1 and L2 teaching, especially in promoting readers’ prediction, guessing from context, and getting the main idea.

5.3.3 Interactive Reading Model

However, some researchers suggested that during the reading process, comprehension is more complex than the two models would predict. They argued that comprehension is achieved through the interaction of both the bottom-up and top down processes. Therefore, a balanced view between language and reasoning process has been advocated by most L2 reading researchers (Carrell, 1989; W. Grabe, 2004).

While reading, readers actively combine their bottom-up processes, for example, the ability to decode and recognize words and grammatical forms with their top-down processes, such as using background knowledge to predict and confirm meaning (W. Grabe, 2004) and, therefore, comprehension is the result of meaning construction, not just transmission of the graphic information to the reader’s mind.

The interactive reading model is seen as similar in both first language (L1) and second langue (L2) contexts. Readers interact with the text to create its meaning as their mental processes work together at different levels (Rumelhart, 1994).

The level of reader’s comprehension of the text is determined by how well the reader variables (interest level in the text, reading purposes, knowledge of the topic, target language abilities, awareness of the reading process, and level of willingness to

take risks) interact with the text variables (text type, text structure, and vocabulary) (Hosenfeld, 1979).

5.4. Types of Reading

5.4.1. Intensive Reading

An early definition of intensive reading, states that its purpose is " to take a text, study it line by line, referring at every moment to our dictionary and our grammar, comparing, analyzing, translating, and retaining every expression that it contains". Most classroom instructors would define intensive reading more broadly, as did Aebersold and Field (2000). They assume that intensive reading is reading carefully, and thoroughly for maximum comprehension in which teachers provide direction and help before, sometimes, during and after reading followed by some exercises that require students to work on various types of texts.

5.4.2. Extensive Reading

Bamford and Day (1998) defined extensive reading in very basic terms: "the teaching of reading through reading, there is no overt focus on teaching reading. Rather, it is assumed that the best way for students to learn to read is by reading a great deal of comprehensible material". Palmer and Palmer (1983) described extensive reading as "rapidly reading book after book." Also, he contrasted it explicitly with intensive reading or "to take a text and study it line by line". These definitions focus on quantity of materials read. Another important aspect of the extensive reading definition, is connected to student choice and pleasure in reading. Bamford and Day (1998) saw that the purpose of extensive reading is to read in order to reach enjoyment. Finally, Aebersold & Field (1997) made a focus on reading for quantity and overall meaning with students' choice and their role in raising the ability of improving their ability of reading.

5.5 Schemata and Reading Comprehension

One important aspect of the interactive model theory emphasizes "schemata," the reader's pre-existing framework about the world and about the text to be read. A reader fits what is found in a passage into this framework. If new textual information does not fit into the reader's schemata, the reader misunderstands the new

information, ignores it, or revises the schemata to match the facts within the passage. Basically, there are two types of schemata: content and formal schemata. Content schemata are background knowledge about cultural orientation or content of a text. Although text processing requires several processing strategies, it is accepted that activation of content schemata in the domain of the text is crucial to comprehension. Haberlandt (1988) posited that readers do not construct the meaning of a text in a vacuum. Rather, they do so based on a background of relevant facts and information presented in the text. The more readily the reader can associate text content with the appropriate knowledge sources, the faster the comprehension will be. This is possible when the text topic/content is familiar to the reader.

Studies have shown that readers, who are familiar with the text content, whether in their first or second language, comprehend and recall more than those who are not as familiar with the text topic/content (Alderson, 2000; K. Johnson, 2013).

Formal schema refers to background knowledge about organizational forms and rhetorical structures of various text types, including stories, newspaper articles, academic texts, study notes, brochures, etc. (Aebersold & Field, 1997). Formal schemata define readers' expectations about how pieces of textual information will relate to each other and in what order details will appear. For example, in a detective story, a reader could expect the following chain of events: A crime occurs, possible suspects are identified, evidence is uncovered, and the perpetrator is apprehended. Research in L1 and L2 reading indicates that readers who generally recognize and use formal schemata to aid their comprehension show higher reading ability when compared with those who do not. Also, readers who use text structures generally provided text recalls whose structure resembles that of the studied text. Moreover, explicit instruction in recognizing and analyzing structures of texts can facilitate L2 readers' comprehension, as measured by quantity and quality of information recalled.

Modern schema theorists believe that schema consists of variables and slots. The meaning exists neither in oral nor in written language itself, but in the reader's mind, depending on the activation of his or her brain schemata whose controlling structure or basic moving pattern is navigated through bottom-up data driven-processing and top-down concept-driven-processing.

In terms of reading, the operations of bottom-up and top-down processing are simultaneous. Rumelhart (1977) believes that comprehension is the process of selecting the schema illustrating input information and variable constraints. Reading comprehension is first of all inputting some amount of information and then searching for the schemata illustrating the information. Comprehension is generated when such schemata are found or some schemata are specified or slots are filled. Just as various concepts operate at different levels, schemata in human minds also have different levels, and the comprehension process is bound to reflect the levels, that is, the input information has to be processed at different levels successively from lower level schema specification to higher level ones. Schemata are the bases of planning for retrieval. In reading comprehension, proper schemata need to be activated to search for information in memory and to rebuild representation of memory.

The experiments by R. C. Anderson and Pearson (1984) have provided adequate proofs for the hypothesis of planning for retrieval. In their study, the subjects were divided into two groups: one group read the story as robbers, and the other as house-purchasers, and was asked to recall the story. Afterwards, the subjects were required to change their roles. The results of the second recall have shown 10% more than the first recall, revealing that, with the change of the viewpoint, many details which were not recalled and not seen as important previously but now important have been recalled. Why the information not recalled previously was retrieved when the participants changed their role can be explained that the schema in accordance with the new viewpoint was activated and the information related to the new schema was searched in a ‘top-down’ way and retrieved.

Schema is usually linked to knowledge of topics, themes, and concepts (Pearson & Fielding, 1991). However, the research reviewed by Collins, Dickson, Simmons, and Kameenui (1996) supports the importance activating knowledge of the conventions of well-presented text and organizational patterns of text structures. Any instruction in physical text presentation or text structures can be viewed as building background knowledge that will later form the frame for helping students organize and integrate new knowledge.

5.6 Metacognitive Theory

Metacognition is “knowledge and cognition about cognitive phenomena” (Flavell, 1979). Its definition can be divided into two parts: (a) cognitive domain knowledge such as reading, memory, and learning, and (b) executive strategies (e.g. planning and monitoring) that regulate thinking (Jacobs & Paris, 1987). Metacognition involves self-monitoring of memory and comprehension (Flavell, 1979), and this knowledge of cognitive processes can be shared with others (Jacobs & Paris, 1987). “It is reportable conscious awareness about cognitive aspects of thinking” (Jacobs & Paris, 1987, p. 258). Jacobs & Paris (1987) discussed two categories of metacognition: (a) self-appraisal of cognition, and (b) self-management of thinking. Self-appraisal of cognition includes *declarative, procedural,* and *conditional* knowledge. Declarative knowledge is what is known and can be proposed such as knowing that rereading improves comprehension. Procedural knowledge is an awareness of the process of thinking such as a student knowing *how* to skim or *how* to use context clues to aid in the process of reading. Conditional knowledge is an awareness of the conditions that impact learning such as knowing *why* and *when* to use certain reading strategies (Jacobs & Paris, 1987). Self-management of thinking refers to the process of translating knowledge into action (Jacobs & Paris, 1987). This self-regulated thinking begins with *planning* and the cognitive means of achieving a goal. The second part of self-management is the on-going process of *evaluation* such as when readers pause or summarize text evaluating their understanding. The third component is *regulation* in which individuals monitor their progress and revise plans and strategies depending on how well they are working (Jacobs & Paris, 1987).

Flavell (1979) described how metacognitive experiences can have two types of goals: cognitive or metacognitive. “Cognitive strategies are invoked to make cognitive progress, metacognitive strategies to monitor it” (Flavell, 1979). To illustrate, the metacognitive experience of knowing you do not know a text well enough for an exam causes you to use the cognitive strategy of reading the text again (Flavell, 1979).

Metacognition plays a critical role in reading comprehension. Long-term strategy use results from metacognitively embellished strategy instruction in which students are shown how certain strategies are useful. Students must understand how

strategies can help them better understand their world and have some control over it. They must also know “when, why, and how to use them” (Harvey & Goudvis, 2013).

Good readers are strategic throughout the reading process: before, during, and after reading. Before reading, good readers make predictions and set purposes for reading. During reading, good readers self-monitor to determine if they understand text. If there are problems, they make adjustments by speeding up or slowing down, or they re-read text. After reading, good readers make interpretations and summarize text. Metacognitive knowledge involves knowing when and where to use reading strategies, and these strategies must be explicitly taught for comprehension to improve (Duffy, 2009).

5.7 Metacognition and reading comprehension

Comprehending text is a complex mental process. Readers need to use their prior knowledge to interpret the information in the text and construct a meaningful representation of what the text is. It is important that the readers have to understand and remember what the text is, and also they need to monitor whether comprehended text makes sense or not and whether the information learned from the text can be used to achieve their goals. The process of being aware of using readers’ own cognitive resources is called metacognition. The current studies of reading comprehension do emphasize the strategies used by good and poor readers, and also the metacognitive awareness readers have.

The studies on reading strategies not only reveal the crucial difference of strategies use between good readers and poor readers, but also readers’ awareness of using strategies, which is their metacognitive awareness. Metacognition is a term which is widely used in most research in the field of reading comprehension. Flavell (1979) defines metacognition as “knowledge that takes as its object or regulates any aspect of any cognitive behavior”. It is the knowledge and control people have of their own cognitive processes; the ability to reflect on their own thinking and use strategies to overcome learning difficulties. Metacognitive knowledge is the knowledge about ourselves as learners, about aspects of the task, and about strategy use. The control component is related to self-regulation of our own cognitive efforts, and it comprises “planning our actions, checking the outcomes of our efforts, evaluating our progress,

remedying difficulties that arise, and testing and revising our strategies for learning". In other words, it is a cognitive process that people are aware of their own thinking, which involves awareness, conscious thought and reasoning. Metacognition is important in reading because it helps readers keep comprehension processing and realize what they can do. In this study, metacognition refers to being able to apply the strategies effectively and being aware of the task demands consistently.

5.8 Comprehension Instruction

Reading comprehension is a process of extracting and constructing meaning simultaneously through involvement and interaction with written language. Three interactive processes are involved in reading comprehension: decoding, construction of a text base, and development of a situational model (Kintsch, 1998). A reader decodes using sound-symbol correspondences to identify written words resulting in propositions or idea units. A reader then builds a coherent representation of a text known as a text base which involves relationships between ideas. Concurrently, a situational model is constructed by a reader integrating the text base with prior knowledge and experiences. This mental model allows higher level inferences and personal reactions.

Reading comprehension combines the elements of the reader, the text, and the activity of reading. The reader brings his or her cognitive abilities, motivation, knowledge, and experiences to the process of comprehension. The text and its features greatly impact comprehension through the wording of the text (surface code), the idea units representing meaning of the text (text base), and the way the information is processed. The activity or purpose of reading includes processing the text and the outcome of performing the activity. This interactive process shows the importance of cognitive strategies in the construction of meaning.

Durkin's (1989) landmark study revealed a major deficit in reading instruction in third through sixth grade classrooms at that time—a lack of comprehension instruction. Teachers assessed comprehension through interrogation focusing on the correctness of answers; however, comprehension instruction was rarely seen during both reading and social studies classes. In the social studies classrooms she observed, the teachers focused on content delivery, and they did not see the necessity of teaching comprehension within the content area. A later study by Taylor, Pearson,

Clark, and Walpole (2000) found little comprehension instruction in first through third grade classrooms with only five of the 70 teachers in this study frequently providing comprehension strategy instruction.

Reading instruction in today's schools still places a heavy emphasis on recall of text being read in class as opposed to a focus on strategies for understanding all text. Students read a story from their reading books in whole or small group settings, teachers ask comprehension questions, and then the students take a test over the text at the end of the week. Moreover, these reading textbooks often contain more skills and strategies than recommended in research which dilutes the emphasis on critical skills and strategies (Durkin, 1989). "Eighty percent of basal readers do not include elements that characterize highly effective comprehension instruction". They also neglect other key research-based components of comprehension instruction including stressing when and why to use particular strategies, gradually releasing use of strategies from teacher to students through guided practice, and receiving comprehension skill and strategy instruction for the appropriate amount of time. Thus, children receiving comprehension instruction with these reading textbooks may never see the relationship between what is done with their reading in school and what they should do when they are reading text on their own. The recent trend in comprehension instruction is fewer rather than more strategies.

The National Reading Panel (2000), a group of leading reading research scientists, college of education faculty, reading teachers, educational administrators and parents, found eight effective or promising reading comprehension strategies. Included in these strategies were predicting, monitoring, questioning, imaging, and rereading with fix-it strategies. Additionally, more recent comprehension research over the past 10 years supports strategy instruction in inferring, finding main ideas/summarizing, evaluating, and synthesizing. These strategies need to be used in "real-time" as students are reading text. The goal is to have students internalize these strategies, and "the key to internalization—owning active comprehension—is to experience several years of practicing comprehension processes in context every day". Students need extended engaged reading, that is, reading that is strategic, knowledge driven, motivated, and socially interactive, to develop reading comprehension skills. This is the type of reading necessary to support the Common

Core Reading Standards. For example, standard RI.5.2. requires students to, “Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text” (Common Core State Standards Initiative, 2012d). This is a rigorous fifth grade comprehension standard requiring both strategic and knowledge driven instruction. So the challenge for teachers is to “meaningfully integrate explicit comprehension strategy instruction with the goals explicated by the Common Core”. To accomplish this task, teachers must not present comprehension standards and strategies as an end in themselves but as tools for independent meaning construction (Duffy, 2009). Students need explicit instruction in reading comprehension strategies applied to everything they read to become effective readers (Duke, 2004). Explicit comprehension instruction in the form of reading and thinking strategies can provide a solid foundation for learning and understanding. Students must be taught how, why, and when to use reading strategies independently, in addition to learning self-regulatory comprehension processes as they read (Pressley, 2001).

Harvey and Goudvis (2013) comprehension continuum includes five comprehension practices: answering literal questions, retelling, merging thinking with content, acquiring knowledge, and actively using knowledge. Answering literal questions and summarization in the form of retelling are important foundational comprehension skills, but merging thinking with content in the form of questioning, determining importance, and synthesizing information is where comprehension begins. Students acquire knowledge when they consciously merge their thinking with the content and make sense of the content using strategies thereby taking an active stance toward learning. Finally, students can use this knowledge and apply what they have learned to their daily lives.

Explicit strategy instruction is best taught through teacher modeling with a think aloud procedure (Harvey & Goudvis, 2013). Teachers think aloud revealing their own reading processes which involve thinking and monitoring for understanding. Houtveen and Van de Grift (2007) presented a model of instructing comprehension strategies based on current research. The five stages of this model are as follows:

1. Explicitly describe the strategy and how and when it should be used.

2. Teachers and students model the strategy in action.

3. Teachers and students collaboratively use the strategy in action.

4. Students practice using the strategy with gradual release of responsibility.

5. Students independently use the strategy.

Although strategies are taught independently, students must be taught to use a combination of strategies while they are reading (Houtveen & van de Grift, 2007). The instruction of these comprehension strategies is critical in today's classrooms as schools shift to an increased emphasis on informational texts with Common Core State Standards.

5.9 Assessing Reading Comprehension

Uses of available reading comprehension assessments typically range from determining a student's reading comprehension competence relative to a normative group, to determining students' general strengths and weaknesses, to assessing a student's reading level, and to assisting teachers, researchers, and others in determining the effects of an intervention on reading comprehension.

Teachers should consider numerous factors when choosing a test or assessment procedure:

1. The purpose of the testing (screening, progress monitoring, assessing level of reading, research, or assessing students' competence in comparison to peers)

2. The specific information needed about the student's reading comprehension (types of questions missed, level)

3. The number of students being tested (i.e., an individual, a small group, or a whole class)

4. The length of the test (e.g., shorter tests can be easier to give and less stressful for the student, but may not have enough questions or types of tasks to provide sufficient information about a student's performance)

5. Whether the test is an individually or group-administered test

6. The number of forms available with the test, particularly if multiple administrations are needed (e.g., many norm-referenced tests come with two forms, making them useful for assessing progress over time—students are given one version of the test as a pretest and another as a posttest)

7. For norm-referenced tests, the extent to which the norming sample is similar to the students to whom the test will be administered

8. The examiner's qualifications (e.g., whether the tester has the skills to give highly specific tests)

9. The amount of training needed to administer a test, score it, and interpret results (e.g., norm-referenced tests typically require some training)

Reading comprehension measures should help teachers monitor the comprehension of their students over time and provide information that is useful in designing reading comprehension intervention programs. Teachers can ask themselves (VanPatten & Williams, 2014), "What tasks are most appropriate for evaluating whether my students really comprehend what they read? and "Do these tasks provide useful information for instructional purposes?". Regardless of the method used, when assessing comprehension, it is important that the material students are asked to read is at their instructional level (rather than frustration level) and that they can read the passage with adequate fluency. If the student cannot read at least 95% of the words, comprehension will be hampered. Similarly, if the student is a slow, laborious reader (though accurate), his or her comprehension will suffer.

5.9.1 Interviews and Questionnaires

Interviews and questionnaires are informal assessment measures designed to elicit students' understanding of the reading process and their knowledge of reading strategies. These assessment tools provide useful information for the teacher and can also promote students' self-awareness of the underlying processes involved in reading. Oral interviews are conducted individually or in small groups, whereas written questionnaires can be group-administered. Unlike the prompted think-aloud procedure (described in a subsequent section), interviews and questionnaires usually are not linked with a specific reading passage.

Questionnaires

Questionnaires provide a similar means of learning about students' strategic processing. Because responses are written, the test can be group-administered. Thus, they potentially provide a time-saving way to collect data. Mokhtari and Reichard (2002) developed the Metacognitive Awareness of Reading Strategies Inventory (MARSI), a self-report instrument, to assess adolescent and adult readers'

metacognitive awareness and their perceptions about their use of strategies while reading academic texts. Like other written questionnaires, the MARSI can be administered individually or in groups. It is relatively brief, and is intended to supplement other comprehension measures rather than serve as a comprehensive or stand-alone tool. It provides teachers with a feasible way to monitor the type and number of reading strategies students implement. In addition, it helps students become more aware of the reading strategies they use. However, as with other self-report measures, it can be difficult to know for certain if students are actually engaging in the strategies they report using.

5.9.2 Observations

Observations are an integral part of the assessment process and provide evidence of what children actually do rather than just what they say they do. Observing students while they are engaged in peer tutoring or cooperative learning activities that involve the application of reading comprehension strategies can be particularly illuminating. Listening to how a tutor describes strategy implementation to another student, for example, can provide useful information regarding what the student knows and can do (Klingner et al., 2004). It is also useful to observe students during independent reading time.

How to Conduct Observations

There are multiple ways of conducting and recording observations. One approach is to use an observation checklist that includes various reading behaviors. The teacher or other observer simply notes which reading-related activities are observed and which are not. We provide two sample checklists. The first is used to examine students' understanding of narrative text. The second checklist is used to evaluate students' performance during independent reading time. Once a semester teachers fill out this form for each student and meet with the student individually to discuss his or her improvement. Another method is to keep anecdotal records. The observer should record the time, date, setting, and names of those involved, in addition to information about a student's reading behaviors. For example: "11:20, 9/23/05: John seems to be doing better at monitoring his understanding and using contextual clues to figure out word meanings. He just asked me for the definition of a

key term in his social studies textbook and was able to figure out the word's meaning when I prompted him to reread the sentence looking for clues."

Anecdotal records can be quite brief. It is suggested that teachers keep a notepad handy for recording comments about students. Some teachers maintain a spiral notebook and use dividers to create a separate section for each student. Other teachers give students their own journals to keep with them during reading activities. With this method the teachers' comments are available to students, and students can add their own reflections. Anecdotal records should be reviewed periodically as a way to keep track of students' areas of need as well as their improvements over time.

Ethnographic note taking is similar to anecdotal record keeping except that notes are more elaborate. Ethnographic note taking is useful when the goal is to focus attention on a specific student (Irwin, 2007). This process involves taking repeated and detailed notes for an extended period of time—or, as Irwin describes, writing "as much as possible as often as possible". Vaughn et al. (2011) provide a detailed explanation of how to use ethnographic observation and note-taking techniques to learn about students' reading practices.

Limitations

A limitation of observations is that it can be difficult to know for certain what comprehension strategies a student is using or why he or she may be behaving in a particular way. We cannot actually observe thought processes, only the outcomes of these processes (e.g., what the child does or says). Therefore, it is important to be cautious when interpreting observation notes and to recognize that there can be alternative explanations for a child's actions. For example, a child who does not volunteer to answer comprehension questions and who seems to remember little might simply be shy or intimidated when speaking in front of others. A child who has difficulty answering questions may have a limited vocabulary or be in the process of acquiring English as a second language (Klingner et al., 2004). Another limitation of observation methods is that they can be time consuming. However, by combining observations with other assessment methods, the teacher is likely to obtain a more comprehensive picture of students' skills.

5.9.3 Retelling

Oral retelling is a useful technique for monitoring students' reading comprehension. The examiner simply asks the student to retell or reconstruct what was read. Because retelling requires the integration of many skills that are part of the comprehension process, asking students to retell something they have read provides a valuable alternative to traditional questioning techniques for evaluating their reading comprehension. Retelling a story entails understanding, remembering, and sequencing the events and major concepts presented in text. Students must remember factual details and be able to relate them in some organized, meaningful pattern. Additionally, they need to come up with inferences to compensate for information they are not able to recall clearly so that they can reconstruct a coherent retelling.

An advantage to retelling is that the teacher can learn a great deal about what the student understands and where he or she may have gaps. This information is helpful when determining which comprehension skills the student still needs to learn. An interesting research finding is that English language learners have been able to retell more in their native language than in English, even when reading English language text. This finding is noteworthy if the examiner's goal is to determine how much a student understands when reading English text, because the student may provide a more accurate portrayal of his or her comprehension when encouraged to share this information in his or her native language.

A disadvantage to retelling is that it must be conducted individually and is time consuming to administer and score. Another limitation is that students who have difficulties with expressive language may not be able to convey what they understand. Also, as already noted, English language learners may not be able to articulate their understanding in English.

How to Use Retelling

Retelling is a relatively easy assessment to implement. The procedures are as follows:

1. Select an appropriate text for the student to read. The passage should be at the student's instructional or readability level, and can be narrative or expository.

2. Ask the student to read the passage silently, orally, or both silently and orally (a recommended technique with students who are struggling readers).

3. After the student has finished reading, ask him or her to retell the passage. The specific directions for this vary depending upon what type of passage has been read:

a. With a narrative retelling (Mosenthal, Lipson, Torncello, Russ, & Mekkelsen, 2004), say: (1) Pretend I have never heard this story and tell me everything that happened, or (2) Start at the beginning and tell me the story.

b. With informational text (Gunning, 2006), direct the student to (1) Tell me as much information as you can remember from the passage you just read, or (2) Tell me what you learned from the passage.

4. If the student provides incomplete information, probe or prompt him or her by asking,

a. Can you tell me anything more? or

b. Anything else?

Students with sufficient writing skills can be asked to write their retellings rather than state them orally. Although this is not a suitable option for students who resist writing or lack these skills (e.g., some students with LD), it can work well with confident writers. An advantage of written retellings is that many students can be asked to retell a story at the same time, thus saving time.

How to Score Retells

Evaluating a student's performance on a retell varies depending on whether the student has been asked to retell a narrative passage or an informational text. With a narrative passage, the student should be able to relay the story's plot and describe its characters and setting. With expository text, the student should be able to convey an understanding of the most important information learned and supporting details. With both types of retellings, sequence is important.

While a student is retelling a passage, note the quality and organization of the retelling, whether all essential information is present, and whether there any inaccuracies that indicate faulty or partial comprehension. Also, observe the student's actions before and during reading for clues about his or her affect and whether he or she seems to be applying comprehension strategies. The following questions can serve as a guide.

1. Does the student accurately depict the main ideas of the passage?

2. Are most or all of the key points included?

3. Does the student accurately recount supporting details?

4. Does the student use the same vocabulary as in the original, or simplify or embellish it?

5. In the case of a narrative retelling: a. Does the student provide the beginning, middle, and end of the story, and in the correct order? b. Does the student describe the characters and setting in the story?

6. Does the student relate information in the text to personal knowledge?

7. Does the student note interrelationships among ideas?

8. Does the student do anything with the text prior to reading (e.g., seem to read the title and subheadings and look at any pictures) or start reading immediately?

9. While reading, does the student look at a glossary or illustrations or seem to reread portions of text?

10. Does the student seem anxious or withdrawn? Or does the student seem confident and comfortable with the task?

Rubrics can be used as a way to tally the quantity and quality of students' responses. The quality of a response might simply be marked as "low," "moderate," or "high." Or a scale of 0–4 or even 0–5 can be used. For example:

0 No response.

1 An inaccurate and incomplete response.

2 Some information is accurate and some is inaccurate; the response is sketchy.

3 Information is generally accurate and complete, but not well developed.

4 Response is complete and accurate.

5 Response is complete and accurate, plus the student points out interrelationships between elements or makes connections to personal knowledge.

Recording sheets can also be used. For a sample recording sheet for a narrative retelling, see Figure 2.6, and for a sample recording sheet for an informational text retelling.

Retelling with Younger Students or Struggling Readers

Paris and Paris (2003) created a version of the retelling procedure for primary grade students, called the Narrative Comprehension of Picture Books task. Students

retell wordless picture books rather than printed text. This procedure has multiple advantages. First, it is useful with young students or struggling readers whether or not they can decode print. Second, it can be used flexibly and adapted to many different narrative picture books. Third, it correlates well with the QRI-2 retelling, suggesting that eliciting retellings from picture narratives is an effective approach. Paris and Paris emphasize the importance of narrative comprehension in beginning reading and contend that narrative competence may be a general feature of children's thinking that is essential for early literacy success as well as cognitive development. They provide convincing evidence that children's understanding of narrative stories is an important foundational skill when learning to read.

5.9.4 Think-Aloud Procedure

With the think-aloud procedure the student is asked to voice his or her thoughts while reading. Asking students to "think aloud" can provide useful insights into their metacognitive and cognitive processing strategies (Irwin, 2007), as well as their word learning strategies and working memory. It also provides information about the text features students find interesting or important. These are all processes that have been difficult to evaluate with other assessment procedures. An additional advantage to the think-aloud procedure is that students become more aware of the mental processes they use while reading and can thereby improve their reading comprehension.

How to Use the Think-Aloud Procedure

Think-aloud must be administered individually. As with other approaches to comprehension assessment, begin by selecting a passage that is at a student's instructional level. The passage should be readable but not too easy for the student, because some cognitive and metacognitive processes are only activated when a text includes challenging components. Then ask the student questions that help him or her think aloud before, during, and after reading, such as the following: Before reading (the entire selection): What do you think this passage might be about? Why do you think this? , During reading (after reading each marked-off segment or chunk of text): What were you thinking while you read this section? Were there any parts that were hard to understand? What did you do when you came to parts that were hard to understand? Were there any words that were hard to understand? What did you do

when you came across hard words?, After reading (the entire selection): Tell me what the passage was about.

While the student thinks aloud, record his or her responses word for word as closely as possible. Keep in mind that thinking aloud is initially difficult for many students. Therefore, it is important to model this process first and allow students time to practice. Note that the “after reading” prompt is much like that used when asking students to retell what they have read.

After the student has finished the think-aloud process, analyze his or her responses and note which strategies he or she used, such as: Making predictions prior to reading, Revising predictions while reading, based on new information, Considering (thinking about) information read previously, Making inferences, Drawing conclusions, Making judgments, Visualizing or creating mental images, Paraphrasing, Summarizing, Generating questions, Reasoning about what was read, Monitoring understanding, Using context to figure out difficult words, Rereading challenging sections, Looking at illustrations to aid comprehension.

Finally, draw conclusions about the extent to which the student appears to use strategies effectively and efficiently for monitoring understanding. Use this information to come up with recommendations for instruction.

The think-aloud procedure has been used successfully to detect ineffective processing by students. For example, Klingner, Vaughn, and Boardman (2015) found that struggling readers used few metacognitive and cognitive skills. They tended to (1) focus more on decoding and pronunciation than comprehension, (2) infrequently activate background knowledge, (3) not monitor their understanding, and (4) raise few questions about meaning while reading. These are all areas that can improve when students are taught comprehension strategies (A. L. Brown et al., 1984; Klingner et al., 2004). Klingner et al. combined a prompted think-aloud procedure with follow-up interview questions in an investigation of reading comprehension strategy instruction with students with LD. The purpose of the measure was to capture whether and how students applied the comprehension strategies they had learned on a transfer task.

Limitations

There are several possible limitations to the think-aloud approach, however : (1) It may disrupt the process of reading itself., (2) It can be difficult for students to

carry out, they may not be aware of the cognitive processes they are using, and may have trouble articulating what they are thinking., (3) Personal characteristics such as age, motivation, anxiety level, and verbal ability can affect responses., (4) Students might be cued to provide certain responses by the instructions, probes, or questions asked., (5) Finding a passage of just the right level of difficulty can be challenging; students may only reveal the use of cognitive and metacognitive strategies when the text is sufficiently difficult, yet passages that are too difficult will be too hard for students to read., (6) Think-aloud protocols can be time consuming and difficult to score.

To some extent these limitations can be overcome. For instance, practice with thinking aloud helps students become more aware of, and able to articulate, the mental processes they are using. Despite its weaknesses, the think-aloud procedure is a valuable assessment technique. As with other assessment tools we have described, it is best used in combination with other approaches (Magliano & Millis, 2003).

6. Reading strategies

Reading strategies are defined as readers' conscious use (Nuttall, 1996) of techniques, operations or steps a learner takes to conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand. Doing so, readers should be aware of the strategies used and how to control them when they read. L1 reading studies constituted the base of reading studies in general and the results and procedures were extended to cover L2 studies. W. P. Grabe and Stoller (2013) point out that foreign language teachers should assist students to transfer L1 reading strategies and to gain sufficient L2 proficiency.

Studies of L1 reading strategies have usually concentrated on describing and listing the characteristics and strategies that distinguish good readers from poor readers and on the factors or reasons that may affect the reading process.

Duke and Pearson (2009) studied the effect of reading material and interest in reading strategy use for 24 tenth grade students while they were trying to comprehend a short story. The results revealed that both good readers and poor readers used the same strategies; however, readers with high interest in the material used strategies more frequently than did readers with low interest. In relation to the material, readers

used more strategies when engaged in abstract material. Thus, it can be concluded that the kind of material and reader's interest affect the number of the strategies used.

Block (1986) compared the strategies used by good readers and poor readers. The subjects were 40 students out of the 210 students who administered MLA-Cooperative Test of Reading Proficiency in Western New York. Twenty of the subjects scored high (32-45), and the other twenty scored low (13-19). The researcher concluded that good readers are characterized by keeping the meaning of the passage in mind as they read, reading in broad phrases, skipping words that are considered unimportant and unknown, looking up words, correctly, in the glossary as a last resort, and having a positive self-image as a reader. This study reveals that good readers are strategic and make use of their working memory. Some studies investigated certain strategies rather than describing the general characteristics of the reader.

Kavale and Schreiner (1979) compared the way reasoning strategies were used by eight average and eight above-average readers who were selected from sixth grade population in a suburban public elementary school based on their scores in the Comprehension section of the Gates-Mac Ginitie Reading Test. Although the two levels used similar strategies, above average readers used strategies more efficiently and successfully. Moreover, they realized that the above-average readers used strategies flexibly and sought alternatives when they needed to. In this study, it seems that the difference between the readers is not the number or kind of strategies used rather it is a matter of efficiency and flexibility. Studies also investigated the use of a group of strategies to achieve one purpose.

Afflerbach (1990) investigated the strategies used to construct the main idea of difficult texts, and the contribution of prior knowledge to strategy use. The participants were eight (four anthropology doctoral students, four chemistry doctoral students) who had relatively high background knowledge in their own field, and relatively low knowledge in the other field. The two texts used in this study were from two different knowledge domains: anthropology and chemistry. In this study, the topic sentences were removed from the texts. He noticed that four strategies were used: Draft-and-Revision, Topic/ Comment, Initial Hypothesis, and Listing. In Draft-and-Revision, the reader jots down an idea, judges it, then when it proves to be

wrong, it is revised. The second strategy is Topic/ Comment, in which the reader highlights a topic and comments on it. The third is generating an Initial Hypothesis based on the title, the first sentence, or skimming the text; then testing the accuracy of the hypothesis and modifying it. The final strategy is 'Listing' where the related words, concepts, or ideas are grouped together. It was also noticed that familiarity with the text generated its automatic processing. This may suggest a relationship between automaticity and prior knowledge. The strategies used can also be affected by level of difficulty.

Gentry (2006) compared the strategies used by good readers and poor readers as they were presented with texts that varied in difficulty. The 48 participants in this study were 10th and 11th grade students at a suburban high school in the U.S. Twenty-four of these subjects were good comprehenders while the others were poor comprehenders. She observed that both groups used the same type and number of strategies when the text introduced suited group's level. However, poor readers used fewer strategies than the good readers as the texts became more difficult. (Tovani, 2000) also reported that good readers do not get anxious when they do not understand.

Kozminsky and Kozminsky (2001) explored the relationship between general knowledge and skills in applying reading strategies on one hand and reading comprehension on the other. The participants were 205 ninth-graders in two comprehensive high schools in a city in southern Israel. Thirty four subjects were expected to successfully complete the full high school programme and full course of the national matriculation examinations, 128 were expected to get the diploma and take a few of the national matriculation examinations, 21 students were expected to complete the high school programme and obtain a diploma, and finally 22 were expected to complete twelve years of schooling to obtain a diploma. In this study, the researchers concluded that general knowledge and the ability to apply reading strategies contribute to reading comprehension. However, this contribution varied because of the differences in the educational level of the students (academic, semi-academic, vocational, and learning disabilities).

Through think-aloud protocol and interviews, Kong (2006) highlighted the difference in the reading strategies used by four good and four poor Chinese readers. These subjects were in eighth grade in Hong Kong. The researcher realized

that good readers are characterized by their knowledge of vocabulary and strategies, their abundant use of the strategies, and their memory capacity whereas poor readers lack these characteristics. L2 reading proficiency can also affect metacognitive strategies. Kolić- Vehovec and Bajšanski (2007) noted that proficient students in a second language showed greater mastery of monitoring skills than the less proficient students, and that monitoring contributed to reading comprehension in higher elementary school.

These studies show that good readers are characterized by their knowledge of vocabulary and their working memory capacity. These characteristics helped them use reading strategies more efficiently and flexibly than poor readers. Lack of these abilities and prior knowledge about the reading material, and texts levels of difficulty affected poor readers' achievement negatively.

6.1 Definition of Reading Strategies

Various views in the area of FL and L2 reading strategies have defined reading strategies depending on different perspectives. Some base their views of identifying reading strategies on what the various groups of readers are using of reading strategies whereas, others claim to identify them according to what they find and result through empirical and theoretical research i.e.; what strategies are required to be used and applied depending on the learners' needs.

In the context of reading comprehension, strategies can be defined as deliberate actions that readers take to establish and enhance their comprehension (Mokhtari & Reichard, 2002). Afflerbach (1990) defined RS as a mental process chosen by the reader consciously, in order to achieve certain reading tasks. In addition to that, Block (1986) believes that RS are a set of methods and techniques used by readers, so that they can achieve success in reading. According to McNamara, Ozuru, Best, and O'Reilly (2007), reading strategies refer to the different cognitive and behavioral actions readers use under the purpose of achieving comprehension in reading. Mcnamara et al. explains this when he said: A reading comprehension strategy is a cognitive or behavioral action that is enacted under particular contextual conditions, with the goal of improving some aspect of comprehension. Consider a very simple-minded strategy for purposes of illustration.

Researchers have suggested that EFL teachers have to be aware of the reading strategies and that they have to teach readers how to use different reading strategies (Uhl Chamot & El- Dinary, 1999).

6.2 The Importance of Reading Strategies:

Most EFL/ESL learners often show some troubles and difficulties in reading certain texts. They always struggle with some texts, and find it a problematic issue to achieve comprehension, and understand the content. Many psychologists and researchers, assume that those who always struggle with their reading may lack the reading strategies that may help them to overcome their reading problems.

Many evidences have been shown the importance of reading strategies and their effective role in enhancing and developing reading comprehension. According to McNamara et al. (2007), reading strategies instruction are indeed very effective for learners who show lack of knowledge in the domain of reading, as well as those with lower reading skill, and assume that they are strongly needed for these kinds of learners.

6.3 Diverse interpretations on comprehension strategies

Comprehension is a thinking process. It is a creative, multifaceted process in which people engage with the text, so they need strategies to help them understand the text. A large number of researchers use comprehension strategies to indicate how readers understand a task, observe textual cues, make sense of what they read and what they do when they do not understand (Block, 1986). Davis (2012) explains comprehension strategies are the literacy strategies used by readers before, during and after their reading in order to enhance comprehension of the text. Comprehension strategies are also defined as “thoughtful behaviors” that learners use to assist their understanding the text as they read. According to the definition from the US National Panel Report (2000), comprehension strategies are procedures which particularly guide students to realize how well they understand when they read and write. As Duffy (2009) mentions comprehension strategies are plans to comprehend and they must be adjusted in different situations, this description is similar to that of the definition of reading strategies by Afflerbach, (Paris & Paris, 2003). This matches Singhal’s (2001) view that reading strategies and comprehension strategies are the same; in which they are the processes used by the learners to enhance reading

comprehension and overcome comprehension failure. Hence these two terms, comprehension strategies and reading strategies, are used interchangeably in this study.

6.4 Reading Strategies of Learners with Different L2 Reading

Proficiency Level

In relation to the use of reading strategy, studies (Block, 1986) have shown that there is indeed a relationship between reading proficiency and strategy use. Several studies (Uhl Chamot & El- Dinary, 1999) have also shown that successful or good readers use different strategies from unsuccessful or poor readers and that high proficiency readers used reading strategies more frequently than low proficiency ones. Other studies (A. L. Brown et al., 1984) have shown that low proficiency readers use fewer strategies and use them less effectively in their reading comprehension, indicating that better readers are better strategy users as they know which strategies to use and how to use them. Overall, research suggests that good readers possess a number of flexible, adaptable strategies that they use before, during, and after reading to maximize their comprehension.

Reviewing the literature in L2 reading strategies, Aebersold & Field (1997), summarized 18 reading strategies that successful readers use while they are reading. However, of the 18 reading strategies, using text structures is the strategy most often used by good L1 and L2 readers, but not by low L2 readers. It is noticeable that using text structures, in fact, includes the use of knowledge of how text is organized in terms of the main ideas and relevant ideas in it. Knowing how to identify transitions, or signal words, is the most convenient stage of text structure reading strategy that can be readily taught to low proficient L2 readers. However, the literature does not suggest whether L2 readers with medium proficiency should be taught these strategies. It is understood that if low L2 readers should stand the chance to gain from learning this strategy, then medium L2 readers should also be given the same opportunity. The present study was, therefore, conducted in order to find empirical evidence that both medium and low L2 readers could be equivalently taught the text structure reading strategy.

Good and Poor Readers

Comparing good readers and poor readers highlights the characteristics of each. Characteristics of good readers were encouraged by educators whereas distinctive features of poor readers were avoided and eliminated. The strategies used by readers were among the characteristics, which research has brought to light. Two studies have been selected because they summarize most of the studies conducted about good readers. The first study was conducted by Golinkoff (1975), and the other by Pang et al. (2003). Golinkoff (1975-1976) surveyed the research in the 1960s and 1970s about good readers and poor readers, and Pang et al. (2003) surveyed research about good readers from the previous twenty years. The techniques and the instruments used in studies reveal much about the prevailing views at that time. Research about good readers and poor readers in the 1960s and the 1970s is characterized by tracing a reader's eye movements and his/ her errors on one hand, and on monitoring the low-level and high-level processing on the other. Thus good readers make less/ fewer eye fixations, make regressive movements only when they make long jumps (covering more than they can process at a time), have short eye-voice spans, have few serious errors, are good decoders, decode unfamiliar words, read in chunks, and establish successful links between words.

Research about good and poor readers in more recent years is characterized by an interest in the processes involved in reading, the strategies used and how they are used, the kind of knowledge that the reader has and how it may affect reading processes. Hence, a good reader masters low-level reading processes as well as high-level reading processes, recalls important information, uses a lot of strategies, summarizes, underlines, takes notes, judges and evaluates his/her reading, detects text problems, knows when and what strategy to use, makes use of prior knowledge, has sufficient knowledge of vocabulary and knows different texts structures (Pang et al., 2003). These characteristics of good readers were grouped either by use of criteria from the reading field or by terms borrowed from studies that investigated language learning in general.

6.5 Reading Strategy Instruction as well as Explicit Instruction

It is well recognized that knowledge of expository text structure helps L1 and L2 students to comprehend expository texts. Research on reading strategies suggests that

all text have structures above the level of the sentence and that knowledge of text structure helps the readers to comprehend text by allowing them to anticipate information and by helping them to infer information that may have been omitted by the author (Vaughn et al., 2011).

Research indicates that awareness of text structure facilitates comprehension of concepts or main ideas, not of facts. Specifically, awareness of text structure enables readers to identify, summarize, and recall main ideas and supporting information. Research in reading strategy instruction has also shown that, to effectively teach the text structure reading strategy to poor or less able readers, explicit instruction is more effective than implicit instruction, in both L1 and L2 (Pearson & Fielding, 1991; Pressley, 2001; Uhl Chamot & El- Dinary, 1999).

Explicit strategy instruction essentially involves the development of students' awareness of the strategies they use, teacher modeling of strategic thinking, student practice with new strategies, student self-evaluation of the strategies used, and practice in transferring strategies to new tasks. It aims to show students what proficient readers do when they read. According to Duke and Pearson (2009), explicit instruction is generally conducted in 4 steps: introduction, modeling, guided practice, and independent practice.

Introduction involves an explanation of the purposes and objectives of the strategy being taught so that the students are made to become aware of the strategy. The lessons show how it relates to broader objectives, that is, how it fits with the goal of improving reading comprehension. Regarding the text structure reading strategy, the introduction should deal with the 'what', 'why', 'when', and 'how' of the strategy. The students should be taught about what the text structure reading strategy is, why it is important, how and when it can be used. Graphic organizers may be used to help discuss the purposes and objectives of the strategy.

Graphic organizers are the devices that show the organization or structure of concepts and relationships between the concepts in a text. Graphic organizers help to reduce the cognitive demands on the readers. The readers do not have to process as much semantic information to understand the information. This is one of the reasons why graphic organizers are such powerful devices for students with moderate language reading ability. Ellis (2005) suggested three reasons for using graphic

organizers in teaching text structures: (1) Students are much more likely to understand and remember the content subject they are reading (2) showing (as opposed to just telling) how the information is structured can be a powerful way to facilitate understanding, and (3) students are more likely to become strategic readers. Using graphic organizers shows how text is constructed and enables readers to make order out of the text.

Modeling involves explaining the strategy and showing how it is used. The purpose of modeling is to make the students aware of how to use the strategy and how the strategy is applied to reading texts. In regards to modeling, research also suggests the sequence of text structure reading strategy instruction that proceeds from less to more difficult text structures. Among the expository text structures, the sequence structure is the easiest to learn. The description structure is more difficult than the sequence structure. The compare/contrast as well as cause/effect structures are moderately difficult. Of all, description is the most difficult structure. When introducing a new expository text structure to students, a teacher should present texts that have a well-organized structure (i.e. the text that contains easily identifiable components of an expository text structure type such as signal words "first" or "finally" to signal the sequence structure) for initial instruction and practice, before having students apply their new knowledge to more complex text or to their textbooks. In addition, each text structure should be taught individually or broken into parts or steps, and taught part by part, as students need time to master one structure before learning another, and in doing so, several examples of how and when it should be used may be given.

In line with the modeling concept, the text structure reading strategy in the present study was taught based on three separate expository text structures. These are sequence, compare/contrast, and cause/effect. Within the modeling step, explanation and examples regarding how and when the text structure reading strategy is used was also given at different levels, ranging from the sentence, paragraph, and finally whole text or passage levels.

Guided practice is the step in which plenty of opportunities for the students to practice the strategy is provided. The students pay close attention to the practice so that they can get help if they get stuck during their practice, and correction can be

provided if they start doing something wrong. Students are assisted in the use of the strategy by performing an activity while the teacher helps them do it in order to avoid mistakes. During this time, the teacher can clarify any ambiguous understanding of the skill or strategy being taught. Guided practice might take a long time, because students need to remain at this stage until they are successfully using the strategy.

6.6 Essential Requirements for Reading Strategy Instruction

Duke and Pearson (2009) outlined a number of strategies that address a range of reading skills, including fundamental building blocks of reading (e.g., decoding skills). The ultimate focus of my research is on improving deep comprehension; therefore, it is important to understand how reading researchers conceptualize comprehension. I will begin by describing a widely cited model of reading comprehension—the Construction-Integration Model of Comprehension.

The Construction-Integration Model of Comprehension

According to the construction-integration model of comprehension (Kintsch, 1998), readers construct meaning of the text they read at many levels of representation: a lexical or surface level, a text-base level, and a situation model level. At the lexical level, readers represent the surface features of the text and construct meaning while encoding the words and phrases that appear in the text. The construction of text-base level of understanding is usually concomitant with the parsing of the surface text into propositions and the formation of links between text propositions based on argument. The profound understanding of the text is created at the third level: the level of the situation model. At this level, text information is linked to the reader's existing knowledge for the purpose of producing implications and inferences from the written script. According to McNamara et al. (2007), it is the readers' situation model that determines their performance on comprehension tests.

In addition to content and amount of knowledge that students gain in school, a number of skills and strategies are also vital for students to cope with the requirements for the job market and everyday life, including college assignments. Mastery of reading strategies is of paramount importance, yet the ability to cope with reading tasks using these strategies is incomplete in the absence of other competencies and related knowledge, which Duke and Pearson (2009) described as follows:

Word-Level Skills

These skills facilitate students' identifying, or decoding, words with accuracy and fluency. The area of instruction at this level consists of phonology (phonemic awareness), strategies for word analysis, and practice for increasing fluency in reading.

Vocabulary Knowledge and Oral Language Skills

These allow for readers' understanding of word meaning and connected text. During instruction, emphasis is on strategies that are designed to build readers' vocabulary as well as activities meant for strengthening their listening comprehension.

Knowledge and Abilities Required Specifically to Comprehend Text

These are a two-fold requirement. Students should be familiarized with the different ways of text structure and enabled to use an array of cognitive strategies.

Thinking and Reasoning Skills

As such, these are expected to help readers make inferences. The importance of these skills becomes more apparent as the text becomes more and more complex. Thinking and reasoning skills are also called upon when learners are faced with content that needs thoughtful analysis.

Text Comprehension Strategies

Researchers spent much of the 1970's, 1980's, and 1990's learning about comprehension strategies and how they can be taught to increase comprehension. Strategies are thought of as the conscious, deliberate plans readers use to understand what they are reading(Dole et al., 1991). For example, making predictions about future happenings in the text, generating questions while reading, and developing mental pictures of the story in the mind are strategies that good readers use when constructing meaning. Good readers are flexible with their use of strategies, and their strategy use changes depending on the problems they encounter as they read. In other words, good readers use strategies in a variety of ways to solve different reading problems or situations. When researchers began studying comprehension, they started by discovering what good readers did as they constructed meaning (Pressley, 2001). They found that good readers were actively engaged in meaning making through the use of various strategies from the time they began looking for a book until after they had finished reading it. As Harvey and Goudvis (2013) put it, "Meaning doesn't

arrive fully dressed on a platter. Readers make meaning". Examples of the strategies include, but are not limited to: (a) summarization, (b) prediction, (c) question generation, (d) question answering, (e) making connections, (f) visualization, (g) activating prior knowledge, and (h) inferring.

Once researchers discovered what good readers did to comprehend text, research moved to discovering how instruction of comprehension strategies would impact the comprehension of text. Through this research, it became evident that there are individual strategies that can be taught to increase reading comprehension. Pressley et al. (1992) reviewed the research on teaching comprehension strategies and suggested six strategies with empirical data to support their effectiveness. The National Reading Panel (NICHHD, 2000) also cited these strategies as having a positive impact on comprehension. The strategies from their review were; (a) summarization (b) representational imagery (c) story grammar, (d) question generation, (e) question answering, and (f) prior knowledge activation which includes the use of prediction, inferring and making connections to one's life. The following information will briefly describe each strategy.

Summarization. Pinnell (2006) explained that a summary is "a reconstruction of the important information in a text. The reader remembers the text by selecting and sometimes organizing ideas and information". To generate a summary, readers must gather information from the reading and from what they already know about the topic, distinguish what information is critical in the text and then bring it all together. Summarizing is a strategy good readers use throughout their reading to confirm that they made sense of what they read. The effects of training students how to generate summaries have been found on a variety of measures. Armbruster and colleagues (1987) taught fifth-grade students how to discern the text structure of problem/solution in expository text and taught them guidelines for writing a summary for problem/solution passages. Compared to a traditionally trained group, the students in the structure-trained group were able to recall 50% more of the ideas in a problem/solution passage. The structure-trained group were also able to include significantly more important facts into their summaries as compared to the traditionally trained students.

In another study, Rinehart and colleagues (1986) instructed sixth-grade teachers in how to teach summarization directly and compared the results of students' performance in note-taking. The researchers demonstrated how to present summarization using the following direct instruction principles: (a) explicit explanation, (b) modeling, (c) practice with feedback, (d) breaking complex skills down, and (e) using scripted lessons. After the training the teachers taught five summarization lessons in five consecutive days for a period of between 45 and 50 minutes per lesson. On the fifth day, the students were asked to write a summary of each section of the chapter they had read as a part of their five-day lesson. The students were told to write the summaries as if they were taking notes. The researchers compared the summaries of the students with trained teachers to summaries of students in classrooms where teachers had not participated in the professional development. Results indicated that the students that had direct instruction on the use of summarization were able to recall significantly more major information in their written summaries compared to non-instructed students. There was no effect found on the amount of minor information that was shared.

In the study of Baumann (1984), he used a direct instruction method to teach sixth grade students to find main ideas in expository text and found that the instruction significantly increased students' abilities to recognize explicit and implicit paragraph main ideas, recognize details that support the main idea and compose a paragraph and passage main idea.

Representational imagery. Representational imagery, sometimes called visualization, occurs when readers generate mental images of the story as they read the text to help them remember and understand what is read. When students are taught to make their own mental constructions of what is read and/or attend to illustrations in text, they will recall text better. Center, Freeman, Robertson, and Outhred (1999) studied the effects of four different types of instructions given to fourth graders to induce mental imagery and attend to text illustrations while reading. Students were randomly assigned to four treatment conditions that directed students to (a) use mental imagery and illustrations, (b) use mental imagery only, (c) use text illustrations only, or (d) "read to remember" which was used as the control group. At the conclusion of a brief introduction by the researcher the students were given directions to read two

passages and write a story about what they had just read. Specific directions where given to students depending on their treatment group. Scored written recalls were used as data. It was found that students who were asked to induce mental imagery and attend to text illustrations enhanced their ability to recall information about the passage more than other treatment groups. Additionally, the imagery and illustration, the imagery-only, and the illustrations-only were statistically superior to the control group.

Story grammar/structure. Story grammar is the structure that authors use to write narrative text. These structures include, but are not limited to, main characters, setting, plot, ending, problem and resolution, cause and effect, sequencing, compare and contrast. Readers that use story grammar are familiar with the patterns that authors use to organize information. When readers are aware of these patterns, they are able to organize information and make predictions about what will happen next based on that knowledge (Mancuso, 1986). In a study of sixth-graders, the researcher trained four teachers, using four methods of implementing instructional procedures: (a) map-construction where students created a graphic organizer about the reading, (b) map-study in which students were given completed graphic organizers and were led by their teacher in a discussion of the structure and content of the map, (c) question-answering in which students were asked to write out answers to 20 probes about a passage, and (d) rereading where students were asked to silently read the section twice and review what was read by rehearsing to oneself all they could remember about what they read. Students were grouped by instructional procedure. The four teachers were taught all four procedures and rotated between classrooms to teach all four procedures for six weeks. By the end of the study, students that used map-construction scored significantly higher on immediate recall tasks of expository passages than students that used the other study procedures. There were no effects found in favor of the map-study procedure.

Prior knowledge activation. Researchers (V. Anderson & Roit, 1996) have found that good readers are able to use their prior knowledge to frame and assimilate what is being read. The more prior knowledge one has about a topic, the more likely they are to remember what has been read. Instruction and attention to prior knowledge activation has been proven to increase recall and comprehension.

One study of prior knowledge activation for third graders demonstrated that when textbook lessons were revised to include information about key concepts of a fiction story, students were able to recall more about the passage and answer more comprehension questions accurately, than students that were not given that information(McKeown et al., 2009).

Question generation. Question generation occurs when readers pose their own questions before, during and after reading. When readers pose questions, they are actively monitoring their understanding and critically thinking about what they are reading to pose questions of themselves and the reading. In a review of 26 research studies involving experimental and control groups, (Pearson & Fielding, 1991); Rosenshine (1997) found that when students were taught to generate questions they increased their comprehension performance. The effect size when standardized test scores were used was 0.36 (64th percentile). The effect size when experimenter-developed comprehension tests were used was 0.86 (81st percentile). The researchers suggested that the usage of signal words and generic question stems offered the most significant results. Signal words are prompts for helping students generate a question. Some common signal words include: *who*, *what*, *where*, *when*, *why* and *how*. Generic question stems are also prompts such as: "How are …and …alike?" "What is the main idea of …?" and "What conclusions can you draw about…?"

Question answering. Question answering is slightly different than other strategies in that the research dealing with question answering focuses more on teaching students how to answer questions that are given to them from an outside source, i.e. teacher or worksheet, not answering the questions they generate on their own. Research that supports the teaching of question answering focuses mainly on one particular method of instruction, Question, Answer, Relationship, or QAR (Pearson & Fielding, 1991). In the QAR method, when the student is confronted with a question, they must decide whether the answer will come from the book or from what the reader knows, or a combination of the two. Once that has been decided and the reader knows that the answer will be found in the book, the reader must decide if the answer is Right There or Think and Search. If the answer is Right There, the answer will be in the text itself. If it is a Think and Search question, the answer is in the text, but it might be in several different sentences within the text. If the answer is

not in the book, but in the reader's own mind, the reader must decide if the question is between the Author and You or On My Own. When the question is between the Author and You, the answer is not in the text, but the reader still needs the information in the text to answer the question. If the question is On My Own, the answer is not solely in the text. The reader must infer the meaning based on their prior knowledge, experience and/or other readings in conjunction with what has been read to come to an answer.

As researchers (A. L. Brown et al., 1984; Pressley, 2001) continued to learn more about how readers used strategies, they noticed that, in general, good readers rarely used comprehension strategies individually. Good readers tended to use them in conjunction with other strategies in flexible ways.

6.7 Multiple Comprehension Strategies Instruction

This section of the review outlines several approaches to teaching comprehension strategies that have been found to be successful. The approaches emphasize explicitly teaching comprehension strategies to assist students as they encounter breakdowns in understanding. Instructional approaches to teaching multiple comprehension strategies together have also been a focus of research (Block, 1986; A. L. Brown et al., 1984; Duffy, 2009). Researchers began by teaching readers how and when to use several different text comprehension strategies in coordination with each other. Researchers made a point to teach readers how to use them in coordinated, flexible ways because good readers use strategies in that way. Other research (Duffy, 2009) focused on the development of teachers in the processes of teaching students how to use multiple strategies.

Three methods of instruction were proven effective in fostering comprehension when taught by researchers and/or teachers. Those methods were reciprocal teaching (A. L. Brown et al., 1984), direct explanation (Duffy, 2009), and Transactional Strategy Instruction (TSI) (R. C. Anderson & Pearson, 1984).

Reciprocal Teaching

In reciprocal teaching, teachers teach four comprehension strategies: summarizing, clarifying, predicting and questioning as a group of strategies readers use to comprehend text. Teachers begin by explaining and modeling the use of the four strategies extensively in combination with each other. Then students practice the

use of these strategies in small, student-led groups, with the teachers scaffolding the practice. When scaffolding, teachers support the learner as they practice the new strategies, listening and monitoring their practice, offering suggestions for improvement and gradually releasing support as the student becomes more skilled. Usually the small group sessions begin with a review of previously read material. After the review, group members read the next section of text, which can be as short as a paragraph. After reading, one student, acting as the teacher, directs a discussion around the four comprehension strategies mentioned previously. For example, after reading a short section of text the student/teacher might ask this question, "Can someone help me understand what the term biodegradable means in this paragraph?" The small group would hold a discussion about the question for a short period of time. The student/teacher would try to formulate the kinds of questions the teacher might ask on a test. After the discussion aimed at answering the question, the student/teacher would then generate a summary of the reading, ask if there are any points of clarification needed from members of the group, and then discuss their predictions about the next section of text. While students practice using the strategies, the teacher continues to scaffold the practice. They monitor the group's discussion, prompting or modeling for the group as needed and offering suggestions at the culmination of the group meeting. They also continually remind students why the strategies are important and how they can help them as readers. Ultimately, the teacher's goal is to relinquish control of the use of the four strategies to the students and have them transfer the strategy use to all reading they do when appropriate.

In their review of sixteen quantitative reciprocal teaching studies, Rosenshine (1997), found that when reciprocal teaching was used, comprehension scores were significantly higher than control groups who did not have reciprocal teaching, when both standardized tests scores and experimenter-developed comprehension tests results were analyzed.

A. L. Brown et al. (1984), found similar results in their work with reciprocal teaching. Before using reciprocal teaching, students were typically achieving 40% accuracy on comprehension questions. After using reciprocal teaching, accuracy scores increased to 70% and 80% by the 15th day of using it. When given comprehension questions in an eight-week follow-up, students showed scores

equivalent to the last few days of the implementation of reciprocal teaching, demonstrating the continued benefits of the intervention. With minimal review, students were back to the achievement levels attained during the intervention.

Direct Explanation

The Direct Explanation method of instruction focuses on teaching students the reasoning associated with using strategies to help make meaning, rather than performance of isolated skills. Duffy (2009) taught teachers how to teach comprehension strategies explicitly as reasoning and processing strategies using their textbooks. The teachers learned how to: (a) explain strategies as mental processes rather than procedures, (b) explain when and how the strategies are used, and (c) organize a lesson including an introduction, modeling of strategy use, interaction between the students and teacher, and closure. An example of explicitly explaining the process that a teacher goes through to model a prediction follows. The teacher would first read a section of text out-loud. In this example the story involves a child who spilled paint on the basement floor and did not have permission to use the paint. The teacher might say something like this, "Oh boy. My mind just made a prediction that the boy is going to get into trouble. I am guessing that he might, because I know that when I was a little boy and spilled my mom's clothes washing soap, I was grounded for two days. When I make a prediction, I use what I know about the story and my personal experiences to guess at what might happen next. My predictions then make me want to keep reading, so I find out if I am correct." The example demonstrates how a teacher might directly explain how to use a strategy and how the strategy helps the reader (i.e. it makes him want to keep reading). The teacher explained, through modeling, the procedure and purpose for using the strategy when they read. The teacher would then go on with the lesson using guided practice saying, "Now that I have demonstrated how I made a prediction, I would like you to make some predictions. I want you to think about what you know in the story and what you know from your personal experiences to make a prediction about the next section of text that I read to you." At the conclusion of the lesson, the teacher plans time for students to share their predictions, the reasoning behind their predictions and how it helped them understand what was read.

Duffy and his team interviewed five students directly after each of six reading lessons. The students were asked: (a) what the lesson was about, or declarative knowledge, (b) when they would use the information they learned, or situational knowledge, and (c) how to do what they were taught to do, or procedural knowledge. Student awareness was rated based on their answers on a scale of 0 – 4, with 0 being an absence of awareness and 4 exemplary awareness. The highest possible score was 12. Based on ratings of student interview data, Duffy (2009) found that students had significantly higher situational knowledge and procedural knowledge in classrooms where teachers directly explained strategies as mental processes compared to students where teachers did not. There was no significant difference however for students' declarative knowledge. The lesson interview results indicated that when students were given explicit instruction about comprehension strategies, they had more procedural knowledge about how and when to use the strategies compared to students that were not given that type of instruction. There was no difference in the declarative knowledge students shared about the strategies.

Transactional Strategy Instruction

The Transactional Strategy Instruction, or TSI, approach includes explicit teacher instruction and modeling of comprehension strategies such as problem-solving and mental processing tasks. In addition, teachers and students are involved in collaboration about text and the strategies that one uses to solve problems. In this approach, students work in groups with the teacher. Groupings are flexible depending on the needs of the students and the emphasis of the teacher. The groups can range from small groups of students with similar skills and abilities to whole class groups. The groups focus their discussion on the text they have read and their personal interpretations of the text. The group is transactional because the members of the group interact with each other and with the text. The teacher's role is critical to the success of the instructional method. Teachers explain and model effective comprehension strategies and coach students to use strategies on an as-needed basis. As Pressley (2003) stated, "Students have a role in determining the instruction they receive. How they react to the teacher's instruction shapes the teacher's subsequent responses". The teacher must be mindful and supportive of the strategies being used and be flexible to allow for changes in instruction based on the needs of the students.

Ultimately the goal of TSI is for students to learn how to choose and apply strategies on their own while they read. One particular instructional method that was developed using the principles of TSI is called Students Achieving Independent Learning or SAIL. The SAIL program was developed by a group of teachers with the purpose of developing readers that were independent and self-regulated meaning-makers. SAIL students are taught to: (a) adjust their reading depending on the purpose for reading, (b) "predict upcoming events, alter expectations as text unfolds, generate questions and interpretations while reading, visualize represented ideas, summarize periodically, and attend selectively to the most important information", and (c) think out loud about their comprehension strategy use as they read.

Research on the SAIL method has demonstrated its effects for student achievement. Pressley et al. (1992) found that after using the SAIL approach for less than a year, the SAIL readers applied significantly more strategies during think-aloud tasks than did the non-SAIL readers. Means for the SAIL readers ranged from 5.00 to 8.67 strategies per student as compared to non-SAIL student ranges of 2.00 to 4.83. Additionally, May-June standardized test data indicated that SAIL students outperformed the comparison students on the 40-item comprehension subtest with raw scores means in the SAIL group of 34.20 (*SD*=2.65) and comparison group means of 28.73 (*SD*=3.77). These results indicate that SAIL students demonstrated more strategy usage and higher comprehension sub scores on standardized tests than non-SAIL students.

6.8 Collaborative Strategic Reading

Collaborative Strategic Reading (CSR) was initially developed to help struggling readers including L2 learners by (Klingner et al., 2004) through content and reading strategy teaching to enhance literacy competency.

Collaborative Strategic Reading (CSR) is a Multiple Comprehension Strategy Instruction (MCSI) approach that was based on the concepts of Reciprocal Teaching, Collaborative Learning and Transactional Strategies Instruction.(Davis, 2012). CSR focuses explicitly on student-led cooperative learning instead of teacher-led groups more than Reciprocal Teaching and Transactional Strategies Instruction. CSR have been proven to be well suited for classrooms with large numbers of English language learners (ELLs), given that cooperative learning may provide these students with

extended exposure to the language of their English-speaking peers and opportunities to receive help from their multilingual peers in their native language.

Collaborative Strategic Reading includes elements identified as critical for enhancing the performance of students with learning difficulties, such as: (a) making instruction visible and explicit, (b) implementing procedural strategies to facilitate learning, (c) using interactive groups and/or partners, and (d) providing opportunities for interactive dialogue among students and between teachers and students (Fuchs et al., 2003; Vaughn et al., 2013).

In CSR, students learn to use four major strategic procedures while reading content area texts: a previewing procedure (skimming title and subheadings, making predictions, and recalling background knowledge), a strategy procedure known as "click and clunk" (identifying and clarifying difficult, or "clunky" words), a "get the gist" procedure (identifying and stating main ideas), and a wrap-up procedure (summarizing the text and asking teacher-like questions). These strategies are first modeled and explained by the teacher, and then students practice them in small groups of four to six students. The group works of students are based on the cooperative learning principles. Each member of the group work has an assigned role to be responsible for the given task. Although specific procedures vary slightly from study to study, students are typically assigned roles (e.g., clunk expert) to carry out while reading and practicing the four strategies in groups (Klingner et al., 2004).

The CSR has been evidenced by a number of researches for the effective use with L2 learners or struggling readers (W. P. Grabe & Stoller, 2013).

Early studies of CSR focused on evaluating effectiveness within science and social studies content area instruction in the elementary setting (Klingner, Vaughn, & Schumm, 1998; Klinger & Vaughn, 2000; Klingner, Vaughn, Argu¨elles, Hughes, & Ahwee, 2004). In one of the earliest studies (Klinger et al., 1998), CSR was taught to intact, heterogeneous fourth-grade classes for 45 minutes per day during an 11-day Florida history unit. The comparison group of intact classes received instruction reflective of the school's typical practice. Students in the CSR group made greater gains in reading comprehension and equal gains in content knowledge.

To determine whether these findings were consistent for science instruction, fifth-graders were provided CSR instruction for 30 to 40 minutes per day, 2 to 3 days

per week, over a 4-week period during science classes (Vaughn et al., 2011). Students frequently engaged in verbal discourse that supported vocabulary and content knowledge development. Students made gains in target vocabulary over time.

In a subsequent quasi-experimental study, fourth-grade teachers in the treatment condition were provided CSR training and in-class demonstrations. A comparison group of teachers continued typical-practice instruction. On a norm-referenced measure of reading comprehension, students in the CSR group outperformed students in the comparison group (Vaughn et al., 2013). Likewise, students of third-grade teachers who received either CSR or partner reading training performed well on tests of oral reading rate, accuracy, and reading comprehension, providing additional evidence for the use of CSR with upper-elementary students.

Three studies have tested CSR at the middle school level. In one study, researchers developed a computer-adapted version of CSR (Kim et al., 2006) and used it with sixth- through eighth-grade students with learning disabilities. Students were randomly assigned to either the computer-based CSR intervention or a typical-practice comparison group. On a norm-referenced measure of passage comprehension, students in the CSR group outperformed students in the comparison group. In another middle school study, CSR was one of several intervention practices used to enhance school-wide reading comprehension. Students demonstrated gains on word identification but not reading comprehension. In the latest experimental study investigating the effects of CSR on reading comprehension in middle school English Language Arts classes, findings showed that the treatment group outperformed the comparison group on the reading comprehension measure but not on the reading fluency outcome (Vaughn et al., 2011).

The following table depicts the synthesis of Collaboration Strategic Reading Framework of this study.

Table 5 The synthesis of Collaborative Strategic Reading (CSR) Framework

scholars	**Collaborative Strategic Reading Framework**	**The synthesis of Collaborative**

		Strategic Reading Framework
Klingner et al., 1998; Klingner, Vaughn, Dimino, Schumm,&: Bryant, 2001	To teach CSR, the teacher begins by modeling the strategies for the whole class and demonstrates how to use them through a think-aloud procedure. The teacher gives input for why and how they are important and uses guided practice to help students apply the strategies. Once students are familiar with the strategies, they then work in cooperative, mixed-ability groups. Each student performs a specific role that helps the group function: as leader, as an expert in one of the strategies, or as the group's timekeeper. The materials of the CSR lessons include cue sheets and cue	The Collaborative Strategic Reading Framework used in this study is composed of 3 stages; a) Before reading The teacher gives input about the strategies (1) (CSR;Preview, Click and Clunk, Get the gist and Wrap up); what it means, when and how to use it, the benefits of the strategies. (2) The teacher models and teaches strategies (CSR;Preview, Click and Clunk, Get the gist and Wrap up); the teacher presents
Klingner et al., 1998; Klingner, Vaughn, Dimino, Schumm,&: Bryant, 2001	cards for the strategies. Students record what they are learning in learning logs. The framework of CSR can be divided into 3 main stages as follows; <u>Before reading</u> *Preview:* Before reading, students use the visual cues in the text, such as the title and pictures, as well as the headings and subheadings. They brainstorm what they already know about the topic and predict what they think they will learn in the day's passage. <u>During reading</u> *Click and Clunk:* During reading, students use this strategy to monitor comprehension. When they do not understand a word (or words), they use fix up strategies to help them figure out word meanings.	

Table 5: The synthesis of Collaborative Strategic Reading (CSR) Framework (continued)

scholars	**Collaborative Strategic Reading Framework**	**The synthesis of Collaborative Strategic**

		Reading Framework
	Get the Gist: Also during reading, students synthesize the information in a section of the passage and restate the main idea (gist) in their own words. After-reading *Wrap-up:* After reading, students review main ideas and generate questions about what they have read. The students learn to use question starters and pretend they are teachers asking key questions to check whether they and their classmates understood the passage. They are encouraged to ask different types of questions.	(1) the strategies to the whole class using modeling and teacher think-alouds. (3) The teacher forms mixed ability groups; each member is assigned a role to accomplish the tasks (4) The teacher may model how each role can be performed for the defined duty in a
NSW Department of Education and Training, 1999.	**Procedure** ***Before reading - Preview:*** *Brainstorm what is already known about the topic (activate background knowledge). * Predict what might be learnt from reading the passage: clues from title, subheadings, pictures etc. * Then read the first paragraph or section. ***During reading - Click and clunk:*** * "Clicks" refer to parts of the text that are understood * "Clunks" refer to parts of the text where it was necessary to stop because the text was hard to understand	group by selecting 4-6 students for the demonstration group in the first session. (5) Students implement the **Preview Strategy**; (a) brainstorming; discuss what have already learned/known, and (b) predicting; find clues in the title, subheadings, pictures etc. and predict what will be learned.

Table 5: The synthesis of Collaborative Strategic Reading (CSR) Framework (continued)

scholars	Collaborative Strategic Reading Framework	The synthesis of Collaborative Strategic Reading Framework

	* Use strategies like rereading before and after the clunk * If still unclear, refer to an authoritative source (glossary, teacher, peer) * Reread entire paragraph ***After reading - Get the gist:*** * Students summarize or re-state the main idea in their own words. Some students, among them ESL students, may need support with summarizing. * Then repeat click and clunk process with remaining text and finally reread the entire text. ***Wrap up:*** *Ask questions which would confirm that the most important information is understood * Review what was learnt.	a) During reading Guided practice and develop reading and thinking strategies through; (1) Do reading tasks in groups using **Click and Clunk Strategy**. The teacher demonstrates the difference between a click and a clunk and has students report any clunks they may have encountered. (2) Identify the clunks and Fix-Up strategies to be used to clarify the problems. (3) Implement **Get the gist Strategy** to identify the most important idea (gist) in the reading text just read. (4) Tell in own words the gist (The most important idea about the person, place or thing, leaving out details) a) After reading Implement **Wrap Up Strategy** through; (1) Generate and answer questions from the text; use WH questions to formulate questions relating to the reading text and write
Klinger, J. & Vaughn, S., 1998; Vaughn, S., Klinger, J. K., 1999; Vaughn, S., Klinger, J. K. & Bryant, L., 2001; NSW DET,n.d.	**Purpose** Students will improve reading comprehension and increase conceptual learning in a way that maximizes students' involvement. The goals for each of the strategies are as follows: **Strategy 1: Preview and predict** Students preview the entire passage before they read each section.	

Table 5: The synthesis of Collaborative Strategic Reading (CSR) Framework (continued)

scholars	**Collaborative Strategic Reading**	**The synthesis of**

	Framework	Collaborative Strategic Reading Framework
	The goals of previewing are that students: - learn as much about the passage as they can in a brief period of time (2-3 minutes), - activate their background knowledge about the topic, and - use this information to make predictions about what they will learn. Previewing serves to motivate students' interest in the topic and to engage them in active reading from the onset. **Strategy 2: Click and clunk (self monitor and fix-up strategy)** Students click and clunk during the reading of each section of the text. The goal of clicking and clunking is that students: - learn to monitor their reading comprehension and to identify when they have breakdowns in understanding. 'Clicks' refer to portions of the text that make sense to the reader: comprehension clicks into place as the reader proceeds smoothly through the text. 'Clunks' refer to comprehension breakdowns. For example, when students do not know the meaning of a word, it is a „clunk". **Strategy 3: Get the gist (main idea)** Students learn to „get the gist" by identifying	down in students' learning logs. Other students should try to answer the questions. If a question cannot be answered, that might mean it is not a good question and needs to be clarified. Students are encouraged to use higher order thinking questions rather than simple literal questions. (2) Review what was learned; students write down the most important idea they learned in their learning logs, then take turns sharing

Table 5: The synthesis of Collaborative Strategic Reading (CSR) Framework (continued)

scholars	Collaborative Strategic Reading Framework	The synthesis of Collaborative

		Strategic Reading Framework
	the most important idea in a section of text (usually a paragraph). The goal of „getting the gist" is that students: - re-state in their own words the most important point as a way of making sure they have understood what they have read. This strategy can improve students' understanding and memory of what they have learned. **Strategy 4: Wrap up (generate questions and summarize reading)** Students learn to wrap up by formulating questions and answers about what they have learned and by reviewing the key ideas. The goals of the „wrap up" are that the students: -summarize the complete passage - improve their knowledge, understanding, and memory of what was read. Students generate questions that ask about important information in the passage they have just read. **Teaching Steps** **1.State the purpose of the lesson** The teacher discuss the strategy and what it means as well as explain the benefits of this strategy 2. **Model and teach the strategy** The teacher selects 4 – 6 students to form	with the whole class, discussing what they consider to be their best ideas. d) Evaluation (1) Reflecting strategy use; summarize the strategies used in group works and the teacher reflects for improvement. (2) Evaluating /scoring products/outcomes by peers, the teacher, and self -assessment

6.9 Reading Strategy Assessment

Reading researchers have adopted qualitative and quantitative assessment methodologies to explore how effective strategies are for learning. While every effort

has been made to document how learners use strategies, Uhl Chamot and El- Dinary (1999) argued that using strategies, which are mental processes, cannot be observed. Hence, researchers have relied, to a large extent, on self-reporting verbalization. Despite their lack of veridicality and imperfection, self-reported data still provide useful information about internal cognitive processing (Afflerbach, 1990). Chamot further concluded that self-report may be the single best way to discover learners. Mental processing.

In fact, there is a wide spectrum of methods researchers can employ to examine; however, each assessment technique has its own appropriate uses and limitations.

In this section, the following main research methods and procedures used to gather data on reading strategies are discussed: (1) written questionnaires; (2) oral interviews; (3) think aloud protocols; and (4) journals.

Written Questionnaires

As a self-report method, questionnaires have become the most frequently and widely used measurement in learning strategy research (Chamot,1999). They are used to elicit learner responses to a set of questions; thus, it is imperative that the researcher make a decision on question format and research procedures. Bachman and Palmer (1996) explained that written questionnaires usually cover a broad range of language learning strategies and are typically structured and objective in nature. Put differently, researchers provide little or no freedom to questionnaire respondents who are given limited choice answers.

Question items can range from those requiring .yes. or .no. responses or frequency indication, such as Likert scales to less structured or open-ended questions which ask respondents to describe their use of language learning strategies, for instance. Nunan (2006) posited that written questionnaires allow researchers to collect data which are more amenable to quantification than those gathered from such field notes as participant observing journals or the transcripts of oral language.

While written questionnaires have been proven effective for various research purposes, they have also been criticized due to some limitations. This type of data appears to be superficial. Also, there is very little or no examination of whether the responses are honest and serious. Often times, researchers take the view that, although

analysis may be easy, interpretation of questionnaire data may be time-consuming as well as problematic.

Oral Interviews

Apart from questionnaires which require learners to write down their responses, researchers can conduct oral interviews in which learners describe what language learning strategies they use and how they use them. Ellis et al. (1994) clarified that a student needs to give retrospective accounts of learning strategies he or she has utilized, which is also considered an applicable elicitation technique.

Characterized by their degree of formality, interviews can be placed along a continuum ranging from unstructured through semi-structured to structured (Nunan, 2006). Regardless of their type, interviews offer personalized information and profound insights into how learners use language-learning strategies.

An unstructured interview, which the interviewer exercises little or no control over, is directed by the interviewee's responses. During a semi-structured interview, the interviewer asks a limited set of questions. This type of interview is flexible enough to allow the interviewer to generate new questions according to the direction of the interview. In a structured interview, the interviewer ensures that the interviewee is presented with a list of predetermined questions.

Nunan further claimed that, due to its flexibility the semi-structured interview appears to be the most popular among researchers, particularly those who work within an interpretative research tradition.

As per its limitations, Nunan (2006) commented that this specific type of interview calls for the interviewer's skill and experience. Moreover, it has been criticized for its lack of standardization, biases that are difficult to eliminate, and the time-consuming nature of the interview.

Think-aloud Protocols

A think-aloud protocol is defined as a moment-by-moment description which an individual gives his or her own thoughts and behaviors during the performance of a particular task. In attempts to report detailed observation of the learners use of language learning strategies, researchers conduct their studies by means of the think-aloud procedures. They believe that, through this method, learners can report what is in their working memory (Pressley et al., 1992). Pressley and Afflerbach (2012)

added that reporting which happens concurrently while performing a task offers more and better information than reporting what they did retrospectively.

Jaaskelainen (2010) advocated for think-aloud protocols by indicating that they provide the most detailed information on how students implement language-learning strategies; nevertheless, these protocols are typically used only on a one-to-one basis. Even though the think-aloud procedure, when compared with silent conditions, increases the time for undertaking the task, it does not affect the sequence of thoughts. In relation to their limitations, Oxford and Burry-Stock further commented that they not only take a great deal of time but also reflect strategies, which are task-specific only.

7. Creative thinking abilities

As the more complications people encounter in life today due to the growing amount of information and technologies, it is anticipated that citizen of 21st century require far more competency than it was ever needed in the past. Many of the skills necessary in the workforce require the ability to think creatively and the ability to use creative problem solving. In order to prepare today's students to survive and be competitive in global society, they must have competencies in critical thinking, collaboration, communication, and creativity or the "Four Cs" according to NEA (National Education Association, as a founding member of the Partnership for 21st Century Skills). Thus, "P21's Framework for 21st Century Learning" lists "creativity" as both a key element of 21st century learning and a desired student outcome.

Creative abilities have been perceived as crucial in understanding complex individual, social, and worldwide issues through a significant amount of research. With this awareness, promoting creativity has widely emerged as a major educational issue. In order to promote higher performance in all aspects, recent calls for authentic activities, teaching for understanding, and real-world problem solving all require engaging students with content in more flexible and innovative ways. Students not only use content in creative ways but they also learn strategies for identifying problems, making decisions, and finding solutions both in school and in their real world. More classrooms are encouraged to organize to develop creativity; becoming places of both learning and curiosity (Starko, 2013).

Before discussing how creativity can be taught and integrate in classrooms, it is necessary to define creativity.

7.1 Defining Creativity

According to Paul and Elder (2008b), critical and creative thinking are both achievements of thought; they are inseparable aspects of excellence of thought. They are interwoven. Each without the other is of limited use; creativity without criticality is mere novelty while criticality without creativity is bare negativity. However, focusing solely on creativity, it refers to mastery in a process of making or producing, criticality a process of assessing or judging. The definition of "creative" implies a crucial element (e.g., "having or showing imagination and artistic or intellectual inventiveness"). In sum, sound thinking requires both imagination and intellectual standards.

P21 (the Partnership for 21st Century Skills) defines creativity as the ability to think creatively by using a wide range of idea creation techniques (such as brainstorming), creating new and worthwhile ideas (both incremental and radical concepts), elaborating, refining, analyzing, and evaluating original ideas to improve and maximize creative efforts, working creatively with others, being able to develop, implement, and communicate new ideas to others effectively, being open and responsive to new and diverse perspectives; incorporate group input and feedback into the work, being capable to demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas, view failure as an opportunity to learn; understand that creativity and innovation are part of a long-term, cyclical process of small successes and frequent mistakes.

In the sense of business, DeGraff and Lawrence (2002) define creativity as a purposeful activity (or set of activities) that generates meaningful products, services, processes, or ideas that are better or new. The outcome of creativity can be derived by an individual, a group, or an organization or all of these working together—to produce a creative outcome, whether innovation, profits, quality, knowledge, or some other desired result.

For the sake of learning enhancement, Starko (2013) describes the definition of creativity as a skill to produce both original and appropriate outcomes which can be both tangible things and innovative ideas or breakthroughs. Novelty and originality

may be the characteristics most immediately associated with creativity. To be considered creative, a product or idea must be original or novel to the individual creator. Another important factor of creativity is appropriateness; it concerns the cultural context in which the creativity is based; an idea or product is appropriate if it meets some goal or criterion. Creativity is purposeful and involves effort to make something work, to make something better, more meaningful, or more beautiful.

Creativity is usually cited as one among other higher order thinking skills; critical, logical, reflective, Meta cognitive thinking. According to FJ King, et al, creativity involves divergent and convergent thinking to produce new ideas. Creative people can be characterized by the consistent use of basic principles or rules in new situations, discovering and solving problems, selecting the relevant aspects of a problem and putting pieces together into a coherent system that integrates the new information with what a person already knows. Creativity requires many of the same conditions for learning as other higher order thinking skills.

De Bono (1985) uses the terms Lateral thinking interchangeably with Creative thinking. He defines being creative as bringing into the new things which is also valuable. However, he further explains the reason for using the term "Lateral thinking" is to distinguish artistic creativity from the thinking involved in creating new perceptions and new concepts.

Wendy Conklin (2012) states that creative thinking deemed as a type of higher-order thinking skill and is equally as vital as critical thinking. The obvious explanation for higher order thinking is the top three levels of Bloom's Taxonomy of the Cognitive Domain. Inventing and synthesizing characterize creative thinking. Students are required to be prepared to become 21st century thinkers. The expected outcomes are that they think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and are not afraid of problem solving since they know what strategies and skills to use to get the job done.

Torrance (1987) believes creativity "to be divergent thinking ability involving sensitivity to problems, flexibility, fluency, originality and elaboration." He proposed the concept of "divergent thinking", when he noticed that creative people tend to

exhibit this type of thinking more than others. He thus associated divergent thinking with creativity, emphasizing it several characteristics:

1. Fluency (the ability to produce great number of ideas or problem solutions in a short period of time);
2. Flexibility (the ability to simultaneously propose a variety of approaches to a specific problem);
3. Originality (the ability to produce new, original ideas);
4. Elaboration (the ability to systematize and organize the details of an idea in a head and carry it out).

In sum and for the purpose of the present study creative thinking or creativity will be seen as the intertwined of thought to critical thinking and deemed as higher order thinking. It may involve divergent and convergent thinking to produce new ideas. The outcome of creative thinking may be in forms of products; both tangible and intangible, or processes demonstrating originality and appropriateness of such outcome. What produced with creativity can be derived by an individual, a group, or an organization. In the sense of education, creative thinking is listed in the top three levels of Bloom's Taxonomy of the Cognitive Domain. A creative thinker is supposed to possess the abilities to think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and know what strategies and skills to use for each situation. They are open-minded for diverse views. With their flexible thinking, they are enabled to seek for solution in any new situation. Then the products of their thinking in any form are innovative in some dimensions and meaningful in any sense.

7.2 The Creative Process

Many researchers and scholars have described processes and theories concerning creative thinking. Some of their ideas are as follows;

Dewey's (1920) model of problem solving.

Dewey (as cited in Starko, 2013) described the process of problem solving in five logical steps: (a) a difficulty is felt, (b) the difficulty is located and defined, (c) possible solutions are considered, (d) consequences of these solutions are weighed, and (e) one of the solutions is accepted.

Wallas (also cited in Starko, 2013) adjusted steps of the Model to include unconscious processing and the experience of getting a bright idea. He begins the process with the first steps; *preparation*. During this stage, the creator is gathering information, thinking about the problem, and coming up with the best possible ideas. Following with *incubation* in the second step, the individual does not consciously think about the problem. He or she goes about other activities while, at some level, the mind continues to consider the problem or question. The third stage in Wallas's model is *illumination,* the "Aha!" experience. It is the point at which ideas suddenly fit together and the solution becomes clear. The next step is *verification,* in which the solution is checked for practicality, effectiveness, and appropriateness. During this stage, the solution may be refined and adjusted as necessary. Then, if the solution is found to be unsatisfactory, the cycle may begin again. Teachers can use the Wallas model in all content-area classes, for example in language arts class, students can employ these steps for their creative writing assignments or making speeches more interesting (Wendy Conklin, 2012).

Torrance (1987) developed a definition or process model of creativity to embrace "sensing" creative problems. Not much different from Dewey's model, it is consisted of: (a) sensing problems or difficulties; (b) making guesses or hypotheses about the problems; (c) evaluating the hypotheses, and possibly revising them; and (d) communicating the results.

The Osborn-Parnes Model

The Osborn-Parnes model of Creative Problem Solving (CPS) was developed originally by Osborn (1963), more than 50 years ago and elaborated by Parnes (1981), and later by Isaksen and Treffinger (1985). Each version of the process includes a number of steps that involve both divergent (finding many ideas) and convergent (drawing conclusions and narrowing the field) stages of problem solving. The processes were designated as finding the ideas needed at each state: (a) Mess-finding, (b) Data-Finding, (c) Problem-Finding, (d) Idea-Finding, (e) Solution-Finding, and (f) Acceptance-Finding. The most recent version of CPS is composed of; Component 1"*Understanding the Challenge*", involves investigating a broad goal, opportunity, or challenge and clarifying thinking to set the principal direction for work. There are two stages, beginning with *Constructing Opportunities* and follows

with the second stage, *Exploring Data*, which involves examining many sources of information from different perspectives and emphasizing on the most crucial components. In Component 2 of CPS, *Generating Ideas*, the only stage, ideas are created for the selected problem statement(s) using a variety of tools, including but not limited to brainstorming or any of the other tools for divergent thinking. Component3 refers to *Preparing for Action*; it concerns exploring ways to make the promising alternatives into workable solutions—translating ideas into action. It has two stages, namely *Developing Solutions*, applying deliberate strategies and tools to analyze, refine, and select among ideas and *Building Acceptance*, making plans for the implementation of the chosen solution. Then possible difficulties are anticipated and resources identified. The outcome of this stage is usually in the forms of an action plan, with steps, resources, and individual responsibilities. Component 4 of CPS is *Planning Your Approach*. In order to monitor the thinking throughout the problem-solving process to ensure the desired direction and using an appropriate selection of CPS stages, the aspect of *Appraising Tasks*, involves determining whether CPS is a suitable choice for this situation, following with the second aspect, *Designing Processes*, involves selecting from among the CPS options the components and stages most likely to be best suit. *Planning Your Approach* can be considered the metacognitive dimension of the CPS process that functions throughout the entire process (Starko, 2013).

The Williams Model

The 3 dimension model called Williams model was developed by Frank Williams to improve curriculum for learners in the 1970s. Subject-matter content like mathematics, language, science, social science, art and music were formed into the scheme as the first dimension. The second dimension postulates 18 strategies for instruction. The third dimension involves eight students' behaviors that demonstrate learners' creativity. All eight levels lie in an extension of Bloom's creating level of thinking; formerly called synthesis. Four levels categorized in cognitive, or intellectual process are namely fluency, flexibility, originality, and elaboration, whereas the other four levels; curiosity, risk taking, complexity, and imagination fall within affective, or feeling process. The Williams model can be an effective tool in nurturing creative behaviors in our students and thus enhance them to be more

creative individuals. By using questions that promote Williams's proposed learner outcomes, they can learn to think more creatively. Teachers can determine the desired outcomes for their students and then design questions that encourage these behaviors. This is referred to as Williams's Taxonomy (Wendy Conklin, 2012).

7.3 Nurturing Creative Thinking

The present study aims at developing creative thinking of students by applying related strategies, techniques and tools. This section, therefore, presents review of literature, which supports the view that education should contribute in developing creative thinking, and suggests techniques, strategies and tools to enhance creative thinking. There are a number of scholars and educationists who emphasize the need to develop students' creative thinking and other cognitive processes through instruction of strategies that promote higher-order or creative thinking skills as for example Conklin (2011), Starko (2013), and S. M. Brookhart (2010).

Starko (2013) presents the Robert and Michelle Root-Bernstein's (1999) list of "thinking tools" for developing creative thinking. The tools are intended to bring together imagination and experience to help people understand the world in the more creative ways. They are;

1. Observing. Highly creative people pay attention to their senses.

2. Imaging. The capacity to review or imagine emotions or sensations permits scientists or artists both to review past tactile encounters additionally to envision sights, sounds, and sentiments they've never really met.

3. Abstracting. Creative individuals use abstracting to concentrate key characteristics from muddled information, thoughts, or pictures.

4. Recognizing patterns. Recognizing patterns is the first step to being able to create them.

5. Pattern forming. With this device, creators join components in new, and regularly surprising, ways.

6. Analogizing. The making of analogies is a sensible expansion or perceiving and shaping examples. We perceive that two apparently diverse things offer vital qualities.

7. Body Thinking. A lot of people profoundly innovative individuals portray mindfulness that passes through the body before it enters the cognitive personality.

8. Empathizing. Empathizing is related to body thinking, as people lose themselves in the things they think about.

9. Dimensional thinking. In this tool creative people are able to envision objects in three (or perhaps more) dimensions.

10. Modeling. While all of the aforesaid tools can be interwoven, the final four tools clearly require the integration of multiple tools. Modeling can range from modeling work on the accomplishments of others to using working models to understand and analogize situations.

11. Playing. Playing requires a "childlike joy in the endeavor at hand" (p. 26). It can entail approaching tasks with a level of irreverence that allows typical rules or procedures to be ignored momentarily.

12. Transforming. Transforming can move ideas from one form to another and/or moving from one thinking tool to the next to further explore and understand ideas.

13. Synthesizing. Finally, synthesizing is used to bring together ideas, feelings, memories, images, etc. in a holistic way. Where transforming may change things one step at a time, synthesizing makes a more singular change to bring important elements together.

Brainstorming

Brainstorming is an approach for thinking up new concepts, ideas, or solutions. The fundamental idea is to gather as many ideas as possible within a limit of time. The more ideas that are generated, the higher chance we get best suit solution. Brainstorming can be utilized to take care of pretty much any issue you can consider. You can brainstorm to come up with solutions to professional problems, to create new products, or to help enrich your personal life. You can brainstorm to brighten up your mind, or you can brainstorm with a gathering to get everybody's mind going. Whatever you utilize it for; brainstorming is an effective procedure in the foundation of any creative process (Michalko, 2006).

Brainstorming is probably the most cited strategy linkage to creative thinking. It is a type of lateral thinking; seeking solutions to problems through unconventional methods. It is based on Osborn's (1953) principle of deferred judgment: not evaluating any ideas until a number of them have been produced (Starko, 2013). In a

regular brainstorm session, all ideas are accepted and listed. Then they are evaluated after that. This approach results in maximizing a number of ideas and expanding ones' thinking for the most useful idea (S. M. Brookhart, 2010). There are four rules for a brainstorming session as follows;

1. Criticism is ruled out. No person is to evaluate any idea until all ideas have been produced. This rule precludes both verbal and nonverbal criticism: no eye rolling, face making, or other signals.

2. Freewheeling is invited. In brainstorming, routed out ideas are seen as venture stones to inventive thoughts. Proposals that have all the earmarks of being implausible can open another perspective that may prompt a workable thought.

3. Quantity is required. Quantity is not desired for its own sake, but because a large number of ideas seems more likely than a small number to yield a good idea.

4. Combination and improvement are sought. This tenet is at times depicted as catching a ride. It recommends that for a lot of people great thoughts can be found by expanding on or consolidating past thoughts (Starko, 2013).

W. Conklin (2012) suggests some general guidelines to follow for classrooms; firstly, begin with an open-ended question for students to brainstorm. Give students time to think about the question before the start. Then assign a certain amount of time for the brainstorming session; the ideal period is 5-15 minutes. No one is allowed to criticize or judge ideas during the session. Next, encourage students to contribute ideas that are in alignment to other ideas. They do not have to be the original. When the session is over, let students choose the top three ideas. They have to give reasons for their selection.

W. Conklin (2012) also proposes another form of brainstorming called *brainwriting*. This approach is ideal for classrooms, since most classrooms, especially in Thailand, are large classrooms. Brainstorming sessions may not be easily arranged. Furthermore, some students may fear to offer their ideas aloud. Sharing aloud may cause problems between two rival personalities. According to Wendy Conklin (2012), the general rules for brainwriting are as follows;

1. Each student gets each paper with a question or problem which may be same or different to others.

2. Each student writes down three ideas on another sheet of paper. Students have three-minute time limit to write their ideas.
3. After that, students have to pass their paper to the person on their left. Let students read the ideas on the new papers.
4. Then give students three minutes to write top three new ideas that have just come up on the new paper.
5. Repeat for a certain rounds.
6. At the end of the lessons, merge the ideas and appraise them.

When brainstorming sessions are effectively managed, they are more likely to be productive.

Using a Rubric to assess creative thinking ability

A rubric is a coherent set of criteria for students' work that includes descriptions of levels of performance quality on the criteria. Rubrics have two major aspects: coherent sets of criteria and descriptions of levels of performance for these criteria. Effective rubrics have appropriate criteria and well-written descriptions of performance.

Rubrics give structure to observations. Matching your observations of a student's work to the descriptions in the rubric averts the rush to judgment that can occur in classroom evaluation situations. Instead of judging the performance, the rubric describes the performance. The resulting judgment of quality based on a rubric therefore also contains within it a description of performance that can be used for feedback and teaching. This is different from a judgment of quality from a score or a grade arrived at without a rubric. Judgments without descriptions stop the action in a classroom. (S. M. Brookhart, 2010; 2013).

S. M. Brookhart (2013) suggested using a rubric to assess creative thinking ability**.** She stated that rubrics are important because they clarify for students the qualities their work should have. This point is often expressed in terms of students understanding the learning target and criteria for success. For this reason, rubrics help teachers teach, they help coordinate instruction and assessment, and they help students learn.

To write or select rubrics, teachers need to focus on the criteria by which learning will be assessed. This focus on what you intend students to learn rather than

what you intend to teach actually helps improve instruction. Without clarity on outcomes, it's hard to know how much of various aspects of the content to teach. Rubrics help with clarity of both content and outcomes.

Really good rubrics help teachers avoid confusing the task or activity with the learning goal, and therefore confusing completion of the task with learning. Rubrics help keep teachers focused on criteria, not tasks.

Most rubrics should be designed for repeated use, over time, on several tasks. Students are given a rubric at the beginning of a unit of instruction or an episode of work. They tackle the work, receive feedback, practice, revise or do another task, continue to practice, and ultimately receive a grade—all using the same rubric as their description of the criteria and the quality levels that will demonstrate learning. This path to learning is much more cohesive than a string of assignments with related but different criteria.

The criteria and performance-level descriptions in rubrics help students understand what the desired performance is and what it looks like. Effective rubrics show students how they will know to what extent their performance passes muster on each criterion of importance, and if used formatively can also show students what their next steps should be to enhance the quality of their performance. This claim is backed by research at all grade levels and in different disciplines.

Creativity is considered as the ability to provide novel answers to a proposal or problem given, or to discover new relations and give them new mental structures, respectively. Rubrics are evaluation instruments that can be applied to assess these competences. But they require the identification of new indicators that can be directly assessed. This work relates the general characteristics or traits of divergent thinking as proposed by Torrance (1987) for a common framework for creative thinking processes; fluency, flexibility, originality, and elaboration.

Fluency refers to the production of a great number of ideas or alternate solutions to a problem. Fluency implies understanding, not just remembering information that is learned. The sample application activities that enhance fluency are**;** trace a picture and label the parts, outline an article you find on your topic, how many uses can you think of for a clothes hanger?, list 15 things that are commonly red or contain red.

Flexibility refers to the production of ideas that show a variety of possibilities or realms of thought. It involves the ability to see things from different points of view, to use many different approaches or strategies. The sample application ideas to enhance flexibility are questions like; What would happen if ... there were no automobiles?, How would a ... dog look to a flea?, How is _____ like _____?, How would you feel if ... you were invisible for a day? or How would you group the ideas about "red" into categories?

Elaboration is the process of enhancing ideas by providing more detail. Additional detail and clarity improves interest in, and understanding of, the topic. The sample application ideas to enhance elaboration are tasks or questions like; Tell your neighbor about your last family trip using as many details as possible., What can you add to_____ to improve its quality or performance?, Describe all the possible characteristics of the red quality in a wagon.

Originality involves the production of ideas that are unique or unusual. It involves synthesis or putting information about a topic back together in a new way. The sample application ideas to enhance originality are tasks or questions like; Find an original use for_____., What would be the strangest way to get out of bed?, Design a new_____ that is better than the one you have. or Write an unusual title for the ideas about red.

The rubric used for evaluating creative thinking ability of students in this research was based on the aforesaid traits of creativity and adopted the rubric from https://www.victoria.ac.nz/__data/assets/pdf_file/0005/1062878/LO-1d-Rubric-for-Creative-Thinking.pdf., with 4 traits; Fluency: number of ideas generated, Flexibility: variety of ideas generated, Originality: novelty of ideas, and Effectiveness: potential value of ideas and 3 levels; Exemplary = 3 scores, Satisfactory = 2 scores, and Unsatisfactory = 1 score. The trait “elaboration” was adapted into “effectiveness” to be more understandable and practical to apply with the creative thinking assignments. The rubric used is shown in the following;

Creative thinking Rubric				scores
Trait	Exemplary = 3	Satisfactory = 2	Unsatisfactory = 1	
Fluency: number of ideas generated.	Many ideas generated.	Good number of ideas.	Not many ideas generated.	
Flexibility: variety of ideas generated.	Ideas provide several distinct avenues worth pursuing.	A few distinct avenues identified.	Ideas are very similar or serve the same basic function.	
Originality: novelty of ideas.	Ideas are totally new or even unique.	Ideas are modifications or improvements of existing concepts.	Ideas are copies of existing ideas.	
Effectiveness: potential value of ideas.	Ideas meet all objectives.	Ideas show promise in meeting objectives.	Ideas offer little potential for meeting objectives.	
Total scores				

SCAMPER

SCAMPER is an acronym that provides a structured way for understanding creative problem solving. First proposed by Alex Osborne in 1953, this thinking strategy was further developed by Bob Eberle written in his 1971 book, *SCAMPER: Games for Imagination Development.* His work included checklists of questions such as "How can we simplify? What combinations can be utilized? What adaptations can be made?" At the point when people or groups are generating ideas, and proposals start to moderate or get to be stuck in a single direction, such inquiries can indicate another viewpoint. Eberle (1996) took some of Osborn's key questions and arranged them into an easy-to remember acronym, SCAMPER. The acronym SCAMPER can be a useful tool for many creative since it is easy to remember, it can help people in all ages in using the idea-spurring questions that can assist them get different bright ideas.

According to Michalko (2006), to use SCAMPER, just follow these rules;

3. Isolate the challenge or subject you want to think about.
4. Ask SCAMPER questions about each step of the challenge or subject and see what new ideas emerge.

"Asking the questions is like tapping all over the challenge with a hammer to see where the hollow spots are" as suggested by Michalko (2006).

The S in SCAMPER stands for *substitute*. It suggests asking questions such as "What could I use instead?" or "What other ingredients, materials, or components could I use?" Many new products and solutions to problems large and small are the result of substitution.

The C stands for *combine*. Questions being asked are, "How can I combine parts or ideas? Are there two things I could blend rather than come up with something new?", for instance. Many common products are derived by combinations.

The A stands for *adapt*. It uses questions such as "What else is like this?" or "Could we change or imitate something else?" In adapting, we change something known to solve the current problem.

The M includes various meanings. It can stand for *modify*. In modifying questions used are, "Could we change a current idea, practice, or product slightly and be successful?" The M can also stand for *magnify* or *minify*. Magnifying leads us to ask, "How could I make it bigger, stronger, more exaggerated, or more frequent?" It could result to ever-larger things. Magnifying common objects to many times their size also can spur original works of art. Seen at that size, structure gets to be more paramount than capacity, permitting us to see the object in another way. To minify is on the contrary. To go in this direction, we ask, "How can I make it smaller, more compact, lighter, or less frequent?" Examples of Minifying are namely RitzBitz (bite-size crackers), 3-inch video screens, and 10-second commercials.

The P stands for *put* to other uses. It suggests that we ask, "How can I use this in a new way?"

The E is for eliminating. It allows us to ask, "What can be omitted or eliminated? Are all the parts necessary? Is it necessary to solve this problem at all?"

Finally, the R stands for rearrange or reverse. It utilizes questions such as "Could I use a different sequence? Could I interchange parts? Could I do the opposite? What would happen if I turned it upside down, backward, or inside out?" Left -handed scissors, knives, and garden tools are examples of rearranging or reversing.

The questions generated by the SCAMPER acronym can be used to address many types of problems. SCAMPER helps students to differentiate their thinking about their problems and challenge an idea to come up with innovative ideas. Students

of all ages can gain advantage by searching for samples of how others have utilized these procedures before utilizing them autonomously. Students can look through magazine, for examples, or cartoons, advertisements, or products that show the utilization of one or more SCAMPER verbs. Many new products can be recognized as the consequence of thought prodding inquiries. These can be gathered and shown in the classroom. Students are able to use the questions to suggest ways to improve a familiar product or suggest new items for things around them. SCAMPER is ideal for broadening conceptual understanding of a topic or subject area. However, the most vital comprehension is that all or parts of the SCAMPER acronym can be utilized any time students need to create numerous thoughts or tackle an issue. The SCAMPER questions could be used to generate ideas for modifying the project. Older students could use a similar strategy for more advanced projects. In either case, a variety of novel projects could be formulated through reactions to the SCAMPER questions. In a similar manner, SCAMPER can be used to modify and elaborate story plots, create ideas for three-dimensional art projects, or address school or community problems. It gives students a set of devices they can utilize when they are attempting to discover a thought or to enhance the thoughts they have (Wendy Conklin, 2012; Michalko, 2006; Starko, 2013).

Based on the idea presented by Osborn (1953) and Eberle (1996), Majid, Tan, and Soh (2003) suggested the ways to use the SCAMPER tool with students such as considering possible variations in character, setting, costume, or plot to modify or develop a story, theme, or drama; varying colors, media, method, and materials to develop original art products; exploring a variety of different ways to present or share what an individual (or group) has learned in a project or assignment; developing alternative ways to communicate ideas or views persuasively; or planning to improve a classroom, school, or personal study or living area. The center also suggested how to make the SCAMPER tool and use it successfully. The SCAMPER tool refers to a table with each letter of the acronyms contained in each grid. Users can write down their idea in each grid. When introducing the tool to a group, it can be helpful to use examples relating to improvement of, or changes in uses for, things they know well in daily life. Such examples are easy to handle, and they enhance playful thinking. It is not necessary to use the letters and words in the same sequence in the word

SCAMPER nor is it required to use all the letters and words. The activities should be done in a time limit to maintain the effectiveness of the tool. The tool can be modified to vary the ways to use it for example writing the SCAMPER words on 5X8 inches card, then allow group members to choose and swap cards to generate options for the challenge or task. The tool can be used in analyzing or solving conflicts. The SCAMPER questions are helpful to turn negatives into more positive or constructive possibilities. Playing around the new words for each letter can be fun and productive. The Center for Creative Learning also recommended steps for using the tool as follows; 1) State the challenge briefly and clearly, then write it on flip chart paper or SCAMPER worksheets. 2) Choose a letter from the SCAMPER list. State the word it represents and ask probing questions. Participants brainstorm as much response as possible and write down on the paper.3) Pick more letters from the acronym when it seems that no further ideas are generated for any given word. 4) Review the list of options generated by the group to decide whether the task or challenge has been fulfilled. 5) decide what should be done next to solve the challenge.

Eileen Carr, Loviah Aldinger, and Judythe Patberg presented an effective comprehension lesson for either narrative or expository text composing of four strategy components: background knowledge, vocabulary, comprehension, and application/extension (EM Carr & Aldinger, 1994; E. Carr, Aldinger, & Patberg, 2000; E. Carr, Loviah, & Patberg, 2004). In the phase of application/extension, SCAMPER Techniques are integrated in the reading comprehension lessons. The teaching steps are as follows;

Before the Lesson; Prepare one or more of the SCAMPER challenges and any materials students require. (After students become familiar with SCAMPER, when they finish the reading comprehension lesson, they can develop one or more challenges for a story.

Teaching the Strategy;

1) Give your students a preview of the story they are going to read and instruct them to read the story for understanding.

2) Explain the SCAMPER strategy to students by using questions to guide them what each of the challenges requires them to do. Sample questions likes ‘What

do you think would have happened if a donkey had found the bone instead of a fox?', then let students answer by applying (S) substitute one character for another, or asking 'How can you rewrite the story and save Pearl without changing the size of the fox?', it requires students to apply (A) adapt the story, for example.

3)When the students understand the acronym and how they can perform, form students into small groups and tell them their group assignment is to respond to one or more of the challenges (substitute, combine, adapt, magnify or modify, put to use, eliminate, rearrange, or reverse parts of the story or the end of the story).

4) Students can use the original Story Map (Grammar) as a guide and change the affected events on the Story Map to agree with their group changes.

5) Have the groups share their work by reading their changes to the class.

The following table depicts the synthesis of SCAMPER Instructional Approach used in this study.

Table 6 The synthesis of SCAMPER Techniques Instructional Framework

Scholars	SCAMPER Techniques Instructional Framework	The synthesis of SCAMPER Techniques Instructional Framework
Elberle, R . F., 1996	Eberle (1996) developed a short verbal checklist known as the SCAMPER technique to help people nurturing their flexible thinking. When using the checklist, the following steps may be applied: 1) Identify the product or service to be modified 2) Apply each of the verbs on the checklist to suggest changes in the product or service 3) Make sure you use many definitional words for the listed verbs, and 4) Review the changes to determine which one	**Thinking for Creative solution** 1. The teacher gives input and models the SCAMPER Techniques to students before the task/ reading phase. 2. Have students discuss positive or negative sides of notions from the text in their group works.

Table 6: The synthesis of SCAMPER Techniques Instructional Framework (Continued)

Scholars	SCAMPER Techniques Instructional Framework	The synthesis of SCAMPER Techniques Instructional Framework
	meets the prescribed solution criteria. sequence in the word SCAMPER nor is it required to use all the letters and words. The activities should be done in time limit to maintain the effectiveness of the tool. The tool can be modified to vary the ways to use it for example writing the SCAMPER words on 5X8 inches card, then allow group members to choose and swap cards to generate options for the challenge or task. The tool can be used in analyzing or solving conflicts. The SCAMPER questions are helpful to turn negatives into more positive or constructive possibilities. Playing around the new words for each letter can be fun and productive. The Center for Creative Learning also recommended steps for using the tool as follows; 1) State the challenge briefly and clearly, then write it on flip chart paper or SCAMPER worksheets. 2) Choose a letter from the SCAMPER list. State the word it represents and ask probing questions. Participants brainstorm as much response as possible and write down on the	the strategy use; summarizing the strategies used in group works and then the teacher reflects for improvement 7. Evaluation is conducted for the solutions/ products/outcomes by (1) peers, (2) the teacher, and (3) self – assessment.

	paper.3) Pick more letters from the acronym when it seems that no further ideas are generated for any given word.	

Table 6: The synthesis of SCAMPER Techniques Instructional Framework (Continued)

Scholars	SCAMPER Techniques Instructional Framework	The synthesis of SCAMPER Techniques Instructional Framework
	4) Review the list of options generated by the group to decide whether the task or challenge has been fulfilled. 5) decide what should be done next to solve the challenge.	
Carr, E., Loviah, A., Patberg, J., 2004	Eileen Carr, Loviah Aldinger, and Judythe Patberg presented an effective comprehension lesson for either narrative or expository text composing of four strategy components: background knowledge, vocabulary, comprehension, and application/extension (E. Carr et al., 2004) In the phase of application/extension, SCAMPER Techniques are integrated in the reading comprehension lessons. The teaching steps are as follows; **Before the Lesson**	

	Prepare one or more of the SCAMPER challenges and any materials students require. (After students become familiar with SCAMPER, when they finish the reading comprehension lesson, they can develop one or more challenges for a story. **Teaching the Strategy** 1) Give your students a preview of the story they are going to read and instruct them to read the story for understanding. 2) Explain the SCAMPER strategy to students by using questions to guide them what each of the challenges requires them to do. Samples questions likes 'What do you think would have happened if a donkey had found the	

Table 6: The synthesis of SCAMPER Techniques Instructional Framework (Continued)

Scholars	**SCAMPER Techniques Instructional Framework**	**The synthesis of SCAMPER Techniques Instructional Framework**
	bone instead of a fox?', then let students answer by applying (S) substitute one character for another, or asking 'How can you rewrite the story and save Pearl without changing the size of the fox?', it requires students to apply (A) adapt the story, for example. 3)When the students understand the acronym and how they can perform, form students into small groups and tell them their group assignment is to respond to one or more of the challenges (substitute, combine, adapt, magnify or modify, put to use, eliminate, rearrange, or reverse parts of the story or the end of the story). 4) Students can use the original Story Map	

	(Grammar) as a guide and change the affected events on the Story Map to agree with their group changes. 5) Have the groups share their work by reading their changes to the class.	

8. Related research

8.1 Related research on task-based learning

Teaching English as a foreign language using task-based learning has been proven effective by researchers at various levels of education. Many research projects over the past twenty years have investigated task-based learning. A few important cases are described as follows.

According to Hsu (2007) who conducted a research titled "A Cooperative Task-based Learning Approach to Motivating Low Achieving Readers of English in a Taiwanese University", it is commonly observed that the majority of low achievers possessed lower motivations to learn the English language. Thus the researcher studied to seek an effective teaching strategy and then to demonstrate how an action research project can improve EFL students' motivation and their reading skills through the use of Cooperative Task-Based Learning (CTBL), based on a model of motivation for students with low achievement levels. The purpose of the research was to answer the research question: To what extent does a cooperative task-based learning approach (CTBL), with an emphasis on group work, increase motivation to develop reading skills amongst Taiwanese university students with low achievement levels? The study group at low-intermediate level (C level) was composed of nineteen Taiwanese university students, all attending the required course of English as a foreign language at a university-level institute. All students are allocated to one of three levels - A, B, C- depending on the result of the joint college examination in English. The time period, within which the experimentation took place, was a total of nearly 24 hours over 12 weeks. To evaluate the success of this teaching, data were collected from interview accounts, self-reflective logs and field notes, observations and a collection of students' group work sheets. These multiple perspectives created a triangulation of data. This empirical study elicited numerous positive outcomes from

both the teacher's and the students' perspectives and the findings support the positive aspects of application of a CTBL approach to first year university students who have low achievement status with the idea of facilitating their motivations to learn English. The model of motivation to read for L2 learners had strong evidence in supporting the key variables of this study and thus it could be concluded that the proposed model with L2 reading motivation is helpful for future students to encourage them to achieve improvement in their reading skills. This research suggests that low achievement and poor performance can be improved by the intervention of introducing a CTBL approach. Through the use of materials and TBLT tasks, many participants became aware of improved problem solving skills through the process of learning. In addition, most low achieving learners of English would find themselves exploring and using the skills of problem solving while they were working through a number of teacher-assigned Problem-solving activities inspired by the TBLT pedagogy.

According to the study of Córdoba Cubillo and Navas Brenes (2009) on the title of "Using Task-Based instruction in an ESP course in the Computer Center at the University of Costa Rica", TBL was favored to teach the superlative form of adjectives instead of traditional form-based methodologies. This lesson was designed for a group of six EFL learners taking an ESP (English for Specific Purpose) course in the Computer Center at the University of Costa Rica. The main objectives are (a) to summarize the most important insights behind task-based language instruction, (b) to explain the different components of the task-based framework with the content of a sample lesson, and (c) to give some useful recommendations to English teachers who want to incorporate this approach in their ESP course programs. The target population consisted of 6 students, three male and three female. Their ages ranged from 20 to 54. It was found in this study that by implementing task-based instruction, learners as well as teachers will certainly benefit from a different approach to language pedagogy because it is more motivating, more challenging, more innovative, more appealing and more meaningful to students than other traditional grammar-based approaches.

Sirisatit (2010) studied a research on the title of "an activity theory perspective on task-based instruction in a university business EFL class in Thailand: a socio cultural case study" to examine the impact of task - based instruction on

second/foreign language learning in a real classroom practice using the quantitative data obtained from a pre - test, an immediate post - test, and a one -month-later delayed post-test with Thai FL learners of English for business purposes. The study investigated how and to what extent a task -based course using socio cultural approach in a Thai university classroom helped students improve and retain their business English ability. This study also used the qualitative data obtained from five focal participants to address the question of what activities looked like in task - based instruction. Using a case study and activity theory as analytical framework, the qualitative data were collected from a questionnaire, stimulated recall interviews, researcher's observation notes, the post - task interviews, and the final interview. The quantitative results revealed a significant difference between the scores of the pre - test and the post -test implying that there was an improvement in the business English ability of the subjects in those six tasks. A significant difference was also found between the scores of the post - test and the delayed post- test implying that there were both the retention and an increase of their business English ability. The significant improvement of the students' test scores resulted from task familiarity, task internalization, and the influential roles of motives and affect. The qualitative findings showed that (1) the participants' activities differed across tasks and time, (2) Four patterns of assistance were found, however they were not stable within pairs and across tasks. The pairs that demonstrated patterns of Collaborative and Expert/Novice were more successful than Dominant/Dominant and Dominant/Passive, (3) Participants' successful performance were mostly reported as being influenced by themselves as subjects, objects that motivated them to complete the course, the teacher and their partners in division of labor , and the tools they used to complete the tasks. They were less influenced by the rules and the communities, (4) Students joined the course with similar and different motives, goals, and motivation. They shifted and transformed.

Hayati and Jalilifar (2010) conducted a research using TBL with a reading lesson on the title "Task-based teaching of micro-skills in an EAP situation". The study investigated the reading comprehension of English language learners in EAP (English for Academic Purposes) situations via a task-based language teaching (TBLT) approach. Forty-two students on an MBA course were selected as

participants, and randomly divided into two groups. The participants in the experimental group were taught four reading skills namely, scanning, skimming, contextual clues, and critical reading through task-based language teaching, but the control group received the same hours of instruction through translation. Having received the instruction, participants took a final examination, which was designed to test reading micro-skills. Then a comparison was made by an independent-samples t-test to find possible differences between the two groups. The results revealed that students who were taught reading skills via TBLT had a better academic performance, and reading comprehension was more effective. Based on the results of this study, it could be cogently concluded that assigning students reading-based tasks conveys the value of reading for meaning and influences their reading comprehension positively.

In a research under the title "Designing task-oriented online reading activities: Taiwanese EFL students' experiences and views on online EFL reading activities" conducted by Huang (2012), this research aims to explore 81 EFL students' views on EFL task-oriented online reading activities. Interviews and questionnaires were used to collect data. Task-oriented online reading activities were found to help broaden students' world knowledge, enhance interest, facilitate peer cooperation, and increase extensive reading opportunities. Students employed a mix of strategies, including comparing the translated texts in L1 and L2, reading about the topics in L1, and looking at pictures to activate their schema and assist comprehension. Designed tables were reported to help students focus their search, and served as the scaffolding that allowed students to practice locating and categorizing the information. Students also reported development of online English reading habits and learner autonomy after taking part in the activities.

Kolaei, Yarahmadi, and Maghsoudi (2013) conducted a research of the title "The Effect of Task-Based Approach on Iranian EFL Learner's Reading Comprehension Ability" with an attempt to investigate the efficiency of task-based instruction in improving reading comprehension ability in Iranian EFL students. To this end the student's performance on the pretest and posttest in the both experimental and control groups and also the two group's end-of-the-course reading comprehension development in respect to general English proficiency has been taken into account. The results indicated that there was no significant difference between

the two training methods. The major issue addressed in this study was whether EFL student's reading ability was promoted. Regardless of the treatments, the above-mentioned groups showed significant improvement in their reading comprehension after the pedagogical intervention. Therefore, both task based approach and traditional method promoted the learner's reading comprehension. The purpose of the study is to examine whether the TBA served the function of improving institute student's reading comprehension ability, learning motivations, and positive attitudes. Belief could guide learners toward a real-life communicative learning environment, and students would benefit by interacting with peers through task-based activities—participants could have more chances to communicate in the target language and enhance their language ability, especially developing their oral proficiency. Therefore, creating a real-life learning environment in class was needed, and pedagogical tasks provided a good model. In a teacher-centered lecture environment, all students could do was to sit still and do the language drill practice—their learning motivation and interaction skills were not enhanced. On the other hand, students built up their self-confidence and self-fulfillment through task-based activities, dared to express their ideas, and learned to work together in class through task-based activities—not only their language ability but also their communicative ability improved rapidly. Some significant implications for the teaching and learning of English as a foreign language for *Zabansara English Institute* students may be drawn as follows: Task-based language teaching, which focuses on the ability to perform a task or activity, can be an innovative alternative for EFL learners in Iranian context.

8.2 Related research on Metacognition and reading comprehension

Several studies have provided evidence of importance of metacognition, strategy explicit instruction and their correlation to reading comprehension as enlightened by the following researches.

Ness (2007) studied for teacher use and attitudes towards reading comprehension instruction in secondary content area classroom using mixed methodology with the purpose to examine the extent to which secondary teachers included explicit comprehension strategies in routine classroom instruction in middle and high school social studies and science classrooms and to explore teachers' perceptions of and beliefs about the need for reading comprehension instruction.

This study occurred during three consecutive months in the 2005-2006 academic years. Data was collected in two phases: Phase I with a quantitative focus, and Phase II with a qualitative focus. The target population for this study consisted of four middle school teachers and four high school teachers in public schools. Data collection occurred at two rural schools in Virginia: 1) Pine Wood Middle School, housing 430 students in grades 6-12, and 2) Pine Wood High School, housing 782 students in grades 9-12. A stratified purposeful sampling approach was chosen for this study. Data came from two sources: 1) 2,400 minutes of direct classroom observation over a three-month period, and 2) open-ended teacher interviews subsequent to the completion of classroom observations. The Comprehension Instruction codes were used when one or more of the following teacher behaviors occurred: an explicit description of the strategy and when and how it should be used, teacher and/or student modeling of the strategy in action, collaborative use of the strategy in action, guided practice using the strategy with gradual release of responsibility, independent use of the strategy. The qualitative findings reveal that teachers did not feel qualified or responsible for providing explicit instruction on reading comprehension. Of the reading comprehension instruction that occurred, the reliance on only three comprehension strategies was noted: Text Structure, Question Answering, and Summarization. Teachers pointed to the pressure to cover content in preparation for state standardized tests as barriers to providing reading instruction. It appears that teachers in this study saw reading comprehension as an instructional add-on, rather than a way to promote students' understanding and retention of content. Teacher participants also pointed to their lack of professional knowledge and training as barriers to reading comprehension instruction.

Braxton (2009) studied for the effects of two summarization strategies using expository text on the reading comprehension and summary writing of Fourth and Fifth grade students in an urban, Title 1 school using a quasi-experimental pretest/post test design. The study examined the effects of two summarization strategies on the reading comprehension and summary writing of fourth- and fifth- grade students in an urban, Title 1 school. The strategies, Generating Interactions between Schemata and Text (GIST) and Rule-based, were taught using authentic social studies materials that are part of the school system's curriculum. Four intact classes participated in fifteen

40 – 60 minute lessons. One fourth grad. (17 students) and one fifth-grade (13 students) received GIST instruction, and one fourth-grade (20 students) and one fifth-grade (14 students) received Rule-based instruction. The Qualitative Reading Inventory - 4 was used to determine the effects on the expository reading comprehension. For the fourth graders, there was no significant interaction between time and intervention. However, there was a significant main effect for time with a very large effect size. Additional analyses showed a significant time by intervention by gender interaction for implicit questions (but no effect for explicit questions). GIST group males outperformed the females, while Rule-based group females outperformed males. For the fifth graders, there was no significant interaction between time and intervention. However, there was a significant main effect for time with a very large effect size. For the quality of summaries, there was a significant interaction between time and intervention with a very large effect size for both grades, favoring the Rule-based group. Questionnaire responses showed the greatest change for students in both grades and interventions on concepts of summary writing. Ratings indicated an increase in knowledge about summary writing, paralleling the gained knowledge that was evident in students' posttest summaries. These results suggest that both summarization methods can improve the expository reading comprehension and summary writing of urban, Title 1 students. These findings provide evidence to encourage the teaching of summarization strategies to promote reading achievement especially with students who are lagging behind their peers in the area of reading. This study extended summarization research by (a) using authentic expository text rather than research-generated material, and (b) instructing a student population that has had limited representation in past studies.

According to the study of Davis (2010) on "A meta-analysis of comprehension strategy instruction for upper elementary and middle school students", to examine the relationship between multiple comprehension strategy instruction (the independent variable) and student outcomes (the dependent variables), the analysis also examines the moderating effects of several content and pedagogical attributes of MCSI (the moderator variables). This meta-analysis examines the benefits of strategy instruction for different types of students by comparing the impact of instruction on students of different grade levels, linguistic heritages, and reading achievement levels.

Various instructional frameworks have been developed for teaching MCSI to middle grades students. The specific instructional content of the frameworks (i.e., what students are taught) is also examined. In the study, the different combinations of strategies that have been used in instructional studies are catalogued and compared to identify the most effective combinations. The relationship between educational impact and the amount of instruction are also examined. The study findings are summed up for each research question separately. RQ1: **what is the average impact of MCSI on middle-grades student achievement?** Instruction in the use of multiple comprehension strategies has a positive impact on student achievement in grades 4 – 8. There is also some evidence that the impact of MCSI lasts beyond the intervention period. The greatest impacts were observed for measures of strategy knowledge and strategy use. This is not surprising given that these skills are directly taught in MCSI. RQ2: **Does the impact of MCSI vary across studies?** Effect sizes for individual studies ranged from slightly negative to highly positive. RQ2: **Is there evidence that some students benefit more from MCSI than others?** In general, positive impacts were observed across a range of student populations. There was some evidence that second language learners benefited less than others on standardized measures of comprehension, although they appear to benefit on other outcomes. Both struggling and non-struggling readers benefited from MCSI, with some evidence that below average readers benefited more on non-standardized measures than average or above average readers. There was also evidence that students with learning or reading disabilities benefited from MCSI. RQ4: **Is there a relationship between instructional duration and effectiveness?** No strong systematic relationships were detected between instructional duration and effectiveness of treatment. There was some evidence that longer interventions were more effective for moving student achievement on non-standardized measures of comprehension, but the unique influence of duration was very small. This finding suggests that duration is not a major determinant of MCSI effectiveness, and that short term and long-term interventions can be successful if implemented well. RQ5: **How does instructional grouping affect the impact of MCSI on student achievement?** There was no evidence that MCSI was more effective when provided in small groups versus whole classes. This again indicates that strategy instruction can

be implemented effectively in classroom settings. There was some evidence that instruction was less effective in improving comprehension when students were grouped heterogeneously, although there is no explanation available for this trend. There may be some benefit to working with struggling and non-struggling readers separately; for example, it may facilitate individualization of instruction. This design element warrants additional study. RQ6: **How does student collaboration affect the impact of MCSI on student achievement?** The amount of peer collaboration was not related to comprehension achievement for the studies included in this analysis. It was, however, negatively related to student performance on measures of strategy knowledge and use. This does not necessarily mean that collaboration is a negative instructional characteristic. It may be that increased amount of collaboration limits students' time to practice strategies individually, which could hinder their performance on assessments that require students to demonstrate strategic expertise independently. RQ7: **How does emphasis on self-regulated comprehension affect the impact of MCSI on student achievement?** There was no evidence that increased emphasis on self-regulated comprehension resulted in increased treatment effectiveness. This is a disappointing finding because a major hypothesis of this review was that providing opportunities for students to monitor their comprehension and make flexible decisions for strategy use would lead to greater achievement gains. RQ8: **Is there a relationship between the number of strategies and impact?** Despite recent arguments that students might benefit more from deep proficiency with a few core strategies rather than exposure to many strategies, no systematic relationship was found between number of strategies and comprehension improvement. RQ9: **Is there evidence that some strategies have more impact than others?** Some specific strategies were identified that appear to have a positive effect on comprehension. These include analysis/reflection, graphic organizers, and previewing. Notice these are not the most commonly taught strategies; in fact, analysis/reflection is one of the least frequently taught strategies in the MCSI literature. Also notable is the tendency for studies that included all four RT strategies (summarizing, clarifying, questioning, and predicting) to have lower effect sizes compared to studies that did not use all four of these strategies. This relationship does not hold after accounting for other instructional characteristics, but still warrants

additional study. The implication for practice according to the study is that findings from teacher development research indicate that strategy instruction is difficult and precise work. Teachers who effectively implement strategy instruction have deep understandings of the pedagogy—in particular; they can successfully manage the various decision-making points that arise while planning and implementing strategy lessons. This includes making decisions about which strategies to teach to which students, how to model and explain the strategies, and how much and in what contexts students need to practice the strategies. The major implication of this meta-analysis for instructional practice is that multiple comprehension strategy instruction should be included as a key feature of middle grades literacy instruction. Even in the most rigorous studies, MCSI was found to positively impact student achievement on a variety of dimensions, including standardized measures of comprehension, which is no small feat. There is also evidence that teachers should teach students to preview texts before they begin reading, create graphic organizers as they read, and take time to analyze and reflect on their reading. While the findings do not provide clear answers for why these particular strategies are most helpful, one might speculate that graphic organizers and previewing help mitigate the demands of content-area texts older students are expected to read. They help students anticipate text content, organize their thoughts, and provide a basis for recognizing and discussing conceptual relationships presented in a text. Strategies for analysis and reflection have the potential to help students acquire new knowledge from the texts they read, an important consideration for adolescent literacy instruction.

Franco-Castillo (2013) examined the gains in reading comprehension, science achievement, and metacognitive functioning of individual second grade students interacting with instructors using dialogue journals alongside their textbook. The 38 week study consisted of two instructional phases, and three assessment points. After a period of oral metacognitive strategies, one class formed the treatment group (n=17), consisting of two teachers following the co-teaching method, and two classes formed the comparison group (n=22). The dialogue journal intervention for the treatment group embraced the transactional theory of instruction through the use of dialogic interaction between teachers and students. Students took notes on the assigned lesson after an oral discussion. Teachers responded to students' entries

with scaffolding using reading strategies (prior knowledge, skim, slow down, mental integration, and diagrams) modeled after Schraw's (1998) strategy evaluation matrix, to enhance students' comprehension. The comparison group utilized text-based, teacher-led whole group discussion. Data were collected using different measures: (a) Florida Assessments for Instruction in Reading (FAIR) Broad Diagnostic Inventory; (b) Scott Foresman end of chapter tests; (c) Meta-comprehension Strategy Index (Schmitt, 1990); and (d) researcher made metacognitive scaffolding rubric. Statistical analyses were performed using paired sample *t*-tests, regression analysis of covariance, and two way analysis of covariance. Findings from the study revealed that experimental participants performed significantly better on the linear combination of reading comprehension, science achievement, and metacognitive function, than their comparison group counterparts while controlling for pretest scores. Overall, results from the study established that teacher scaffolding using metacognitive strategies can potentially develop students' reading comprehension, science achievement, and metacognitive awareness. This suggests that early childhood students gain from the integration of reading and writing when using authentic materials (science textbooks) in science classrooms. A replication of this study with more students across more schools, and different grade levels would improve the generalizability of these results.

M.-y. Wong (2010) investigated the effectiveness of comprehension strategies instruction on developing secondary 4 students' reading abilities whether high-achieving senior secondary ESL students would benefit from the implementation of comprehension strategies on their reading comprehension achievement and metacognitive awareness. The one-group design, 34 participants (only 33 students allowed the researcher to analyze their data) were high-achieving Secondary 4 students in an EMI school, was used. The comprehension strategies instruction used involved explicit teaching of comprehension strategies through teacher's explanation, modeling and scaffolding, and providing guided practices and independent tasks for consolidation. Pre- and post-reading comprehension tests, Survey of Reading Strategies and individual interviews were used to collect quantitative and qualitative data to see whether comprehension strategies instruction assisted students in enhancing their English reading comprehension achievement, metacognitive

awareness and perceived use of reading strategies. Results indicated that students outperformed in the posttest and obtained higher means in the perceived use of global reading and problem solving strategies; but the means of support strategies were identical in both surveys. The interview data revealed students' recognition of extensive use of comprehension strategies and the realization of positive influence of the instruction on improving their metacognitive awareness. These data suggest that future research on the teaching of comprehension strategies should focus on the time for instruction, teachers' perception and arrangement of grouping.

Jafari and Shokrpour (2012) undertook to study on the reading strategies used by Iranian ESP students to comprehend authentic expository texts in English. The purpose of the study was to investigate the reading strategies of Iranian ESP students when they read authentic expository texts in English. To this end, 81 male/female university sophomore students studying environmental health, occupational health and safety, and midwifery at Shiraz University of Medical Sciences participated in the study. The Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002) was used in this study. This Survey classifies reading strategies into three categories: *global, problem solving, and support* strategies. The 30 items of the SORS survey instrument were translated into Persian in order to enable the participants to more easily understand and answer the questions. SORS uses a 5 point-Likert scale, it ranges from 1='I never do this' to 5='I always do this'. Global Reading Strategies focus on how students monitor their reading. Problem Solving Strategies cover how learners resolve reading problems. Finally, Support Strategies include possible techniques that can help readers. The reading comprehension test was the second instrument that was used in the present study. Passages and questions were chosen from an official TOEFL test (Test of English as a Foreign Language) administered in the past by Educational Testing Service (ETS). The written permission for using the passages and questions for an educational research purpose was obtained from the publisher, ETS. The reading comprehension test for this study had 4 passages, and each passage had nine multiple-choice questions. All passages were expository in nature. The findings demonstrated that the participants are moderately aware of reading strategies and the most frequently used strategies were support strategies, followed by global strategies, and then problem solving strategies. The Iranian ESP

students used the reading strategies differently according to their academic majors. Based on the findings of the study, pedagogical implications can be made. L2 teachers may include the role of all metacognitive reading strategies (e.g., global, support and problem solving strategies) in the instruction of reading sections when they teach Iranian EFL learners. As the moderate overall mean of metacognitive reading strategies in this study showed that Iranian ESP students were not using the full range of suitable reading strategies and were not aware all of them, it sounds apt that ESP instructors raise students' awareness of the wide range of reading strategies available to them. L2 reading teachers should instruct strategies explicitly that Iranian ESP students do not know, therefore, Iranian ESP students realize that using reading strategies helps them in comprehending texts and helps them in monitoring and controlling their comprehension. The minimal use of problem solving strategies as reported in this study implied that L2 reading instructors should emphasize more on problem solving strategies, such as pausing and thinking about reading, re-reading for better understanding when text becomes difficult, guessing meaning of unknown words. Teachers should also give more attention to the five least frequently used strategies reported in this study such as checking how text content fits purpose, noting text characteristics (e.g., length, organization), reading aloud when text becomes hard, etc. In sum, this research provides English teachers and curriculum planners with validated information on reading strategies currently used by Iranian ESP students. The findings allow English teachers and curriculum planners to understand which overall reading strategies are used by Iranian ESP students. It also allows English teachers and curriculum planners to think upon their current teaching approach. The instructors and planners should analyze the current curriculum and teaching practice to see its compatibility with reading strategies most preferred or utilized by learners. In addition, teachers' awareness of the needs of their Iranian ESP students is increased.

The study by May (2010) is relevant to explicit instruction of reading strategies that enable EFL learners to achieve comprehension in reading: the case of third year Lycée learners with the hypothesis that if the learners truly understand some effective reading strategies, they will be able to use them more effectively and apply them appropriately for their meaningful reading comprehension. The primary

objective of the research is to raise the awareness of reading strategies in 3rd year lycée pupils. An experimental design was conducted using a t - test as a statistical measure of the data. The participants of this study consisted of 30 third year lycée learners selected at random from different classes and was divided into three main groups ; Group1,Group2 and Group3 with 10 learners in each group randomly assigned. Group 1 participants, was assigned as the control group who received no treatment, whereas Group 2 and 3 participants, played the role of the experimental groups and received further instruction and information from the part of the instructor about the text used in the experiment and explicit instruction of "skimming" and "scanning" strategy respectively. Later, the participants in each group were tested by using a reading comprehension test with an informative / expository text followed by three multiple - choice questions using two strategies, namely skimming and scanning. It was found that the reaction time of the participants was much quicker than the one of the controls. Reading Strategies Instruction has proved to be an effective and efficient method that helps Efl learners to develop their reading comprehension if they receive it explicitly.

M.-y. Wong (2010) studied for effectiveness of comprehension strategies instruction on developing Secondary 4 students' reading abilities in 2010. The study investigated whether high-achieving senior secondary ESL students would benefit from the implementation of comprehension strategies on their reading comprehension achievement and metacognitive awareness. The one-group design, 34 participants (only 33 students allowed the researcher to analyze their data) were high-achieving Secondary 4 students in an EMI school, was used. The comprehension strategies instruction used involved explicit teaching of comprehension strategies through teacher's explanation, modeling and scaffolding, and providing guided practices and independent tasks for consolidation. Pre- and post-reading comprehension tests, Survey of Reading Strategies and individual interviews were used to collect quantitative and qualitative data to see whether comprehension strategies instruction assisted students in enhancing their English reading comprehension achievement, metacognitive awareness and perceived use of reading strategies. Results indicated that students outperformed in the posttest and obtained higher means in the perceived use of global reading and problem solving strategies;

but the means of support strategies were identical in both surveys. The interview data revealed students' recognition of extensive use of comprehension strategies and the realization of positive influence of the instruction on improving their metacognitive awareness. These data suggest that future research on the teaching of comprehension strategies should focus on the time for instruction, teachers' perception and arrangement of grouping. In conclusion, the reflections on the first case of this study are, first, the reading strategy instruction did help the struggling reader Wang to use reading strategies better; however, the short period of reading strategies training (i.e., three weeks instruction) was not long enough to offer the student much input and help him internalize the strategy use. For teaching implications, a prolonged, regular, and constant reading strategy instruction will be needed; comprehension strategy instruction requires a long-term engagement from both teachers and students. For the consideration of long-term strategy use, it is also necessary to investigate the delayed recall of strategy use of the subject. Second, this study also suggests the importance of an effective reading strategy instruction, that is, the tenets of Roehler and Duffy's (1984) Transactional Strategies Instruction (TSI) need to be promoted in classrooms (Grabe & Stolles, 2001; Pressley, 2002): teachers need to coach students to use strategies as needed. Mini-lessons can sometimes be given where teachers teach when and where it is appropriate to use certain strategies, how and why these strategies are used. Students should be reminded of and discuss frequently the proper use of strategies. Comprehension strategy instruction must include applying the reading strategies to multiple texts and different content subjects. Third, although the increasing strategy use after the strategy instruction suggests that Wang was trying hard to comprehend; it is obvious that he reported few metacognitive strategies no matter in pre- or post-reading comprehension test. Metacognitive strategies involve thinking, planning and monitoring one's own learning process, and it has been considered as a kind of strategy often utilized by advanced learners during reading. A number of studies on strategies suggest that meta-congivtive strategies can help poor learners' reading comprehension (Wong, 1987). Therefore, the suggestion is to explore how to help poor learners like Wang use more metacognitive strategies to comprehend the English texts. For the second case, drawing on findings and discussions of this study, there are some implications for teaching reading strategies

to EFL students at high-intermediate English proficiency level like Ling. First, teachers should select reading materials that contain information gap in order to motivate students to utilize more reading strategies when interacting with texts. In addition, teachers can choose reading materials that are slightly above the students' current English proficiency level as Krashen's (1982) term "i + 1," so as to stimulate students to adopt more reading strategies to deal with challenging English texts. Third, students like Ling are often unconscious about how they would actually utilize reading strategies. It is the teachers' responsibility to make students "visualize" the process of their own thinking while reading English texts by adopting think-aloud activities. Teacher's demonstrations of think-aloud while reading can assist students in better understanding how to use reading strategies. Lastly, this study suggests that some research-based principles and guidelines regarding effective teaching methods of strategies need to be provided for improving students' reading comprehension students should be encouraged to coordinate and synthesize the use of various strategies; good reading comprehension instruction should involve appropriate teaching materials such as various types of texts, genres (e.g., narrative, expository, poetic), and school subjects (e.g., social studies, science, literature).

8.3 Related research on Collaborative Strategic Reading

Septiani Fitri (2010) investigated the effectiveness of Collaborative Strategic Reading (CSR) towards the students' reading comprehension achievement by using quasi experimental research design with 56 intact students of PGSD Suryalaya, West Java, Indonesia. The result showed that mean scores between CSR and conventional reading activities are significantly different. It means that the CSR is effective to increase students' reading comprehension achievement.

Fan (2010) conducted a research on 110 Taiwanese students from two intact classes. The purpose of the research is to investigate the impact of CSR towards EFL Taiwanese students' reading comprehension. Mixed method is used as a research design. The questionnaire and standardized reading pre-test, posttest and interviews were used to gather the data. The research findings showed that the statistical results confirm CSR is more effective than the traditional teacher-led reading approach which focuses on vocabulary and grammar teaching in improving the students' reading comprehension scores. The findings indicated that CSR had a positive effect

on the Taiwanese university learners' reading comprehension particularly in relation to the comprehension questions on getting the main idea and finding the supporting details. Moreover, a detailed analysis of qualitative data suggested that the learners with relatively homogenous English ability provided collaborative scaffolding for text comprehension through co-construction, elaboration, and appeal for assistance, corrective feedback and prompts.

The study conducted by Dharmayanti, Tantra, and Artini (2013) focused on investigating the main effect of MCSR (Modified Collaborative Strategic Reading) on second semester students' reading competency and the differential affect of MCSR between the students with good vocabulary mastery and with poor vocabulary mastery on students' reading competency in English Education Study Program (EESP) of Unmas Denpasar. The study was started in the middle of March 2013 and lasted to the middle of April 2013. The research sample was taken from the second semester students in the academic year 2012/2013 by employing cluster random sampling. Posttest only control - group design with 2x2factorial was used in this research. Achievement test was used as an instrument for collecting data. Achievement test of vocabulary mastery was used to determine samples into good or poor vocabulary mastery before treatment was conducted. Achievement test of reading competency was used to determine students' reading competency. This test was administered for both experimental and control group after treatments were conducted. The test type used in this research was the form of multiple-choice items. Teaching scenario and teaching handout were used as treatment instruments. The attained data were analyzed through two steps: descriptive statistical analysis and inferential statistical analysis. The descriptive statistics were used in term of central tendency and spread of dispersion by two-way Anova followed by Tukey test, while the inferential analyses were conducted in the purpose of hypotheses testing. Prior to hypothesis testing, prerequisite tests (normality and homogeneity) were done. The findings show that the students taught using MCSR achieved better reading competency than those who were taught using conventional teaching. Furthermore, there is an interactional effect between teaching strategies and vocabulary mastery on students' reading competency. The students with good vocabulary mastery improved their reading competency when being taught using MCSR rather than using

conventional teaching. On the other hand, there is no difference in reading competency between the students who have poor vocabulary mastery taught with MCSR and with conventional study. It can be concluded that this study provides an empirical evidence of the importance of the teaching strategy considering vocabulary mastery in English reading instructions.

According to the study of El Zein (2014) to investigate the effects of implementing Collaborative Strategic Reading–High School (CSR–HS) on reading comprehension and challenging behavior outcomes for three high school students with Autism Spectrum Disorder (ASD), the research was conducted by using a combined single subject research design consisting of a delayed, concurrent multiple-baseline and an alternating treatments with reversal. Three high school students with ASD were paired with neurotypical reading partners to learn and use reading strategies with informational text two to three times per week. The alternating treatment conditions were CSR-HS with choice of text (i.e., CSR-HS-C) and CSR-HS without the opportunity to choose the reading text (i.e., CSR-HS-NC). Daily comprehension checks were collected and visually inspected along with data on occurrences of various challenging behaviors exhibited by each participant during intervention. Fidelity of implementation was also measured. Increased reading comprehension scores and decreased incidences of challenging behaviors were detected for the three participants upon implementation of intervention conditions. As for the influence of the choice component on the measured outcomes, no clear differentiation between conditions was observed in terms of reading comprehension gains and reduction in challenging behavior across the three participants, suggesting that the addition of choice did not show an added value to CSR-HS intervention. The study also shows that multi-component interventions have been proven effective with struggling readers who do not have an ASD may be modified to fit the needs of individual students on the spectrum and produce desirable outcomes.

8.4 Related research on Creative Thinking

A review of the pedagogical literature reveals that a growing number of studies focus on higher order thinking, on what higher order thinking skills can and should be taught, and on the most effective and appropriate framework for fostering it. It is believed that the successful incorporation of these skills in the teaching of

English as a second or foreign language have a central role. Previous studies found a correlation between instructions of creative thinking strategies to creative thinking ability as shown by the following.

Ku, Chi-Hui Kac, Wang, Hsieh, and Chen (2002) conducted a research on the title of "The Effectiveness of Creative Teaching Strategies in the Teaching Protocol of Nursing Concepts to RN-BSN Students' Creative Thinking". This study has applied the definition of fluency, flexibility, and originality from the Torrance's (1974) and transformed them into the nursing. According to Torrance (1974), fluency is the total number of responses students report, flexibility is the number of different categories of responses students report. Originality is defined as the numbers of responses that occurred with a frequency of 5% or more among the total responses in the data set were scored 0 for originality; those with a frequency of 2% to 4.99% were scored 1, and those with a frequency less than 2% were scored 2. Also, Chen (1990)'s ATDE model was used in this study to cultivate RN-BSN students' creativity. Based on the Guilford's SI model, Chen during 1990s developed an ATDE (asking, thinking, doing, evaluation) model to cultivate the divergent thinking of students. For asking, ten methods of asking questions using "If", "List", "Besides", "Compare", "Similar", "Replace", "Imagine", "Possible", "Constitute", "6W" can inspire students to think divergently. For thinking, teachers must allow students to think at least three seconds for answers. For doing, teachers can choose a guide to direct group discussion consisting of 5-10 students through brainstorming. For evaluation, teachers should encourage students to do self-evaluation by following two principles, "critique slowly" and "accept more". 52 second year and 69 third year RN-BSN students of a southern University who had registered nursing licenses and worked for at least one year in a clinical setting were invited to participate in this study through purposive sampling. The instrument "Creativity in the application of the Nursing Process Tool (CNPT)" integrating the nursing process designed by Emerson (1988) was used in this study. Chinese-version CNPT includes seven major questions within 20 open-ended questions. Both groups of RN-BSN students were measured by their fluency, flexibility, and originality before the first semester and the end of each semester from March, 1999 to May, 2001. Two researchers coded the data by following the coding guides. The results indicate that the fluency and flexibility of both groups have

declined after the first semester; however, the improvement of fluency and flexibility started from the second semester and continue to become significant after the third semester. The cultivation of RN-BSN students' creativity does take time.

Senra and Fogler (2014) worked on a research with the title "Teaching Creative Thinking and Transitioning Students to the Workplace in an Academic Setting". To help the students define the real problem, a number of techniques were presented and used. The first steps in understanding and defining the real problem are involved in obtaining information and are 1) Collect and analyze the appropriate data, 2) Talk with people who are familiar with the problem, 3) View the problem first-hand (if possible) and, 4) Confirm all findings and continue to gather information. Once the information has been gathered, an initial problem can be developed and then refined using a number of techniques 1) Critical thinking, 2) Socratic Questioning, 3) The Duncker diagram, 4) The statement-restatement technique and, 5) Kepner-Tregoe (K-T) problem analysis. Once the actual problems have been identified and many solutions for each problem have been developed, the next step is to determine which problems are most important and which solution is most viable. The students are introduced to the work of Kepner and Tregoe, who developed a systematic approach in assessing the most immediate or pressing problems and the most viable solutions. The four components of Kepner-Tregoe are 1) Situation Appraisal, 2) Problem Analysis, 3) Decision Analysis and, 4) Potential Problem Analysis. For the scope of the work completed in the class, the evaluation step is utilized as a means to ensure that the group's proposed solutions made sense. The three major issues to assess in the evaluation stage are whether the solution (1) solves the problem completely, (2) prepares a path forward, (3) is safe and (4) is ethical. For the problems the students analyzed, safety and ethics were generally not of great significance for the solutions they provided. However, it is important to make students aware of these issues when analyzing situations, particularly engineering ethics, a topic generally not discussed in great detail in the chemical engineering curriculum. The course has evolved in part based on input provided by the students at the end of the semester. Overall, the course had become such a very valued and popular course that there is a significant wait-list for the course in the Fall 2013 semester. The end of the course survey (independent of the University of Michigan course evaluations) consists of two parts: (1) four

questions asking for their general thoughts on what they liked and disliked in the course, advice for future classes and the most important things the students learned in the course and (2) four questions asking for what they learned in the areas of problem solving, completing their project, teamwork and communication. Anecdotally, the response from students and industry has been quite positive. Former students have returned to campus and have noted that the course was extremely beneficial in job interviews and was a particular elective that students should take. Managers from the local businesses involved with the course have been impressed with the quality of the work of the students and have taken some of their ideas into account when making improvements to their place of work. One of the client managers wrote an unsolicited letter to the Dean of Engineering saying how valuable she thought the course was.

de Acedo Lizarraga, de Acedo Baquedano, and Rufo (2010) conducted the research under the title of "Effects of an Instruction Method in Thinking Skills with Students from Compulsory Secondary Education " with the purpose to assess the effects caused by the instruction method "Think actively in academic contexts, TAAC", an adaptation of Wallace and Adams' (1993) method of thinking skills, creativity, self-regulation, and academic learning, with students from the second grade of Compulsory Secondary Education (CSE). A pretest-intervention-posttest design with control group was used. The sample was made up of 110 participants, aged between 13 and 15 years, 58 of them in the experimental group and 52 in the control group. Six assessment instruments were administered before and after applying the method in order to measure the dependent variables. The method, divided into eight stages, was used in all the didactic units of the syllabus content of Natural Sciences, Social Sciences, and Language, during one academic course, and allowed the conjoint teaching of thinking skills and the syllabus content. The results of the analyses of variance indicate positive impact of the intervention, as the experimental subjects improved significantly in thinking skills and academic achievement. Some interesting reflections for research and education are derived from this study. This study has shown that the method "Think actively in academic contexts" stimulates cognitive functioning, verbal reasoning, abstract reasoning, inductive and deductive reasoning, creativity, self-regulation, and academic achievement in second-grade students of CSE. In general, the data could indicate that thinking skills, creativity, and

self-regulation are not learned unless the school emphasizes their importance, teaches them explicitly, and uses them continuously, and unless content is not considered an end in itself but a vehicle that activates and engages the inquiring mind. Summing up, it is evident that thinking skills can notably enrich the quality of the results of the educational system; therefore, researchers should continue to work to make the stimulation of such skills a common educational goal in schools. This investigation contributed a new style of teaching and learning that seems effective in CSE, where an absence of this kind of initiative in the educational method is observed.

Anwar, Shamim-ur-Rasool, and Haq (2012) examined "A Comparison of Creative Thinking Abilities of High and Low Achievers Secondary School Students" to compare the differences in creative thinking abilities between students with high and low levels of academic achievements. A total number of 208 secondary school students participated in this study. Two groups were formulated, namely high achievers (n=104) and low achievers (n=104). Analysis of data was done using t-test for independent sample to estimate the comparison at 0.05 levels. A self-developed instrument was used to measure the creative thinking potential. Results of the study revealed that there was no difference between high achievers and low achievers in terms of creative thinking abilities. Creativity has been shown to be distinct from intelligence. Children scoring high on intelligence tests are not necessarily highly creative. This research provides empirical evidence that creative thinking abilities are independent from the level of achievement either achievement was high or low. Significant gender and residential differences were found. Both girls, high achievers and low achievers, were found more creative than boys. Students either high achievers or low achievers belonging to urban areas were better in creative thinking than students residing in rural areas. Findings clearly support the importance of instruction in creative thinking skills to increase the probability of academic success for all students, especially those having low grades or I-Q level. The study revealed important results to educators, program designers, evaluators, and counselors who are aiming and targeting the preparation of students.

Seechaliao Seechaliao, Natakuatoong, and Wannasuphoprasit (2012) investigated the instructional design and development systematic activities to develop creative thinking skills of undergraduate engineering students. The research

methodology uses research and development approach consisted of two phases as follows: Phase 1: present instructional design and development activities to develop creative thinking skills of undergraduate engineering students. The participants were made up of 4 engineering instructors who were from 3 different departments in the Faculty of Engineering, Chulalongkorn University. Research instrument: The research instruments were the instructional design and development activities to develop creative thinking skills of undergraduate engineering students. The step-by-step activities consisted of 9 steps as follows: 1) Set engineering contents for developing creative thinking skills;2) Set behavioral learning objectives to develop creative thinking skills; 3) Select and set instructional strategies for developing creative thinking skills; 4) Specify engineering instructor and student roles for developing creative thinking skills; 5) Specify and design activities for developing creative thinking skills; 6) Specify time duration for developing creative thinking skills; 7) Select classroom and web media for developing creative thinking skills; 8) Specify learning environment that supports the development of creative thinking skills; and 9) Specify tools for evaluating creative thinking skills. The data of the questionnaire in check list form were scored by asking experts' opinions and were analyzed by using arithmetic mean. The data of the questionnaire, the evaluation in open-ended form and the individual interviews were analyzed by using descriptive analysis. The results of the first step showed that the instructional model which was designed by the instructional design and development activities consisted of 4 subjects. The 4 instructional models were different based on each subject characteristic. In the second phase, the designed instructional model was evaluated. The participants who evaluated the instructional model according to the evaluation form consisted of 6 experts in instructional design and engineering instruction. Data were collected and analyzed by using arithmetic mean and descriptive analysis. The findings of this research were the presentation of the instructional design and development activities that consisted of two parts, namely: Part 1: Presentation of instructional design and development activities to develop creative thinking skills of undergraduate engineering students; Engineering instructors who designed their instruction according to the instructional design and development activities could improve their instructional design skills in a high level, Part 2: Evaluation of the instructional model

to develop creative thinking skills of undergraduate engineering students; Experts reviewed and evaluated the instructional model according to the questionnaires concerning the evaluation of the overall instructional model. All experts agreed that this instructional model was appropriate in a good level (for three out of four subjects) and an excellent level (for one of the four subjects). It showed that the instructional design and development activities are an efficient practice of instructional design and development to develop undergraduate engineering students' creative thinking skills. It could help engineering instructors design their instructional model easier and help engineering instructors to design and develop a more efficient instructional model.

Buser, Buser, Gladding, and Wilkerson (2011) examined the experiences of counseling students in learning and applying the SCAMPER model for creative thinking. Counseling students from three universities (N = 54) participated in a training intervention on the SCAMPER model. To explore students' experiences in learning and applying the SCAMPER model, an 8-week training intervention in the SCAMPER model was designed. The first week included an in-class lecture and large group discussion led by the course professor. The remaining 7 weeks were composed of task group sessions, which employed the SCAMPER model in completing a task. Each task group of four to five met for 7 weeks and for approximately 20 to 30 minutes per session. Participants rotated being the leader of this task group, such that every student led the task group at least one time. Following each task group session, participants returned to the large group and engaged in a 10 to 15 minute large group discussion facilitated by the course professors. In the large group, participants discussed their experience in the task group and the application of the SCAMPER model. Participants' journals, which were completed after each group meeting, were analyzed using qualitative methods. Three themes emerged: a) SCAMPER model as a method to "stretch our thinking"; b) value of "structured creativity"; and c) shifting from "right or wrong" application to flexibility and "flow." It is claimed by its study findings that the SCAMPER model may be one way of stimulating creative thought patterns among counseling students.

Toraman and Altun (2013) reported a study with the aims at revealing the efficiency of the application of the instructional design prepared via the Six Thinking Hats and SCAMPER techniques. The question "How do 7th grade students

associate the course unit Human and Environment which is taught via the Six Thinking Hats and SCAMPER techniques?" constitutes the problem of the study. The case study method, which is a method of qualitative research, was used in the second semester of the academic year 2012-2013. The study group consists of 20 students in total, including 10 girls and 10 boys studying at the 7th grade at a full time secondary school in Beykoz district of Istanbul province. The primary source of data in the study included observation, open-ended question form and document while interviews were employed as the secondary source of data. The data acquired upon the study were analyzed through content analysis. This study provides awareness to the students with the instructional design prepared via The Six Thinking Hats and SCAMPER techniques. As a result of the study shows that students were seen to have performed improvement in comparing ecosystems in terms of diversity of living creatures and climatic features. It was revealed that majority of the students have a negative/ pessimistic approach regarding the world and the environment in future both before and after the application; and they possessed the main point of view that the "world will be a dirty place" in future. It was found out that the students who actively implemented the activity of achieving and sharing the knowledge made a progress in their skills to share their opinions through group works, to discuss, to make presentations, to defend their opinions, to express their ideas, to respect their friends' opinions and to ask questions. This research claims that both techniques provided students with these skills through different ways. The students with interest in studying reported that their sensitivity increased and their points of view changed, thus the research further claims that contribution was also made to affective development of the students.

Wood and Bilsborow (2014) reported findings from an investigation on facilitating creativity in the undergraduate curriculum through a design-based research approach. Based on the notion that creativity is the process of creating novel and useful ideas or products and that although creativity can be learned and assessed, the learning environment will either facilitate or impede the achievement of creative performance. A CPS framework needs to be able to be adapted to suit the domain and field of study, while also accommodating individual student needs by taking into consideration their abilities and preferred learning styles. The study aimed to address

the three major challenges affecting the capacity of teachers to incorporate creative problem solving approaches into their teaching and learning. These three challenges include the lack of an appropriate model to support them in making the required shift from outmoded pedagogical methodologies to more creative approaches; the lack of a concise definition of creativity within policy documentation; and the lack of strategies to help teachers develop the skills to engage with creativity in their teaching and learning. The study involved developing a CPS framework and associated tools designed to scaffold students through the creative problem solving process and guide teachers in the design and redevelopment of the curriculum. Each stage in the CPS framework incorporates a list of techniques designed to assist students in generating ideas, classified according to whether the techniques involve visioning, modifying, exploring, or experimenting. The DBR approach applied in the project ensured that the development of the CPS tools was responsive to student and teacher feedback through multiple iterations involving design, development, trials, evaluation, collaboration, reflection and revision. The focus of this work has been on the application of DBR to the design and development of a CPS framework and tool to support students. Of the three trials, positive feedbacks from students have stably increased; their awareness of creative problem solving had been improved through using the tool and the course encouraged students to explore creativity in ways that they had not experienced in courses with more traditional assignments. The guidelines arising from this study are; **Planning to teach creative problem solving;** The approach highlights the benefits of engaging students in activities in which they learn by design recognizing that graduates need skills that enable them to respond to complexity and uncertainty in the workplace, and that skills require a level of tacit knowing and confidence that cannot be acquired from reading through the process alone**, Teaching creative problem solving;** the importance of teaching the value of creativity, valuing exploration and mistakes, building on students' interests, enhancing opportunities for student collaboration, and embedding reflective practice in the curriculum **and Assessing creativity**; alternative assessment approaches such as self- and peer-assessment are well suited as they encourage reflection and collaboration. Another important feature of assessing creativity is to focus on the process, rather than the end product.

Summary

In conclusion, in this chapter the theoretical framework (Communicative Language Teaching, Task-based Approach, Reading Comprehension Strategies Instruction, Multiple reading Strategies Instruction, Collaborative Strategic Reading, Creative Thinking and SCAMPER Technique in which this study is situated was described together with other related theories. Both the perceptual and methodological issues in language learning strategies were discussed, previous studies on TBL, MCSI and CSR were reviewed, differences between skilled and less skilled readers were explored, and factors that may affect reading strategy instruction were discussed and the strategies that were included in the current study were identified.

The following table depicts the synthesis of Task Based Approach, Collaborative Strategic Reading and SCAMPER Techniques to form the CRTE Model.

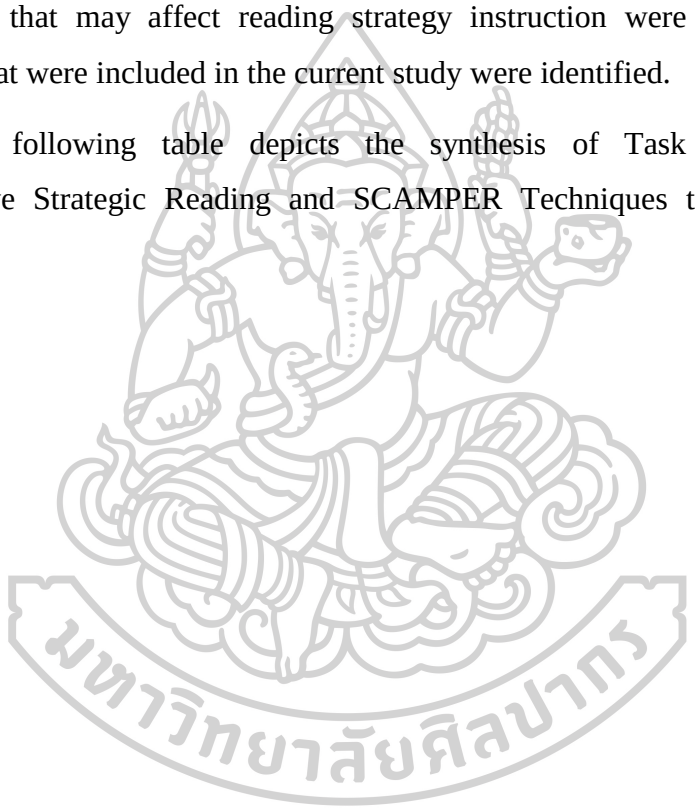


Table 7 The synthesis of CRTE Model

Synthesis of CRTE Model

Task Based Approach	Collaborative Strategic Reading	SCAMPER Techniques	The CRTE Model
1)Pre-task; to present and demonstrate the task (reading and using reading and creative thinking strategies), prepare students for the assigned roles in mixed ability groups and implement them before-reading strategy (Preview Strategy). 2.During – task; the teacher provides guided practice and develop reading and creative thinking strategies through having	The Collaborative Strategic Reading Framework used in this study is composed of 4 stages; **Step1 Before reading** (1) The teacher gives input about the strategies (CSR; Preview, Click and Clunk, Get the gist and Wrap up); what it means, when and how to use it, the benefits of the strategies. (2) The teacher models and teaches strategies (CSR; Preview, Click and Clunk, Get the gist and Wrap up); the teacher presents the strategies to the whole class using modeling and teacher think-alouds. (3) The teacher forms mixed ability groups; each member is assigned a role to accomplish the tasks. The teacher may model how each role can be performed for the defined duty in a group by selecting 4- 6 students for the	**Thinking for Creative solution** 1. The teacher gives input and models the SCAMPER Techniques to students in before task/ reading phase. 2. Have students discuss positive or negative sides of notions from the text in their group woks. 3. Students brainstorm using SCAMPER techniques to bring about a creative/ innovative solution based on the reading text. 4. Students are assigned tasks to write sentences or a short passage to describe changes made to the proposed solution. 5. Each group presents the solution to the class.	Step1 (Pre-task) **Conceptualizing** 1.1 Setting a purpose 1.2 Model and teach strategies (CSR; Preview, Click and Clunk, Get the gist and Wrap up and SCAMPER techniques) 1.3 Form mixed ability groups with assigned role for each member 1.4 Implement the **Preview Strategy** Step2 (Task Cycle) **Reacting** Guided practice and develop reading and thinking strategies through; 2.1 Do reading tasks using **Click and Clunk Strategy** 2.2 Identify the clunks and Fix-Up strategies to be used to clarify the problems

Table 7: The synthesis of CRTE Model (continued)

Synthesis of CRTE Model			
Task Based Approach	Collaborative Strategic Reading	SCAMPER Techniques	The CRTE Model
students do reading tasks applying Click and Clunk Strategy and Get the Gist Strategy and write in their own words for the Gist. 3. Post-task; 3.1 students implement Wrap Up Strategy to generate questions from the text, review what they learned and then write down in the learning logs and share with the class. 3.2 to encourage students to think for creative solutions the teacher and students discuss positive and	demonstration group in the first session. (4)Students implement the **Preview Strategy**; (a) brainstorming; discuss what have already learned /known, and (b) predicting; find clues in the title, subheadings, pictures etc. and predict what will be learned. **Step2 During reading** Guided practice and develop reading and thinking strategies through; (1) Do reading tasks in groups using **Click and Clunk Strategy**. The teacherdemonstrates the difference between a click and a clunk and has students report any clunks they may have encountered. (2) Identify the clunks and Fix-Up strategies to be used to clarify the problems. (3) Implement **Get the gist Strategy** to identify the most important idea (gist) in the reading text just read.	6. In the evaluation phase, let student to reflect the strategy use; summarizing the strategies used in group works and then the teacher reflects for improvement 7. Evaluation is conducted for the solutions/ products/outcomes by (1) peers, (2) the teacher, and (3) self - assessment	2.3 Implement **Get the gist Strategy** to identify the most important idea (gist) in the reading text 2.4 Tell in own words the gist (The most important idea about the person, place or thing, leaving out details) Step3 (Post task) **Analyzing** Implement **Wrap Up Strategy** through; 3.1 Generate and answer questions from the text 3.2 Review what was learned, write down in the learning logs and share with the class Step4 (Post task) **Thinking for Creative solution** 4.1 discuss positive

Table 7: The synthesis of CRTE Model (continued)

Synthesis of CRTE Model			
Task Based Approach	Collaborative Strategic Reading	SCAMPER Techniques	The CRTE Model
negative sides of notions from the texts. Students brainstorm using SCAMPER Techniques to generate creative /innovative solutions based on the reading text. The groups summarize or write sentences or a short passage to describe changes made to the proposed solutions and present to the class. Evaluation; 4.1 have students reflect their strategies use	(4) Tell in own words the gist (The most important idea about the person, place or thing, leaving out details)**Step3 After reading** Implement **Wrap Up Strategy** through; (1) Generate and answer questions from the text; use WH questions to formulate questions relating to the reading text and write down in students' learning logs. Other students should try to answer the questions. If a question cannot be answered, that might mean it is not a good question and needs to be clarified. Students are encouraged to use higher order thinking questions rather than simple literal questions. (2) Review what was learned; students write down the most important idea they learned in their learning logs, then take turns sharing with the whole class, discussing what they consider to be their best ideas. **Step4 Evaluation** (1) Reflecting strategy use; summarize the strategies used in group works and the teacher reflects for improvement.		or negative sides of notions from the text 4.2 Brainstorm using SCAMPER techniques to bring about a creative/ innovative solution based on the reading text 4.3 Write sentences or a short passage to describe changes made to the proposed solution 4.4 Present the solution to the class<u>Step5</u> **Evaluation** 5.1 Reflecting

Table 7: The synthesis of CRTE Model (continued)

Synthesis of CRTE Model

Collaborative Strategic Reading	Collaborative Strategic Reading	Collaborative Strategic Reading	
and the teacher reflect for improvement. 4.2 the solution/products/outcomes of students are evaluated or scored by (1) peers, (2) the teacher, and (3) self-assessment.	(2) Evaluating /scoring products/outcomes by peers, the teacher, and self -assessment		strategy use; summarize the strategies used in group works and the teacher reflects for improvement 5.2 Evaluating products/outcomes by (1) peers, (2) the teacher, and (3) self -assessment

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this chapter is to describe how the study is carried out. It explains the research methodology, which consists of research populations and samples, research design, research instruments, construction and effectiveness of research instruments, research procedure, and data analysis of the study.

This study is a Research and Development conducted with a Mixed Method Approach; integrating data collection through the quantitative methods and qualitative methods with the Embedded Design and Triangulation Approach. The main objective of this research is to develop a reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College. The procedures are shown as follows;

Phase 1: Research 1: R1 The analysis phase includes exploring needs and background information concerning state and problems of English teaching and learning behaviors of students as well as other fundamental information needed for the construction and development of the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College.

Phase 2: Develop 1: D1 Design and develop the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College based on the fundamental information analyzed in phase1, the model instrument composing of lesson plan, exercises, teacher manual and assessment instruments.

Phase 3: Research 2: R2 Conduct the research on reading instructional model through Task Based Approach Integrating with Collaborative Strategic Reading

(CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College.

Phase 4: Develop 2: D2 Evaluate and verify the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College.

The research framework of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students at Rayong Technical College is depicted in the following figure:

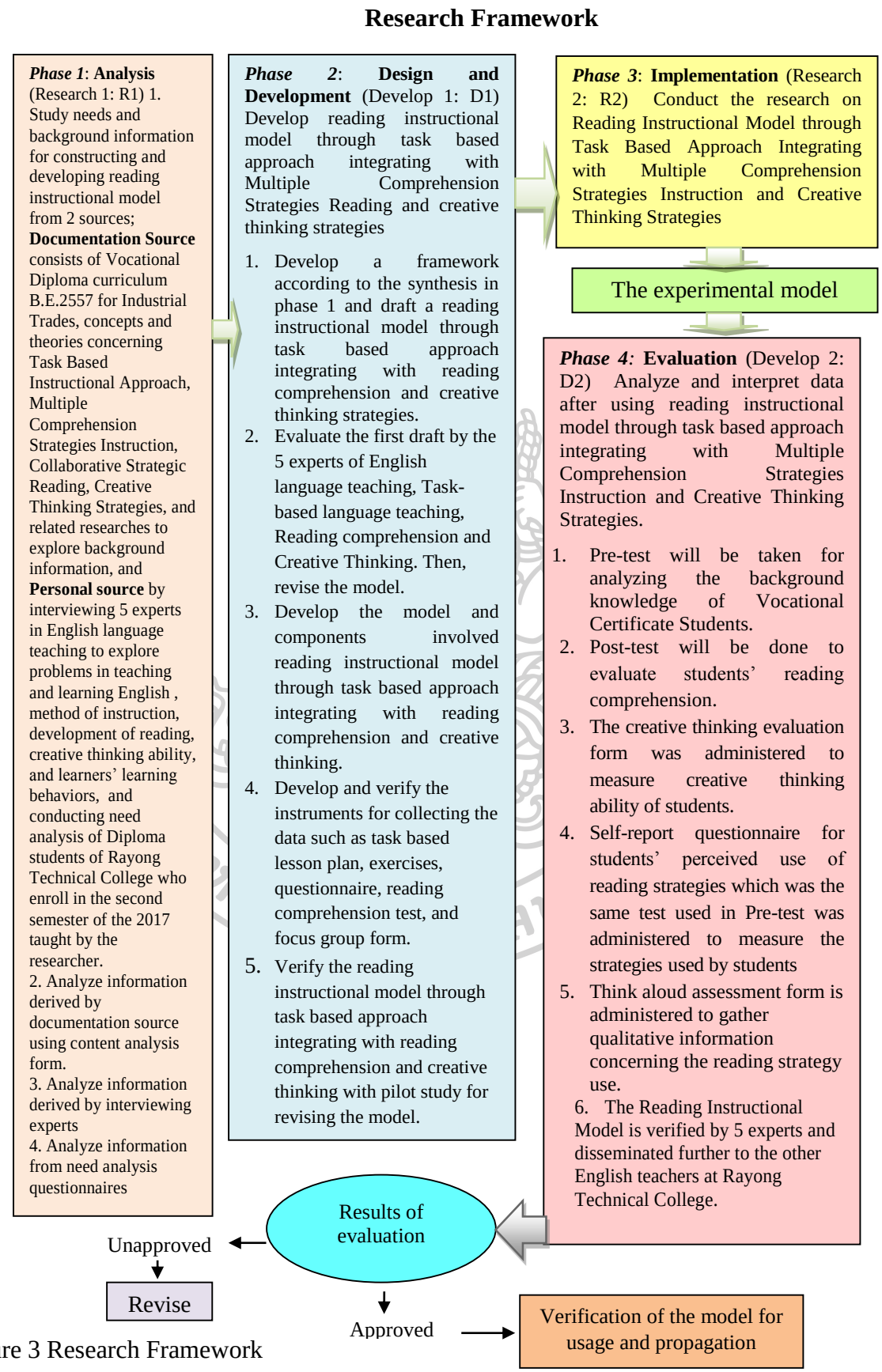


Figure 3 Research Framework

The above figure depicts the research procedures of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students at Rayong Technical College. The methodology of each phase can be described as follows;

Phase 1: Research 1: R1 (Analysis)

Explore principles, theories and researches concerning the development of reading comprehension and creative thinking, Task Based Approach, multiple strategy instruction, Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students as well as opinions of experts in English language teaching and conduct needs analysis for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

Objective

To explore background information and to conduct needs analysis for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College.

Sources of information

Documentation Source

The documentation source consists of Vocational Diploma Curriculum B.E.2557 for Commercial Trade, concepts and theories concerning Task Based Instructional Approach, Multiple Comprehension Strategies Instruction, Collaborative Strategic Reading, Creative Thinking Strategies, and related researches.

Personal source

Collect data by interviewing 5 experts in English language teaching to explore problems in teaching and learning English and conducting needs analysis of 82 Diploma students of Rayong Technical College who enroll in the second semester of the 2016 taught by the researcher.

Construction and development of the research instruments

1. Content analysis form to explore and synthesize principles, theories and related on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students. The literature about task-based approach, multiple strategy instruction, and creative thinking instructional model is reviewed to obtain the basic concepts for the present study. The content analysis form is constructed by the following process:

1.1 Review literatures on construction of content analysis form

1.2 Construct a documentary analysis form with aspects of content analysis

1.3 Verify the documentary analysis form by the advisor for validity and appropriateness before improvement.

1.4 Verify the improved documentary analysis form by 5 experts, constituting of 3 English teachers, 1 experts on research and evaluation, and 1 experts on curriculum and instruction, who are asked to validate its content validity using Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used by experts to verify the content analysis form are as follows (Nilapun & 2012);

Rated 5 scores	means	the highest congruence
Rated 4 scores	means	high congruence
Rated 3 scores	means	moderate congruence
Rated 2 scores	means	low congruence
Rated 1 scores	means	the lowest congruence

The interpretation of mean for content validity of the content analysis form bases on the following criteria (Nilapun, 2012:179);

The mean between 4.50– 5.00	means	the highest congruence
The mean between 3.50– 4.49	means	high congruence
The mean between 2.50– 3.49	means	moderate congruence
The mean between 1.50– 2.49	means	low congruence
The mean between 1.00–1.49	means	the lowest congruence

The valid congruence of each item shall have mean ($\bar{X}$) score up to 3.50 or more and Standard Deviation (S.D.) less than 1.00 (Nilapun, 2012:179). The result of congruence verified by experts was $\bar{X}$ = 5, S.D. = 0.00, which was valid.

1.5 Revise the content analysis form according to recommendations provided by experts for appropriateness.

2. Structured interview form with open-end questions for experts who are English teachers in Vocational Education context. The points of interview concerns problems in teaching English, opinions on method of instruction, development of reading and creative thinking ability, and learners' learning behaviors. The construction and development of the structured interview form is as follows;

2.1 Set the qualifications of interviewees, namely gender, academic standing, teaching experience, and educational degree.

2.2 Draft the structured interview form with open-end questions that cover all research objectives.

2.3 Verify the structured interview form by the advisor for validity and appropriateness before improvement.

2.4 Verify the structured interview form by 5 experts, constituting of 3 English teachers, 1 expert on research and evaluation, and 1 expert on curriculum and instruction, who are asked to validate its content validity using Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used by experts to verify the content validity and the interpretation of mean scores from the structured interview form are the same patterns as used for the content analysis form. The criteria used by experts are as follows (Nilapun, 2012:179);

Rated 5 scores	means	the highest congruence
Rated 4 scores	means	high congruence
Rated 3 scores	means	moderate congruence
Rated 2 scores	means	low congruence
Rated 1 scores	means	the lowest congruence

The interpretation of mean for content validity of the structured interview form bases on the following criteria (Nilapun, 2012:179);

The mean between 4.50– 5.00	means	the highest congruence
The mean between 3.50– 4.49	means	high congruence

The mean between 2.50– 3.49	means	moderate congruence
The mean between 1.50– 2.49	means	low congruence
The mean between 1.00–1.49	means	the lowest congruence.

The result of congruence verified by experts was $\bar{X}$ = 5, S.D. = 0.00, which was valid.

2.5 Revise the structured interview form according to recommendations provided by experts for appropriateness.

3. Needs analysis questionnaire is designed with both closed end questions in 5 rating scale and with open ended questions. It is divided into 3 parts: 1) background information, 2) language content needs, language function needs and appropriate learning activities and 3) open-ended comments. The questionnaire construction is conducted through the following process:

3.1 Develop needs analysis questionnaire and opinion on English language learning. It's derived from different theoretical ideas and suggestions of related research studies. The questionnaire consists of three parts as follows:

Part 1: the background information of the participants.

Part 2: the needs analysis on English language learning included with English language learning needs, behaviors, and kinds of interested topics.

Part 3: the open-ended question on kinds of interested activities and topics.

3.2 Verify the questionnaire by the advisor. To ensure the effectiveness and the clarity of the questionnaire, 5 experts are asked to validate its content validity using Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used by experts to verify the needs analysis questionnaire are as follows (Nilpan, 2012:179);

Rated 5 scores	means	the highest congruence
Rated 4 scores	means	high congruence
Rated 3 scores	means	moderate congruence
Rated 2 scores	means	low congruence
Rated 1 scores	means	the lowest congruence

The interpretation of mean for content validity of the needs analysis questionnaire bases on the following criteria (Nilapun, 2012:179);

The mean between 4.50– 5.00	means	the highest congruence
The mean between 3.50– 4.49	means	high congruence
The mean between 2.50– 3.49	means	moderate congruence
The mean between 1.50– 2.49	means	low congruence
The mean between 1.00–1.49	means	the lowest congruence

The valid congruence of each item shall have mean ($\bar{X}$) score up to 3.50 or more and Standard Deviation (S.D.) less than 1.00 (Nilapun, 2012:179). The result of congruence verified by experts was $\bar{X}$ = 4.79, S.D. = 0.41, which was valid.

3.3 Revise the structured interview according to recommendations provided by experts for appropriateness and try out with diploma students who are not samples of this research to verify the reliability.

3.4 Verify the reliability of the questionnaire using Cronbach's Alpha Coefficient (Niapun, 2012:180). Its reliability coefficient value was 0.96, thus reaching the prescribed criteria of 0.70.

3.5 Use the revised questionnaire to collect data from samples.

Data collection

1. Content analysis of related theories, principles, policies as well as related researches. The procedures are as follows:

1.1 Analyze Vocational Diploma Curriculum (2014) of the Office of Vocational Education Commission and the course of English reading and writing strategies for vocational diploma students.

1.2 Synthesize theories, principles, and related researches of task-based activities in English language learning and teaching.

1.3 Synthesize theories, principle, and related researches of reading comprehension and multiple reading strategies.

1.4 Synthesize theories, principle, and related researches of Collaborative Strategic Reading (CSR).

1.5 Synthesize theories, principle, and related researches of creative thinking Instruction

1.6 Synthesize theories, principle, and related researches of SCAMPER Techniques

2. The structured interview form is used to interview 5 English language teaching experts by the following procedures:

2.1 Ask for the permission to make appointment with the experts.

2.2 Send the structured interview form to the experts one week before making an appointment.

2.3 Interview with the expert on the appointment date.

2.4 Collect and analyze the data by using the table of content analysis.

3. Vocational Diploma students of Rayong Technical College are asked to answer the questionnaire. The procedures are as follows:

3.1 Send the permission letter to the study site and make appointment with the participants.

3.2 Data is collected by the researcher.

3.3 Analyze data from the questionnaire qualitatively and quantitatively.

4. Summarize the collected data.

The following figure depicts the procedures of *Phase 1*: Analysis (Research 1: R1) and the figure in the following page describes the methodology of each sub step and the expected results;

***Phase 1*: Analysis (Research 1: R1)** Study background information and conduct needs analysis for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

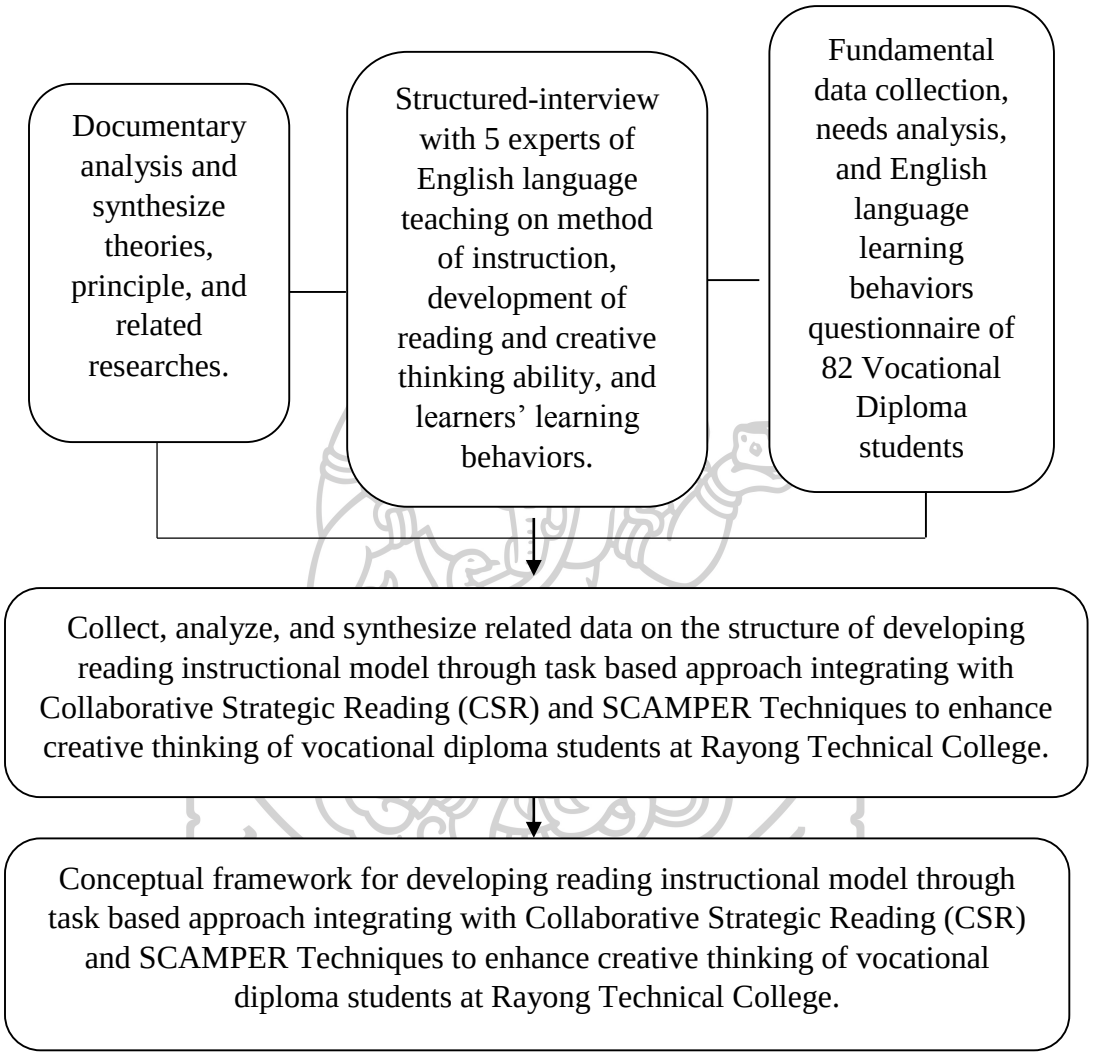


Figure 4: Phases1: Analysis (Reserch1:R1)

Study background information and conduct needs analysis for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

Table 8 Phases1: Analysis (Reserch1:R1)

Phase	Steps	Procedures	Instruments	Efficiency of the instruments	Results
I. To explore background information and conduct needs analysis for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.	1. Documentary analysis of related theories and related research.	1. Analyze Vocational Diploma Curriculum (2014) of the Office of Vocational Education Commission and the course of English reading and writing strategies for vocational diploma students. 2. Synthesize theories, principles, and related researches of task-based activities in English language learning and teaching. 3. Synthesize theories, principle, and related researches of reading comprehension and multiple reading strategies. 4. Synthesize theories, principle, and related researches of	Documentary analysis forms	1. Verify content analysis forms by the advisor. 2. Validate the approved content analysis forms by 5 experts for content validity and construct validity. The result of congruence verified by experts was $\bar{X}$ = 5, S.D. = 0.00, which was valid.	Synthesized information for constructing and developing reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

		Collaborative Strategic Reading (CSR)			

Table 8: Phases1: Analysis (Reserch1:R1) (continued)

Phase	Steps	Procedures	Instruments	Efficiency of the instruments	Results
		5. Synthesize theories, principle, and related researches of creative thinking skill 6. Synthesize theories, principle, and related researches of SCAMPER Techniques.			
	2. Experts interview	Gather the experts' ideas about the activities that enhance reading and creative thinking competence.	Structured-interview questions	1. Verify structured-interview questions by advisors 2. Validate the approved structured-interview questions forms by 5 experts for content validity and construct validity. The result of congruence verified by experts was $\bar{X}$ = 5, S.D. = 0.00, which was valid.	The suggestions for constructing and developing reading instructional model through task based approach integrating with multiple strategies to enhance creative thinking.
	3. Needs analysis	Develop needs analysis questionnaire	Needs analysis questionnaire	1. Verify the questionnaire by advisor.	Needs assessment of learners

		and opinion on English language learning.		2. Validate its content validity using Likert's five rating scale.	

Phase 2: Develop 1: D1 (Design and Development)

Develop and verify quality and efficiency of reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College.

Objective

1. To develop reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking vocational diploma students at Rayong Technical College.

2. To develop research instruments for data collection.

3. To validate the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking, and research instruments.

Procedure

The procedures for developing and verifying quality and efficiency of the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of vocational diploma students at Rayong Technical College are as follows:

1. Design and develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational diploma students at Rayong Technical College by using the information obtained from phase 1 to draft the conceptual framework of the model.

2. Develop research instruments for collecting data. The research instruments are namely;

2.1 Reading instructional lesson plans through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking

2.2 Exercises

2.3 Teacher manual.

2.4 English reading test

2.5 Self report questionnaire for students' perceived use of reading strategies

2.6 Think Aloud assessment form

2.7 Creativity evaluative form with Rubric score

Construction and development of the research instruments

1. Develop reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. The processes are as follows:

1.1 Synthesize the analyzed related theories, principles and researches on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

1.2 Identify the desired goals and outcomes of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques. The components of the Model are 4 steps namely;

Step1 (Pre-task) **Conceptualizing**

1.1 Model and teach strategies (Preview, Click and Clunk, Get the gist and Wrap Up)

1.2 Form mixed ability groups with assigned role for each member

Step2 (Task Cycle) **Reacting**

2.1 Implement Reading Strategies (Preview, Click and Clunk, Get the gist and Wrap Up)

Step3 (Post task) **Thinking Creatively**

3.1 Model and Implement **SCAMPER**

3.2 Create product/Outcome

3.3 Make presentation

Step4 (Post task) **Evaluation**

4.1 Evaluate reading comprehension ability

4.2 Evaluating products/outcomes by;

(1) peers, (2) the teacher, and (3) self -assessment

1.3 Validate the quality, appropriateness, and accuracy of the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking, including the congruence with the lesson plan, exercise and teacher manual by 5 experts and validate the content validity using Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the content analysis form. The criteria used by experts are as follows (Nilapun, 2012:179);

Rated 5 scores	means	the highest congruence
Rated 4 scores	means	high congruence
Rated 3 scores	means	moderate congruence
Rated 2 scores	means	low congruence
Rated 1 scores	means	the lowest congruence

The interpretation of mean for content validity of the reading instructional model bases on the following criteria (Nilapun, 2012:179);

The mean between 4.50– 5.00	means	the highest congruence
The mean between 3.50– 4.49	means	high congruence
The mean between 2.50– 3.49	means	moderate congruence
The mean between 1.50– 2.49	means	low congruence
The mean between 1.00–1.49	means	the lowest congruence

1.4 Revise the instructional model according to recommendations provided by qualified persons for appropriateness before the try out.

2. Research instruments for collecting data on the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. The research instruments are as follows:

2.1 Reading instructional model lesson plans through task based approach integrating with multiple strategies to enhance creative thinking

The reading lesson plan through Task Based Approach Integrating with Multiple Strategies is composed of 8 units. Each unit lasts for 6 hours. It is featured with topic, duration, learning objectives, contents, learning and teaching activities, learning and teaching materials and assessment. The lesson plan is developed through the following steps;

2.1.1 Analyze the learning standards, learning objectives, course description and the learning contents specified in the course of Business English under the Vocational Diploma Curriculum B.E. 2557 (2014) of the Office of Vocational Education Commission.

2.1.2 Design the Table of Content Specification to be used for development of the reading lesson plan through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. The Content Validity and the appropriateness of the language use were validated by experts and then it was assessed through Likert's five rating scale with an analysis of mean ($\overline{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the reading instructional model. The result of congruence verified by experts was $\overline{X}$ = 4.87, S.D. = 0.34, which was valid.

2.1.3 Develop and revise instructional steps, activities and contents of the reading lesson plan through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking pursuant to the feedback and assessment provided by experts.

2.1.4 Conclude and submit the revised reading lesson plan through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking to the advisor.

2.1.5 Rewrite the reading instructional model lesson plans through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

2.2 Exercises

The exercises are designed to foster reading ability, and to practice the use of reading strategies and creative thinking strategies of learners which are the ultimate goals of the reading instructional model of this research. They are designed based on Task Based Approach and focusing on practicing the use of strategies in 8 units. The exercises are developed through the following steps;

2.2.1 Analyze the learning standards, learning objectives, course description and the learning contents specified in the course of Business English under the Vocational Diploma Curriculum B.E. 2557 (2014) of the Office of Vocational Education Commission.

2.2.2 Design the exercises based on the reading lesson plan through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. The Content Validity and the appropriateness of the language use were validated by experts and then it was assessed through Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the reading instructional model.

2.2.3 Develop and revise instructional steps, activities and contents of the exercises through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking pursuant to the feedback and assessment provided by experts

2.2.4 Conclude and submit the revised exercises through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking to the advisor.

2.2.5 Rewrite the exercises through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

2.3 Teacher manual

The teacher manual for the model and the reading lesson plan through Task Based Approach Integrating with Multiple Strategies is composed of 8 units. Each unit lasts for 6 hours. It is featured with explanation for teaching steps, what to prepare before class, roles of learners and teachers, class management, lesson plan,

teaching media and materials, exercises with answers, pre-and post-test with answer and assessment forms. The teacher manual is developed through the following steps;

2.3.1 Analyze the learning standards, learning objectives, course description and the learning contents specified in the course of Business English under the Vocational Diploma Curriculum B.E. 2557 (2014) of the Office of Vocational Education Commission.

2.3.2 Develop the teacher manual based on the instructional model and the reading lesson plan through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. The Content Validity and the appropriateness of the language use were validated by experts and then it was assessed through Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the reading instructional model.

2.3.3 Develop and revise the teacher manual pursuant to the feedback and assessment provided by experts

2.3.4 Conclude and submit the revised teacher manual to the advisor.

2.4 English reading comprehension test

The English reading test is designed and administered by the researcher both in Pre-test and Post-test. The contents of Pre-test and Post-test are the same. During the first session after the orientation, the Pre-test is conducted. The Post-test is conducted at the end of the semester. The processes for development of English reading comprehension test are as follows:

2.4.1 Study the principles for English Achievement test development

2.4.2 Analyze the required capability of Vocational Diploma Curriculum (2014) of the Office of Vocational Education Commission and the course of Business English for vocational diploma students.

2.4.3 Design Test Specifications to cover all learning objectives. The following tables depict the test specification in details.

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Table 9 Table of Test Specifications

Test Objective	**Topics / Text Type**	**Language contents**	**Test types/objectives**	**Learning skill level**	**Weight/Time Allotment**	**Scoring Criteria**
evaluate reading ability of Diploma students at Rayong Technical College before and after the treatment of CRTE Model	Business English / Informational Text	Rhetorical organization of Text structure	Multiple choices (a) Predicting ability; finding clues in the title, subheading, pictures and content of passage, (b) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (c) dealing with vocabularies, (d) recall of details, and main ideas, (e) making inferential and summarizing	Reading ability	50 items/ 50 marks / 90 min.	One correct One mark

2.4.4 Design the test items according to the test specification. The test composed of 50 items of multiple choices with 3 given passages. Each question statement is followed by 4 answer choices, only one of which is the correct answer to the question. The following table shows the proportion of test items to the standards and objectives.

Table 10 Table of Test Specifications: the proportion of test items to the standards and objectives

Standards and Objectives	**Number of Items**	**Percentage of Items**
A) Predicting ability; finding clues in the title, subheading, pictures and content of passage (Item no. 8,17, 22, 46)	**4**	**8%**
B) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (Item no. 3, 14, 19, 36, 38)	**5**	**10%**
C) dealing with vocabularies, (Item no. 4, 7, 15, 16, 25, 27, 29, 30, 43, 44, 47)	**11**	**22%**
D) recall of details, and main ideas, (Item no. 2, 5, 11, 12, 20, 21, 33, 35, 37, 39, 40, 41, 42, 48)	**14**	**28%**
E) making inferential and summarizing (Item no.1, 6, 9, 10, 13, 18, 23, 24, 26, 28, 31, 32, 34, 45, 49, 50)	**16**	**32%**
Total Test	**50**	**100%**

After the test is verified by the advisor, the content validity and the appropriateness of the language use are validated by experts through Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the content analysis form. The result of content validity and the

appropriateness of the language use verified by experts was $\bar{X}$ = 4.42, S.D. = 0.76, which was valid.

2.4.5 Conduct the field try out with diploma students similar to those who will take an assessment once it is administered operationally (for official score-reporting purposes) to evaluate the test. The item analysis was conducted through the computer program to investigate the discrimination and difficulty of the test items; the test items with the difficulty scores between 0.20-0.80 and discrimination scores more than 0.20 are selected. 50 items were selected with the discrimination between 0.47-0.77 and difficulty of the test items between 0.20-0.73.

2.4.6 Analyze for reliability of the selected test items with KR-20 formula of Kuder and Richardson. The reliability of the test was 0.92.

2.5 Self report questionnaire for students' perceived use of reading strategies

The self-report questionnaire for students' perceived use of reading strategies is designed to evaluate the reading strategies used by students after being taught by the reading instructional model through task based approach integrating with multiple strategies to enhance creative thinking. The questionnaire is adapted from the Metacognitive Awareness of Reading Strategies Inventory (MARSI) developed by Mokhtari & Reichard (2002). The processes for development of Self report questionnaire for students' perceived use of reading strategies are as follows;

2.5.1 Synthesize the analyzed related theories and researches of reading strategies.

2.5.2 Design content specification for each question item using a 5-point Likert type scale ranging from 1 (I never do this) to 5 (I always do this; Mokhtari & Reichard, 2002).

2.5.3 Conclude and revise, then present to the advisor.

2.5.4 Validate its relevance of each question item to the objectives, the appropriateness of setting questions, and the words used in each question using Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the content analysis form. The result of validity verified by experts was $\bar{X}$ = 4.91, S.D. = 0.28, which was valid. Additionally, the Cronbach's alpha is applied to measure internal consistency of the test. Its reliability coefficient value was 0.92, thus reaching the prescribed criteria of 0.70.

2.5.5 Rewrite the Self report questionnaire for students' perceived use of reading strategies.

2.6 Think Aloud assessment form

The main purpose of the think aloud assessment form is to investigate the reading and thinking strategies use of students while doing the reading tasks designed by the researcher. The think aloud procedures are conducted pre, while and post learning with the reading instructional model through task based approach integrating with multiple strategies to enhance creative thinking. The processes for developing the think aloud assessment form are as follows;

2.6.1 Study the think aloud protocol and related researches.

2.6.2 Draft the think aloud assessment form for using with the samples with 2 main parts; 1) names of the sample for think aloud protocol, 2) template for transcribing the think aloud information of the samples which is coded and qualitatively analyzed.

2.6.3 The Content Validity and the appropriateness of the language use were validated by experts and then it was assessed through Likert's five rating scale with an analysis of mean ($\bar{X}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the reading instructional model. The result of validation by experts was $\bar{X}$ = 4.50, S.D. = 0.51, which was valid.

2.6.4 Develop and revise the think aloud form pursuant to the feedback and assessment provided by experts.

2.6.5 Conclude and submit the revised teacher manual to the advisor.

2.7 Creativity evaluative form with Rubric score

The main purpose of the creativity evaluative form with rubric score is to measure the creative thinking ability that students applied in their creative work after reading, which 4 dimensions were measured, namely; 1) Fluency: number of ideas generated, 2) Flexibility: variety of ideas generated, 3) Originality: novelty of ideas, and 4) Effectiveness: potential value of ideas. Each dimension was assessed in 3 levels, from Unsatisfactory = 1, Satisfactory = 2, to Exemplary = 3.

The processes of designing the creativity evaluative form are as follows:

2.7.1 Synthesize and analyzed related theories and researches on creative thinking and teaching approach to nurture creative thinking ability.

2.7.2 Develop and revise the creativity evaluative form with rubric score.

2.7.3 Conclude and revise, then present to the advisor.

2.7.4 Validate its content validity, and the appropriateness of language, using Likert's five rating scale with an analysis of mean ($\bar{x}$) and Standard Deviation (S.D.). The criteria used to verify the content validity and the interpretation of mean scores are the same patterns as used for the reading instructional model. The result of validation by experts was = 4.85, S.D. = 0.37, which was valid.

2.7.5 Use the revised evaluation form to collect data from samples.

3. The Tryout evaluation of efficiency of the model

To conduct the modified model with pilot study before conducting the field experiment, the evaluation of efficiency of the model was conducted with 3, 9 and 30 second year diploma students who study the course of Business English at Rayong Technical College, divided into good, average, and weak. The model was evaluated the efficiency of process (E1) and product (E2) by using the efficiency formula 80/80 of Chaiyong Prommawong (2013, 1977).

The procedures for effectiveness investigation of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking consisted of the following steps;

3.1 Tryout individually with 3 students; each was one who had high, medium and low performance in order to investigate the readability, the appropriateness of learning activities, time use and to identify defects or weak points of the model for further improvement.

Table 11 Results of individual tryout of the Reading Instructional Model

Item	Total score	Number of students	$\bar{x}$	S.D.	Criteria	Efficiency
Process (E1)	80	3	62.33	1.14	80	77.92
Product (E2)	50	3	37.67	5.13	80	75.33

Table 11 presents the results of individual tryout of the Reading Instructional Model with 3 students. The effectiveness was 77.92/75.33, which was under the criteria of 80/80.

3.2 Tryout in small group with 9 students composing of 3 high performance students, 3 medium performance students and 3 low performance students in order to investigate the readability, the appropriateness of learning activities, time use and to identify defects or weak points of the model for further improvement.

Table 12 Results of the second tryout of the Reading Instructional Model

Item	Total score	Number of students	$\bar{x}$	S.D.	Criteria	Efficiency
Process (E1)	80	9	64.67	0.83	80	80.83
Product (E2)	50	9	39.89	2.37	80	79.78

Table 12 presents the results of second tryout of the Reading Instructional Model with 9 students. The effectiveness was 80.83/79.78, which was nearly close to the prescribed criteria of 80/80.

3.3 Conduct the field tryout by implementing the revised Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking to 30 vocational diploma students of Rayong Technical College who were freshmen of Commercial Trade and then improved the model.

3.4 Implement the tried out instruction model to students who are not the participants of this research to investigate the effectiveness by using the standard criteria of 80/80 which measured from the exercise scoring in each unit of the lesson plan.

The first 80 means the mean scores of all students from the exercise scoring in each unit of the lesson plan not less than 80%.

The last 80 means the mean scores of all students from the Achievement Test scoring after finishing the course not less than 80%.

Table 13 Results of the third tryout of the Reading Instructional Model

Item	Total score	Number of students	$\bar{x}$	S.D.	Criteria	Efficiency
Process (E1)	80	30	66.30	0.93	80	82.88
Product (E2)	50	30	40.80	3.45	80	81.60

Table 13 presents the results of the third tryout of the Reading Instructional Model with 30 students. The effectiveness was 82.88/81.60, which passed the criteria of 80/80.

3.5 Implement the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking which was validated for the effectiveness and standards criteria to the research participants.

Data Collection

1. Collect data from pre-test of reading comprehension before teaching with the Reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

2. Collect data from self-report questionnaire for students' perceived use of reading strategies before teaching with the Reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

3. Collect data from self-report questionnaire for students' perceived use of reading strategies after finish teaching in each unit of the model.

4. Collect qualitative data from think aloud assessment form after finish teaching in each unit of the model.

5. Collect data from post-test of reading comprehension after teaching with the Reading instructional model through task based approach integrating with multiple strategies to enhance creative thinking.

Data Analysis

1. Evaluate the efficiency of the Reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking with the efficiency criteria set up at 80/80 level by using the efficiency formula E_1/E_2 of Chaiyong Prommawong (1977, 2013).

2. Compare the mean of pre-test and post-test of reading comprehension test by using Paired Sample t-test to measure the reading comprehension ability before and after using the reading instructional model.

3. Compare the mean of pre-test and post-test of self-report questionnaire for students' perceived use of reading strategies by using Paired Sample t-test to measure the reading comprehension strategy use of students before and after using the reading instructional model.

4. Evaluate the creative thinking ability by calculating the mean score derived by creativity evaluation form; the mean score over 70 percent means students' creative thinking ability passes the set criteria.

5. Analyze the use of multiple reading strategies and creative thinking strategies from the template of think aloud procedure through content analysis.

The summary of procedures in phase 2 (D1) is shown in the following pages.

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Phase 2: Developing and evaluating the efficiency of the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking

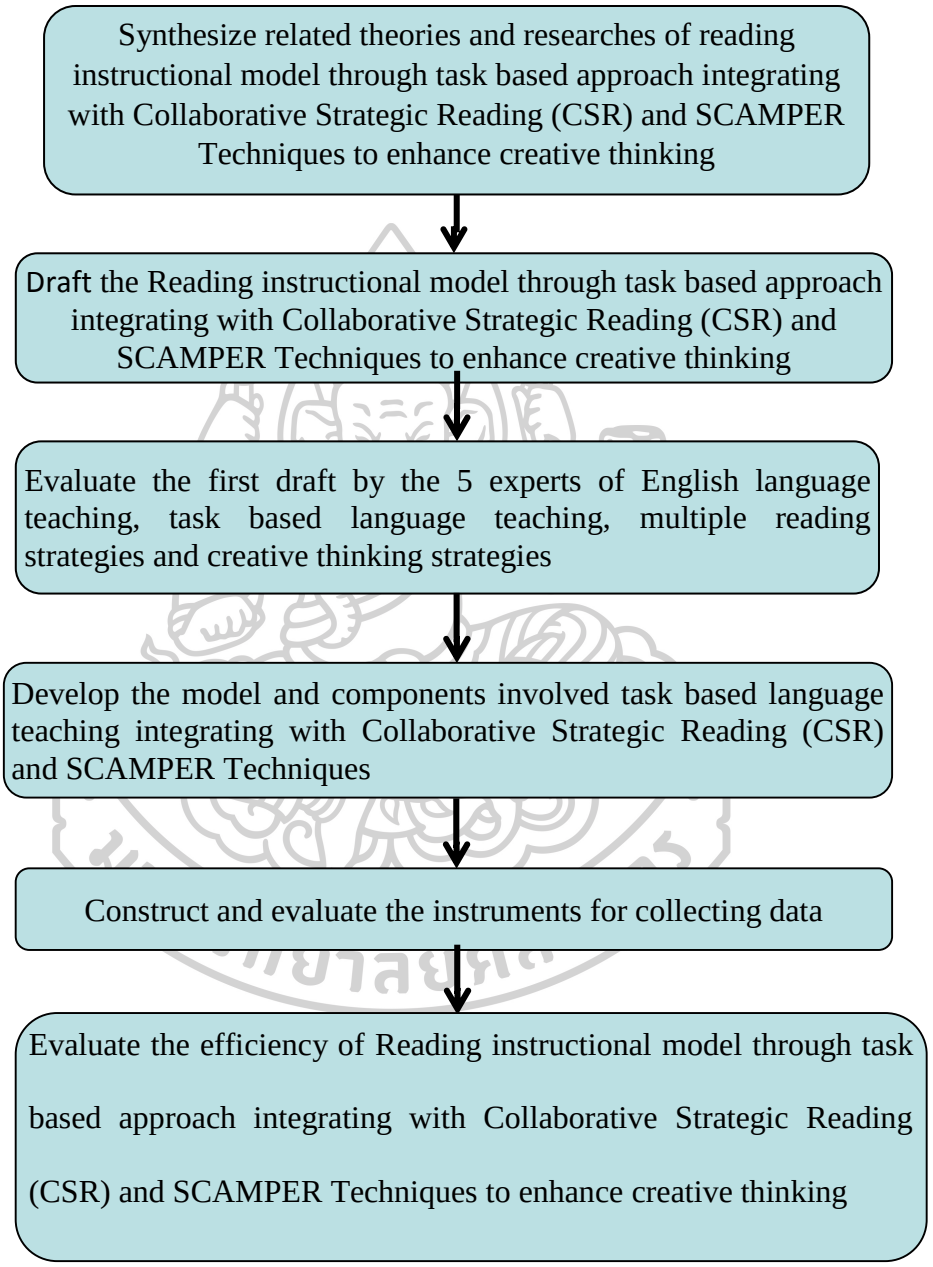

Figure 5: Phases2: Design and development (Develop1:D1)

Table 14 Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking

Steps	**Procedures**	**Instruments**	**Efficiency of the instruments**	**Results**
1. To develop reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking	1.1 Synthesize the analyzed related theories and researches of reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking 1.2 Identify goals of reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking 1.3 Verify reading instructional model	Content analysis forms	1. Verify content analysis forms by the advisor. 2. Validate the approved content analysis forms by 5 experts for content validity and construct validity.	1. Goal and objective of the model. 2. Draft of reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking.

Table 14*: Phase 2*: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. (Continued)

Steps	Procedures	Instruments	Efficiency of the instruments	Results
2. To develop research instruments for data collection. 2.1 Reading instructional model lesson plans through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking, exercises and teacher's manual.	2.1.1 Analyze VDC' curriculum 2.1.2 Design content specification 2.1.3 Develop and revise the lesson plans, exercises and teacher's manual on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking	2.1.1 VDC' curriculum 2.1.2 Table of content specification. 2.1.3 Lesson plans, exercises and teacher's manual on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking	2.1.1 Verify table of content specification by the advisor. 2.1.2. Validate the approved content analysis forms by 3 experts for content validity and construct validity.	2.1.1 Content specification 2.1.2 Lesson plans, exercises and teacher's manual

Table 14: Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking. (Continued)

Steps	Procedures	Instruments	Efficiency of the instruments	Results
	2.1.4 Conclude and revise, then present to the advisor. 2.1.5 Validate its content validity 2.1.6 Rewrite the Reading instructional model lesson plans through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking, exercises and teacher's manual.			

Table14: Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking (Continued)

Steps	**Procedures**	**Instruments**	**Efficiency of the instruments**	**Results**
2.2 English reading comprehension test	2.2.1 Study the principles for English achievement test development, 2.2.2 Analyze the VDC' curriculum, 2.2.3 Design contents for English reading comprehension test specification, 2.2.4 Design the test according to the test specification, verify by the advisor and validate its content validity by experts, 2.2.5 Analyze for reliability of the selected test items with KR-20 formula 2.2.6 Investigate the discrimination and difficulty of the test items.	2.2.1 The VDC curriculum and the course of English reading and writing strategies. 2.2.2 Table of content specification for English reading comprehension test.	2.2.1 Verify table of content specification by the advisor. 2.2.2. Validate the approved content analysis forms by 5 experts for content validity and construct validity.	English reading comprehension test.

Table 14: Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking (Continued)

Steps	**Procedures**	**Instruments**	**Efficiency of the instruments**	**Results**
2.3 Self report questionnaire for students' perceived use of reading strategies	2.3.1 Synthesize the analyzed related theories and research of reading strategies. 2.3.2 Design contents specification for each question item. 2.3.3 Conclude, revise and present to the advisor. 2.3.4 Verify the questionnaire by experts with the item-Objective Congruence (IOC). 2.3.5 Rewrite the Self report questionnaire for students' perceived use of reading strategies	2.3.1 Content analysis form for reading strategies. 2.3.2 Table of content specification for the questionnaire	2.3.1 Verify table of content specification by the advisor. 2.3.2. Validate the approved content analysis forms by 5 experts for content validity and construct validity.	Self-report questionnaire for students' perceived use of reading strategies

Table 14: Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking (Continued)

Steps	**Procedures**	**Instruments**	**Efficiency of the instruments**	**Results**
2.4 Think aloud assessment form	2.4.1 Synthesize the analyzed related principles, theories and researches of think aloud. 2.4.2 Draft the think aloud assessment form 2.4.3 Conclude and revise, then present to the advisor. 2.4.4 Validate by experts.	2.4.1 Content analysis form for think aloud 2.4.2 Template for Think aloud transcription.	2.4.1 Verify template for Think aloud transcription by the advisor. 2.4.2. Validate the approved content analysis forms by 5 experts for content validity and construct validity.	Think aloud assessment form

Table 14: Phase 2: Develop 1: D1 (Design and Development) Develop the reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking (Continued)

Steps	**Procedures**	**Instruments**	**Efficiency of the instruments**	**Results**
2.5 Creativity evaluation form	2.5.1 Synthesize the analyzed related principles, theories and researches of creative thinking ability. 2.5.2 Draft the Creativity evaluation form 2.5.3 Conclude and revise, then present to the advisor. 2.5.4 Validate by experts.	2.5.1 Content analysis form for creative thinking ability 2.5.2 Rubrics for creative thinking ability evaluation 2.5.3 Evaluation form of creative thinking ability	2.2.1 Verify Creativity evaluation form by the advisor. 2.2.2. Validate the approved content analysis forms by 5 experts for content validity and construct validity.	Creativity evaluation form

Phase 3: Research 2: R2 (Implementation)

Conduct the research on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of diploma students at Rayong Technical College.

Research objective

To experiment reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking with field study of 40 diploma students.

Population and samples

Population

There are about 10 classes of total 300 students who study in Vocational Diploma level of Rayong Technical College in the first semester of 2017 and register for the course of Business English.

Sample

Samples are a class of 40 students of Rayong Technical College out of 10 classes who enroll in the first semester of the 2017, taught by the researcher. The sample derived by Simple Random Sampling for 1 classroom as a sampling unit.

Variable of the study

Variables of this research are;

1.1 Independent variable or Treatment refers to the Reading Instructional Model Through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking designed for vocational diploma students in Industrial Trade

1.2 Dependent Variables refers to effects of implementing the Reading Instructional Model Through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking for Vocational diploma students, composing of ;

1.2.1 Reading comprehension ability,

1.2.2 Creative thinking ability,

1.2.3 The use of multiple reading strategies

Research Design

This research is a quasi-experimental research with one group Pretest-Posttest Design; as shown by the following charts:

Pre-Test	Treatment	Post-Test
T1	X	T2

Procedures

2.2.1 The implementation was conducted with the participants in the classroom for the course of Business English in semester 2 of academic year B.E. 2560. The experiment took 18 weeks; 3 hours in each week, totally 54 hours.

2.2.2 The researcher introduced learning activities and roles of learners and instructors at the introductory session.

2.2.3 Pre-test for reading comprehension test is administered to the participants.

2.2.4 Learning activities are administered according to the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking. Pre-test and post-test of each unit also administered by the researcher to assess students' improvement along with scores from developed Rubric Score for assigned individual or group tasks.

2.2.5 After the end of the course, the summative assessment were as follows;

1) The achievement test on reading comprehension was administered which was the same test used in Pre-test. t-test was applied to examined the difference between Pre-test and Post-test.

2) The creative thinking evaluation form was administered to measure creative thinking ability of students.

3) Self-report questionnaire for students' perceived use of reading strategies.

4) Think aloud assessment form is administered to gather qualitative information concerning the reading and creative thinking strategy use.

The summary of procedures in phase 3 (R2) is shown as follows;

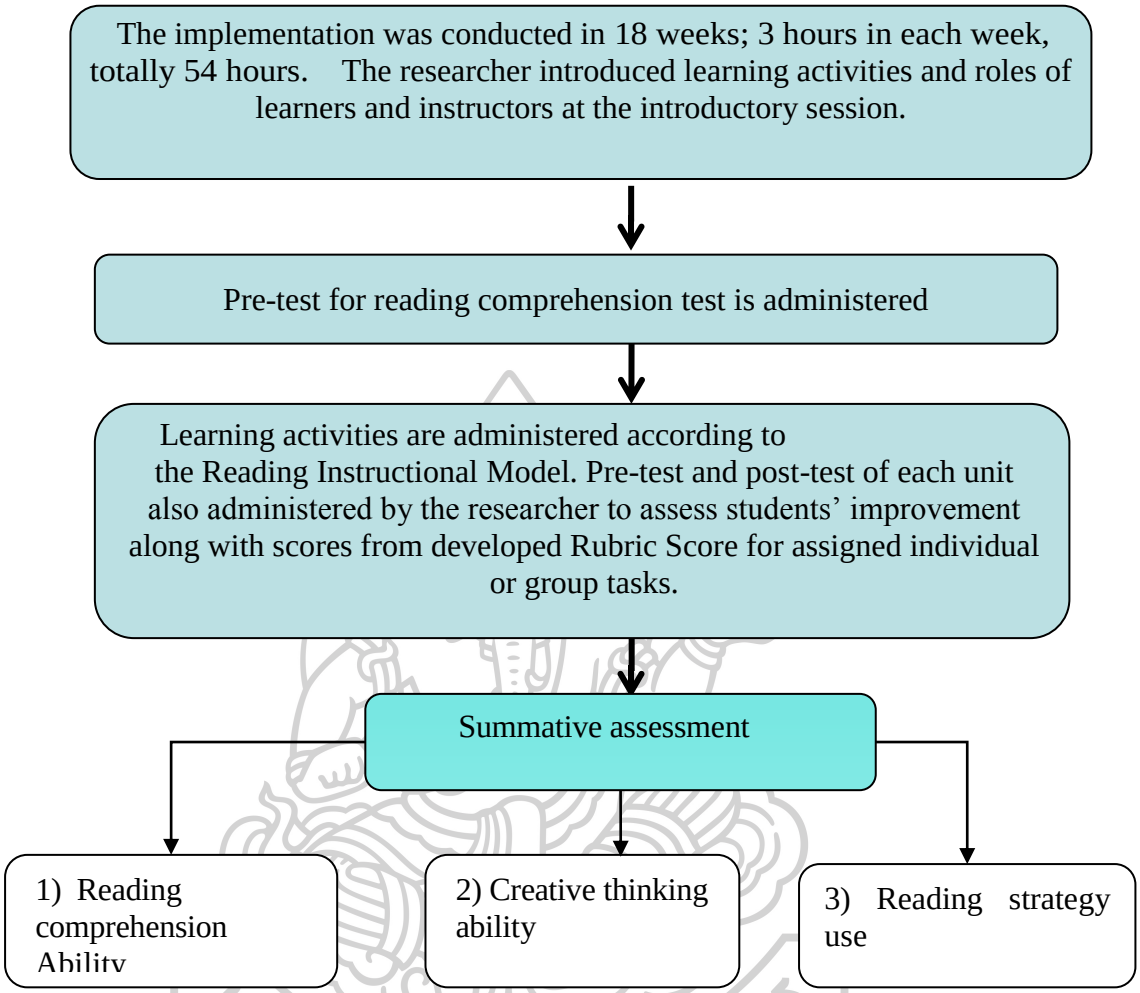

Figure 6: Phase3: Implementation (Research 2: R2)

The following table summarizes the procedures in phase3: Research2: R2.

Table 15 Phase 3: Implementation (Research 2: R2)

Steps	Objective	Procedures	Instruments	Data Analysis
Phase 3: Research 2: R2 (Implementation) Conduct the research on reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking	To experiment reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking with field study of 40 diploma students.	1 The implementation was conducted in 18 weeks; 3 hours in each week, totally 54 hours. 2 The researcher introduced learning activities and roles of learners and instructors at the introductory session. 3. Pre-test for reading comprehension test is administered 4. Learning activities are administered according to the Reading Instructional Model. Pre-test and post-test of each unit also administered by the researcher to assess students' improvement along with scores from developed Rubric Score for assigned individual or groups tasks. 5. After the end of the course, the summative assessment was as follows;	1. Reading instructional model through task based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking, lesson plan and teacher's manual.	1. Investigation of efficiency of the reading instructional model with the criteria of 80/80 using E_1/E_2 formula 2. Analyze with Pair-Sample t-test for pre and post test

Table 15: Phase 3: Implementation (Research 2: R2) (continued)

Steps	Objective	Procedures	Instruments	Data Analysis
		1) The achievement test on reading comprehension was administered which was the same test used in Pre-test. 2) The creative thinking evaluation form was administered to measure creative thinking ability of students. 3) Self report questionnaire for students' perceived use of reading strategies which was the same test used in Pre-test was administered to measure the strategies used by students 4) Think aloud assessment form is administered to gather qualitative information concerning the reading and creative thinking strategy use.		

Phase4: Develop 2: D2 (Evaluation)

Evaluate and verify the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of diploma students at Rayong Technical College.

Objective

To present the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of diploma students at Rayong Technical College for evaluation and verification by experts.

Subject

The subjects of this phase are 5 experts who are appointed through the determined qualifications, namely; 1) 3 Instructors who possess knowledge, capability, experience and achievements in English instruction, 2) 2 High profile Experts in instruction and Educational research.

Procedure

The Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking for Vocational diploma students at Rayong Technical College and the tryout results were presented to 5 experts to verify the model. It is conducted in the following sub steps;

1. The model, lesson plan and teacher's manual are submitted to 5 experts to examine, consider, evaluate and then validate.

2. 5 Experts investigated and verified for the quality of the Model through the evaluation form.

3. Revise the model, lesson plan and teacher's manual according to recommendations of experts before submitting to Dissertation Committee.

Research instruments

1. Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking, consisting of the exercises, lesson plans and teacher manual.

2. Evaluation form for the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking.

Data collection procedures

1. The permission letter will be sent to the experts for evaluating and verifying the

reading instruction model.

2. The permission letter will be sent to the experts for evaluating and validating teacher's manual.

3. The reading instructional model is revised according to the experts' recommendations.

Data analysis

The data in this study will be analyzed both quantitatively and qualitatively in order to identify the results from Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking.

Summary of procedures in Phrase4: Develop 2: D2 (Evaluation) is depicted in the following figure and table.

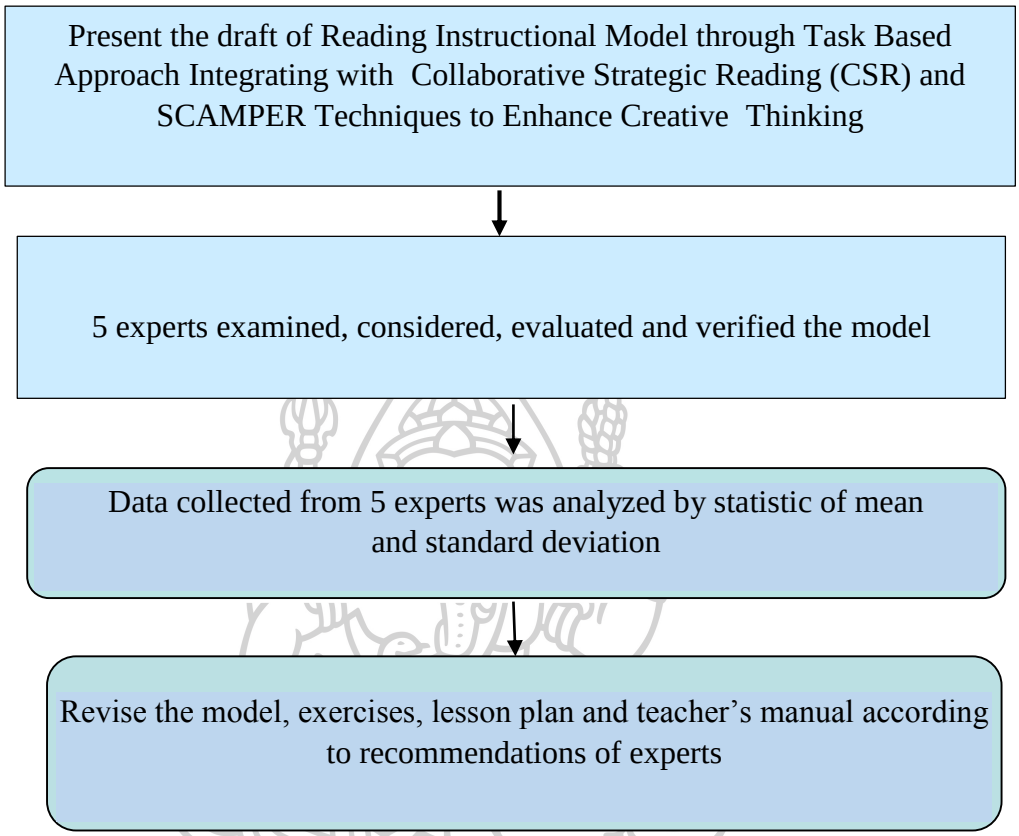

Figure 7 : Evaluation (Develop2:D2)

Table 16 Phases 4: Evaluation (Develop2:D2)

Steps	Objective	Procedures	Instruments	Data Analysis
Phase4: Develop 2 : D2 (Evaluation) Evaluate and verify the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of diploma students at Rayong Technical College.	To present the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of diploma students at Rayong Technical College for evaluation and verification by experts	1. The model, lesson plan, exercises, and teacher's manual are submitted to 5 experts to examine, consider, evaluate and then verify. 2. 5 Experts investigated and verified for the quality of the Model through the evaluation form. 3. Revise the model, lesson plan and teacher's manual according to recommendations of 5 experts before submitting to the Dissertation Committee.	1. Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking, consisting of the exercises, lesson plans and teacher manual. 2. Evaluation form for the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking.	The data in this study will be analyzed both quantitatively and qualitatively in order to identify the results from Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking

CHAPTER IV

RESEARCH FINDINGS

The purpose of this chapter is to present the results of the study. This study was carried out through research and development, and conducted using a mixed-method approach; integrating data collection from both the quantitative methods and qualitative methods, with the embedded design and the use of triangulation approach. The research findings of the quantitative portion of the study will be explained, followed by the results of the qualitative analysis.

The research questions stated in Chapter 1 were**;**

1. What are the components and teaching procedures of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

2. Is there the efficiency on the assigned criteria 80/80 of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

3. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the reading comprehension ability of students?

4. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the creative thinking skill of students?

5. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance students' usage of reading comprehension strategies?

6. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students be verified by experts at high level?

Thus, the findings of the study are divided into six parts according to the research questions. Details of the findings are reported as follows:

Part I: Results of the design and development of the Reading Instructional Model through Task-Based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational Diploma students.

1. Background information and needs analysis for the construction and development of a Reading Instructional Model.

1.1 Results of content analysis of related theories and principles of the Reading Instructional Model.

1.1.1 Results of a course description analysis: Business English for Career of Vocational Diploma Curriculum, B.E. 2557

1.1.2 Results of the synthesis of theories and principle of task-based approach

1.1.3 Results of the syntheses of theories and principle of Comprehension Reading Strategies Instruction, Multiple Reading Strategies Instruction and Collaborative Strategic Reading (CSR)

1.1.4 Results of the syntheses of theories and principle of Creative Thinking and SCAMPER Techniques

1.2 Results of the structured interviews of English teaching experts at RTC.

1.3 Results of needs analysis based on the questionnaires of learners.

1.4 Details of the Reading Instructional Model.

1.5 Results of the approval process of the Model by experts

Part II: Results of the effectiveness of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students based on the assigned criteria 80/80.

Part III: Results of students' reading comprehension performance by comparison between pre-test and post-test after the Reading Instructional Model

through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

Part IV: Results of students' creative thinking performance after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

Part V: Results of multiple reading comprehension strategy usage of students after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students.

Part VI: Results of the Reading Instructional Model Verification.

Part I: Results of the design and development of the Reading Instructional Model through Task-Based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational Diploma students.

This section reports the results of exploring needs and background information for the construction and development of the Reading Instructional Model through Task-Based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational Diploma students.

The findings are presented as follows:

1. To explore background information and to conduct needs analysis for the construction and development of the Reading Instructional Model.

1.1 Results of content analysis of related theories and principles of the instructional model.

1.1.1 Results of a course description analysis: Business English for Career of Vocational Diploma Curriculum, B.E. 2557

According to the analysis of the course syllabus, Business English for Career of Vocational Diploma Curriculum B.E.2557, is a compulsory course for Vocational Diploma level students, in Commercial Trades. Business English for Career's course description includes intermediate skills in listening, speaking, reading, and writing English, and emphasizes a sustainable expansion of vocabulary in business and working environments. Besides that, it is meant to promote the development of higher knowledge and understanding of structures designed to achieve a more predicted and greater command of the English language for efficient communication in daily life and workplaces. The prerequisite for studying this course is that students have to pass the course of English for Social and Business Communication, which is an introductory course for English communication in daily life. The course is offered in the second semester of every academic year. Most students who took the course are majoring in Business Computer, Logistics, Accounting, and Secretary of the Commercial Trade. The duration of the course is 18 weeks, each lesson lasts for three hours. The average class size is approximately 40-50 students. In addition, the course book that is used for this subject contained four skills in each unit; listening, speaking, writing and reading skills. Reading skills, for example, has a short passage which is related to each unit's topic, whereas other skills comprise practice exercises for students to develop their English skills.

1.1.2 Results of the synthesis of theories and principle of Task-based Approach

Results from synthesize theories, principle, and related researches of task-based approach indicate that Task-based Approach is under the umbrella of Communicative Language Teaching (CLT), thus it goes along under the same fundamental principles in teaching and learning languages. However, there are differences between Task-based Approach and Communicative Language Teaching. The emphasis is placed on interacting in the target language because this is seen as the precondition for learning to communicate in a second language and to create a real purpose for language use and provide a natural context for language study. Therefore, authentic texts are used in order to ensure that the language used inside the classroom is connected with the language used outside the classroom.

Another important aspect is the learners' personal experiences which should be strongly linked to classroom learning, therefore, tasks are a central component of TBLT in language classrooms because they provide a context that activates learning processes and promotes L2 learning. It also acknowledges that motivation, attitudes to learning, students' beliefs, language anxiety and preferred learning styles, have more effect on learning than materials or methods. The word "task" means an activity aiming to acquire the target language by doing meaningful tasks. It focuses on the outcome rather than the process and has a work plan. Learner interacts and performs a task in real-life needs from his/her past experience.

A numbers of scholars defined framework for task-based language teaching approach, (Prabu; 1987, Nunan; 1989, Willis; 1998, Ellis; 2003, Branden; 2006), for example, Willis's framework consists of the pre-task phase, the task cycle, and the report stage. However, a synthesis of TBLT's framework in this study follows the concepts and frameworks provided by Willis (1998) consisting of 3 phases; 1) Pre-task; Introduction to topic and task, 2) Task Cycle; 2.1) Task: Students do the task, in pairs or small groups. Teacher monitors from a distance, 2.2) Planning: Students prepare to report to the whole class (orally or in writing) how they did the task, what they decided or discovered, 2.3) Report: Some groups present their reports to the class, or exchange written reports, and compare results. Students may now hear a recording of others doing a similar task and compare how they all did it, 3) Language focus; 3.1 Analysis: Students examine and discuss specific features of the text or transcript of the recording, 3.2) Practice: Teacher conducts practice of new words, phrases and patterns occurring in the data, either during or after the analysis.

The Synthesis of Task-based framework

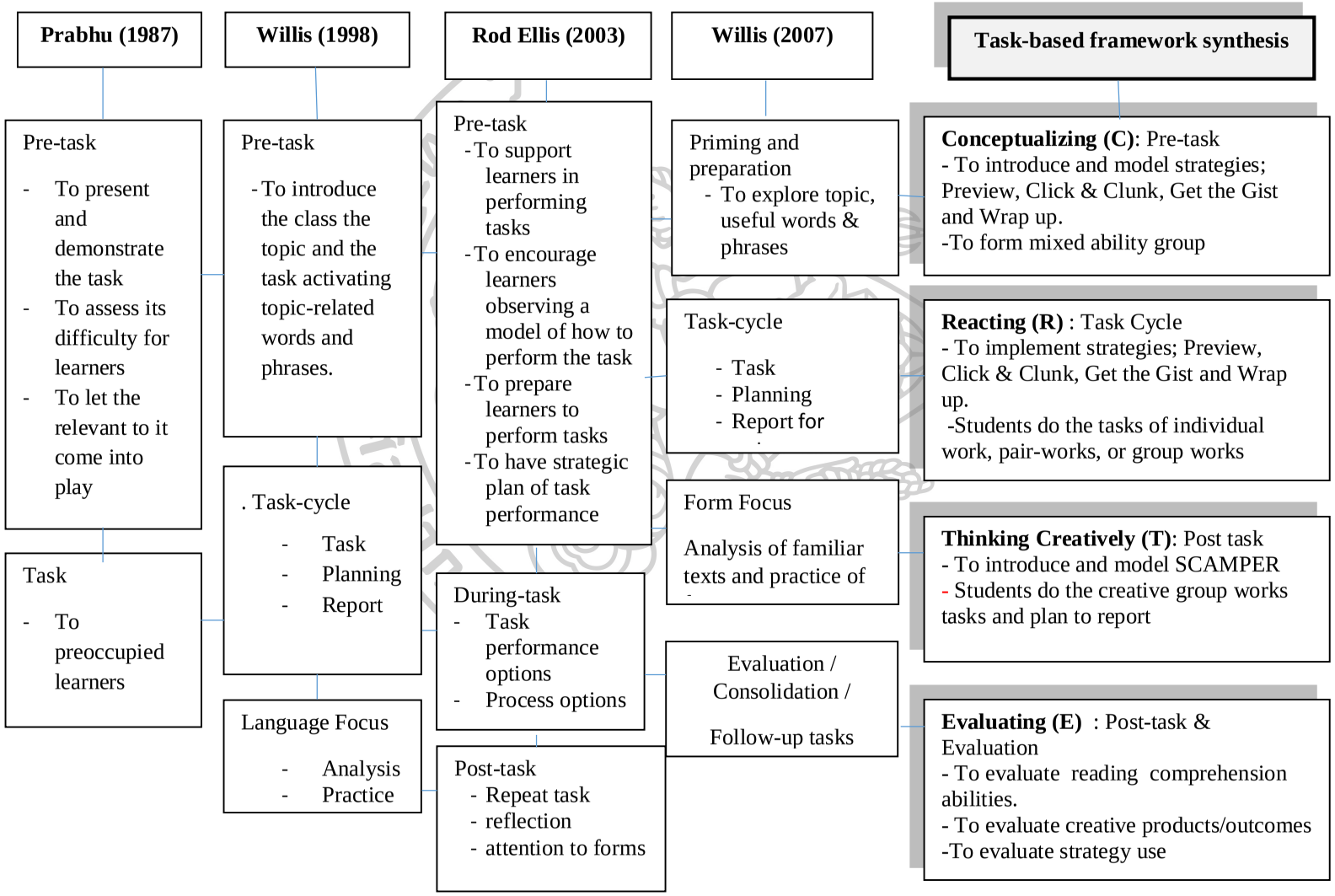

Figure 8 The Synthesis of Task-based framework

1.1.3 Results of the syntheses of theories and principle of Comprehension Reading Strategies Instruction, Multiple Reading Strategies Instruction and Collaborative Strategic Reading (CSR)

Results from synthesis of theories and principle of Comprehension Reading Strategies Instruction explained that researchers have acknowledged reading comprehension strategies which help readers to better comprehend texts than the one without or lack of strategies. Since comprehension strategies can help learners to become aware of how well they are comprehending text as they read, and improve their understanding and learning form text by summarizing, using background knowledge to make predictions for example. In order to prepare learners to become good readers, it is needed to explicitly teach comprehension strategies and reading skills through mental modelling, scaffolding, think aloud, and application to help learners know how to coordinate key comprehension strategies and use certain skills and approaches to make texts more comprehensible, meaningful and memorable.

In the same way, Collaborative Strategic Reading (CSR) is a Multiple Comprehension Strategy Instruction (MCSI) approach that was based on the concepts of Reciprocal Teaching, Collaborative Learning and Transactional Strategies Instruction.(Grabe; 2009,Davis; 2012) CSR focuses explicitly on student-led cooperative learning instead of teacher-led groups more than Reciprocal Teaching and Transactional Strategies Instruction (Klingner, Vaughn, & Schumm, 1998). Collaborative Strategic Reading includes elements identified as critical for enhancing the performance of students with learning difficulties, such as: (a) making instruction visible and explicit, (b) implementing procedural strategies to facilitate learning, (c) using interactive groups and/or partners, and (d) providing opportunities for interactive dialogue among students and between teachers and students (Fuchs, Fuchs, Mathes, & Lipsey, 2000; Gersten, Fuchs, Williams, & Baker, 2001; Swanson, Hoskyn, & Lee, 1999; Vaughn, Gersten, & Chard, 2000). In CSR, students learn to use four major strategic procedures while reading content area texts: a previewing procedure (skimming title and subheadings, making predictions, and recalling background knowledge), a strategy procedure known as “click and clunk” (identifying and clarifying difficult, or “clunky” words), a “get the gist” procedure (identifying

and stating main ideas), and a wrap-up procedure (summarizing the text and asking teacher-like questions). These strategies are first modeled and explained by the teacher, and then students practice them in small groups of four to six students. The group works of students are based on the cooperative learning principles. Each member of the group work has an assigned role to be responsible for the given task.

In summary, it is acknowledged that proper intervention and supports can help struggling readers, especially English language learners to gain more positive attitude toward school and self through better self-regulation in reading, an increased sense of personal control over reading through the mechanisms of improved reading self-efficacy. Through explicit strategy instruction, students begin to understand that reading is an active process that requires thinking and problem-solving. Students need to see how multiple strategies can be used simultaneously. They begin to realize that all readers rely on strategies to help them make meaning while reading. Strategy instruction is much more effective when it is integrated into regular classroom learning activities, rather than treated separately, and when numerous strategies are taught over a longer period of time. Therefore, in this study, methods of instruction were based on Collaborative Strategic Reading, by which a number of reading strategies were taught through; 1) direct explanation of how to use each strategy, 2) modelling along with think aloud method to show learners how each strategy worked, 3) scaffolding method, during implementation of each strategy by learners themselves, the teacher used the scaffolding approach to assist them fostering comprehension strategies, 4) collaborative method, learners worked in small cooperative groups to apply CSR strategies. They were assigned roles to perform while using CSR strategies.

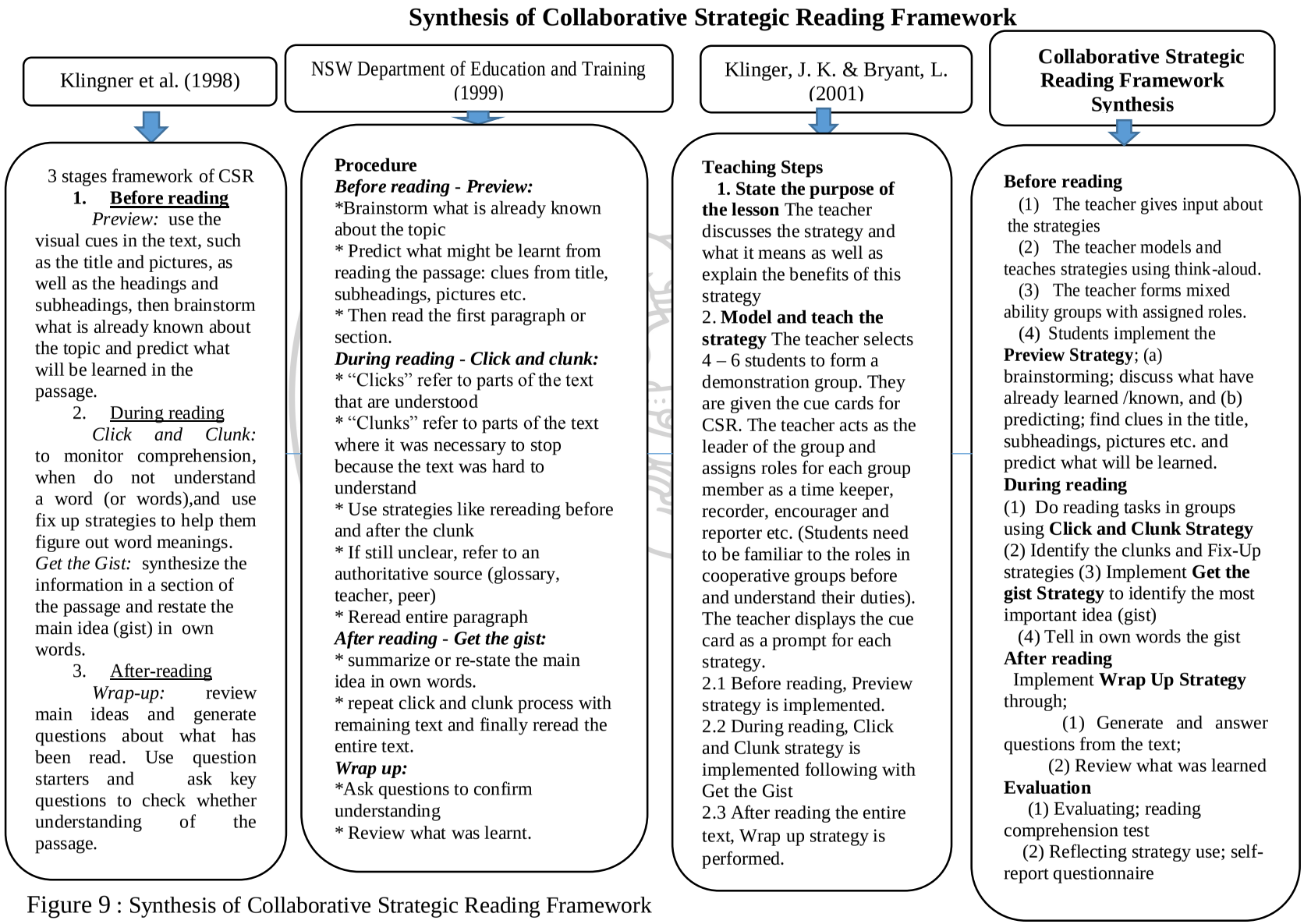

Figure 9 : Synthesis of Collaborative Strategic Reading Framework

1.1.4. Results of the syntheses of theories and principle of Creative Thinking and SCAMPER Techniques

A simple definition of creative thinking is that the ability to imagine or invent something new, to generate new ideas by combining, changing, or reapplying existing ideas. Creative thinking is characterized by a high degree of innovation, divergent thinking, and risk taking. In the sense of education, creative thinking is listed in the top three levels of Bloom's Taxonomy of the Cognitive Domain. A creative thinker is supposed to possess the abilities to think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and know what strategies and skills to use for each situation. They are open-minded for diverse views. With their flexible thinking, they are enabled to seek for solution in any new situation. Then the products of their thinking in any form are innovative in some dimensions and meaningful in any sense. For educational purposes, creative thinking is defined as the thinking that enables students to apply their imagination to generating ideas, questions and hypotheses, experimenting with alternatives, and to evaluating their own and their peers' ideas, final products and processes. Appropriate teaching strategies and learning environments facilitate their growth as do student persistence, self-monitoring, and open-minded, flexible attitudes.

For the purpose of the present study, the outcome of creative thinking may be in forms of products; both tangible and intangible, or processes demonstrating originality and appropriateness of such outcome. What is produced with creativity, can be derived by an individual, a group, or an organization.

One of the popular methods used in creative thinking is the SCAMPER technique, which was first proposed by Alex F. Osborne in 1953 and was further developed in 1971 by Bob Eberle in his book, SCAMPER: Games for Imagination Development. In this method a checklist is used in the form of an acronym, in order to remind you of words and questions that will stimulate the imagination, induce new ideas and help to explore the issues. The SCAMPER stands for; (S) substitute, (C) combine, (A) adapt, (M) modify, (P) put to another use, (E) eliminate and (R) reverse. The following questions are examples of the questions that might trigger new

ideas and options in using SCAMPER method: Substitute: What might be substituted? Who else? What else? Where else? What parts? What material? Combine: What might be combined to this object? Any ideas, objects, or functions to combine with? What might this also include or do? Adapt: What might be changed or done differently? What else is this like? Modify, Magnify, or Minify: How might it be changed if it were bigger or smaller? What might be increased or reduced? Put to other uses: Are there other uses for this object? What properties suggest another way to use this? What happens if the context or purpose change is changed? Eliminate: Is there something able to be eliminated? What might be done without? What might be removed? Reverse or Rearrange: What might be reversed? How might it be reordered? What if it is turned upside down? Backwards? Inside out? What if places or roles were reversed?

In this study, SCAMPER Techniques were introduced by explicit teaching and modeling, then the assignment was given to groups of students in connection to the assigned reading text. Students brainstormed using questions in the SCAMPER checklist, discussed and planned to make presentations to the class. Then, the presentations were evaluated for the creative thinking abilities of each group.

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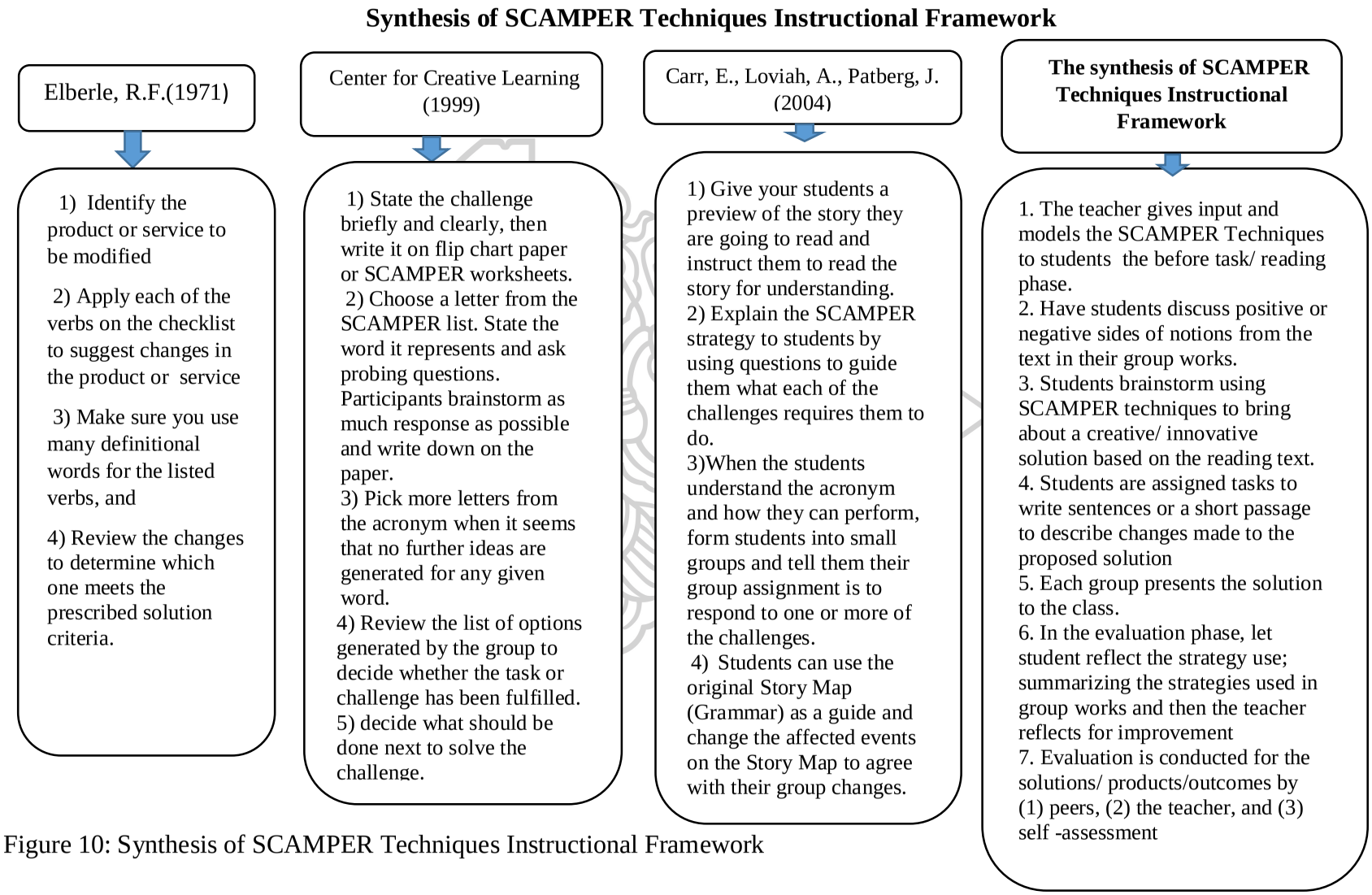


Figure 10: Synthesis of SCAMPER Techniques Instructional Framework

1.2 Results of structured interview of English teaching experts at Rayong Technical College (RTC)

This section describes the results of the structured interview of English teaching experts at RTC. The objective of the structured interview was to gather in-depth information from teachers of English at RTC. The respondents were three English teachers. Each had more than 5 years of experience in teaching Business English for Vocational Diploma students. The interview questions were to elicit the weaknesses of students' abilities in learning English, and the problems in teaching and learning English as well as learning motivation of students. The data collected were used to help fill the gap in order to design and to develop lesson plans, activities of the Reading Instructional Model to be used for the Business English for Vocational Diploma students. A summary of the interviews are reported as follows:

1.2.1 All experts viewed that English abilities of students at RTC were at very low level, in all skills. Most students could not spell the words or understand the vocabularies. They were generally unable to comprehend details and the main idea of the passages when reading in English. They often struggled when they were assigned to read. The more challenging texts they faced, the more frustrating the reading task becomes. This made them lack motivation to learn. They were always passive especially in reading class. When the teachers assigned them to read, they always avoided and the quality of their work was poor.

1.2.2 The experts viewed that motivation for learning reading may be derived by 1) selective reading text; the text that learners have some background knowledge, and the text that make them enjoyable might grab their attention, and 2) purposeful reading; having a purpose provides students with a strong reason to read deeply and carefully and a benefit is that they will gain better retention.

1.2.3 Considering problems in teaching reading, there were a number of problems found in English reading classes. On learners' side, problems found from the lack of motivation, weak English background, and lack of learning and reading strategies, whereas, on the teachers' side; comments mentioned about no sufficient preparation for teaching, lack of systematic lesson design, too much emphasis on

bottom up approach, and teacher-centered classroom. All these challenges as a whole make reading text difficult and boring for learners.

1.2.4 In the sense of teaching strategies and thinking ability, none of the experts ever taught using any reading instructional model. In their reading classes, they taught through translation method for more than half of the lessons. They tried to incorporate some vocabulary games and activities to make the reading lessons more purposeful and to make students become more active. However, the activities mostly focused on vocabulary retention. The experts thought that explicit teaching of reading strategies could be useful and sustainable for learners to become good readers. For them, they taught reading strategies in isolated lessons, for example skimming and scanning.

For teaching and fostering creative thinking skill, the teachers agreed that creative thinking skill is increasingly crucial for this century. However, they had no picture of how they could teach, what kinds of tools they could use or what techniques are available and how they could use them to arrange the appropriate activities in classes.

In conclusion, the results of English teacher interview indicated that they agreed with using a reading instructional model integrating reading strategies and creative thinking techniques, which is useful as a guideline, especially for teachers who had little experience on teaching reading strategies and creative thinking techniques. Learning through the model can also enhance reading and creative thinking ability in a sustainable ways by using reading and thinking strategies

1.3 Results of needs analysis questionnaires of learners

This section displays the results of needs analysis of learners. The researcher collected the data on relevant aspects to study the needs in learning English using questionnaires. Areas of relevance were the students' educational background, topics of interests in learning English, Functional English, appropriate activities and tasks, and open-ended part. The questionnaires were administered to 82 students, similar to the sample group. The objective of the needs analysis questionnaire was to examine the need in learning English in order to design and

develop a reading instructional model composing of lesson plans, tasks, and activities to fill the gaps of learners' needs and interests. The questionnaire was divided into three main sections; 1) learners' background and general opinions on teaching English reading, 2) needs in learning English; in 3 sub sections namely, the content, the language function, and appropriate types of learning activities, and 3) open-ended comments and suggestion.

1.3.1 Personal Background

Table 17 Personal background of students

Sex	**N**	**%**
Male	9	10.98
Female	73	89.02
Total	82	100

Table 17 shows the results from the survey on the educational background of the target group. It was found that there were 9 male students (10.98%) and 73 female students (89.02%).

Table 18 Average grade of students

Average grade	**N**	**%**
-between 2.00 – 2.49	26	31.71
-between 2.50 – 2.99	35	42.68
-3.00 or higher	21	25.61
Total	82	100

Table 18 shows the results from the survey on the average grade of the target group. It was found that most students (35 students) have average grade between 2.50-2.99, which is 42.68%, followed by average grade between 2.00-2.49 (26 students), which is 31.71%.

Table 19 Level of interest on learning English

Level of interest	N	%
Low	9	10.98
Medium	15	18.29
High	37	45.12
Very high	21	25.61
Total	82	100

Table 19 shows the results from the survey on level of interest on learning English of the target group. It was found that 37 students accounted for 45.12 have high level of interest on learning English, follows by 21 students which accounted for 25.61% viewed very high level of interest on learning English.

1.3.2 Learners' needs in learning English

Table 20 Topics of interests in learning English of learners

Topics	$\bar{x}$	S.D.	Interpretation	Rank
1.Small talk/ Welcoming visitors	4.50	0.74	high	7
2.Introduction into Business	4.65	0.62	highest	4
3.Jobs and Careers	4.85	0.36	highest	1
4.Team working	4.61	0.56	highest	5
5.Negotiation	4.24	0.81	high	9
6.Making presentation	4.59	0.57	highest	6
7.Business Correspondence	4.15	0.82	high	10
8.Cross Cultural Understanding	4.66	0.55	highest	3
9. Meeting	4.48	0.77	high	8
10.Problems and Solutions	4.73	0.45	highest	2
Total	4.55	0.67	highest	

Table 20 reports the topics of interests of students in learning English for Business English course. The highest mean score was topics on jobs and career

($\bar{x}$ = 4.85, S.D. = 0.36). The second rank was problems and solutions ($\bar{x}$ = 4.73, S.D. = 0.45). The lowest mean score indicated as the least interesting in learning English was on business correspondence ($\bar{x}$ = 4.15, S.D. = 0.8/). Hence, the researcher selected 8 top highest mean scores to design the lesson units accordingly.

Table 21 Language Functions need

Language Functions	**$\bar{x}$**	**S.D.**	**Interpretation**	**Rank**
1. Socializing	4.56	0.52	highest	4
2. Expressing opinions and ideas	4.74	0.49	highest	1
3. Agreeing VS. Disagreeing	4.56	0.65	highest	4
4. Describing procedures	4.73	0.45	highest	2
5. Working with colleagues	4.51	0.72	highest	5
6. Making requests	4.11	0.74	high	7
7. Making presentation	4.66	0.53	highest	3
8. Making arrangement	4.33	0.59	high	6
9. Writing correspondence	4.05	0.84	high	8
10. Dealing with figures	4.11	0.86	high	7
Total	4.44	0.70	high	

Table 21 presents the language functions students were in need of learning English. The first rank mean score was expressing opinions and ideas ($\bar{x}$ = 4.74, S.D. = 0.49). The second rank was describing procedure ($\bar{x}$ = 4.73, S.D. = 0.45). The lowest rank was writing correspondence. Therefore, the researcher focused on the 5 highest mean scores of language functions in designing the learning activities and reading tasks to include the language functions needed by students.

Table 22 Appropriate learning activities

Appropriate learning activities	$\bar{x}$	S.D.	Interpretation	Rank
1.Activities that emphasize on real-life situations	4.72	0.5	highest	3
2. Activities that emphasize learning from various materials and media; for example printed text, video or audio	4.59	0.59	highest	5
3.Working in pairs or in groups	4.48	0.63	high	6
4.Activities that focus on role-plays or stimulations	4.48	0.53	high	6
5.Activities that emphasize on practicing and presentation	4.43	0.5	high	7
6.Activities that emphasize more on communication or meaning than forms or grammar	4.62	0.6	highest	4
7.More opportunities for research outside the class	4.27	0.55	high	9
8.More opportunities for learners to practice creative thinking skills	4.88	0.33	highest	1
9.More opportunities for learners to evaluate their own works	4.85	0.36	highest	2
10.Various means of evaluation; by examination, by evaluation of assignments and presentation	4.39	0.73	high	8
Total	4.57	0.57	highest	

Table 22 presents the appropriate learning activities viewed by students for learning English. The first rank mean score was ‘More opportunities for learners to practice creative thinking skills’ ($\bar{x}$ = 4.88, S.D. = 0.33). The second rank was ‘More opportunities for learners to evaluate their own works’ ($\bar{x}$ = 4.85, S.D. = 0.36). The lowest rank was ‘More opportunities for research outside the class’ ($\bar{x}$ = 4.27, S.D. = 0.55). Therefore, the researcher focused on the 5 highest mean scores of language functions in designing the learning activities and reading tasks to include the language functions needed by students.

Consequently, the first five highest scores of each aspect of learners need were finally taken into consideration in designing and developing the activities in the eight units of Business English lessons as follows;

For the aspect of Topics of interests in learning English of learners, the first five ranks were 1) Jobs and Careers, 2) Problems and Solutions, 3) Cross Cultural Understanding, 4) Introduction into Business, and 5) Team working, respectively.

For the aspect of Language Functions need, the first five ranks were 1) Expressing opinions and ideas, 2) Describing procedures, 3) Making presentation, 4) Socializing and Agreeing VS. Disagreeing, and 5) Working with colleagues.

For the aspect of Appropriate learning activities, the first five ranks were 1) More opportunities for learners to practice creative thinking skills, 2) More opportunities for learners to evaluate their own works, 3) Activities that emphasize on real-life situations,

4) Activities that emphasize more on communication or meaning than forms or grammar, and 5) Activities that emphasize learning from various materials and media; for example printed text, video or audio.

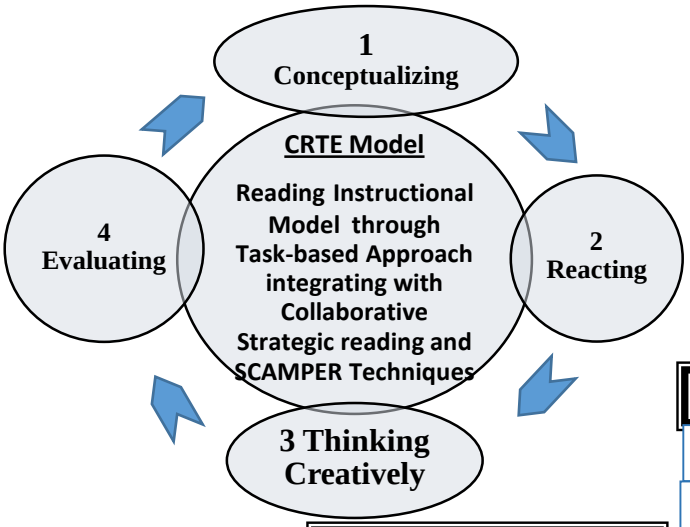
The designed lesson plans were Unit1 (Introduction into Business), Unit2 (Jobs and Careers), Unit3 (Work Attitude), Unit4 (Teamwork), Unit5 (Networking), Unit6 (Problem Solving), Unit7 (Emails for Business), and Unit8 (Culture Clash). In each unit, students learn reading strategies and work collaboratively through the CSR model, practicing reading tasks and write down their think aloud in the reading logs. Then, after students are introduced SCAMPER strategies, they apply SCAMPER to create and present their group work creative ideas. The evaluation is taken part by the teacher, the group of students themselves and peers. Throughout this process the prioritized language functions and learning activities are integrated and emphasized.

Table 23 The Synthesis of CRTE Model

Synthesis of CRTE Model			
Task Based Approach	**Collaborative Strategic Reading**	**SCAMPER Techniques**	**The CRTE Model**
Conceptualizing (C): Pre-task - To introduce and model strategies; Preview, Click & Clunk, Get the Gist and Wrap up. -To form mixed ability group **Reacting (R)** : Task Cycle - To implement strategies; Preview, Click & Clunk, Get the Gist and Wrap up. -Students do the tasks of individual work, pair-works, or group works **Thinking Creatively (T)**: Post task - To introduce and model SCAMPER - Students do the creative group works tasks and plan to report **Evaluating (E)** : Post-task & Evaluation - To evaluate reading comprehension abilities. - To evaluate creative products/outcomes -To evaluate strategy use	**Before reading** (2) The teacher gives input about the strategies (3) The teacher models and teaches strategies using think-aloud. (4) The teacher forms mixed ability groups with assigned roles. (5) Students implement the **Preview Strategy**; (a) brainstorming; discuss what has already been learned /known, and (b) predicting; find clues in the title, subheadings, pictures etc. and predict what will be learned. **During reading** (1) Do reading tasks in groups using **Click and Clunk Strategy** (2) Identify the clunks and Fix-Up strategies (3) Implement **Get the gist Strategy** to identify the most important idea (gist) (4) Tell in own words the gist **After reading** Implement **Wrap Up Strategy** through; (1) Generate and answer questions from the text; (2) Review what was learned **Evaluation** (1) Evaluating; reading comprehension test (2) Reflecting strategy	. The teacher gives input and models the SCAMPER Techniques to students in before task/ reading phase. 2. Have students discuss positive or negative sides of notions from the text in their group woks. 3. Students brainstorm using SCAMPER techniques to bring about a creative/ innovative solution based on the reading text. 4. Students are assigned tasks to write sentences or a short passage to describe changes made to the proposed solution 5. Each group presents the solution to the class. 6. In the evaluation phase, let student reflect the strategy use; summarizing the strategies used in group works and then the teacher reflects for improvement 7. Evaluation is conducted for the solutions/ products/outcomes by (1) peers, (2) the teacher, and (3) self –assessment.	**Components of the Model** Step1 (Pre-task) **Conceptualizing** 1.1Model and teach strategies - Preview - Click and Clunk - Get the gist - Wrap Up 1.2 Form mixed ability groups with assigned role for each member Step2 (Task Cycle) **Reacting** 2.2Implement Reading Strategies **Preview** **Click and Clunk** **Fix-Up** **Get the gist** **Wrap Up** Step3 (Post task) **Thinking Creatively** 3.1 Model and Implement **SCAMPER** 3.2 Create product/Outcome 3.3 Make presentation Step4 (Post task) **Evaluation** 4.1 Evaluate reading comprehension ability 4.2 Evaluating products/outcomes by; (1) peers, (2) the teacher, and (3) self - assessment

	use; self-report questionnaire.		

Development of the Draft of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students



Principle

Task-based reading instruction model integrating with Collaborative Strategic Reading and creative thinking strategies can help to develop students' reading competence and strategies use in order to achieve their learning purposes. It can motivate learners to use the language in real-life situations. Task-based activities allow students using meaning focused more than form focused. Students develop their competence through collaborative reading and apply creative thinking strategies

Objective

To enhance students' reading comprehension ability and employment of reading and creative thinking strategies used after using task-based reading instruction model.

Social system: Cooperative learning and Individual learning. Learning by doing
Principle of reaction: Teacher's role as a facilitator and students' role as learning and acquiring by doing.
Support system: Materials and multimedia resources.

Model of Teaching Procedures

Components of the Model
Step1 (Pre-task)
Conceptualizing
Model and teach strategies
- Preview
- Click and Clunk
- Get the gist
- Wrap Up

Form mixed ability groups with assigned role for each member
Step2 (Task Cycle)
Reacting
Implement Reading Strategies
Preview
Click and Clunk
Fix-Up
Get the gist
Wrap Up
Step3 (Post task)
Thinking Creatively
3.1 Model and Implement
SCAMPER
3.2 Create product/Outcome
3.3 Make presentation
Step4 (Post task)
Evaluation
4.1 Evaluate reading comprehension ability
4.2 Evaluating products/outcomes by; (1) peers, (2) the teacher, and (3) self -assessment
4.3. Evaluate strategy usage

Outcome

Reading comprehension abilities

(b) Predicting ability; finding clues in the title, subheading, pictures and content of passage,
(b) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (c) dealing with vocabularies,
(d) recall of details, and main ideas,(e) making inferential and summarizing

Creative Thinking abilities

SCAMPER Techniques
3. Fluency
4. .Flexibility
3. Originality
4. Effectiveness

Reading Comprehension strategies

Collaborative Strategic Reading
3. Activate background knowledge
4. Making prediction
3. Self-comprehension monitoring
4. Fix-up strategy
5. Identifying main idea
6. Making Inference
7. Questioning
8. Synthesizing Information

Figure 11 Draft of CREATE Model

1.4 Details of the Reading

This section stipulates the results of the design and development of the Reading Instructional Model through Task-based approach, integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational diploma students (CRTE Model). The Reading Instructional Model was derived from the fundamental concepts and related theories, consisting of communicative language teaching (CLT), Task-based language teaching approach, Reading comprehension strategy instruction, multiple reading strategy instruction, Collaborative strategic reading, creative thinking, and SCAMPER Techniques. In addition, the Model was developed by using the idea from the research and development approach (R & D) in order to develop the concept of the model. Therefore, the developed model relatively consisted of four components and are detailed as follows:

1. **Component 1 : Principle**

Task-based reading instruction model integrating with Collaborative Strategic Reading and creative thinking strategies can help to develop students' reading competence and strategies use in order to achieve their learning purposes. It can motivate learners to use the language in real-life situations. Task-based activities allow students using meaning focused more than form focused. Students develop their reading and creative thinking competence.

2. **Component 2: Objective**

The objective of Reading Instructional Model through Task-based approach, integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques was to enhance students' reading comprehension ability and employment of reading and creative thinking strategies after using task-based reading instruction model.

3. **Component 3: Learning and Teaching Procedures**

Learning and teaching procedures of CREATE Instructional model consists of four steps and are discussed as follows:

Step1 (Pre-task) Conceptualizing (**C**)

1.1Model and teach strategies

a. **Preview**

(1)Look at the title, subheadings, pictures, captions and graphs etc., and skim the text to look for key words and identify text structures, (2) Think of everything you already know about the topic, (3) Predict what you think you will learn (make a guess what you might learn).and (4) List your prediction in the learning log.

b. Click and Clunk & Fix-Up

(1) Identify clunks and write in your learning log, (2) Use fix-up strategies to figure out the meaning of the clunks; 1) Reread the sentence with the Clunk and look for key ideas to help you figure out the word. Think about what makes sense, 2) Reread the sentences before and after the Clunk, looking for clues.3) Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know, 4) Look for a cognate that makes sense or use a dictionary to find out the meanings and write a brief definition or explanation in your learning log.

c. Get the gist

(1) Name the most important who and what in the paragraph, (2) Tell the most important information about who and what, and (3) Write a gist statement of ten words or less, leaving out details**.**

d. Wrap Up

Go over the important information you have learned by: (1) Identify the most important information in the text, and (2) Think of questions and write them in the learning log. Then, review what you have learned and write in the learning log.

In the Conceptualizing step, the teacher prepares students to know about reading strategies they can use while reading. Four reading strategies are introduced to students through modelling by the teacher; Preview, Click &Clunk and Fix-Up strategies, Get the Gist and Wrap Up. The teacher used the first paragraph of the reading text to model the strategies and through think aloud protocol so that students can follow how to use each strategy.

Firstly, the teacher begins with Preview strategy; students learn how to activate background knowledge and make prediction through looking at the title,

subheadings, pictures, captions and graphs etc., and skimming the text to look for key words and identifying text structures. Then the teacher model through thinking aloud of what the teacher already knows about the topic. After that, the teacher shows how to predict what will be learned through thinking aloud.

Step2 (Task Cycle) Reacting (R)

2.1 Form mixed ability groups with assigned role for each member

2.2 Implement Preview Strategy:

2.3 Implement Click and Clunk and Fix-Up Strategy:

2.4 Implement Get the Gist Strategy:

2.5 Implement Wrap up Strategy:

In this stage, the teacher explains the expectations of each role in the groups, then display CREATE learning log and explain how students use the learning log while reading the given text. After students understand well, they are assigned in groups of six according to the pre-test scores. Each member has his/her own role as follows;

Leader

Leader's role: to guide the group in the use of 4 reading strategies (1) Preview, (2) Click and Clunk, (3) Get the Gist, and (4) Wrap Up plus 1 creative thinking strategy; SCRAMPER. The leader reminds group members when to do their jobs and helps the group to stay on track. The leader uses cue card to prompt group members about the 4 strategies and group assignments.

Announcer

Announcer's role: to make sure that each member of the group participates in group work by sharing their good ideas. When the leader indicates the announcer calls on different group members to read or share an idea and makes sure that all members have a chance to talk or no one talks too much. The announcer reminds the group to talk one by one.

Clunk Expert

Clunk expert's role: to help the group members figure out words they don't understand. The clunk expert starts by asking if any member has clunks then uses the Clunk Expert's cue card to help figure out clunks. The Clunk expert helps group

members clarify any misunderstandings they may have and summarize the meaning of the clunk so that each member can write the meaning in their leaning logs.

Gist Expert

Gist expert's role: to work with the group to decide on the best gist for each section of the reading task or assignment. The gist expert helps the group decide on the main ideas for each section by asking members to write their gists in their learning logs, after the announcer calls on someone to share a gist, ask the group if they agree then urge the group to decide on the best gist.

Encourager

The Encourager's role: to watch the group and let group members know when they do something well. This helps all members feel part of the group and feel good about the contributions they make. The encourager is in charge to watch each member of the group, use the encourager's cue card to help thinking of good things to say about: (1) how your group worked together and (2) how the group helped each other learn, then help the group discuss things that will help the group work better together.

Timekeeper

The Timekeeper's role: to help the group complete the reading assignment in a timely way to make best use of the class time. The time keeper is in charge of setting the timer for each reading section starting when the leader tells the group to begin. The timekeeper should let the leader and other members know when it is time to move on.

The teacher guides and supervises students to implement Preview, Click and Clunk and Fix-Up, Get the Gist and Wrap up Strategy while reading from the second paragraph to the end of the reading text. Working in groups according to each role, students write down what their think aloud is in the respective parts of CREATE learning log.

Step3 (Post task) Thinking Creatively (T)

3.1 Model and Implement **SCAMPER**

The teacher models how to use SCAMPER; (1) First state the problem you'd like to solve or the idea you'd like to develop, (2) Then ask questions about it

using the SCAMPER checklist to guide you, (3) Select the idea you like most and (4) Write the idea in your learning log.

3.2 Create product/Outcome

Students are assigned to work collaboratively to create an idea or outcome in tangible form or visual presentation in respect of the second reading text. Students' task for creative thinking is to find a solution for the reading text according to the given scenario/condition, using the SCAMPER checklist to guide them. This task is an assignment with 1 week period given to accomplish.

3.3 Make presentation

Working in groups, students collaboratively prepare for the group presentation to present the idea to the class their creative idea (through visually describe the product/outcome/solution derived by SCRAMPER technique; in any form of power point presentation, chart, graph, or other tangible forms)

Step4 (Post task) Evaluation

4.1 Evaluate reading comprehension ability

After reading and doing tasks for second reading text, 10 item reading comprehension test with 4 multiple choices will be taken by students, in order to evaluate their reading comprehension ability.

4.2 Evaluation for Creative Thinking Ability; evaluating products/outcomes by;

(1) peers, (2) the teacher, and (3) self -assessment

The groups of students are given 1 week to finish their creative task or project and they have to present to the class. The teacher has to explain the rubric; how they will be scored and students are evaluated on their idea presentation by other groups. Spontaneously, students evaluate creative ideas of other groups (peer evaluation), using the same given rubric score. The teacher also grades ideas of each group with the same rubric, then combine the 3 sources of score and divide by3 to make the total score of each group.

4.3 Evaluation for reading strategy usage

According to the same text used for generating creative ideas (the second text), students are assigned a homework to read the reading text individually (The same text used in reading comprehension test). After reading, students fill in My Strategic Reading Log to record their think aloud while reading the assignment. Then students

fill in the Self report questionnaire to reflect how they use reading strategies while reading in order to gather both qualitative and quantitative data.

4. Model-implemented condition components

4.1 Social system: cooperative learning, individual learning, and learning by doing. Cooperative learning occurs when students work together in small groups to accomplish shared goals and to maximize their own and each other's learning. The goals students have to reach are (a) to assure that they learn the assigned material or complete the assigned task, and (b) to make sure that all other members of their group do likewise. (Johnson & Johnson, 1991, Klingner, J.K. et al., 2001). Students are assigned to work in groups of 4 with heterogeneous members in terms of gender, reading achievement level or other relating attributes. There should be rules for learning in groups in order to control noise in the class, keep students attention to the lesson, assure participation of all members, and keep time for each lesson. The teacher needs to carefully define and model appropriate group behaviors; some of them are how to listen attentively, ask clarifying question, take turns speaking, and resolve conflicts.

4.2 Principle of reaction: Teacher's role as a facilitator and students' role as learning and acquiring by doing.

(a) The teacher's role in facilitating group work learning; the teacher assigns students to groups and then assigns roles to each members of a group. At least 3 roles are essential for CSR; Leader, Clunk expert, and Gist expert while other roles; encourage, announcer and time keeper can be multiple assigned. The teacher should monitor the performance of each group by checking the learning logs of each group to assure that students are actively participating in all of the strategies and using them effectively, checking the definitions students have written for their clunks to assure that they are accurate, assisting groups with clunks that they have not been able to resolve so that understanding the text is easier for them, providing feedback for their gists and leading class discussion. The whole class activities are ideal at the beginning and at the end of each unit.

(b) The essential to success of cooperative learning groups is that each student in the group has a meaningful role that contributes to the overall success of the group.

During the lesson students are assigned group tasks; each member has their own specific role as the following role description.

Leader

Leader's role: to guide the group in the use of 4 reading strategies (1) Preview, (2) Click and Clunk, (3) Get the Gist, and (4) Wrap Up plus 1 creative thinking strategy; SCRAMPER. The leader reminds group members when to do their jobs and helps the group to stay on track. The leader uses cue card to prompt group members about the 4 strategies and group assignments.

Announcer

Announcer's role: to make sure that each member of the group participates in group work by sharing their good ideas. When the leader indicates the announcer calls on different group members to read or share an idea and makes sure that all members have a chance to talk or no one talks too much. The announcer reminds the group to talk one by one.

Clunk Expert

Clunk expert's role: to help the group members figure out words they don't understand. The clunk expert starts by asking if any member has clunks then uses the Clunk Expert's cue card to help figure out clunks. The Clunk expert helps group members clarify any misunderstandings they may have and summarize the meaning of the clunk so that each member can write the meaning in their leaning logs.

Gist Expert

Gist expert's role: to work with the group to decide on the best gist for each section of the reading task or assignment. The gist expert helps the group decide on the main ideas for each section by asking members to write their gists in their learning logs, after the announcer calls on someone to share a gist, ask the group if they agree then urge the group to decide on the best gist.

Encourager

The Encourager's role: to watch the group and let group members know when they do something well. This helps all members feel part of the group and feel good about the contributions they make. The encourager is in charge to watch each member of the group, use the encourager's cue card to help thinking of good things to say

about: (1) how your group worked together and (2) how the group helped each other learn, then help the group discuss things that will help the group work better together.

Timekeeper

The Timekeeper's role: to help the group complete the reading assignment in a timely way to make best use of the class time. The time keeper is in charge of setting the timer for each reading section starting when the leader tells the group to begin. The timekeeper should let the leader and other members know when it is time to move on.

The teacher guides and supervises students to implement Preview, Click and Clunk and Fix-Up, Get the Gist and Wrap up Strategy while reading from the second paragraph to the end of the reading text. Working in groups according to each role, students write down what their think aloud is in the respective parts of CREATE learning log.

Step3 (Post task) Thinking Creatively (T)

3.1 Model and Implement **SCAMPER**

The teacher models how to use SCAMPER; (1) First state the problem you'd like to solve or the idea you'd like to develop, (2) Then ask questions about it using the SCAMPER checklist to guide you, (3) Select the idea you like most and (4) Write the idea in your learning log.

3.2 Create product/Outcome

Students are assigned to work collaboratively to create an idea or outcome in tangible form or visual presentation in respect of the second reading text. Students' task for creative thinking is to find a solution for the reading text according to the given scenario/condition, using the SCAMPER checklist to guide them. This task is an assignment with 1 week period given to accomplish.

3.3 Make presentation

Working in groups, students collaboratively prepare for the group presentation to present the idea to the class their creative idea (through visually describe the product/outcome/solution derived by SCRAMPER technique; in any form of power point presentation, chart, graph, or other tangible forms)

Step4 (Post task) Evaluation

4.1 Evaluate reading comprehension ability

After reading and doing tasks for second reading text, 10 item reading comprehension test with 4 multiple choices will be taken by students, in order to evaluate their reading comprehension ability.

4.2 Evaluation for Creative Thinking Ability; evaluating products/outcomes by;

(1) peers, (2) the teacher, and (3) self -assessment

The groups of students are given 1 week to finish their creative task or project and they have to present to the class. The teacher has to explain the rubric; how they will be scored and students are evaluated on their idea presentation by other groups. Spontaneously, students evaluate creative ideas of other groups (peer evaluation), using the same given rubric score. The teacher also grades ideas of each group with the same rubric, then combine the 3 sources of score and divide by3 to make the total score of each group.

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how to listen attentively, ask clarifying question, take turns speaking, and resolve conflicts.

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(b) The essential to success of cooperative learning groups is that each student in the group has a meaningful role that contributes to the overall success of the group. During the lesson students are assigned group tasks; each member has their own specific role as the following role description.

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Leader's role: to guide the group in the use of 4 reading strategies (1) Preview, (2) Click and Clunk, (3) Get the Gist, and (4) Wrap Up plus 1 creative thinking strategy; SCRAMPER. The leader reminds group members when to do their jobs and helps the group to stay on track. The leader uses cue card to prompt group members about the 4 strategies and group assignments.

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The Encourager's role: to watch the group and let group members know when they do something well. This helps all members feel part of the group and feel good about the contributions they make. The encourager is in charge to watch each member of the group, use the encourager's cue card to help thinking of good things to say about: (1) how your group worked together and (2) how the group helped each other learn, then help the group discuss things that will help the group work better together.

Timekeeper

The Timekeeper's role: to help the group complete the reading assignment in a timely way to make best use of the class time. The time keeper is in charge of setting the timer for each reading section starting when the leader tells the group to begin. The timekeeper should let the leader and other members know when it is time to move on.

Support system: Materials, tools and multimedia resources. The reading materials used for CRTE Model are expository texts characterized by: (a) clues that help students predict what they will be learning, (b) definitions for key vocabulary built into the text, (c) one main idea in a paragraph with relevant supporting details, and (d) context that helps students connect new information with prior knowledge. Other needed tools are CREATE learning log, adapted from CSR Learning log, CSR

Cue card or sheets, CSR Clunk cards. Furthermore multimedia resources are useful to provide background knowledge to students and help them visualize what they read.

Component : The evaluation

Results of the evaluation of the Reading Instructional Model through Task-Based approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational Diploma students was evaluated and verified by five expert. The evaluation examined the following outcomes gained by students, 1) reading comprehension abilities, 2) creative thinking abilities, and 3) the use of reading strategies.

1.5 The draft Model Approved by the Experts

This section describes the approval process of the Model by experts. Five experts were asked to evaluate the efficiency of the draft of Reading Instructional Model. The five experts consisted of three qualified instructors who possess knowledge, capability, experienced and achievements in English Instruction, task-based teaching, reading comprehension strategies and two high profile experts in instruction and curriculum or research and curriculum development. The experts were asked to investigate and validate the efficiency of the model. Details and subject of investigation were principles, objectives, teaching steps, and evaluation. The experts were asked to evaluate the rationality of the theories, the probability, and the congruence of the Reading Instructional Model, and to examine whether the model met the criteria. Table 6 and Table 19 illustrate the descriptive statistics (mean and S.D.) of the theories' rationality, probability, and congruence of the Reading Instructional Model accordingly.

Table 24 Results of the congruence on theories rationality and probability of the draft model by experts

Evaluation Details	Scores					
	Theories Rationality			Probability		
	$\bar{X}$	S.D.	Interpretation	$\bar{X}$	S.D.	Interpretation
1. Principles of the Reading Instructional Model are related to theories and fundamental concepts.	4.80	0.45	highest congruence	4.80	0.45	highest congruence
2. Objective of the Reading Instructional Model is related to principles, theories, and fundamental concept.	4.40	0.55	high congruence	4.80	0.45	highest congruence
3. Learning and teaching procedures are related to theories, and fundamental concepts. The teaching steps are appropriate in reading strategies instruction.	4.80	0.45	highest congruence	4.40	0.55	high congruence
4. Conceptualizing step is appropriate to prepare students about the topics and contents that they will encounter.	4.40	0.55	high congruence	4.60	0.55	highest congruence
5. Reacting step is appropriate for helping students to learn CSR	4.60	0.55	highest congruence	4.20	0.45	high congruence

strategies.						

Table 24: Results of the congruence on theories rationality and probability of the draft model by experts (Continued)

Evaluation Details	Scores					
	Theories Rationality			Probability		
	$\bar{X}$	S.D.	Interpretation	$\bar{X}$	S.D.	Interpretation
6. Thinking Creatively step is appropriate for students to practice creative thinking skill.	4.80	0.45	highest congruence	4.40	0.55	high congruence
7. Evaluating step is an appropriate step to help students reflect and apply what they have learned.	4.20	0.45	high congruence	4.20	0.45	high congruence
8. Implementing the Reading Instructional Model can be employed effectively in reading classrooms.	4.20	0.45	high congruence	4.20	0.55	high congruence
9. Results of the Reading Instructional Model is related to the objective of the Reading Instructional Model	4.80	0.45	highest congruence	4.60	0.55	highest congruence
Total	4.56	0.50	highest congruence	4.47	0.50	high congruence

Table 24 indicates the congruence on theories rationality of the draft of Reading Instructional Model. According to the descriptive statistics, it shows that the theories rationality of the draft of Reading Instructional Model was at a highest level

($\bar{x}$ = 4.56, S.D. = 0.50). It can be concluded that the draft of Reading Instructional Model was congruent to the theories' rationality. The probability of the draft of Reading Instructional Model was at a high level ($\bar{x}$ = 4.47, S.D. = 0.50). It can be concluded that the draft of Reading Instructional Model was congruent to the probability, and can be used to implement the model in the next phase.

Table 25 Results of the congruence of the draft of Reading Instructional Model

Evaluation Details	**Scores of Congruence**		**Interpretation**
	$\bar{X}$	**S.D.**	
1. Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent to enhance the reading abilities of Vocational students	5.00	0.00	highest congruence
2. Each component of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent and relevant to others in enhancing the reading abilities of Vocational students.	4.20	0.45	high congruence
3. Learning & teaching procedures of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent and relevant in enhancing the reading abilities of Vocational students.	4.40	0.55	high congruence
4. The implementation of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent in enhancing the reading abilities of Vocational students, and to the objectives of the Model.	4.40	0.55	high congruence
5. Tools used in each steps of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques are congruent in enhancing the reading abilities of Vocational students and to the implementation	4.80	0.45	highest congruence
6. Evaluation and assessment methods are congruence to the objective of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent in enhancing comprehension reading abilities	4.60	0.55	highest congruence
Total	4.57	0.50	highest congruence

Table 25 indicates the efficiency on the congruence of the draft of Reading Instructional Model. According to the descriptive statistics, findings showed that the congruence of the draft of Reading Instructional Model was at a highest level ($\bar{x}$ = 4.57, S.D. = 0.50). It can be concluded that the draft of Reading Instructional Model was congruent. In addition to the findings from the above descriptive statistics, there were some comments and suggestions given by the experts to improve the draft model. Comments and suggestion are presented in Table23 below.

Table 26 Comments and suggestions from the experts

Comments / Suggestions Received	**Comments Revised**
1. The teaching steps should be logically rearranged to be more efficient and to reduce confusion in practice. There were 5 teaching steps of the Model and too many sub steps that lead to confusion and complication in teaching,	1.1 The teaching steps were rearranged in only 4 steps; step1 was the merging of pre-task and pre-reading step, step2 was the merging of task-cycle and while –reading step, step3 was the merging of post-task and post reading step, and step4 was the evaluation of 3 outcomes. 1.2 Some sub steps such as 'setting a purpose' was deleted, which it was actually embedded in the teaching steps of the Model. . 1.3 To be logical and time efficient, the evaluation should start from reading
2. Instructions of each task and learning log should be more clarified.	comprehension after students read the second reading text in class, then the creative thinking assignment and reading strategy usage could be as assignment, so that students would have time to deliberately accomplish the 2 evaluations. 2. Clearer instructions of all tasks and the learning log were improved as suggested.

According to the above comments and suggestions from the experts, the researcher amended the Reading Instructional Model accordingly. Then, the

researcher tried out the revised Reading Instructional Model with the participants who were similar to the sample group.

Part II: Part II: Results of the effectiveness of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students based on the assigned criteria 80/80 (E_1 / E_2)

After the tryout, the researcher implemented the Reading Instructional Model with the sample group. Details of the implementing phase are explained as follows:

Table 27 The effectiveness of the Reading Instructional Model

Item	Total score	Number of students	$\bar{x}$	S.D.	Criteria	Efficiency
Process (E1)	80	40	66.77	0.88	80	83.03
Product (E2)	50	40	41.45	3.61	80	82.90

Table 27 demonstrates that the effectiveness of the process and product (83.03/82.90) was improved and met the criteria of 80/80.

Concerning the efficiency of CSR for reading performance, the related comments from students were as follows; "I have never known that we can use strategies for reading. I always hate reading class because I never succeed in reading English. This is my first time being introduced the strategies. I think it is very useful and I will use it when I need to read." (Subject no. 15), "Learning in steps with collaboration kept me concentrate in the lessons. Working in groups with assigned roles helped us focus on our duties. I found our group finished assigned works earlier than ever as compared to other classes." (Subject no. 21), "At first, I felt it was very difficult to learn since there were many steps, but once I was familiar with each step, it seemed to be easy following each steps." (Subject no.5). and "During the final test,

I felt more confident than ever since I can remember the strategies I learned in each lesson and these helped me to do better in the test." (Subject no. 38).

Part III: Results of students' reading comprehension performance by comparison between pre-test and post-test after the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

This section provides the results of the implementation of the Reading Instructional Model through Task-based approach, integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to enhance creative thinking of Vocational diploma students. The Reading Instructional Model was implemented with a sample group of 40 students, studying in year one of Vocational diploma, majoring in Accounting. The implementation was conducted with the participants in the classroom for the course of Business English in the second semester of academic year B.E. 2560, at Rayong Technical College.

In the first session of the experiment, a pretest was given to all 40 samples. Then, the same test was administered as posttest to the same target group in order to collect data after the treatment of the Reading Instructional Model. The comparison of reading abilities before and after the treatment of the Reading Instructional Model differentiated by five abilities is in table 28.

Table 28 The comparison of reading abilities before and after the treatment of the Reading Instructional Model differentiated by five abilities

Sample group	Treatment	No. of Students	Total Scores	$\bar{x}$	S.D.	T-test value	P
Abilities in Total	Before	40	50	15.53	2.11	55.80	.00
	After	40	50	41.45	3.61		
(1) Predicting ability; finding clues in the title, subheading, pictures and content of passage	Before	40	4	1.08	0.86	16.15	.00
	After	40	4	3.53	0.60		
(2) Identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships	Before	40	5	1.68	0.83	17.76	.00
	After	40	5	4.58	0.64		
(3) Dealing with vocabularies,	Before	40	11	3.85	1.12	20.82	.00
	After	40	11	10.05	1.20		
(4) Recall of details, and main ideas,	Before	40	14	3.88	1.38	19.88	.00
	After	40	14	11.38	2.24		
(3) Making inferential and summarizing	Before	40	16	5.05	2.03	13.96	.00
	After	40	16	11.93	2.50		

The overall descriptive statistics of the participants' performance on the pretest and posttest is presented in Table 25 above. The mean scores of pretest and posttest were compared by using a pair sample t-test. The mean score of pre-test scores was 15.73, S.D = 2.24. The mean of posttest scores was 41.45, S.D = 3.61. The results revealed that the students acquired better English comprehension reading abilities after the implementation of the Reading Instructional Model, at a statistically

significant 0.01. This revealed that the mean of posttest scores received significantly higher scores than the pretest. The differences between pretest and posttest were statistically significant at the level of ($p<0.01$), which is in accordance with research hypothesis no. 2. In comparison of each reading comprehension ability according to the test specification; (1) Predicting ability; finding clues in the title, subheading, pictures and content of passage, (2) Identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships, (3) Dealing with vocabularies, (4) Recall of details, and main ideas, and Making inferential and summarizing, after the treatment ($\bar{x}$ 3.53, S.D.=0.60, $\bar{x}$ 4.58, S.D. =0.64, $\bar{x}$ 10.05, S.D.= 1.20, $\bar{x}$ 11.38, S.D.= 2.24, $\bar{x}$ 11.93, S.D.= 2.50, respectively) was higher than before the treatment of the Reading Instructional Model ($\bar{x}$ 1.08, S.D.= 0.86, $\bar{x}$ 1.68, S.D.= 0.83, $\bar{x}$ 3.85, S.D.= 1.12, $\bar{x}$ 3.88, S.D.= 1.38, $\bar{x}$ 5.05, S.D.= 2.03, respectively).

Moreover, the results of the test after the treatment of the Reading Instructional Model was converted into percentage of mean scores comparing to the total score at 100% and the rank of each reading ability was also stipulated in the table 29 in the next page.

Table 29 The results of reading abilities in percentage and the rank after the treatment of the Reading Instructional Model differentiated by five abilities

Reading abilities	No. of Students	Total Scores (100%)	$\bar{x}$	S.D.	% of $\bar{x}$	Rank
(1) Predicting ability; finding clues in the title, subheading, pictures and content of passage	40	4	3.53	0.60	88.25	3
(2) Identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships	40	5	4.58	0.64	91.60	1
(3) Dealing with vocabularies,	40	11	10.05	1.20	91.36	2
(4) Recall of details, and main ideas,	40	14	11.38	2.24	81.28	4
(5) Making inferential and summarizing	40	16	11.93	2.50	74.56	5

Reading abilities in total	40	50	40.70	3.96	81.40

It is shown in the table 29 that the percentage of the overall reading abilities were at high level (81.40%). In consideration of each ability, it was found that the first rank ability was '*Identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships*' (91.60%) with the mean score of 4.58 out of 5. The second rank was *'Dealing with vocabularies*' (91.36%) with the mean score of 10.05 out of 11. While the third rank was '*Predicting ability; finding clues in the title, subheading, pictures and content of passage'* (88.25%) with the mean score of 3.53 out of 4, followed with the fourth rank '*Recall of details, and main ideas'* (81.28%) with the mean score of 11.38 out of 14, and the fifth rank '*Making inferential and summarizing'* (74.56%) with the mean score of 11.93 out of 16. The figure 12 below depicts the comparison of reading abilities.

In conclusion, the reading abilities after the treatment of Reading Instructional Model had significantly increased.

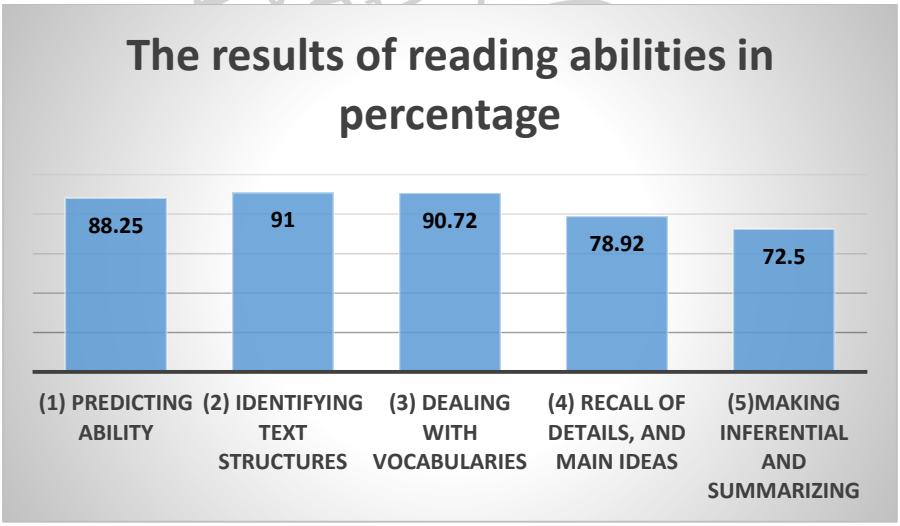

Figure 12 : The results of reading abilities in percentage

There were comments of students related to collaboration in group works and the approach of scaffolding by the teacher; "I like studying and working in group works. By sharing ideas and discussion, this helps me to better comprehend what I read." (Subject no.8) and "It was good to work in groups and the teacher always helped us when we needed. As we worked through discussion and get closely

monitoring by the teacher, we learned well and get deeper understanding." (Subject no.28)

There were also comments of students reaffirmed the merits of the Reading Instructional Model; "Learning in this way makes me feel more relax and motivated." (Subject no. 33) and "Learning through this model helps me to get more understanding in what I read and get more confidence to read in the future." (Subject no.33)

Moreover, one student affirmed the benefits of authentic material use; "I think it is interesting that we can enjoy learning through the content in business matters that I always thought it was boring." (Subject no.4)

Part IV: Results of students' creative thinking performance after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

4.1 Results of students' creative thinking performance after using the Reading Instructional Model

This section describes the results of students' creative thinking performance after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques, which were carried out after each lesson. 7 groups of students were assigned to use SCAMPER Techniques to generate the creative ideas in relation to the second reading text of each unit. After the presentation of each group, the creative thinking ideas were evaluated through the Creative Thinking Rubric provided by the researcher; the total score was 12. There are 4 traits evaluated by the Rubric, each trait is divided into 3 levels; Exemplary=3, Satisfactory=2, and Unsatisfactory=1. Therefore, the researcher set the passing criteria for creative thinking ability at Satisfaction level, with at least 8 scores. The evaluation was done by 1) the teacher, 2) self-evaluation in each group, and 3) Peer (the other 6 groups) using the Rubric; firstly, the scores from peers were summed up and averaged into 12, then added with the scores from the teacher and self-evaluation scores of the group, which were averaged to have total scores of 12. The results are shown as follows:

Table 30 Results of students' creative thinking performance after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques

Creative performance	No. of Students	Total Scores	$\bar{x}$	S.D.	T-test value	P
Unit 1	40	12	8.55	0.25	3.72	.00**
Unit 2	40	12	8.82	0.36	7.34	.00**
Unit 3	40	12	9.22	0.30	17.21	.00**
Unit 4	40	12	9.63	0.46	16.82	.00**
Unit 5	40	12	10.72	0.39	37.94	.00**
Unit 6	40	12	11.34	0.35	52.83	.00**
Unit 7	40	12	11.53	0.34	57.45	.00**
Unit 8	40	12	11.73	0.25	82.74	.00**
Total	40	12	10.19	0.16	70.61	.00**

According to table 30, it was found that the creative thinking performance of students after the treatment of Reading Instructional Model were significantly higher than the criteria (70%) at 0.01 level in overall and in each unit.

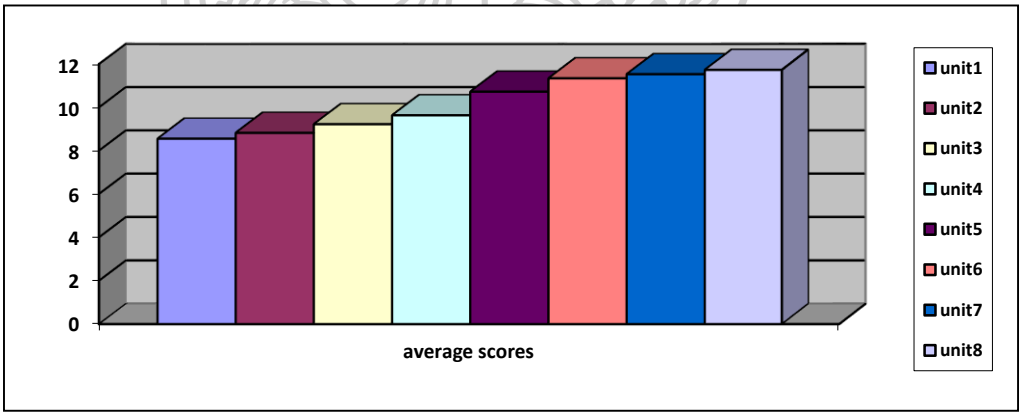

Figure 13 Average scores of creative thinking performance of students

Figure 13 shows the comparison of average scores, derived by the evaluation of creative thinking tasks in each unit. It was found that the creative thinking ability of students after the treatment of Reading Instructional Model had been gradually improved.

4.2 Example of Creative Thinking Tasks using SCAMPER Techniques

The example of creative thinking tasks using SCAMPER Techniques as excerpted from Students' CREATE logs are shown in table 31-34 as follows:

"**Example1**: Unit1 Instruction: Based on the above text, if you are the one who will run Luxottica very soon how can you improve or make any change for the company to get more profit using SCAMPER Techniques."

Table 31 Excerpt of creative assignment Unit1

SCAMPER	Your idea
S **Substitute**	Substitute low cost materials for producing eyeglass frame, for example aluminum.
C **Combine**	Combine some natural materials like sea shell to decorate on eyeglass frame to make it more beautiful.
A **Adapt**	Adapt 3D lens to normal use.
M **Modify/Minify/magnify**	Magnify sale volumes by having Buy2 get 3 promotion.
P **Put to other use**	Add GPS to the eyeglass to make it traceable when you forget it.
E **Eliminate**	Eliminate normal stores that are very expensive to sell online.
R **Reverse/Rearrange**	Have the cash on delivery service to assure buyers that they will get the product.

"Example2: **Unit3: Instruction:** Based on the above text, if you are the CEO of a company who want to implement the modern style management, how can you make any change for the company to reduce cost, bring about productivity and more profit using SCAMPER Techniques?"

Table 32 Excerpt of creative assignment Unit3

SCAMPER	Your idea
S **Substitute**	Substitute the common office hours to more flexible and different working times for employees, for example a worker can choose to work from 10.00 a.m. to 8.00 p.m., 4 days a week or the other can choose to work from 1.00 p.m. to 18.30 pm. every day.
C **Combine**	Combine home and the office. Employees can work at home if they want to.
A **Adapt**	Adapt the policy of Google company that all workers are free to work everywhere in the company. They can be in the canteen drinking coffee and having snacks, talking with colleagues or playing games all day long as long as they can finish their works.
M **Modify/Minify/magnify**	Reduce the number of employees and use outsource company for the works like housemaid, security guard and messenger.
P **Put to other users**	Use technologies and social networks as the channels to follow up works and communicate to each other instead of face to face communication so that the company has no longer need to have a big office or a lot of equipment.
E **Eliminate**	By allowing more workers to work at home, this will eliminate the cost of public utilities like water supply and electricity and the workers are also able to eliminate the cost of transportation.
R **Reverse/ Rearrange**	Instead of working in the daytime, our company should reverse working hour to the nighttime because during the nighttime the building is not busy and workers can concentrate more on their

	work.

"Example 3: Unit 6 Instruction: Based on the above text, if you are the one who is in charge of global recycling process for garbage how can you improve or make any change on earth to make the world better with Win-Win solution using SCAMPER Techniques?"

Table 33 Excerpt of creative assignment Unit6

SCAMPER	Your idea
S **Substitute**	Substitute the plastic and other waste by turning it into fuel or other useful products.
C **Combine**	Combine the vending machine to the process of buying waste from public. People can sell their waste through the vending machine. This can reduce waste litter.
A **Adapt**	Adapt recycled materials like plastic, glass or metal into furniture to produce the value added products.
M **Modify/Minify/magnify**	Magnify the recycling process by opening the outlet of recycled products worldwide.
P **Put to other users**	Hold a competition for design of waste products every year so that waste will be used and converted into useful recycled products.
E **Eliminate**	Eliminate the cost of sorting process by having a campaign for educating people how to sort each type of waste and pay higher for sorted waste. Then people will sort waste from home and collect their waste to exchange for money.
R **Reverse/Rearrange**	Instead of seeking to buy recyclable waste, the company can let people exchange their waste with the company's products.

"Example 4: Unit8 Instruction: Based on the above text, if you are the owner of a multi-national company based in various counties, how can you lead your company towards the top ten biggest companies in the world while coping with cultural differences using SCAMPER Techniques?"

Table 34 Excerpt of creative assignment Unit8

SCAMPER	Your idea
S **Substitute**	Substitute local staff from each country in place of importing professional staff from foreign country so that the local staff know well how to deal business in the country.
C **Combine**	Combine culture awareness program in all activities of the company, for example, in the company meeting, each staff from different countries tell what is the appropriate manners for their own culture in each situation and discuss in the meeting.
A **Adapt**	Adapt the merits of each culture when dealing business, for example, adapt Chinese culture when giving a gift to the business partner to create impressiveness, adapt Japanese culture for being polite for guests, or adapt western culture of being punctual in any appointment.
M **Modify/Minify/magnify**	Minify the occurrence of culture clash by screening people who have good knowledge about various cultures during the recruiting process through the paper test and interview.
P **Put to other users**	Do a research deeply about the uniqueness of each culture and harmonize your products in each culture and tradition. For example, design your products in Chinese style and practical to use in Chinese ceremonies, when

	you want to expand your market in China and do the same with other countries.

Table 34: Excerpt of creative assignment Unit8 (Continued)

SCAMPER	Your idea
E **Eliminate**	Eliminate the conflict derived by culture clash through educating all staff about all cultures they have to deal with, the code of conduct for doing business in each country and handbook for dealing business in each country.
R **Reverse/Rearrange**	Instead of focusing only giving education to our staff, we can hold a seminar or training to let local people learn our culture and traditions. This will make local people have better understanding to our culture and it will be less likely to have culture clash.

In conclusion, both quantitative and qualitative data had shown that Creative thinking abilities of students had been improved and reached the set criteria after the treatment of CRTE Model and some ideas are practical for real-life use.

Many students were lively and actively when they talked about the step of creative thinking in the CRTE Model; for example "Thinking creatively is my favorite part, since I can express my ideas freely." (Subject no.40), "I enjoyed studying and doing task through SCAMPER Techniques. It is practical that I will use the techniques for my future careers and also in my daily life." (Subject no.7), "I like the step of creative thinking because I can think outside the box, no right or wrong answers. I also enjoyed listening to presentation of other groups. We were laughing a lot with their weird ideas." (Subject no.9), "Sharing ideas through the presentation had widened our visions. We got a number of ideas we can adapt to our projects in the future." (Subject no.18) and "Not only my creative thinking that improved but also my critical thinking after pursuing this step." (Subject no.26).

Students also reflected on the assessment scheme that "It is good to have peer and self-assessment. This made us know better for the criteria and we tuned our work

to reach the criteria as much as possible. We became more mastery and confident on working with assigned creative tasks." (Subject no. 29).

Part V: Results of multiple reading comprehension strategy usage of students after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students.

5.1 Results of multiple reading comprehension strategy usage of students

This section describes the results of the self-report questionnaire of students using multiple reading comprehension strategies which were carried out after each lesson. The self-report questionnaire was administered to study the frequencies of multiple reading comprehension strategies used by the students while processing reading. The results are shown as follows:

Table 35 The frequencies of multiple reading comprehension strategies used by the students

Item	Statement	Results		
		$\overline{X}$	S.D.	Level
1	**Preview Strategy** I involved in brainstorming activity before reading	4.53	0.67	Highest
2	I involved in predicting activity before reading	4.58	0.51	Highest
3	I think about the cover, title and topic before reading.	4.45	0.89	High
4	I think about what I already knew about the topic.	4.48	0.67	High
5	I predict what will happen and adjust my predictions as I read.	4.48	0.67	High
6	**CLICK and CLUNK Strategy** I stop and check to see if I understand what I'm reading.	4.53	0.51	Highest
7	I identified CLUNK.	4.63	0.62	Highest
8	I reread the sentence with the Clunk and look for key ideas to help me figure out the word	4.55	0.51	Highest
9	I reread and discover the meaning of unfamiliar words by using context clues.	4.45	0.67	High
10	I Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words I know.	4.50	0.49	Highest

11	I Look for a cognate that makes sense or use a dictionary to find out the meaning.	4.75	0.51	Highest

Table 35: The frequencies of multiple reading comprehension strategies used by the students (Continued)

Item	Statement	Results		
		$\overline{X}$	S.D.	Level
12	**Get the Gist Strategy** I identify the gist or getting the main idea	4.53	0.90	Highest
13	I identify the supporting details	4.43	0.79	High
14	I wrote down gist in less than 10 words.	4.40	0.67	High
15	**Wrap Up Strategy** I generated questions	4.63	0.51	Highest
16	I wrote a summary of the passage.	4.63	0.51	Highest
Total		**4.53**	**0.65**	**Highest**

Table 35 reveals that multiple reading comprehension strategy usage of students after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques in overall was in the highest level. Considering in each item, it was found that students reported the usage of 11 strategies in the highest level; from I Look for a cognate that makes sense or use a dictionary to find out the meaning, I identified CLUNK, I generated questions, I wrote a summary or the passage, I involved in predicting activity before reading, I reread the sentence with the Clunk and look for key ideas to help me figure out the word, I involved in brainstorming activity before reading, I stop and check to see if I understand what I'm reading, I identify the gist or getting the main idea, to I Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words I know, respectively. The strategies used in high level by students were I think about what I already knew about the topic, I predict what will happen and adjust my predictions as I read, I reread the sentence with the Clunk and look for key ideas to help me figure out the word, I reread and discover the meaning of unfamiliar words by using context clues, I identify the supporting details, and I wrote down gist in less than 10 words, respectively.

5.2 Results of think-aloud protocol.

This section shows the results of think aloud protocol, which was carried out to gather qualitative data from the sample group after the treatment, to elicit the students' use of the multiple reading strategies during the reading process. Data of think-aloud protocol were collected from the think-aloud assessment form. Content analysis was applied to interpret the qualitative data from think aloud protocol. Table 36 below summarizes the findings on the frequency used by students.

Table 36 Findings of the Think-aloud protocol

Reading Comprehension Strategies	**%**	**Rank of strategy use**
1. Activate background knowledge	82.00	5
2. Making prediction	86.00	4
3. Self-comprehension monitoring	74.00	6
4. Fix-up strategy	97.00	1
5. Identifying main idea	72.00	7
6. Making Inference	61.00	8
7. Questioning	91.00	2
8. Synthesizing Information	89.00	3

Table 36 reports the reading comprehension strategies used by the students after the treatment. It was found that Fix-up strategy was the most frequently used by students, followed with Questioning, and Synthesizing information, respectively in second and third rank. Whereas, three of the least strategies used by students were Activate background knowledge, Self-comprehension monitoring and Making inference, respectively.

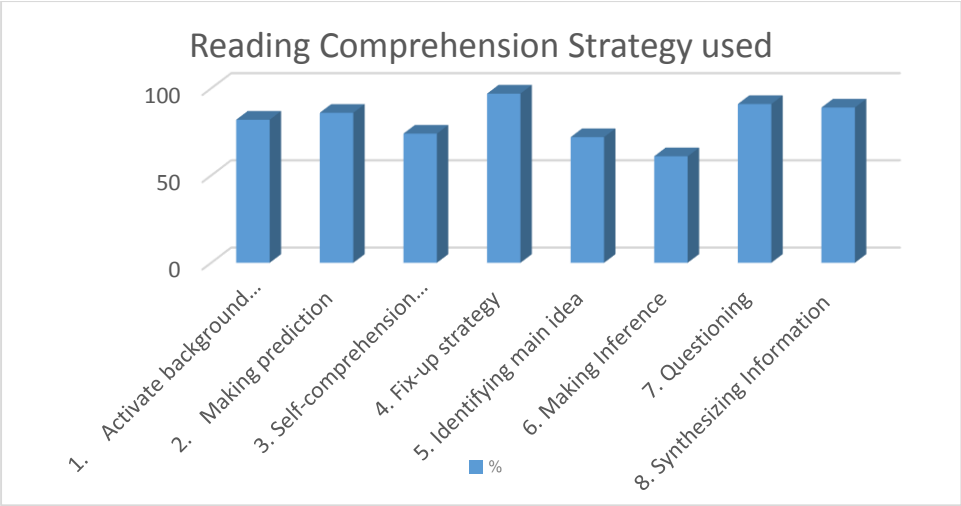

Figure 14: Frequency of reading comprehension strategies used

Figure 14 shows the frequency of reading comprehension strategies used by students. The most frequently used strategy was Fix-up strategy ($\bar{x}$ = 97.00). This might be because students usually got stuck by unknown words so they needed to use Fix-up strategies to help them understand the reading text. The second strategy used by students was Questioning ($\bar{x}$ = 91.00), and the third was Synthesizing information ($\bar{x}$ = 89.00), respectively. This might be because in the last steps of the reading process, students had to generate three types of questions; Right There, Think and Search and Author and You questions, and students needed to synthesize information to get the answers. Students gradually acquired these skills through practicing and doing exercises. While the least strategy used by students was Making inference ($\bar{x}$ = 61.00), might be because students were not familiar to the strategy. They felt it was difficult for them, as some students commented as follows:

"I have never learned how to infer before even in Thai. I do not have a clear understanding of what it is even though it was explained many times by the teacher."

"It is very difficult to think more than what is mentioned in the text since most of the time I cannot understand all of the reading text."

However, when a few lessons passed by, students seemed to be mastery in using reading skills as they reflected through some comments, for example "Actually, I hate reading English because there are too many words that I cannot understand and looking for meaning in dictionary distracted me from the tasks. Reading with strategies made life easier." (Subject no.40, "I have never learned how to infer before even in Thai. I do not have a clear understanding of what it is even it was explained

many times by the teacher. However, I seem to have better understanding after some lessons through the practice of strategies." (Subject no.8) and "It is very difficult to think more than what is mentioned in the text since most of the time I cannot understand all of the reading text. However, I can notice that my frustration had been lessoned as lessons passed by" (Subject 23).

Furthermore, there were examples of students' comments for the merits of learning how to use reading strategies as follows;

Preview strategy: "The Preview strategy helps me to get deeper understanding in what we are going to read. Sometimes, I never realized what I already knew about what we were going to read until we discussed in our group." (Subject no.11)

"It is good that we checked what we already knew or what we do not know about the reading text, because we could share the ideas with others in the group and when we read it helped us to read the text easier." (Subject no.6)

"In our group, we brainstormed and selected for the best ideas. Sometimes, the ideas that came up fascinated us and made us proud of how smart we were." (Subject no. 2)

Think aloud: "In the beginning, I was confused when I had to think aloud, but after repeated the process for many times, I realized that this helped me a lot for the use of strategies and by this way, we checked and shared what we understood about the texts and corrected it." (Subject no. 36)

Fix up strategies: "I haven't learned about how to read without using dictionaries. I like the fix up strategy that I can break words apart or looking for its prefix and suffix. This helped me a lot to understand the unknown vocabularies." (Subject no.12)

"I think fix up strategies are useful. I will use them while reading. However, I still adhere to using dictionary if I can." (Subject no. 38)

Get the gist and Wrap up strategies: "I think my skills for summarizing and making questions had been improved through the steps of Get the Gist and Wrap up." (Subject no.23)

"By generate questions in three types; Right there, Think and Search and Author and You, I gained deeper understanding of the text along with critical

thinking. Although, it was very difficult to come up with each question." (Subject no. 36)

5.3 Example of the content analysis from think aloud protocol

In the section of think-aloud protocol, qualitative data gathered from think aloud protocol was conducted using the think-aloud assessment form at the end of each lesson. Student were assigned to read second reading text of each unit as home work. They had to write down what they were thinking while reading, in term of strategies used. Then, the researcher read and interpreted what the students had written in the assessment form. The qualitative data were grouped using content analysis and are discussed in terms of strategies used. The example of strategies used as excerpted from Students' reading logs are shown in the following table;

Table 37 Example of Think-aloud

Reading Comprehension Strategies	**Example of think aloud**
1. Activate background knowledge	"When I read the title, it is the Recruitment. What **I know about this** is how to apply for a job that I have to look for a job from job ads, then I need to send an email to apply for the job. After that the company will call me for an interview if they are interested in me. That's all what I know"
2. Making prediction	"**I predict that this text will tell me about** how to find a good job, how to prepare myself to get a good job or maybe some Dos and Don'ts during interview".
3. Self-comprehension monitoring	"**I found the words I do not understand**. There are too many words but I will try word by word, starting with the word qualification".
4. Fix-up strategy	"**I will use fix up strategy** no.1; reread the sentence. I still do not understand it so I use no.2; reread the sentences before and after clunk. It does not help me with the meaning. So I go to no.3, but it seems that the word qualification can be broken apart nor it is the word with prefix or suffix. I need to use no.4;

	look for the meaning in the dictionary. It means 'ability, characteristic, or experience that makes you suitable for a particular job or activity "
5. Identifying main idea	"**I will find the most important things in the text**. This text is about recruitment. In brief, it is about the method of finding people to work with a company."
6. Making Inference	"In summary, this text is about the process of finding people for working through headhunting or selection process. **I infer from the text that** the companies want good and skillful workers so they are carefully selecting for the best and the right person which will help them doing better

Table 37: Example of Think-aloud (Continued)

Reading Comprehension Strategies	**Example of think aloud**
7. Questioning	business". "…to **ask Think and search question**, I need to combine the answer from different part of the text. The first paragraph said about headhunting and the second paragraph said about recruitment. I will mix these to information so my question is 'What is the different between headhunting and recruitment?"
8. Synthesizing Information	"..to answer the Author and You question 'Do you want to be a headhunter, why or why not?' My answer is that I want to be a headhunter because I think it is a challenging job that requires various skills like persuading people to change their jobs, doing good research to get information of mastery people, good at negotiating and communicating and making good decision. Only smart people can do this job."

In conclusion, content analysis from Table 37 above shows that think-aloud protocol stipulated how students used reading comprehension strategies through the

steps of CRTE Model which integrated Collaborative Strategic Reading approach in the teaching steps. In fact, not all students could reflect the use of strategies like this. Some students had difficulties in writing their think aloud and needed much help from the teacher and some students wrote their think aloud in Thai which had been allowed by the researcher in order that their think aloud would be flow better in Thai. However, the think aloud protocol of students had shown gradual improvement as time passed by.

Part VI: Results of the Reading Instructional Model Verification

This section describes the verification process of the Model by 5 experts after implementing the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques.

6.1 Five experts were asked to evaluate the efficiency of the Reading Instructional Model. The five experts consisted of three qualified instructors who possess knowledge, capability, experienced and achievements in English Instruction, task-based teaching, reading comprehension strategies and two high profile experts in instruction and Educational research. The experts were asked to investigate and verify the efficiency of the model. Details and subject of investigation were principles, objectives, teaching steps, and evaluation. The experts were asked to evaluate the rationality of the theories, the probability, and the congruence of the Reading Instructional Model, and to examine whether the model met the three criteria. Table 22 and Table 23 illustrate the descriptive statistics (mean and S.D.) of the theories' rationality, probability, and congruence of the Reading Instructional Model respectively.

Table 38: Results of the verification of the model by experts

Evaluation Details	**Scores**					
	Theories Rationality		**Interpretation**	**Probability**		**Interpretation**
	$\bar{X}$	**S.D.**		$\bar{X}$	**S.D.**	
1. Principles of the Reading Instructional Model are related to theories and fundamental concepts.	4.80	0.45	Highest congruence	5.00	0.00	Highest congruence

2. Objective of the Reading Instructional Model is related to principles, theories, and fundamental concept.	4.80	0.45	Highest congruence	4.60	0.55	Highest congruence
3. Learning and teaching procedures are related to theories, and fundamental concepts. The teaching steps are appropriate in reading strategies instruction.	4.80	0.45	Highest congruence	4.80	0.45	Highest congruence

Table 38 Results of the verification of the model by experts (Continued)

Evaluation Details	**Scores**					
	Theories Rationality		**Interpretation**	**Probability**		**Interpretation**
	$\bar{X}$	**S.D.**		**$\bar{X}$**	**S.D.**	
4. Conceptualizing step is appropriate to prepare students about the topics and contents that they will encounter.	4.60	0.55	Highest congruence	4.80	0.45	Highest congruence
5. Reacting step is appropriate for helping students to learn CSR strategies.	5.00	0.00	Highest congruence	4.60	0.55	Highest congruence
6. Thinking Creatively step is appropriate for students to practice creative thinking skill.	4.60	0.55	Highest congruence	4.60	0.55	Highest congruence
7. Evaluating step is an appropriate step to help students reflect and apply	4.60	0.55	Highest congruence	4.60	0.55	Highest congruence

what they have learned.						
8. Implementing the Reading Instructional Model can be employed effectively in reading classrooms.	4.80	0.45	Highest congruence	4.80	0.45	Highest congruence
9. Results of the Reading Instructional Model is related to the objective of the Reading Instructional Model	5.00	0.00	Highest congruence	5.00	0.00	Highest congruence
Total	4.78	0.42	Highest congruence	4.76	0.43	Highest congruence

Table 38 indicates the efficiency on theories rationality of the Reading Instructional Model. According to the descriptive statistics. it showed that the theories rationality of the Reading Instructional Model was at a high level ($\bar{x}$ = 4.78, S.D. = 0.42). It can be concluded that the Reading Instructional Model was congruent to the theories' rationality. The probability of the Reading Instructional Model was at a high level ($\bar{x}$ = 4.76, S.D. = 0.43). It can be concluded that the Reading Instructional Model was congruent to the probability.

Table 39 Results of the congruence of the Reading Instructional Model

Evaluation Details	**Scores of Congruence**		**Interpretation**
	$\bar{X}$	**S.D.**	
1. Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent to enhance the reading abilities of Vocational students	5.00	0.40	Highest congruence
2. Each component of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent and relevant to	4.80	0.45	Highest congruence

others in enhancing the reading abilities of Vocational students.			
3. Learning & teaching procedures of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent and relevant in enhancing the reading abilities of Vocational students.	5.00	0.00	Highest congruence
4. The implementation of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent in enhancing the reading abilities of Vocational students, and to the objectives of the Model.	4.60	0.55	Highest congruence

Table 39: Results of the congruence of the Reading Instructional Model (Continued)

Evaluation Details	**Scores of Congruence**		**Interpretation**
	$\bar{X}$	**S.D.**	
5. Tools used in each steps of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques are congruent in enhancing the reading abilities of Vocational students and to the implementation	4.80	0.45	Highest congruence
6. Evaluation and assessment methods are congruence to the objective of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques is congruent in enhancing comprehension reading abilities	5.00	0.00	Highest congruence

Total	4.87	0.35	highest congruence

Table 39 indicates the efficiency on the congruence of the Reading Instructional Model. According to the descriptive statistics, findings showed that the congruence of the Reading Instructional Model was at a high level ($\bar{x}$ = 4.87, S.D. = 0.35). It can be concluded that the Reading Instructional Model was congruent.

In addition to the findings from the above descriptive statistics, there were some comments and suggestions given by the experts to improve the model. Comments and suggestion are presented in Table 40 in the next page.

Table 40 Comments and suggestions from the experts

Comments / Suggestions Received	**Comments Revised**
1. This model should be the perfect model and it will be the most beneficial reading model to help filling the gap of the reading problems of vocational student.	No revised
2. The evaluation by peer and self-evaluation may have a flaw due to students' lack of evaluation skills.	2. More explanation and instruction will be considered.
3. Having students to write their think aloud protocol in the learning log, may not get their complete thinking because some students may not be good at writing.	3. Teacher observation form was designed and used in students' think aloud process to gather information as much as possible.

3. There are a number of strategies that the teacher has to prepare for teaching and the teacher must have mastered in using the strategies in order to convey them to students.	3. The steps of teaching in the teacher manual were clarified and revised for better understanding of how to perform each step.
4. Instructions of activities should be written in both English and Thai version in order for weak students to understand.	4. Instructions will be translated into Thai.

After the Reading Instructional Model was verified by the experts, the Model was disseminated further to the other English teachers at Rayong Technical College.

CHAPTER V

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This chapter explains the conclusion, discussions, and recommendation for further study of the research on the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students. The research questions were;

1. What are the components and teaching procedures of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

2. Is there the efficiency on the assigned criteria 80/80 of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques?

3. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the reading comprehension ability of students?

4. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance the creative thinking skill of students?

5. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques enhance students' usage of reading comprehension strategies?

6. Will the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students be verified by experts at high level?

This study of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques, was conducted using a mixed-method approach; an integration of data collected from both quantitative and qualitative methods, which were then conducted in the embedded design using a triangulation approach. The researcher studied, and analyzed fundamental information, current conditions, problems in teaching English as a second language in Thailand, the Vocational course syllabus 'Business English' in Diploma level, and synthesized theories and principles, as well as research findings related to task-based teaching approach, multiple reading strategies, Collaborative strategic reading and, SCAMPER Techniques for fostering creative thinking. The researcher also investigated models of teaching and domestic and international researches in related topics, before coming up with the components of the Reading Instructional Model. The components of the Reading Instructional Model comprised principles, objectives, teaching and learning procedures, and evaluation. The researcher constructed a draft model of the Reading Instructional Model by synthesizing the theories of task-based teaching approach, multiple reading strategies,

Collaborative strategic reading and, SCAMPER Techniques for fostering creative thinking, before submitting to the supervisor for initial verification.

The Model was then approved by five experts. Revisions were then made in accordance with the comments and suggestions made of the experts before pursuing the research method. The researcher implemented the Model with a sample group of 40 first year of Vocational Diploma students at Rayong Technical College, majoring in Accounting, and had enrolled in Business English in second semester of 2017. The experiment was conducted for one sample group, administering both the pretest and posttest designs. Research instruments that were used in this study were; 1) 8 units of lesson plans, exercises and a teacher's manual, 2) Reading comprehension tests, 3) Self-report questionnaire for students' perceived use of reading strategies, 4) Think-aloud assessment form, and 5) Creativity evaluation form with Rubric score. The data collected from the instruments were analyzed both quantitatively and qualitatively. Descriptive statistics used for interpreting the research were mean scores, and standard deviations. Pair-sample t-test was used to compare the test scores of the sample group before the experiment of the Reading Instructional Model and after the experiment.

Conclusion

It can be concluded that the research study on Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students had a positive effect on the reading comprehension, achievement, creative thinking skills and reading strategy usage of Vocational Diploma students, majoring in Accounting at Rayong Technical College. The findings are summarized as follows;

1. The developed drafted Reading Instructional Model was evaluated by five experts and received a positive level evaluation. The drafted Model consisted of four components namely; principles, objectives, teaching and learning procedures, and

evaluation, and was named the "**CRTE Model**". The drafted Model composed of four steps: "Conceptualizing" (C), "Reacting" (R), "Thinking Creatively" (T), and "Evaluating" (E). The evaluation of the drafted Reading Instructional Model by the experts revealed that it was at the highest congruence to the theories' rationality and the probability. The theories' rationality was at the highest level ($\bar{x}$ = 4.56, S.D. = 0.50) and mean score of the probability was at a high level ($\bar{x}$ = 4.47, S.D. = 0.50), it thus could be used to implement the model in the next phase. The congruence of the Reading Instructional Model was also at the high level ($\bar{x}$ = 4.57, S.D. = 0.50).

2. The results after the implementation revealed that the efficiency of the model met the E1 / E_2 standard, which was consistent to the study's research hypothesis no. 2. The efficiency of the model was 83.03/ 82.90.

3. The students' reading comprehension abilities scores obtained in post-test were higher than pre-test after applying the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques (CRTE Model) at .01 level of significance. This was consistent with the study's research hypothesis no.3. The percentage of the overall reading abilities were at high level (81.40%). In consideration of each ability, it was found that the first rank ability was '*Identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships*' (91.00%) with the mean score of 4.55 out of 5. The second rank was *'Dealing with vocabularies*' (90.72%) with the mean score of 9.98 out of 11. While the third rank was '*Predicting ability; finding clues in the title, subheading, pictures and content of passage'* (88.25%) with the mean score of 3.53 out of 4, followed with the fourth rank '*Recall of details, and main ideas'* (78.92%) with the mean score of 11.05 out of 14, and the fifth rank '*Making inferential and summarizing'* (72.50%) with the mean score of 11.60 out of 16.

In conclusion, the reading abilities after the treatment of Reading Instructional Model had significantly increased. Therefore, the findings of this study revealed that the Reading Instructional Model had positive effects on the reading comprehension of EFL learners.

4. Students' creative thinking performance after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative

Strategic Reading (CSR) and SCAMPER Techniques, evaluated by 1) the teacher, 2) self-evaluation in each group, and 3) Peer (the other 6 groups) using the Rubric, passed the set criteria (70%). The average scores and percentage stipulates that creative thinking performance of students passed the criteria at 70% in 'Satisfactory' level in all units and had gradually increased to nearly reaching Exemplary level in Unit 8.

5. The results of the self-report questionnaire of students using multiple reading comprehension strategies after the implementation of the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques in overall was in the highest level. It was found that students reported the usage of 11 strategies in the highest level; 1) I Look for a cognate that makes sense or use a dictionary to find out the meaning, 2) I identified CLUNK, 3) I generated questions, 4) I wrote a summary of the passage, 5) I involved in predicting activity before reading, 6) I reread the sentence with the Clunk and look for key ideas to help me figure out the word, 7) I involved in brainstorming activity before reading, 8) I stop and check to see if I understand what I'm reading, 9) I identify the gist or getting the main idea, 10) I Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words I know, respectively. The strategies used in high level by students were; 1) I think about what I already knew about the topic, 2) I predict what will happen and adjust my predictions as I read,3) I reread the sentence with the Clunk and look for key ideas to help me figure out the word,4) I reread and discover the meaning of unfamiliar words by using context clues, 5)I identify the supporting details, and 6) I wrote down gist in less than 10 words, respectively.

Meanwhile, the results of think aloud protocol, which was carried out to gather qualitative data from the sample group after the treatment, to elicit the students' use of the multiple reading strategies during the reading process and the content analysis was applied to interpret the qualitative data from think aloud protocol. It was found that the most frequently used strategy was Fix-up strategy ($\bar{x}$ = 97.00). The second strategy used by students was Questioning ($\bar{x}$ = 91.00), and the third was Synthesizing

information ($\bar{x}$ = 89.00), respectively. While the least strategy used by students was Making inference ($\bar{x}$ = 61.00).

6. The verification by the experts revealed that the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques was at the highest congruence to the theories' rationality and the probability. The theories' rationality was at a high level ($\bar{x}$ = 4.78, S.D. = 0.42) and mean score of the probability was also at a high level ($\bar{x}$ = 4.76, S.D. = 0.43). The congruence of the Reading Instructional Model was at a high level ($\bar{x}$ = 4.87, S.D. = 0.35).

Discussion

The Development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students used a mixed-method research approach, and it examined whether the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques can enhance the English reading comprehension abilities, creative thinking abilities and reading strategy usage of Vocational Diploma students. The findings of the study will be presented following the six objectives of the study, followed with a discussion and reference to related literature.

1. The developed Reading Instructional Model was approved by five experts and the efficiency was at a high level. This might be due to the systematic design of the Model, which comprised four components, namely; 1) Principles 2) Objective 3) Learning and teaching procedures, and 4) Evaluation. The model was named "CRTE Model" as the Acronym of each step, which includes "Conceptualizing" (C), "Reacting" (R), "Thinking Creatively" (T), and "Evaluating" (E). The aim of the design was based on filling the gaps identified during the need analysis and literature review, which can be concluded as follows;

Firstly, the Reading Instructional Model was designed systematically based on the analysis and synthesis of the course syllabus, related theories and related researches in order to fill in the gaps identified as the needs of Vocational learners and

the actual situations and problems of English learning and teaching; the lack of motivation in reading class and the weak English background of students. Moreover, the content in each unit was based mainly on the need analysis of learners, by which the researcher took priority on the findings of learners needs for the topic of interests and language functions. Besides, the reading texts were excerpted from authentic materials and accorded to the trend of 21st century's need awareness. This concept is consistent to what Iliana Franco-Castillo (2013) suggested in her study about benefits to students when using authentic materials.

Secondly, the Reading Instructional Model then was an integration of the merits of each theory; Task Based Teaching Approach, Collaborative Strategic Reading and SCAMPER Techniques. Through the concept of task based learning, learners were required to complete meaningful, and real world tasks that focus on meaning rather than forms. It was consistent to learning by doing techniques they were familiar with and always involved in the learning process in their professional fields. The challenges and issues that emerge in the activity are addressed during participation in the task itself. Rather than being mere passive learners, students engage, comprehend, interact and learn.

This concept is evidenced by the studies of Ratikorn Sirisatit (2010), Majid Hayati and Alireza Jalilifar (2010), and Naghi Nourbakhsh Kolaei et al (2013) proving that Task-Based teaching not only led students to reach higher academic reading performance but also gained learner autonomy, and reading habits.

Along with task based approach, the concept of Collaborative Strategic Reading (CSR) was employed in the Reading Instructional Model. According to Klingner and Vaughn (2000), Collaborative Strategic Reading (CSR) is a set of instructional strategies designed to help students with diverse abilities acquire and practice comprehension strategies for use with informational text. The goals of Collaborative Strategic Reading (CSR) are to improve reading comprehension and increase conceptual learning in ways that maximize students' participation through modelling and nurturing students to be able to use comprehension strategies while working cooperatively. Her study about benefits to students when using authentic materials.

Moreover, both CSR and TBL approach have the common merits, namely the teachers 'role in facilitating better learning and promoting learners performance in all skills, the lessons were designed to increase learners' interaction, motivation and independence, and the structures of each approach emphasis on scaffolding, and peer-mediated learning. This is also consistent to Vygotsky's Theory of Zone of Proximal Development, Chomsky's Input Theory, and Krashen's Input Hypothesis Model suggesting that learners must have ample opportunities to interact meaningfully with others while making use of the target language, while the teacher should provide understandable input in the target language, CRTE an interactive environment that models and presents a variety of social, linguistic, and cognitive tools for structuring and interpreting participation in talk, and providing opportunities for learners to negotiate meaning in the target language which is socially constructed and context-dependent. This can be accomplished by facilitating collaboration between students and teachers, students and published authors, writers and readers, and among students themselves (Crawford, 2003; Newman, 1985; Verenikina, 2003).

This concept is also consistent to the findings of Paramita Dharmayanti el al (2013) that students achieved better reading competency and improved their vocabulary mastery skill after being taught using CSR.

2. The findings after the experiment revealed that the efficiency of the Reading

Instructional Model met the set criterion of 80/80 based on Chaiyong Promwong (1989: 495), and therefore, was considered as an effective instructional model. There are several reasons the Reading Instructional Model met the criterion.

The results could be explained by the following reasons; the "CRTE Model" consists of teaching steps that nurtures students to use reading strategies sustainably. The steps were arranged as follows;

Conceptualizing (C) in the first step. In this step, it is the pre-reading or pre-task stage that the teacher introduces CSR approach; how it is organized, then models and teaches CSR strategies; 1.Preview, 2. Click and Clunk, 3. Get the Gist, and 4. Wrap Up with the first paragraph of the reading text, through think aloud procedure. Before reading or pre-reading is essential since it alerts the students to be aware of

what they were going to read in the English text. This concept was consistent to the concept of background knowledge (schema) (Rumelhart, 1994) and was confirmed by the findings of Y-H Huang (2012) using activating schema as one of strategies to enhance students' reading abilities and habits. During modelling, the teacher elicits vocabularies and/or any idea that will be useful for reading the text in order that students will remember what they already know about what they are going to read. Prior knowledge is necessary for retaining information from a text. Activating prior knowledge before reading helps students get ready to read and be open to new information. It focuses students' reading and helps them read for a purpose. Having a purpose and inquiring about the subject before reading helps students take ownership of their own reading experiences. This concept is also consistent to what Dennis S. Davis (2010) studied and suggested that teachers should teach students to preview texts before reading and take time to analyze and reflect on their reading. Then, the teacher has students work in groups according to their reading comprehension ability, evaluated by the Pre-test. Each student works according to their assigned CSR role.

Reacting (R) is While reading or Task cycle step that after students have learned how to use each CSR strategy, it is now their turn to implement each strategy while reading the latter paragraphs of the text. Working in groups, students are responsible for one another as well as their own toward the set goals. Thus the success of one student helps other students to be successful. While performing tasks to practice each strategy, students collaboratively concentrate to accomplish the given tasks. This is consistent to the concept of task based approach that the lesson should be designed as a plan to achieve a particular purpose to gain an advantage or overall aim. The implemented strategies are; 1) Preview; the purpose is to active students' prior knowledge, to facilitate their predictions about what they will read, and to generate interest. Preview consists of two activities: brainstorming and making predictions. Brainstorming is what we do already know about the topic. Prediction is what we think we will learn about the topic when we read the passage. 2) Click and Clunk; to self-monitor the understanding during reading, and to use fix-up strategies when students are unable to understand text. It "click"; when it does make sense, it "clunk" when students get stuck with the text. Students work together to identify difficult words or concepts in the passage and to apply fix-up strategies to solve their

problem. 3) Get the gist; to state the main idea of a paragraph or cluster of paragraphs in their own words, as precisely as possible. Students are taught to identify the most important who or what in the paragraph, and then identify the most important person, place, or thing.4) Wrap Up; to generate questions and to review important ideas in the text they have read in order to review what they have read to assist with understanding and remembering what they have learned. Reading through CSR strategies makes students actively construct knowledge about text by interacting with the other members of their group. Through the use of reading strategies while reading helps improve students' accuracy and fluency of reading and makes gains in word identification and comprehension. The students become more active and independent readers.

This concept was consistent to what was found by Fitri (2010), Fan (2010), and FarahEl Zein (2014) that CSR is effective to increase students' reading comprehension achievement.

Thinking Creatively (T) is the post-reading and post-task stage that after being trained for reading strategies, the teacher models and teaches SCAMPER techniques. Then students are assigned to read the second text and use SCAMPER Techniques to CRTE creative products or outcomes before making a presentation to the class.

This step is consistent to the characteristics of task-based approach where the learning approach focuses on the outcome rather than the process (Prabhu, 1987; Nunan, 1989; Willis, 1998; and Skehan, 1996a).

Furthermore, this step is the integration of Creative tasks and SCAMPER Techniques to nurture students' creativity. Through SCAMPER Techniques, students use the checklist of questions to address the means to solve the problems based on the acronym of SCAMPER. By this method, apart from nurturing creative thinking ability and peer communication, students also gain better knowledge and ability in generating good questions, summarizing and inferring as well as making a presentation. This step, thus accords to a number of theories such as Chomsky's theory which implies that both first and second language learners need large amounts of contextualized meaningful input in order to acquire language and learners who

experience face-to-face conversation in a natural setting acquire language more quickly and more successfully than those exposed exclusively to exercises that focus on structure alone (Shrum & Glisan 2000). For the Output Hypothesis, it also has the same stand point as proposed by Swain & Lapkin (1995) that learners acquire a L2 through producing output, especially under circumstances in which learners reformulate their language, due to communication breakdown.

Moreover, this step is mainly based on Task Based approach which accords to the views of Richards, Platt, and Weber (1985). Whereas Crook (1986) and Prabhu (1987) who emphasized more on a piece of work or an activity with a specified objective or outcome from given information through some process of thought derived as part of an educational course.

Additionally, this concept was supported by the findings from the study of Thapanee Seechalio et al (2012), who found that the efficient instructional design enhanced creative thinking skills of students. Similarly, the study of Jileen K. Buser et al (2011) also claimed that the SCAMPER instructional model was a mean to stimulate students' creative thought patterns.

Evaluating (E). During this step, three outcomes of the study were evaluated; reading comprehension ability, creative thinking ability and usage of reading strategies. In each lesson, the second text was used for evaluation. Firstly, after finishing all the tasks of the first text, the teacher assigns students to read the second text and then have students take the reading comprehension test; the 10 item multiple choice test in each unit in order to evaluate their reading comprehension ability. After that, the teacher assigned students to CRTE the creative outcomes or products using SCAMPER Techniques with the given problems based on the second text. Students are given one week long to accomplish their creative tasks. In the week after, students present their creative tasks to the class and are evaluated by 1) the teacher, 2) self, and 3) peer. This idea is consistent to the findings of the research conducted by Denise Wood and Carolyn Bilsborow (2014) who confirmed that in assessing creativity, alternative assessment approach such as self and peer assessment are well suited as they encourage reflection and collaboration.

Additionally, students are assigned to read the second text twice at home and fill in the given self-evaluation form for the use of reading strategies accompanied

with CRTE learning log by which students provide self-report for the use of reading strategy, quantitatively in the self-report questionnaire form and qualitatively in the CRTE learning log through think aloud protocol.

Evaluation of reading comprehension ability of this study could claim for its consistency with the ideas of Williams (2000) to consider what tasks are most appropriate for evaluating whether students really comprehend what they read and whether these tasks provide useful information for instructional purposes as well as the ideas of Gunning (2002) to examine whether students can read the passage with adequate fluency. The test items were designed according to the test objectives with intended reading comprehension abilities; (a) Predicting ability; finding clues in the title, subheading, pictures and content of passage, (b) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (c) dealing with vocabularies, (d) recall of details, and main ideas,(e) making inferential and summarizing.

3. The findings of the study revealed that the posttest scores of the reading comprehension test was higher than the pre-test scores, and were statistically significant at the level of $< p$ (0.01).

The reasons beneath this finding can be explained as follows;

Firstly, through the integration of Collaborative Strategic Reading, the positive effects were (1) promoting students' academic achievement in content area reading; (2) increasing students' retention; (3) enhancing students' satisfaction with their learning experience; (4) developing students' social skills; and (5) improving English content term vocabulary, as affirmed by Vaughn, S., Klinger, J. K. & Bryant, L. (2001). Collaborative Strategic Reading (CSR) engages students to work in a small group cooperatively, so they have opportunity to discuss and share the ideas among the members of the groups as well as develop their social skills. Furthermore, the activities like brainstorming, discussion, and CSR assigned roles culminate students to become autonomous, contemplative, and logical. This could be observed during the group works that members of each group were very active in sharing their ideas. Many students from different groups said they felt that working in group made them more comfortable in accomplishing tasks. One student said idea sharing helped widen their ideas and also indirectly nurtured their speaking skill. During informal talk, one

student said her group had tried with best effort to accomplish tasks as they want to be the best group in class. This could claim as evidence of high motivation.

Another reason was that students were introduced and able to gradually apply reading strategies while reading to overcome difficulties they found. The strategies taught under the CSR approach; Preview, Click and Clunk. Fix-Up, Get the gist, and Wrap Up, which comprehensively include essential strategies from Activate background knowledge, Making prediction, Self-comprehension monitoring, Fix-up strategy, Identifying main idea, Making Inference, Questioning, and Synthesizing Information. Students learned the application of reading strategies and gradually became proficient readers as evidenced by some students' reflections. This concept is consistent to the research results of Fitri (2010), Fan (2010), Tantra and Artini (2013), Farah El Zein (2014).

Some students reflected that it was their first time to be introduced to reading strategies and they found it was very useful using strategies while reading. Many students said they gained more and longer retention in the reading content than ever. Many students said the fix-up strategies were very interesting because they helped lessen the use of dictionary which could easily distract them away from the reading text. While Get the Gist and Wrap up strategies were also mentioned by some students that these helped them to have better understanding in the reading texts.

Lastly, the researcher used the scaffolding approach to monitor while students worked in groups to ensure their understanding and performance. The researcher also focused to check understanding of students after modeling each strategies in each steps and also emphasized on scaffolding and guiding how to use each strategy until students became more and more proficient in using the reading strategies and thus gained higher reading comprehension ability.

4. The findings of students' creative thinking ability after using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques revealed that the creative thinking performance of students passed the criteria at Satisfactory level in every unit and gradually increased to nearly reaching Exemplary level from the first to last unit. This result is aligned with the results of the previous studies regarding the effect of

creative strategy instruction on the improvement of creative thinking skill, for example María Luisa Sanz de Acedo Lizarraga et al, 2010, Thapanee Seechaliao et al, 2012, Jileen K. Buser et al., 2011, Sinem Toraman and Sertel Altun, 2013, and Denise Wood & Carolyn Bilsborow, 2014. The result of this study confirmed the influence of raising creative thinking skill with the use of SCAMPER Techniques. Through the use of checklist questions of SCAMPER and brainstorming approach to generate ideas, students had opportunity to engage in creative thinking, resulting in cognitive development, since the leading questions in the technique present a concrete system to think flexibly and fluently. Even though it mainly serves to divergent thinking, its use also involves a variety of cognitive skills like gathering information, making research, making combinations, flexible thinking, original thinking and problem solving.

Moreover, students had the chances to learn from the creative works of other groups during the presentation sessions, they then gradually gained more experience and exposure to diverse and inventive ideas. Group work activities allowed them to relax and become more playful, thereby facilitating their creative process. This was evidence by the findings of Jileen K. Buser et al. (2011), Sinem Toraman and Sertel Altun (2013), and Denis Wood and Carolyn Bilsborow (2014) which claimed the merits of using SCAMPER Techniques in enhancing creative thinking skills of students. The researchers observed that students were more active in creative thinking session than others because they were always emphasized by the teacher to think out of the box so they could work flexibly and eagerly. The presentations of some groups made the class lively with their funny ideas, yet practical to real life. Most students did the research before they came up with the ideas.

Apart from widening their visions, this also cultivated long life learning habits of students. Furthermore, during the peer evaluation sessions, students learned carefully the criteria for evaluation; their understanding of how to evaluate the creative works had been reinforced through the use of rubric. Students gave comments to the other groups or praising the excellent ideas after they listened to the presentations. Gradually, students became masters in creative thinking, expressed more enthusiasm and willingness to engage in the activities as evidence by the improvement of creative thinking scores in latter units. Through this end, students were proud of their ideas, which led to more self-esteem, eventually.

The finding obtained from the self-report questionnaire of students using multiple reading comprehension strategies after the implementation of the Reading Instructional Model as the quantitative source and the qualitative source was collected from CRTE learning log, which think-aloud protocol was employed. Students reported 11 items for the usage of strategies in the highest level; from I Look for a cognate that makes sense or use a dictionary to find out the meaning, I identified CLUNK, I generated questions, I wrote a summary of the passage, I involved in predicting activity before reading, I reread the sentence with the Clunk and look for key ideas to help me figure out the word, I involved in brainstorming activity before reading, I stop and check to see if I understand what I'm reading, I identify the gist or getting the main idea, to I Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words I know, respectively.

The possible explanations for the results in the present study are that students appeared to be highly motivated when working in their CSR groups and they also gained benefit socially and academically from cooperative learning. One of the merits of CSR is the role of assigned tasks in the strategy. As students brainstormed and discussed concepts, main ideas, distracting vocabulary and summaries of the reading texts, they are engaged in a form of peer tutoring and modeling that appears to be beneficial to the group members. This gives the academically good students the opportunity to stretch other group members' understanding of the issues and to clarify and engage students in the topic. Student roles are an important aspect of CSR because cooperative learning seems to work best when all group members have been assigned a meaningful task.

Another merit of CSR is the CSR learning logs, which in the present study, the researcher adapted into CRTE learning log. Original CSR learning logs enable students to keep track of learning "as it happens", to record ideas while applying every strategy through Think Aloud method, and provide a reflection for follow-up activities. In CRTE learning log, the researcher also included the part of creative thinking to be comprehensively represented in the performance of students in each unit. CRTE learning logs were used after the teacher modelled and let students practice using the strategies in their groups. Students wrote down their response of using each strategy in each part of the CRTE learning log, by which before writing

what they had in mind for their Think Aloud, they spoke out loud and discuss with friends to correct or improve it. Through this mean, it was the reinforcement of reading strategy understanding. This idea is consistent to the work of Hsu, Tsu-Chia (2007) who supported the use of self-reflective logs, field notes and collection of students 'group work sheets.

In consideration for the usage of each reading strategy, it was observed by the researcher that most students did not like reading class. They always expressed the lack of motivation when they have to start reading. It might be because they experience failure in reading when encountered with difficult words. In the first lessons, the researcher observed that when students did not understand the text, they were likely to use a dictionary to look for the meaning as their fix-up strategy and they still heavily adhered to this resource until they gradually became competent in using other fix-up strategies, such as break words apart, and reread. Many students seemed to be interested in using *'Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know*'. They said they never knew that there were strategies that they could use to read without a dictionary. When the teacher modelled and scaffold how to use the strategy, they seemed to be interested and wanted to see more examples. However, the limitation for practicing this fix-up strategy was that the lack of prefix, suffix or compound words in the reading texts that would give students sufficient exposure to such types of words.

The second item of strategy used as reported by students was identify CLUNK. This might be because it was the easiest strategy compared to the others. When students read and encounter the words where they did not know the meaning, then they concluded that the words were CLUNK for them. Students understood CLICK and CLUNK strategy very easily and clearly. However, the difficult part was when they could identify CLUNK, what strategies they could use and how they could use it effectively to clear out such CLUNK. It did take time for students to understand and gain mastery using fix-up strategies. In the first lessons, they always used a dictionary as aforesaid and gradually used other fix-up strategies when they got more exposure to how to use the strategies. For the Wrap-up strategy which required students to generate questions and write brief answers in their own words, students

got struck in the very first lesson partly due to their limited ability in writing English, and partly because they had never been trained to do so. However, they gradually became more proficient in generating questions and answers and they reflected that this was a very useful strategy helping them to better understand the text.

For Preview and Get the Gist strategies, in the initial lessons, students reflected their lack of understanding and frustration to do the tasks. However, as time passed by, they seemed to overcome the difficulties in implementing the strategies. The decreased rate of mistakes found in the exercises and the shorter time they used to accomplish tasks revealed the more proficient they became. Similarly, in the Preview strategy session, from the first lesson that most students seemed to be confused to the last lesson that they fully exploited the strategy to expand their background knowledge through the discussion and brainstorming. Students reflected that their background knowledge was expanded and strengthened through the idea exchange between group members and this helped them to more deeply understand the text they read. This finding is consistent to the studies of Dennis S. Davis (2010), Wong Miu Yin (2010), Fitri (2010), and Farah El Zein (2014) who supported explicit teaching of reading strategies and the CSR approach.

6. The results of the Reading Instructional Model verification by experts revealed that the Model was at the highest congruence to the theories' rationality and the probability. The evidence supported this findings was that the Reading Instructional Model was designed and developed according to the Research and Development which had the systematic designed consisting four phrases; Research (R1), Development (D1), Research (R2) and Development (D2). Furthermore, the principles, the objectives of the model were designed based on the need analysis of the learners and the related theories, as previously explained. As the results from the experts' evaluation, the Reading Instructional Model was congruent to theories' rationality and the probability. Moreover, the lesson plan of the Reading Instructional Model was congruent to the probability which can be used for Vocational diploma students of Rayong Technical College.

Recommendations

Results from the study on the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques has led to recommendations for pedagogical implications and recommendations for further study. Details are as follows:

Recommendations for Pedagogical Implications

The current study has a number of implications for materials development and classroom teaching. Recommendations are as follows:

1. The use of CRTE learning logs with think aloud method as well as interaction activities like group discussion or brainstorming or presentation in the present study, sometimes, students were allowed to use Thai language due to their limited ability in speaking and writing English, which otherwise would block or hinder their flow of thinking.

2. Due to time limit, some tasks were assigned as homework, which the teacher had no chance to observe students' progression and could only check from what they reflect in the learning logs. To improve this issue, the time limit for the course should be extended.

3. The Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques can be applied with reading expository texts of other courses or majors such as, in the course for Industrial English, major of Petro Chemical or Automobile that reading advance academic text is required.

4. To optimize the result, the teachers must be well-trained and qualified to teach Collaborative Strategic Reading (CSR) and Task Based approach and they must be able to analyze students' ability as the basis of group assigning, as well as, the students need to get prerequisite background knowledge to the content areas (Business or Industrial Trades).

Recommendations for further study

The Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques can be implemented with students of other levels; for undergraduate students, or higher.

1. The Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques could be implemented and emphasize for other productive skill (writing skill) to see if the students' writing ability could be enhanced after the treatment.

2. The Instructional Model may focus on enhancing the fidelity of CSR implementation within classrooms comparing to the treatment through other multiple strategy approach.

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Appendices

Appendix A
List of experts

1.	Dr. Mujalin Binchai	Senior Professional Level Teachers of Chainat Technical College
2.	Dr. Prapon Juntawites	Senior Professional Level Supervisor of Office of Vocational Education Commission
3.	Dr. Usa Mahamad	Teacher of Wat Bang Luang school
4.	Dr, Hataichanok Ngerndee	Instructor of Burapha University
5.	Lt.Col.Dr. Pranee Onsri	Instructor of Royal Thai Army Nursing College
6.	Dr. Somchai Thamrongsuk	Director of Eastern Institute of Vocational Technology
7.	Dr. Prateep Pholjun-Ngam	Senior Professional Level Teachers of Rayong Technical College
8.	Dr. Chaluay Muangpruan	Instructor of Silpakorn University
9.	Dr. Wipada Poolsakworasan	Instructor of Christian University
10.	Mr. Glyn Elvet Proccer	Instructor of Rayong Technical College

Appendix B
Research tools

1. A needs analysis questionnaire for developing a reading instructional model through Task-based Approach integrating with Collaborative strategic reading and SCAMPER Techniques

2. A semi-structure interview form for English instructors

3. Exercise and lesson plan

4. Teacher manual

5. English reading comprehension test

6. Self-report questionnaire for students' perceived use of reading strategies

7. Think Aloud assessment form

8. Creative Thinking evaluative form with Rubric score

มหาวิทยาลัยศิลปากร

A needs analysis questionnaire for developing a reading instructional model through Task-based Approach integrating with Collaborative strategic reading and SCAMPER Techniques

Objectives

This questionnaire aims at finding out the overall needs and preferences of Vocational Diploma at Rayong Technical College concerning English learning and teaching activities to develop a reading instructional model to enhance comprehension reading and creative thinking ability of Vocational Diploma students.

Explanation

The questionnaire is divided into 5 parts as:

1) Students' educational background

2) Learners' needs in learning English

3) Language Functions need

4) Appropriate learning activities

5) Open-ended opinions and suggestions

2. It has no effect on the students' scores and the scoring system. The data obtained from this group of students can provide useful and necessary information in developing the model.

Richavee Chatviriyawong (Researcher)

A needs analysis questionnaire for developing a reading instructional model through Task-based Approach integrating with Collaborative strategic reading and SCAMPER Techniques

Part 1 Students' educational background

Directions: Please fill in the information or put a tick (√) in the box. (Please provide true information)

1. Gender: ☐ Male ☐ Female

2. Average grade of students

☐ Lower than 2.00 ☐ between 2.00 – 2.49

☐ Between 2.50 – 2.99 ☐ 3.00 or higher

3. Level of interest on learning English

☐ None ☐ Low ☐ Medium ☐ High ☐ Very high

Part 2 Learners' needs in learning English

Directions: Read each statement and tick (/) the number (1, 2, 3, 4 or 5) which applies to you. Each number means the following:

Note: 1 = I agree at the highest level

2 = I agree at high level

3 = I agree at moderate level

4 = I agree at low level

5 = I agree at the lowest level

Item	Statement	Level				
		5	4	3	2	1
Topics of interests in learning English of learners						
1	Small talk/ Welcoming visitors					
2	Introduction into Business					
3	Jobs and Careers					
4	Team working					
5	Negotiation					
6	Making presentation					
7	Business Correspondence					
8	Cross Cultural Understanding					
9	Meeting					
10	Problems and Solutions					

Part 3 Language Functions need

Item	Statement	Level				
		5	4	3	2	1
Language Functions need						
1	Socializing					
2	Expressing opinions and ideas					
3	Agreeing VS. Disagreeing					
4	Describing procedures					
5	Working with colleagues					
6	Making requests					
7	Making presentation					
8	Making arrangement					
9	Writing correspondence					
10	Dealing with figures					

Part 4 Appropriate learning activities

Item	Statement	Level				
		5	4	3	2	1
Appropriate learning activities						
1	Activities that emphasize on real-life situations					
2	Activities that emphasize learning from various materials and media; for example printed text, video or audio					
3	Working in pairs or in groups					
4	Activities that focus on role-plays or stimulations					
5	Activities that emphasize on practicing and presentation					
6	Activities that emphasize more on communication or meaning than forms or grammar					
7	More opportunities for research outside the class					
8	More opportunities for learners to practice creative thinking skills					
9	More opportunities for learners to evaluate their own works					
10	Various means of evaluation; by examination, by evaluation of assignments and presentation					

Part 5: Open-ended opinions and suggestions

The Interview form for English instructors towards current conditions, problems and needs of Vocational Diploma students on English teaching and learning

Name of interviewee.....

Date.....Name of interviewer.....

Explanation

1. This interview form is part of the research titled "Development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students". Findings of this study will be used for development of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students.

2. With respect to confidentiality of the interviewees' information, the researcher will treat all the information in this questionnaire confidentially. The researcher will be the only person who keeps the original information. The published results will not use the interviewees' names, and that no opinions will be attributed to the interviewees in any way that will identify them.

3. This interview form is a semi-structure form, consisting of 2 parts;

Part1 Personal Background

Part2 Interview questions

มหาวิทยาลัยศิลปากร

Richavee Chatviriyawong (Researcher)

Part 1 Personal background of interviewee

Directions: Please fill in the information or put a tick (√) in the box or fill in the blanks

1. Gender: ☐ Male ☐ Female

2. Degree: ……..

3. Age: _____ years old

4. English teaching experience _____year(s)

5. Name of college_____

Part 2: There are 5 semi-structures interview questions.

Opinions on current situations and problems concerning teaching and learning reading English in Diploma level

What do you think can motivate students for learning and what do you use to create motivation for your students?

What kinds of problems do you encounter in your classes and how you solve the problems?

Have you taught or designed your lessons based on any theory, for example Communicative Language Teaching, Task Based Teaching or Presentation-Practice-Production etc.

What reading problems did your students encounter and how did you solve the problems? What is your suggestion?

What is your opinions concerning the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students?

Please give comments and suggestions for the development of the reading instructional model for Vocational Diploma students by giving as many details and examples as you can.

3. What is your opinions concerning the use of Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and

SCAMPER Techniques to Enhance reading comprehension ability of Vocational Diploma Students?

4. What do you think the most appropriate model for the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students should be?

5. Open-ended suggestions for the development of a reading instructional model

Exercise

Unit1: Introduction into Business

Reading Text: Introduction into Business

Business is an organized approach to providing customers with the goods and services they want. The word business also refers to an organization that provides these goods and services. There are two kinds of business. Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business. Prominent examples of for-profit businesses include Mitsubishi Group, General Motors Corporation, and Royal Dutch/Shell Group. However, some businesses only seek to earn enough to cover their operating costs. Commonly called nonprofits, these organizations are primarily nongovernmental service providers. Examples of nonprofit businesses include such organizations as social service agencies, foundations, advocacy groups, and many hospitals.

A variety of operations keep businesses, especially large corporations, running efficiently and effectively. Common business operation divisions include (1) production, (2) marketing, (3) finance, and (4) human resource management.

Production includes those activities involved in conceptualizing, designing, and creating products and services. In recent years there have been dramatic changes in the way goods are produced. Today, computers help monitor, control, and even perform work. Flexible, high-tech machines can do in minutes what it used to take people hours to accomplish.

Marketing is the process of identifying the goods and services that consumers need and want and providing those goods and services at the right price, place, and time. Businesses develop marketing strategies by conducting research to determine what products and services potential customers think they would like to be able to purchase.

Finance involves the management of money. All businesses must have enough capital on hand to pay their bills, and for-profit businesses seek extra capital to expand their operations.

Businesses rely on effective human resource management (HRM) to ensure that they hire and keep good employees, and that they are able to respond to conflicts between workers and management.

Source: BUSINESS ENGLISH Textbook, E.B. Nikolaenko, Tomsk Polytechnic University Publishing House 2008

Reading through CRTE Model

Step1: Conceptualizing

1.1 Model and teach strategies

Previewing Strategy: before you read

Goals Previewing will give you a general idea of what a text is about.

When you preview before reading, you should look at the following:

- The text's title
- Any headings
- Words that are bolded or underlined
- Any pictures, tables, graphs, and other key information

This will help you to

1. Brainstorm; what you already know about the topic?
2. Predict; what will you learn about the topic?
3. Guess what the text is going to say.

Know Text structures signal questions and signal words

Text Structure	Definition	Signal questions	Signal words	Summary Frame
Description	A topic, idea, person, place, or thing is described by listing its features, characteristics, or examples.	What specific topic, person, idea, or thing is being described? How is it being described (what does it look like, how does it work, what does it do, etc.)? What is important to remember about it?	For instance, Such as… To begin with an example To illustrate Characteristics *Look for the topic word (or a synonym or pronoun) to be repeated	A……is a kind of …… that…

Sequential	A series of events or steps in a process is being described.	What items, events, or steps are listed? What is the process? Can the steps or process be changed?	First, second, third Next On [date] Today, Tomorrow Finally Now, then, soon	_____ begins with…, continues with…, and ends with…
Compare and Contrast	Shows how two or more things are alike and how they are different.	What things are being compared? In what ways are they alike? In what ways are they different?	Same as Similar Alike Different from As opposed to Both Instead of	_____x_____ and _____y_____ are similar in that they both…, but _____x_____..., while _____y_____...
Cause and Effect	Explains why something happened (cause) and what happened (effect).	What happened? Why did it happen? What caused it to happen?	Therefore Because If…then This led to As a result Reason why	_____ happens because… _____ causes …
Problem and Solution	Tells about a problem (and sometimes says why there is a problem) then gives one or more possible solutions.	What is the problem? Why is this a problem? Is anything being done to try to solve the problem? What can be done to solve the problem?	Question is… Dilemma is… The puzzle is… To solve this… One answer is… One reason for the problem is…	_____ wanted…, but…, so…

Model for Previewing Strategy

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: Before I read a text, I have to look over the title "Introduction into Business", then I look at pictures and subheading etc., if any, to get an idea what is it about or what have I already known about the topic. I also look for the signal words and phrases that identify text structures. Then, I found the sentence "There are two kinds of business." I underline the sentence. Now, I know that this text could be sequential. The topic is about the business, so I activate my knowledge about business that involves selling goods or providing business to customers then person or company who conduct the business get profits. 2. Then I think of what I have already known about the topic and I write down one to two statements of what I already known about the topic. This information can be something we have already learned in school or at home, on TV. , in a book or from someone else. To check and clarify my idea, I will share and discuss with my group and then present to the class. For example, we already knew that most businesses need	Preview strategy; Brainstorm and Predict	Look at the title, subheadings, pictures, captions and graphs etc., and skim the text to look for key words and identify text structure. Think of everything you already know about the topic. Predict what you think you will learn (make a guess what you might learn) List your prediction in the learning log.

Text	Teacher models reading strategies	Reading strategy name	Strategy description
	profits to be survived and in big businesses, there are always many departments according to their skills like marketing, human resources, finance, etc. 3. After that I predict or make a guess of what I might learn from the topic, write my list of prediction in my learning log. Here, I predict that I will learn about how business is organized or managed and how each departments or sub unit in a business works to help the business reaches its goal which is the profits.		

Task 1: Watch the video on the title "Introduction into Business"

Video source: http://youtube.com/watch?v=otxYSGjMAnk

Then, discuss what is it about, are there any words students do not understand or not familiar with? List the words and have a class discussion.

1……
2...……..

3……
4...……..

5……
6...……..

Task2 Preview text on the first page. Read the title. Make prediction. Then answer the following questions.

What do you already know about this topic? Brainstorm with your partner and make a list of 3-5 things.

……

……

What is the text about? Write down what you might learn.

……

……

Click & Clunk: while you read

What is Click and Clunk?
Click
– When you understand what you read, everything "clicks" along smoothly.
Clunk
– When you don't understand what you read, "clunk," you stop.

When you get to a Clunk, use fix—up strategies to figure out what the word or phrase mean.
Read the **first sentence** of the text aloud and ask yourself. "Did I understand this sentence?" If the answer is Yes, I understood this sentence." Then it is 'Click'. On the other hand, if you didn't understand the sentence, it is "Clunk".
When you find clunks

1. Find words or ideas you don't understand.
2. Use fix-up strategies; reread sentence with clunk, reread sentence before and after clunk, look for prefix, suffix, and root word, look for cognate, or look for the meaning in a dictionary.

Use fix---up strategies to figure out your clunks

CONTEXT CLUES

1. Reread the sentence with the Clunk and look for key ideas to help you figure out the word. Think about what makes sense.
2. Reread the sentences before and after the Clunk, looking for clues.

WORD CLUES

3. Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know.
4. Look for a cognate that makes sense, or use a dictionary to find out the meanings

Model for identifying Click & Clunk

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: When I think of Click and Clunk strategy, I think of driving a car. When you drive and everything moves smoothly, you click along, but when you hit a pothole, you CLUNK-hit it. It disrupts your smooth driving. You can think about clicks and clunks when you're reading, too. Most of the time, when you are reading, you understand the words, that means you CLICK. In this passage, I click or understand that the word "organization" means a unit of management, and another word "nonprofit", since I already know the word "profit" so I can guess the word "nonprofit" means the business does not focus on making profit; income may not exceed the cost. 2. On the other hand, sometimes you CLUNK- get struck on a word or phrase that you do not understand. Identify clunks and figure out what they mean will help you understand what you read. For example, in the first paragraph, some words are CLUNKs	Click and Clunk: monitoring reading comprehension and using Fix-up strategies	Identify clunks and write in your learning log. Use fix-up strategies to figure out the meaning of the clunks. 2.1 Reread the sentence with the Clunk and look for key ideas to help you figure out the word. Think about what makes sense. Reread the sentences before and after the Clunk, looking for clues. Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know.

Text	Teacher models	Reading strategy name	Strategy description

	reading strategies		
	for me, like “Business is an organized approach to providing customers with the goods and services they want.”, the underlined word is the CLUNK for me so I need to use the fix up strategies to help me understand the sentence. Practice identify Clunks in Task3.		2.4 Look for a cognate that makes sense or use a dictionary to find out the meanings Write a brief definition or explanation in your learning log.

Task3 Write your Clunks in your learning log from the following given sentences.

Example Business is an organized approach to providing customers with the goods and services they want.

Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business.

Prominent examples of for-profit businesses include Mitsubishi Group, General Motors Corporation, and Royal Dutch/Shell Group.

However, some businesses only seek to earn enough to cover their operating costs.

Commonly called nonprofits, these organizations are primarily nongovernmental service providers.

Examples of nonprofit businesses include such organizations as social service agencies, foundations, advocacy groups, and many hospitals.

Clunks

_____=_____

_____=_____

_____=_____

_____=_____

_____=_____

Model for using Fix-up strategies

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: for Example in Task 3, the sentence "Business is an organized approach to providing customers with the goods and services they want. My clunk is approach, I'm not sure what its meaning is. I will use strategy one: reread the sentence with the clunk and look for key ideas to help me figure out the clunk. The answer is right there in the sentence. It says that business is about to provide customers with the goods and services, so I think approach must have meaning like the way, or how to. I will write that in my worksheet and learning log. I use fix-up strategy one to figure out the meaning of my clunk, so I will circle "1" out to the side. Next, for sentence no.1, "Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business." The clunk here is revenue, before that it said about the profit and after that it said about exceeding the cost of operating business. Thus, what exceeds the cost of operating business to make profit must be "income" so I will write it down and circle strategy two. For no.2, "Prominent examples of for-profit businesses include Mitsubishi Group, General Motors	Click and Clunk: using 4 Fix-up strategies	Identify clunks and write in your learning log. Use fix-up strategies to figure out the meaning of the clunks. 2.1 Reread the sentence with the Clunk and look for key ideas to help you figure out the word. Think about what makes sense. 2.2 Reread the sentences before and after the Clunk, looking for clues.

Text	Teacher models	Reading strategy	Strategy description

	reading strategies	name	
	Corporation, and Royal Dutch/Shell Group.” I break the clunk into smaller words so I get for, profit and business. For states of intention or objective so it means business that makes or wants or focuses on profit. I then write down in my learning log and circle strategy three. For no.3, “However, some businesses only seek to earn enough to cover their operating costs.” My clunk is operating which I cannot find its cognate so I look up the meaning in a dictionary and its meaning is “to work or to perform a function”. So, I can conclude that it means the costs of working. I will write it down and circle strategy four and write down my think aloud for each item. Now it’s your turn. As I already show you how to think aloud in no. 1-3, practice by write down my think aloud for no.1-3 and try no. 4 and 5 to think aloud on your own in Task 4. Try to think aloud describing how you use the fix-up strategies. Then I will choose some of you to share to the class.		2.3 Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know. 2.4 Look for a cognate that makes sense or use a dictionary to find out the meanings 3.Write a brief definition or explanation in your learning log.

Task 4 Figure out the meaning of CLUNKs using fix-up strategies

Strategy one: Reread the sentence with clunk and look for key ideas to help you figure out the word. Think about what makes sense.

Strategy two: Reread the sentences before and after the clunk, looking for clues.

Strategy three: Look for a root word, prefix, or suffix in the word that might help.

Strategy four: Look for a cognate that make sense or look for the meaning in a dictionary.

Example Business is an organized approach to providing customers with the goods and services they want.

Approach: the way, or how to do things_____ Fix-up strategy 1 2 3 4

Write your think aloud: My clunk is approach, I'm not sure what its meaning is. I will use strategy one: reread the sentence with the clunk and look for key ideas to help me figure out the clunk. The answer is right there in the sentence. It says that business is about to provide customers with the goods and services, so I think approach must have meaning like the way, or how to. I will write that in my worksheet and learning log. I use fix-up strategy one to figure out the meaning of my clunk, so I will circle "1" out to the side.

Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business.

Write your think aloud:

_____

_____

_____

Revenue:_____ Fix-up strategy 1 2 3 4

Prominent examples of for-profit businesses include Mitsubishi Group, General Motors Corporation, and Royal Dutch/Shell Group.

Write your think aloud: _____

_____

_____

_____

For-profit business:_____ Fix-up strategy 1 2 3 4

However, some businesses only seek to earn enough to cover their operating costs.

Write your think aloud: _____

_____

_____

_____

Operating cost:_____ Fix-up strategy 1 2 3 4

Commonly called nonprofits, these organizations are primarily nongovernmental service providers.

Write your think aloud: _____

_____

_____

_____

Your Clunk ……..……..meaning :_____

Fix-up strategy 1 2 3 4

Examples of nonprofit businesses include such organizations as social service agencies, foundations, advocacy groups, and many hospitals.

Write your think aloud: _____

_____

_____

_____

Your Clunk ……..……..meaning :_____

Fix-up strategy 1 2 3 4

While you read

Get **the** **Gist**	**1. Find the most important who and what.** **2.Identify text structure** **3. Find the most important information about the who and what.** **4. Write a brief gist statement.**

Model for Get the Gist strategy

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: Now I am going to model you a strategy that you can get the main idea of your reading text, it's called get the gist. A good "gist statement" contains information that will help you to remember the important details in a paragraph. Creating gist statements as you read helps you follow the essential ideas in a passage. If a paragraph has more than one piece of information, I create a gist statement by thinking about which information is the most important. I also decide if one of the ideas is included in another idea, or when you come across to more than 1 information, the trick is that trying to find any statement we can leave out and the remainders still contain information to help you understand the whole paragraph, that one is not considered as the gist. 2. I am going to read the first paragraph of Introduction into Business aloud. Follow along while I read. Listen carefully for the "who" or "what" that the paragraph is about. Now we've read the paragraph, I will find and name the most important who and what in the paragraph. After I read, I think it's	Get the Gist strategy	Name the most important who and what in the paragraph. Tell the most important information about the who and what. 3. Write a gist statement of ten words or less, leaving out details.

Text	Teacher models reading strategies	Reading strategy name	Strategy description
	not about the person but it's about the business and what is the most important information about the business stated is that "business is the ways to providing goods and services to customers." "The word business also refers to an organization that provides these goods and services." "Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business." These sentences form the most important facts about business while the other sentences just state the facts that highlight the importance of business. 3.After you can decide what are the gist, then write a gist of ten words or less, leaving out details. For the first paragraph, I keep only keywords and remove all unnecessary details. So, my gist sentence is "There are two kinds of business" Now it's your turn to practice, in task 5. Write down your think aloud when you find the most important information from the given paragraph and how you shorten and rearrange sentences to make a gist statement, like the teacher's model above. In task 5 C, shorten the sentence that contain gist and rearrange the sentences in a logical order.		

Task 5 During reading the following paragraph, please think aloud as you go through the task of finding the most important “who” and What” in the paragraph and how you will shorten and rearrange them in sentences. When this idea just comes to you, jot your think aloud down below.

Finance involves the management of money. All businesses must have enough capital on hand to pay their bills, and for-profit businesses seek extra capital to expand their operations. In some cases, they *raise* long-term *capital* by selling ownership in the company. Other common financial activities include granting, monitoring, and collecting on credit or loans and ensuring that customers *pay bills* on time. The financial division of any business must also establish a good working relationship with a bank. This is particularly important when a business wants to *obtain a loan*.

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C. Rearrange the 3 gist sentences in logical order.

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Wrap up: after you read

The purpose of the Wrap Up strategy is to help students to understand and remember what you have learned. The general procedure requires two steps: generate questions and review important ideas.

Wrap up Guide

1. Ask questions – check whether we understand the most important information in the passage? Can we answer the questions?
2. Review – What did we learn?

Question generation guide

Question type	**Purpose**	**Question prompts**
Right There	To identify and remember key facts that are explicitly stated in the text. The answer is usually contained in one sentence and is easy to find. Often the same words that make up the answer are found in the question.	Question stems often begin with: When is/was... ? Who is/was... ? What is/was... ? Where is/was... ?
Think and Search	To synthesize and remember key information from different sections of text that are critical to understanding the topic. The answer is found in more than one place. The parts must be put together to answer the question. The words in the question may or may not be the same words used to answer the question. Certain words—including pointer/signal words, plurals, and conjunctions—indicate that the answer is in more than one place.	Question stems often begin with: Contrast... Explain... What were... ? Compare... Summarize...
Author and You	To apply high level inferencing skills and to make connections with the text. The reader must read the text to answer the question (text dependent) The reader must use inferential thinking in order to answer the question.	Question stems often begin with: How can you conclude... ? How can you tell... ? What biases or beliefs are... ? How do you know... ? Who does remind you of... ?

Model for Wrap up strategy

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: next strategy we are going to learn is Wrap up. Pay close attention, because I am going to share with you my secret for making up questions I will use in the tests. When I prepare a test, I have to make sure I ask you about the most important information you need to know. So, I look at the text and find the most important ideas. I will make WH questions (begin with Who, What, When, Where, Why and How) in 3 kinds; Right-There, Think-and-Search, and Author-and-You. If I want to identify and remember key facts straight from the passage, I will ask some questions that have an answer right there. If I want to ask some questions that have an answer in the text that you have to look in different parts of the text and put ideas together for better understanding, then I will ask Think-and-Search questions. To ask a question that doesn't have an answer in the text that I have to think about what the author has written and what I already know to make connection with the text, it's called "Author-and-You". Again, I am going to read the first paragraph of Introduction into Business aloud. Follow along	Wrap up strategies: Questioning and review	Go over the important information you have learned by: Identify the most important information in the text. Think of 3 kinds of questions; Right-There, Thank-and-Search, and Author-and-You questions and write them in the learning log. Review what you have learned and write in the learning log.

Text	Teacher models reading strategies	Reading strategy name	Strategy description
	while I read. In this paragraph, I want to remember what the meaning of business is as it is stated in the paragraph. So, I will write my Right-There question as "What is a business? Or what does a business refer to?" The answer is in the first or second sentence of the paragraph, respectively. "Business is an organized approach to providing customers with the goods and services they want." and, "The word business also refers to an organization that provides these goods and services.". For Think-and Search question, this paragraph also states about types or kinds of business. So, for the question, "What are the two types of business?", Can you answer the question? Where do you think you will find the answer to this question? Is it in the passage, and is the answers to the question in the same place? I found the following sentences with the underlined of the answers "Most businesses seek to make a profit - that is, they aim to achieve revenues that exceed the costs of operating the business. Prominent examples of for-profit businesses include Mitsubishi Group, General Motors Corporation, and Royal Dutch/Shell Group. However, some businesses only seek to earn enough to cover their operating costs. Commonly called nonprofits,…" Right, to answer this question you have to look for information in different parts or sentences of the text and then combine into one answer. It's called Think-and-Search question.		

Text	Teacher models reading strategies	Reading strategy name	Strategy description
	The third type of question, "Which company do you think is the most successful in Thailand and why?" To answer this question, you need to refer to information stated in the text; the aim of business to achieve its revenues and connect with what you have already know; the successful company you can remind of. It's called Author-and-You question. My answer to this question is the business of 7/11 stores since they have spread their branches in countrywide. They must have a huge revenues excessing their costs. Let's practice generating question with more exercises in Task 6. Lastly just write 1 sentence only for the answer to review what you have learned from the text.		

Task 6 Wrap up exercise

Think of more questions you can ask in each paragraph. After reading paragrah2, write one of each type of questions about the text. Then write 1 sentence for answer of each question for each paragraph to review what you have learned.

Right-There

Q:……

A:……

Think-and-Search

Q:……

A:……

Author-and You

Q:……

A:……

Step 2: Reacting

Form mixed ability groups with assigned roles

Students are assigned in groups of six according to the pre-test scores. Each member has his/her own role as follows;

Leader

This student leads the group in the implementation of CSR by saying what to

read next and what strategy to apply next. The leader asks the teacher for assistance, if necessary.

Clunk Expert

This student uses clunk cards to remind the group of the steps to follow when

trying to figure out a difficult word or concept.

Announcer

This student calls on different group members to read or share an idea. He or

she makes sure everyone participates and only one person talks at a time.

Encourager

This student watches the group and gives feedback. He or she looks for

behaviors to praise. The student encourages all group members to participate in the discussion and assist one another. He or she evaluates how well the group has worked together and gives suggestions for improvement.

Reporter

During the whole-class wrap-up, this student reports to the class the main

ideas the group learned and shares a favorite question the group has generated.

Time Keeper

This student sets the timer for each portion of CSR and lets the group know

when it is time to move on (the teacher might do this instead of students).

As the teacher has modeled and taught you strategies with the first paragraph, now it's your turn to practice the strategies in groups. Read the rest of the reading text and implement each strategy.

Task 8 Implementing reading strategies. Work in groups with your assigned roles and write your finalized outcome through using each strategy in each part of your CRTE learning log.

2.2 Implement Preview Strategy:

Part 1: Preview Strategy

Before your read the rest of the text; Paragraph 2-4, look over the title "Introduction into Business", then look at subheading to get an idea what is it about or what you have already known about the topic. Brainstorm with your group for your background knowledge and your prediction, write it down in item 1A to 1C.

BEFORE READING: Preview Paragraph 2-4

1A. Identify the text structure: Record your think aloud protocol

1B. Brainstorm: Connections to prior knowledge

1C: Predict: What I might learn about the topic

Write down in the first part of your CREATE learning log on page……

2.3 Implement Click and Clunk Strategy:

Part 2 : Click and Clunk Strategy

Identify your clunks, use Fix up strategy(ies) to find the meanings. Write down Clunks words and meanings in Part 2 of CRTE learning log and circle the number(s) of Fix up Strategy(ies) you use while reading.

DURING READING: Paragraph 2-4

Clunks Fix-up Strategies

_____=_____ 1 2 3 4

2.4 Implement Get the Gist Strategy:

What is the Gist: Write the Gist of the section you read; identify the most important idea in a section of text whether the paragraph is primarily about a person, place, or thing, which person, place, or thing is being discussed, what is being said about the person, place, or thing that the paragraph is principally about and then restate the essence of the paragraph in a sentence containing ten words or fewer.

Write it down in Part 3 of CRTE learning log on page 23.

2.5 Implement Wrap up Strategy:

Generate questions and review important ideas;

generate and answer questions from text:(a) brainstorm a number of possible questions and write them in their learning logs in Part 4 of CRTE learning log, (b) try to answer the questions. A question that cannot be answered might not be a good question or might require clarification.

Review what was learned (a) write down the most important ideas from the text in your learning logs in Part 4, (b) take turns sharing with the rest of the class what they consider to be their best ideas.

Write down in Part 4 of CRTE learning log.

AFTER READING: Wrap-Up Paragraph 2-4

Questions: Write questions and answers.

Review: Write one or two of the most important ideas in this passage.

Step 3: Thinking creatively

AFTER READING: SCAMPER

3.1 Model and Implement SCAMPER Techniques:

SCAMPER Techniques for creative ideas

SCAMPER is a strategy that can be used to assist you to generate new or alternative ideas. It is a checklist that helps you think of changes you can make to an existing product to create a new one. SCAMPER is an acronym for a list of words, which stand for the following;

SCAMPER Techniques Guide

Techniques		**Meaning**	**Examples of idea-spurring questions**
S	Substitute	To place of another, to have another person or thing act or serve in the place of another	"What can you use instead?"
C	Combine	to bring together, to unite	What ideas, purposes, units, or things I can combine to make something better?"
A	Adapt	To meet other needs	What will it be if I use it in a different way? What might I adapt for use as a solution? What might I copy? Who might I emulate?
M	"Modify" "Magnify" "Minify"	to change the look/quality to make a thing bigger, heavier, faster, or more frequent to make a thing smaller, lighter, slower, less frequent	"Can you change its shape?" "Can you make it bigger or stronger?" "Can you make it smaller or less frequent?"
P	Put to Other Uses"	to use a thing in other ways	"How can you use the item in a new way?"
E	"Eliminate"	to remove, omit or get rid of quality, part or whole	What can be omitted or removed to make the item more environmentally friendly or convenient to use?"
R	"Reverse" "Rearrange"	to turn a thing around to change to the opposite to change the order	Can you do the opposite?" "Can you change the order of items?"

Model for SCAMPER Techniques

Theme: Introduction into Business			
Text	Teacher models reading strategies	Reading strategy name	Strategy description
The title: Introduction into Business	Teacher: Today you will learn a technique called SCAMPER. We will start by watching a video about how to apply this technique so that you will get the concept. Video: Application of SCAMPER, Source: https://www.youtube.com/watch?v=ru9-74qLXAo. As you have seen in the video, to use the SCAMPER technique, first state the problem you'd like to solve or the idea you'd like to develop. It can be anything: a challenge in your personal life or business; or maybe a product, service or process you want to improve. Now, you probably have some idea of SCAMPER. 2. Let's find a solution for the reading text. After pinpointing the challenge, it's then a matter of asking questions about it using the SCAMPER checklist to guide you. Consider, for instance, the problem "How can I increase sales in my business?" Following the SCAMPER technique, here are samples of questions you can us as a guide: S (Substitute): "What can I substitute in my selling process?" I can substitute selling through usual stores to online stores.	SCAMPER strategies: S: Substitute C: Combine A: Adapt M: Modify /Magnify/Minify P: Put to other uses E: Eliminate R: Reverse / Rearrange	First state the problem you'd like to solve or the idea you'd like to develop. 2. Then ask questions about it using the SCAMPER checklist to guide you. 3. Select the idea you like most. 4. Write the idea in your learning log

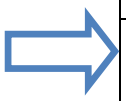
Text	Teacher models reading strategies	Reading strategy name	Strategy description
	C (Combine): "How can I combine selling with other activities?" I can combine selling my products with a workshop or a seminar related to my products for the optimal use of them. A (Adapt): "What can I adapt or copyfrom someone else's selling process?" I can adapt successful selling process of others like ALIBABA to mine. M (Magnify): "What can I magnify or put more emphasis on when selling?" I can magnify my selling by selling my products in whole package with special discount that I will sell them in bigger amount. P (Put to Other Uses): "How can I put my selling strategy to other uses?" I can put my selling strategy to other use by giving extra points to customers who buy my products more than 10,000 Baht. Then such points can be exchanged for some special gifts. E (Eliminate): "What can I eliminate or simplify in my selling process?" I can eliminate the transport process from factories to stores and from stores to customers; houses. I will just transport directly from factories to customers; house. R (Rearrange): "How can I change, reorder or reverse the way I sell?" I can rearrange or reverse by letting customers exchange for my products with their properties or goods insteadof paying cash.		

Text	Teacher models reading strategies	Reading strategy name	Strategy description
	When I get one or more ideas I will brainstorm and share my ideas in my group. Here my idea for selling is to use the combine techniques of selling online to existing selling through tangible stores, and I also use the eliminate technique by eliminating the transport from factory to stores and from stores to customers' house. My idea is when customers order online we will transport directly from factory to customers' house. Through these ideas we will sell more and pay less. 3. Then the group discuses and selects the best idea. 4. Write it down in my own CRTE learning log and prepare to present it to the class.		

Task7. According to the reading text, think of the new idea to improve a business revenue or reduce operational cost, using SCAMPER techniques. Write sentences and/or draw pictures, charts or mind maps to present your ideas.

SCAMPER	Your idea
S:Substitute	
C:Combine	
A:Adapt	
M:Modify/Minify/magnify	
P:Put to other users	
E:Eliminate	
R:Reverse/Rearrange	

Present your ideas to the class in conclusion for the best idea.

The original		Your ideas for solution
		

Task9. According to the reading text, think of any state of the problem or what you want to make it better in relation to business, which you'd like to solve or create any idea, using the SCAMPER checklist to guide you. Brainstorm in your group and select the best idea of your group. Write the idea in your CRTE learning log, in Part 5

3.2 Create Creative outcome

Task 10. Work in your group to make your idea tangible and describe or make it visual in the last part of CRTE learning log.

3.3 Make Presentation

Task 12. Present the idea to the class your creative idea (Visually describe your Product/Outcome/Solution derived by SCRAMPER technique; in forms of power point presentation, chart, graph, or other tangible forms)

Step 4: Evaluation

Evaluation for reading comprehension ability

Instruction: Read the following Text and answer the test items below.

Reading Text: Look east

Designer glasses: An Italian success story

Luxottica makes sunglasses. It is an Italian factory and 85% of its factories are in Italy. But less than 5% of Luxottica's sales are in its home country. Most of Luxottica's shops are in the USA. The company produces glasses for Chanel, Prada, Bulgari and other companies selling luxury goods. It also owns Ray-Ban sunglasses, and about 15% of the group's sales are from Ray-Ban.

Luxottica's main competitor is Safilo, another Italian glasses manufacturer. The big difference between Luxottica and Safilo is that Safilo has 50 shops and Luxottica has nearly 5,500 shops.

Luxottica started as a manufacturing company. Today, they make more money from retail than from manufacturing. They specialize in glasses that cost £50 or more. This market is ten times more profitable than the market in cheap glasses.

The company has two big challenges in the future. The first challenge is China. At the moment, Luxottica has 250 shops there. But the company wants to double the number of shops to 500. The second challenge is the next chairperson. The company's founder is 70-year-old Mr. Del Vecchio. At the moment, he is the chairperson and he owns 70% of the company. It is a family company, but Mr. Del Vecchio's four children don't work for Luxottica. A new chairperson could make changes that turn Luxottica from a family company into a multinational.

Reading comprehension Test

1. What is the text about?
   a. Luxottica's main competitor b. Luxottica's main products
   c. Luxottica's main challenges d. Luxottica's profile and challenges
2. Which statement best describes Luxottica?
   a. A company based in the USA
   b. A company that will move to China
   c. An Italian company that produces sunglasses
   d. A company that has already turned into a multinational company
3. How much does Luxottica make its sale in Italy?
   a. Less than 5% b. Less than 15% c. Less than 85% d. 100%
4. What is the difference between Luxottica and Safilo?
   a. Luxottica produces sunglasses while Safilo produces clothes.
   b. Safilo manufactures cheaper goods than Luxottica.
   c. Safilo produces more luxury goods than Luxottica.
   d. Safilo has less shops than Luxottica.
5. Which of the following word can be in place in the sentence "Luxottica's main <u>competitor</u> is Safilo, another Italian glasses manufacturer.", in line 6, with the same meaning?
   a. rival b. partnership c. department d. association
6. Which of the following word can be in place in the sentence "They <u>specialize</u> in glasses that cost £50 or more.", in line 9, with the same meaning?
   a. develop b. invest c. take part d. expert

7. Which of the following word can be in place in the sentence “This market is ten

times more profitable than the market in cheap glasses.”, in line 10, with the same meaning?

a. refund b. financial gain c. performance d. dividend

8. Why is China the first challenge for Luxottica?

a. Chinese government banned its products.

b. Its products have not been popular in China.

c. The company wants to expand its business in China.

d. There are too many Chinese manufacturers to compete with.

9. What is the second challenge for Luxottica?

a. The company fails to make profit for many years.

b. The company will turn to other kind of business soon.

c. Turning from a family to a multinational company.

d. Mr. Del Vechio’s son will run the company after his retirement.

10. Which statement is correct?

a. Luxottica is the world largest sunglasses manufacturers.

b. Most of Luxottica’s products are manufactured in the USA.

c. Most of Luxottica’s products are manufactured in Italy.

d. Most of Luxottica’s products are sold online.

4.1 Evaluation for Creative Thinking Ability

Instruction: Based on the above text, if you are the one who will run Luxottica very soon how can you improve or make any change for the company to get more profit using SCAMPER Techniques. (Home work)

Write sentences and/or draw pictures, charts or mind maps to present your ideas.

SCAMPER	Your idea
S Substitute	
C Combine	

A Adapt	
M Modify/Minify/magnify	
P Put to other users	
E Eliminate	
R Reverse/Rearrange	

Present your ideas to the class in conclusion for the best idea in any form like a video presentation, a short movie, or a comic story board etc.

The original	Your ideas for solution

You will be given an evaluation forms by the teacher. Give scores to your friends (judging works of other groups), using the following evaluation form with creative thinking rubric score to evaluate the creative products/outcomes of your friends in other groups.

Creative thinking Rubric				scores
Trait	Exemplary = 3	Satisfactory = 2	Unsatisfactory = 1	
Fluency: number of ideas generated.	Many ideas generated.	Good number of ideas.	Not many ideas generated.	
Flexibility: variety of ideas generated.	Ideas provide several distinct avenues worth pursuing.	A few distinct avenues identified.	Ideas are very similar or serve the same basic function.	
Originality: novelty of ideas.	Ideas are totally new or even unique.	Ideas are modifications or improvements of existing concepts.	Ideas are copies of existing ideas.	
Effectiveness: potential value of ideas.	Ideas meet all objectives.	Ideas show promise in meeting objectives.	Ideas offer little potential for meeting objectives.	
Total scores				

Adapted from http://www.victoria.ac.nz/vbs/teaching/publications/Rubric-for-Creative-Thinking.pdf/accessed June 20th 2016.

4.3 Evaluation for reading strategy usage

Instruction: As a homework, read the above text again individually at home, fill in your CRTE Learning Log and self-report questionnaire.

Lesson Plan

Unit1: Introduction into Business

Subject: English for Social and Business Communication

Class: Accounting and Petrochemical Students

Time: 3-hour class session

Conceptual Content: Introduction to Business

Linguistic Content: Vocabularies relevant to business

Reading Comprehension and creative thinking Strategies:

CSR Reading Strategy Name	**Strategy Description**	**Reading comprehension strategies achieved**
Previewing Strategy	1. Look at the title, subheadings, pictures, captions and graphs etc., and skim the text to look for key words Think of everything you already know about the topic. Predict what you think you will learn (make a guess what you might learn). List your prediction in the learning log.	Activate background knowledge Making prediction
Click & Clunk Strategy	Identify clunks and write in your learning log. Use fix-up strategies to figure out the meaning of the clunks. Reread the sentence with the Clunk and look for key ideas to help you figure out the word. Think about what makes sense. Reread the sentences before and after the Clunk, looking for clues.	3. Self-comprehension monitoring 4. Fix-up strategies
CSR Reading Strategy Name	Strategy Description	Reading comprehension strategies achieved
	Break word apart and look for word parts (prefixes, suffixes, root words) or	

	smaller words you know. Look for a cognate that makes sense or use a dictionary to find out the meanings Write a brief definition or explanation in your learning log.	
Get the Gist strategy	Name the most important who and what in the paragraph. Tell the most important information about the who and what. Write a gist statement of ten words or less, leaving out details.	5. Identifying main idea 6. Identify supporting details 7. Making inference
Wrap Up strategy	Go over the important information you have learned by: Identify the most important information in the text. Think of questions and write them in the learning log. Review what you have learned and write in the learning log.	Questioning Synthesizing information
Creative Thinking Strategies: SCAMPER Techniques	First state the problem you'd like to solve or the idea you'd like to develop. Then ask questions about it using the SCAMPER checklist to guide you. 3. Select the idea you like most. 4. Write the idea in your learning log	8. Questioning 9. Synthesizing information

Lesson Goal: Students will be able to employ CREATE Model for reading comprehension about business and create creative solutions for business.

Lesson Objectives: Students should be able to…

Employ reading comprehension strategies to interact with texts; Preview, Click and Clunk, Get the gist, and Wrap up

Assess personal level of comprehension

Employ creative thinking strategies

Work collaboratively

Aids and Source:

Reading exercise: Introduction into Business

Sample passage for reading strategy modeling: Introduction into Business

Video: What is good business, downloaded from http://youtube.com/watch?v=otxYSGjMAnk

CSR Role Card

CSR slides

Evaluation:

CRTE learning log

Reading exercise

Strategic learning log: think aloud for reading assignment

Self report reading strategies checklist

Reading pre-test and post-test

มหาวิทยาลัยศิลปากร

Teaching Procedure:

Goal and Objectives	**Procedures**		**Reading strategy name**	**Strategy description**	**Materials/ Sources**
	Teacher	**Students**			
Goal: Students will be able to employ CRTE Model for reading comprehension about business and create creative solutions for business. Objectives: Students should be able to… Employ reading comprehension strategies to interact with texts; Preview, Click and Clunk, Get the gist, and Wrap up Assess personal level of comprehension	Conceptualizing 1.1Model and teach strategies 1) Display a video how CSR works in reading class. 2) Overview CRTE Model. In this step, the teacher will let students work in groups based on their friendship until the assignment of CSR roles. 3) Explain what is Preview strategy and how to use it before reading. Have students watch video "Introduction into business" then have them discuss what they already known about the video. Elicit vocabulary students hear from the video. Let students write it down in task1 4)Then, model how to	1) Watch attentively. 2) Listen attentively. 3)Pay attention and discuss what students already known about the topic and vocabularies. Write down the vocabularies in task 1. 4) Listen attentively.	1.Preview strategy; Brainstorm and Predict	Look at the title, subheadings, pictures, captions and graphs etc., and skim the text to look for key words Think of everything you already know about the topic. Predict what you think you will learn (make a guess what you might learn) List your prediction in the learning log.	1.Video: What is good business 2.A text: Introduction into business 3.Reading Exercise

Goal and Objectives	Procedures		Reading strategy name	Strategy description	Materials/ Sources
	Teacher	Students			
3. Employ creative thinking strategies 4. Work collaboratively	use Preview strategy for the first paragraph of the text, which consists of 2 sub steps; brainstorm and predict through thinking aloud approach. 5) Have students work in groups to practice brainstorming and making predictions in task 2. 6) Introduce Click and Clunk strategy; what is it and how to use fix-up strategies to figure out Clunks. 7) Model how to identify Click and Clunk and how to use fix-up strategies through think aloud Approach. 8) Have students practice to identify clunks and find one fix-up strategy to figure out the meaning of Clunk in Task 3and 4 in groups and then share Click and Clunk of each group in class. 9) Introduce Get the gist	5) work cooperatively in groups, to practice making prediction in task2. 6) Listen attentively. 7) Pay attention and observe. 8) Discuss in groups to practice click and clunk strategy and fix up strategy, then share to the class.	2.Click and Clunk strategy; Fix-up strategies	1. Identify clunks and write in your learning log. Most of the time, when you are reading, you understand the words, that means you CLICK. On the other hand, sometimes you CLUNK- get struck on a word or phrase that you do not understand. 2. Use fix-up strategies to figure out the meaning of the clunks. (1) Figure out the word. Think about what makes sense.	

Goal and Objectives	**Procedures**		**Reading strategy name**	**Strategy description**	**Materials/ Sources**
	Teacher	Students			
	strategy. It is done by, (1) Naming the most important who and what in the paragraph, and (2)Tell the most important information about the who and what, then (3) Write a gist of ten words or less, leaving out details. Then, the teacher model how to use the strategy through think aloud approach. 10) Have students practice the strategy in Task 5 in groups. 11) Introduce Wrap up strategy to students which consists of generating questions and review. Look at the text and find the most important ideas, then make WH questions (begin with Who, What, When, Where, Why and How) in	9) Pay attention to the teacher. 10)Practice the strategies in task 5 in groups and share the answers to the class. 11) Listen attentively.	3.Get the gist strategy	(2) Reread the sentences before and after the Clunk, looking for clues. (3) Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words you know. (4) Look for a cognate that makes sense or use a dictionary to find out the meanings Name the most important who and what in the paragraph. Tell the most important information about the who and what. 3. Write a gist	

Goal and Objectives	Procedures		Reading strategy name	Strategy description	Materials/ Sources
	Teacher	**Students**			
	3 kinds of questions; Right-There, Thank-and-Search, and Author-and-You questions 12) Model the strategy through think aloud approach. 13) Have students work in groups to practice wrap up strategy in Task 6. II Reacting 2.1Form Mixed ability groups with assigned roles 14) Students are assigned in groups of six according to the pre-test scores. Each member has his/her own role (see figure.1) 15) Display CSR strategies slides. Discuss the	12) Pay attention to the teacher. 13) Practice the strategy in task 6. 14) Form groups as assigned by the teacher and learn each role. 15) Pay attention to the teacher and respond to	4.Wrap up strategy; generating questions and review	of ten words or less, leaving out details. Go over the important information you have learned by: Think of questions and write them in the learning log 2. Review what you have learned and write in the learning log.	1. CSR Role Card 2. CSR slides 3. CRTE learning log

Goal and Objectives	Procedures		Reading strategy name	Strategy description	Materials/ Sources
	Teacher	**Students**			
	expectations of each role in the groups. Then display CRTE learning log and explain how students use the learning log while reading the given text. Check students' understanding how they conduct their role in the collaborative group and how they use the CRTE learning log before continue. Implement Preview strategy 1) Guide students to use Preview strategy before reading the rest paragraphs of the text and have them write down in the respective part of CRTE learning log. 2) Walk around to each group. Step in if needed to correct misunderstanding of roles or task. Implement Click &Clunk strategy	concept checking questions of the teacher. 1) Pay attention to the teacher. Work in groups according to each role to implement Preview strategy and write down in CRTE learning log of each student. 2) Work collaboratively and adhere to the assigned roles. 3) Work			

Goal and Objectives	Procedures		Strategy name	Strategy description	Materials/ Sources
	Teacher	**Students**			
	3) Follows the same steps in 2.1 above. 2.4 Implement Get the Gist strategy 4) Follows the same steps in 2.1 above. 2.5 Implement Wrap up strategy 5) Follows the same steps in 2.1 above. III Thinking Creatively 3.1 Implement SCAMPER Techniques 1) Follows the same steps in 2.1 above. 3.2 Create Creative Outcome 2) Assign each group to create a tangible idea or	collaboratively and adhere to the assigned roles for the strategy. 4) Work collaboratively and adhere to the assigned roles for the strategy. 5) Work collaboratively and adhere to the assigned roles for the strategy. 1) Work collaboratively and adhere to the assigned roles for the strategy. 2) Work collaboratively	5. SCAMPER strategies: S: Substitute C: Combine A: Adapt M: Modify /Magnify/Minify P: Put to other uses E: Eliminate R: Reverse / Rearrange	1.First state the problem you'd like to solve or the idea you'd like to develop. 2. Then ask questions about it 3. use the SCAMPER checklist to guide you. 4. Select the idea you like most.	

Goal and Objectives	Procedures		Strategy name	Strategy description	Materials/ Sources
	Teacher	Students			
To assess achievements in 3 aspects, namely; creative thinking ability, reading strategy usage, and reading comprehension after learning through CRTE Model	outcome through SCAMPER Techniques. 3) Have each group present their ideas to the class. 3.3 Make Presentation 4) Each group present their ideas to the class. IV Evaluation 4.1 Evaluation for reading comprehension ability 1) After finish unit 1, have students taking the reading comprehension to evaluate their achievement in reading comprehension for formative evaluation, and after finish all 8 unit, have students take post-test of reading comprehension test for summative evaluation. 4.2Evaluation to Creative Thinking 2) Based on the same text used in reading	to create an idea or outcome in tangible form or visually presentation. 3) Collaboratively, prepare for the group presentation. 4) Listen attentively to the presentations. 1) Take the reading comprehension after finish in each unit and take posttest after finish studying all 8 units. Work in the collaborative			CREATE learning log Reading exercise Strategic learning log: think aloud for reading assignment Self-report reading strategies checklist Reading post-test

Goal and Objectives	Procedures		Strategy name	Strategy description	Materials/ Sources
	Teacher	**Students**			
	comprehension test, assign students to work in the collaborative group to create any product or outcome using SCAMPER Techniques. Give the group 1 week to finish their creative task or project and have them present to the class. 3) Explain the rubric and then have students evaluate creative ideas of other groups (peer evaluation), using the given rubric score. 4) Have each group grading their own ideas with the same rubric 5) The teacher grades ideas of each group with the same rubric, then combine the 3 sources of score and divide by3 to make the total score of each group. 4.3 Evaluation of Reading Strategy Usage 6) Assign student as a homework to read the reading text individually (The same text used in reading comprehension test). Have students fill in My	groups to create product or outcome and plan to present to the class. 3) Evaluate creative ideas of other groups (peer evaluation), using the given rubric score. 4) Evaluate their own ideas. 5) Pay attention to the teacher. 6) Work individually for homework by noting down students' think aloud while			1.Reading exercise (My Strategic Reading Log and Self report questionnaire in Task 11 and 12)

Goal and Objectives	Procedures		Strategy name	Strategy description	Materials/ Sources
	Teacher	Students			
	Strategic Reading Log to record their think aloud while reading the assignment. Then have students fill in the Self report questionnaire to reflect how they use reading strategies while reading in order to gather both qualitative and quantitative data.	reading and fill in the self- report questionnaire to reflect the usage of reading strategies both qualitative and quantitative aspects.			

Figure.1: CSR Roles

1.Leader: Leads the group in the implementation of collaborative strategic reading (CSR) by saying what to read next and what strategy to apply next. Asks the teacher for assistance if necessary.

Guided conversation;

We know that today's topic is _____. Let's brainstorm and write everything we already know about the topic in the "K" column of our KWL graphic organizer. Who would like to share their ideas? Now let's predict what we might learn by looking at the title, pictures, and headings from the reading. Write your ideas in the "W" column of our KWL graphic organizer. Who would like to share their ideas?

2.Clunk Expert: Uses the fix-up strategies on the Clunk Pattern Poster to remind the group of the steps to follow when trying to figure out a difficult word, concept, or idea.

Guided conversation;

Did everyone understand what we read? If you did not, write your clunks on your Clunks and Clues graphic organizer. If someone has a clunk, go to Strategy 1 and reread the sentence. Look for clues to help you figure out the unknown word. Try Strategy 4 and break the word apart, looking for a word you might know.

3. Gist Expert: Guides the group toward the identification of a main idea and ensures that the main idea contains the most important ideas without unnecessary details.

Guided conversation;

What sentence gave us the most important information in that paragraph? Let's think about some questions to check and see if we really understood what we read. What was one question that was answered? How can we rephrase the most important information in our own words, using as few words as possible?

4. Announcer: Calls on different group members to read or share an idea. Makes sure everyone participates and only one person talks at a time.

Guided conversation;

Who would like to share their best question? Who would like to read something they wrote on their graphic organizer?

5. Encourager: Watches the group and gives feedback. Looks for behavior to praise. Encourages all group members to participate in the discussion and assist one another. Evaluates how well the group worked together and gives suggestions for improvement.

Guided conversation;

Two things I saw the group do really well were _____ and _____. One thing I saw _____ do especially well was _____. I would give the group a _____ for the "Consideration of Others" section of the Cooperative learning rubric because _____. Is there anything that would help us to do even better next time?

6. Time keeper (Alternatively)

This student sets the timer for each portion of CSR and lets the group know when it is time to move on (the teacher might do this instead of students).

Teacher's Manual for CRTE Instructional Model Implementation

Preface

This teacher's manual is a document designed for teachers, and features an outline, particularly, on using the Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students. The document is aimed at introducing details and guidance in preparing for completed and optimal instructions of the Reading Instructional Model. Its contents include a background, directions, description of the Reading Instructional Model as well as teaching materials and facilitators. The teacher's manual will enable teachers to be better informed and help them understand in details on how to use the Reading Instructional Model effectively and efficiently. It is highly recommended that the guidelines are followed accordingly in order to gain optimal benefits from the model, as well as to provide students with a rich variety of different topics

Richavee Chatviriyawong

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Introduction

Through the need analysis along with the required capability analysis of the Vocational Diploma Curriculum B.E. 2557 (2014) of the Office of Vocational Education Commission, with the goals to find a solution for English reading classes of Thai vocational students, the CRTE Instructional Model is created as an instructional model designed based on 3 teaching approaches namely, (1) Task based Learning approach (TBL) which consists of 3 phases; pre-task, task cycle, and post task, (2) Collaborative Strategic Reading (CSR) which can be divided into Preview, Click and Clunk, Get the gist, and Wrap up stages, and (3) SCAMPER Techniques, which is the brainstorming techniques to (1) state the problem, (2) asking questions using a checklist, and (3) select the best solution.

CRTE Model focuses on the merit of Task based Learning approach (TBL) by designing reading tasks and reading strategy practice tasks as learning activities in which students use language to achieve a specific outcome. The activities reflect real life and students focus on meaning, they are free to use any language they want through authentic tasks, like solving a problem or sharing information or experiences. Meanwhile, CRTE Model follows the sequences of reading strategy practice and through collaborative learning approach of Collaborative Strategic Reading (CSR), which scaffolding students through teacher's model and think aloud methods and the teacher gradually provides less guidance and participation when students become self-directed learners. Another goal of CRTE Model is to enhance creative thinking ability of students, through SCAMPER techniques; a list of questions asking about existing conditions to come up with creative ideas for developing new products, or better solutions for problems.

The steps of CRTE Instructional Model

Step1 (Pre-task)
Conceptualizing

1.1Model and teach strategies

- Preview
- Click and Clunk
- Get the gist
- Wrap Up

1.3 Form mixed ability groups with assigned role for each member

Step2 (Task Cycle)

Reacting

2.3 Implement Reading Strategies

Preview
Click and Clunk
Fix-Up

Get the gist
Wrap Up

Step3 (Post task)

Thinking Creatively

3.1 Model and Implement **SCAMPER**

3.2 Create product/Outcome

3.3 Make presentation

Step4 (Post task)

Evaluation

4.1 Evaluate reading comprehension ability

4.2 Evaluating products/outcomes by; (1) peers, (2) the teacher, and (3) self - assessment

4.3. Evaluate strategy usage

Evaluation and Tools of CRTE Instructional Model

The objectives of CRTE Instructional Model are to enhance (1) reading comprehension ability, (2) creative thinking ability and (3) usage of reading strategies, thus the tools used in evaluation are shown in the following table;

No.	Evaluation	Tool
1	Reading comprehension ability	Reading exercises Reading Pre-Post test
2	Creative thinking ability	Creative thinking evaluation form
3	Usage of reading strategies	My Strategic Reading Log Self-report questionnaire

(All these tools are contained in the student's book and the Appendix of this teacher's manual.)

What to prepare before the lesson

Materials and equipment. The following materials and equipment may be helpful;

1. Clunk cards. Each of the four clunk cards contains one fix-up strategy. Fix-up strategies included in the clunk cards are: (a) reread the sentence with the clunk and look for key ideas to help you figure out the word — think about what makes sense, (b) reread the sentences before and after the clunk looking

for clues, (c) look for a prefix or suffix in the word that might help, and (d) break the word apart and look for smaller words that you know. (see Appendix 1).

2. Cue cards. Cue cards outline the procedures to be followed in a cooperative learning group. They remind students of each step of CSR for each role. Each role comes with a corresponding cue card that explains the steps to be followed to fulfill that role. (see Appendix 2).
3. Learning log. CRTE learning logs serve two roles: (a) written documentation of learning, assuring the individual accountability that facilitates cooperative learning, and (b) study guides for students (see Appendix 3).
4. Timer (optional). Timers that students set by themselves can help groups to remain on task.
5. Score card (optional). The scorekeeper in a group follows a cue card to find out when to award points, and records these points on a score card.
6. The creative thinking ability form and the creative thinking ability rubrics
7. A projector and a speaker for video playing during the step of Conceptualizing to prepare and set background knowledge for students.

Teacher's role

Assigning students to groups

Step1: Ranks students by achievement

List all students in the class by the order of pre-test scores, from the highest achiever to the lowest achiever to assure that all of the stronger readers or weaker readers are not in any one group.

Step2: Identify leaders

Assign students who are able to lead a group.

Step3: Select the first group

Choose the top, bottom, and middle students from the class list to form a group of six students and repeat the same process until all students have been assigned to a group.

Assigning roles to students

Roles should rotate on a regular basis so that students can experience a variety of roles. Possible roles include the following:

- Leader: Leads and directs the group during the implementation of CSR with the teacher's assistance, if needed, and keeps the group's members on task.
- Clunk expert: Uses clunk cards to show the group the fix-up strategies when they try to figure out a clunk.
- Gist Expert: Guides the group to identify the most important ideas of the passage they are reading.
- Encourager: Encourages the group members participate in the group's discussion and gives the feedback.
- Announcer: Calls on the group members to read or share ideas during the activity.
- Reporter: Share the group's ideas, answers, and questions during a whole class discussion.

Teaching the roles

After explaining the principles and let students watch some videos about CRS classes, the teacher should teach students their roles through the use of cue cards.

Facilitating CRS during group work

1. Spend extended time with each group on a regular basis. During this time assure that students are implementing their roles effectively; minimal amount of time on management and maximum amount of time on reading and thinking about what they read.

2. Monitor the performance of each group; monitor their learning log, check the definition of Clunks, help the group with Clinks, check the gist, check to assure that everyone is participating.

Student's role

Group work

The teacher assigns each student a role in his/her group. Roles depend on the number of students in the groups. Possible roles are:

- ❖ Leader: Leads and directs the group during the implementation of CSR with the teacher's assistance, if needed, and keeps the group's members on task.
- ❖ Clunk expert: Uses clunk cards to show the group the fix-up strategies when they try to figure out a clunk.

- ❖ Gist Expert: Guides the group to identify the most important ideas of the passage they are reading.
- ❖ Encourager: Encourages the group members participate in the group's discussion and gives the feedback.
- ❖ Announcer: Calls on the group members to read or share ideas during the activity.
- ❖ Reporter: Share the group's ideas, answers, and questions during a whole class discussion.

During the lesson, students discuss and do most of exercises in groups

Individual work

After the reading lesson, students are assigned Reading Assignment which can be managed both as homework or in-class task and then students have to write their think aloud in the My Strategic Reading Log and Self report questionnaire as the individual work.

Creative Thinking Ability Evaluation

After each group presents their creative ideas to the class, the other groups evaluate the creative thinking ability of the presenting group using the creative thinking ability form and the creative thinking ability rubrics as shown below.

Creative thinking evaluation form

Traits	**Exemplary 3**	**Satisfactory 2**	**Unsatisfactory 1**
Fluency: number of ideas generated.			
Flexibility: variety of ideas generated.			
Originality: novelty of ideas.			
Effectiveness: potential value of ideas.			
Total			

Creative thinking Rubric	**score**

Trait	Exemplary = 3	Satisfactory = 2	Unsatisfactory = 1	**s**
Fluency: number of ideas generated.	Many ideas generated.	Good number of ideas.	Not many ideas generated.	
Flexibility: variety of ideas generated.	Ideas provide several distinct avenues worth pursuing.	A few distinct avenues identified.	Ideas are very similar or serve the same basic function.	
Originality: novelty of ideas.	Ideas are totally new or even unique.	Ideas are modifications or improvements of existing concepts.	Ideas are copies of existing ideas.	
Effectiveness: potential value of ideas.	Ideas meet all objectives.	Ideas show promise in meeting objectives.	Ideas offer little potential for meeting objectives.	
Total scores				

Classroom management

1. Arrange desks and chairs to have students sit face to face in groups.

The teacher may display class diagram of where desks and chairs go during the group work. Groups should be spaced so that the teacher can make his or her way around the room to monitor students.

2. Set the rules for group work; (1) Talk only to the members of your group, (2) Talk only about the reading Task, (3) When you have a question, have the Leader raise his or her hand to get help from the teacher.
3. Monitor the performance of each student within the group.
4. Highlight the performance of students and groups who are implementing CSR well by sharing this information with the class.
5. Support low-achieving students
6. Provide mini-lessons as needed to tune-up and refine strategy use

CRTE Model: Reading Instructional Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR)and SCAMPER Techniques to Enhance Creative Thinking of Vocational Diploma Students

With an attempt to prepare vocational learners to be ready for the complex, sophisticated, and promising future workplaces and society, this current study focuses on instructional model development based on task based learning approach integrating with Collaborative Strategic Reading (CSR) and SCAMPER to enhance capabilities of vocational students on reading comprehension and creative thinking with the expectation that the findings of this research can be used as a guideline for English learning and teaching development to elevate English proficiency of vocational students.

Conceptual Framework

Conceptual Framework; Concepts, Principles and Theories adopted to develop the Development of CREATE Model through Task Based Approach Integrating with Collaborative Strategic Reading (CSR) and SCAMPER to Enhance Creative Thinking of Vocational Diploma Students are as follows;

Communicative Language Teaching (CLT) (Ellis;1997, Richards & Rodgers;2001, Krashen;1980; 1982; 1985, Swain;1985, Long;1983a; 1983b; 1996)

CLT here means the language teacher uses communication as a teaching approach to enhance students' communicative competence. In relation to this, Ellis (1997) also supports that the pedagogical rationale for the use of communicative approach in a language teaching class depends in part on the claim that they will help develop learners' communicative skills and in part on a claim that they will contribute incidentally to their linguistic development. Here, it becomes clear that in relation to being able to communicate, language teaching not only needs the mastering of linguistic knowledge, but also communicative competence

CLT emphasizes the process of communication and leads learners to roles different from the traditional approach. The role of the learner is negotiator between the self, the learning process, and the object of learning. Learners are actively engaged in negotiating meaning by trying to make them understood and in understanding others within the classroom procedures and activities (Richards & Rodgers, 1986). Teachers also take particular roles in the CLT approach. First, the teacher facilitates the communication process between all participants in the classrooms. The teacher is also a co-communicator who engages in communicative activities with the students (Larsen-Freeman, 2000). In addition, the teacher acts as analyst, counselor, and group process manager (Richards & Rodgers, 1986).

CLT has been reformed gradually as a result of the influence of several hypotheses in SLA. These hypotheses include Krashen's (1980; 1982; 1985) comprehensible input hypothesis, Swain's (1985) output hypothesis, and Long's (1983a; 1983b; 1996) interactional hypothesis.

Task-based Approach (Prabhu;1987, Nunan;1989, Willis;1998, Ellis;2003, Branden;2006)

This study follows the concepts and frameworks provided by Willis (1998) consisting of 3 phases; 1) Pre-task; Introduction to topic and task, 2) Task Cycle; 2.1) Task: Students do the task, in pairs or small groups. Teacher monitors from a distance, 2.2) Planning: Students prepare to report to the whole class (orally or in writing) how they did the task, what they decided or discovered. 2.3) Report: Some groups present their reports to the class, or exchange written reports, and compare results. Students may now hear a recording of others doing a similar task and compare how they all did it. 3) Language focus; 3.1 Analysis: Students examine and discuss specific features of the text or transcript of the recording, 3.2) Practice: Teacher conducts practice of new words, phrases and patterns occurring in the data, either during or after the analysis.

3. Comprehension Reading Strategies Instruction

Research on reading comprehension has demonstrated that readers differ in how they approach reading and the meaning they construct from text. Researchers have found that good readers use specific strategies to comprehend text, and those instructional programs that explicitly teach these strategies have been successful in improving students' comprehension. Comprehension strategies are specific procedures learners can use to help them 1) become aware of how well they are comprehending text as the read 2) improve their understanding and learning from text by summarizing, using background knowledge to make predictions, constructing visual representations for example. The strategies are used as a vehicle for coordinating dialogue about text. Thus, a great deal of discussion of text content occurs as teachers interact with students, reacting to students' use of strategies and prompting additional strategic processing.

The goal for strategy instruction is to prepare students to become active and purposeful readers who think about their text before, during and after reading. The Instructional model composes of instructional procedures that help students learn how to coordinate key comprehension strategies. In comprehension strategy instruction, teachers explicitly teach comprehension strategies and reading skills through mental modeling, scaffolding, thinking aloud, and application. By learning comprehension strategies, most readers know how to use certain skills and approaches to make a text more comprehensible, meaningful, and memorable.

4. Multiple reading Strategies Instruction (Palincsar & Brown, 1984; Rosenshine & Meister, 1994, Duffy & Roehler, 1989; Duffy et al., 1986, Anderson, 1992; Brown et al., 1996; Pressley & Afflerbach, 1995)

Instructional approaches to teaching multiple comprehension strategies together have been a focus of research (Block, 1993; Brown et al., 1996; Duffy et al., 1987; Palincsar & Brown, 1984; Pressley & Afflerbach, 1995; Rosenshine & Meister, 1994). Researchers began by teaching readers how and when to use several different text comprehension strategies in coordination with each other. Researchers made a point to teach readers how to use them in coordinated, flexible ways because good

readers use strategies in that way. Other research (Duffy & Roehler, 1989; Duffy et al., 1986; El19 Dinary & Schuder, 1993; Rosenshine & Meister, 1994) focused on the development of teachers in the processes of teaching students how to use multiple strategies.

Methods of instruction were proven effective in fostering comprehension when taught by researchers and/or teachers. The well known methods were reciprocal teaching (Palincsar & Brown, 1984; Rosenshine & Meister, 1994), direct explanation (Duffy & Roehler, 1989; Duffy et al., 1986), and Transactional Strategy Instruction (TSI),(Anderson, 1992; Brown et al., 1996; Pressley & Afflerbach, 1995).

5. Collaborative Strategic Reading (Klingner, Vaughn, & Schumm, 1998; Klinger & Vaughn, 2000; Klingner, Vaughn, Argu¨elles, Hughes, & Ahwee, 2004, Grabe, 2009, Davis; 2012,Vaughn et al., 2011)

Collaborative Strategic Reading (CSR) is a Multiple Comprehension Strategy Instruction (MCSI) approach that was based on the concepts of Reciprocal Teaching, Collaborative Learning and Transactional Strategies Instruction.(Grabe; 2009,Davis; 2012) CSR focuses explicitly on student-led cooperative learning instead of teacher-led groups more than Reciprocal Teaching and Transactional Strategies Instruction (Klingner, Vaughn, & Schumm, 1998).

Collaborative Strategic Reading includes elements identified as critical for enhancing the performance of students with learning difficulties, such as: (a) making instruction visible and explicit, (b) implementing procedural strategies to facilitate learning, (c) using interactive groups and/or partners, and (d) providing opportunities for interactive dialogue among students and between teachers and students (Fuchs, Fuchs, Mathes, & Lipsey, 2000; Gersten, Fuchs, Williams, & Baker, 2001; Swanson, Hoskyn, & Lee, 1999; Vaughn, Gersten, & Chard, 2000).

In CSR, students learn to use four major strategic procedures while reading content area texts: a previewing procedure (skimming title and subheadings, making predictions, and recalling background knowledge), a strategy procedure known as “click and clunk” (identifying and clarifying difficult, or “clunky” words), a “get the gist” procedure (identifying and stating main ideas), and a wrap-up procedure (summarizing the text and asking teacher-like questions). These strategies are first modeled and explained by the teacher, and then students practice them in small groups of four to six students. The group works of students are based on the cooperative learning principles. Each member of the group work has an assigned role to be responsible for the given task.

6. Creative Thinking (Conklin, Wendy, 2012, Starko, Alane J.,2010, Michalko,2006, MyIdeaGuy, 2005)

According to Richard Paul and Linda Elder (2008), critical and creative thinking are both achievements of thought; they are inseparable aspects of excellence of thought. They are interwoven. Each without the other is of limited use; creativity

without criticality is mere novelty while criticality without creativity is bare negativity.

However, focusing solely on creativity, it refers to mastery in a process of making or producing, criticality a process of assessing or judging. The definition of "creative" implies a crucial element (e.g., "having or showing imagination and artistic or intellectual inventiveness"). In sum, sound thinking requires both imagination and intellectual standards.

For the purpose of the present study, creative thinking or creativity will be seen as the intertwined of thought to critical thinking and deemed as higher order thinking. It may involve divergent and convergent thinking to produce new ideas. The outcome of creative thinking may be in forms of products; both tangible and intangible, or processes demonstrating originality and appropriateness of such outcome. What produced with creativity can be derived by an individual, a group, or an organization. In the sense of education, creative thinking is listed in the top three levels of Bloom's Taxonomy of the Cognitive Domain. Creative thinker is supposed to possess the abilities to think strategically with goals in mind, know how to incorporate logical reasoning when solving problems, think about their thinking (metacognition), naturally make inferences and know what strategies and skills to use for each situation. They are open-minded for diverse views. With their flexible thinking, they are enabled to seek for solution in any new situation. Then the products of their thinking in any form are innovative in some dimensions and meaningful in any sense.

7. SCAMPER Technique (Osborne;1953, Eberle;1977, 1996, Conklin, Wendy; 2012, Starko, Alane J;2010, Michalko;2006, MyIdeaGuy 2005).

SCAMPER is an acronym that provides a structured way for understanding creative problem solving. According to Michalko (2006), to use SCAMPER, just follow these rules;

Isolate the challenge or subject you want to think about.

Ask SCAMPER questions about each step of the challenge or subject and see what new ideas emerge.

"Asking the questions is like tapping all over the challenge with a hammer to see where the hollow spots are" as suggested by Michalko (2006).

The S in SCAMPER stands for substitute. It suggests asking questions such as "What could I use instead?" or "What other ingredients, materials, or components could I use?" Many new products and solutions to problems large and small are the result of substitution.

The C stands for combine. Questions being asked are, "How can I combine parts or ideas? Are there two things I could blend rather than come up with something new?", for instance. Many common products are derived by the combinations.

The A stands for adapt. It uses questions such as “What else is like this?” or “Could we change or imitate something else?” In adapting, we change something known to solve the

The M includes various meanings. It can stand for modify. In modifying questions used are, “Could we change a current idea, practice, or product slightly and be successful?”

The M can also stand for magnify or minify. Magnifying leads us to ask, “How could I make it bigger, stronger, more exaggerated, or more frequent?” It could result to ever-larger things. Magnifying common objects to many times their size also can spur original works of art. Saw at that size, structure gets to be more paramount than capacity, permitting us to see the object in another way. To minify is on the contrary. To go in this direction, we ask, “How can I make it smaller, more compact, lighter, or less frequent?” Examples of Minifying are namely RitzBitz (bite-size crackers), 3-inch video screens, and 10-second commercials.

The P stands for put to other uses. It suggests that we ask, “How can I use this in a new way?”

The E is for eliminating. It allows us to ask, “What can be omitted or eliminated? Are all the parts necessary? Is it necessary to solve this problem at all?”

Finally, the R stands for rearrange or reverse. It utilizes questions such as “Could I use a different sequence? Could I interchange parts? Could I do the opposite? What would happen if I turned it upside down, backward, or inside out?” Left -handed scissors, knives, and garden tools are examples of rearranging or reversing.

Components of the Model

CRTE Model is composed of principle and objective components, procedural components, and model-implemented condition components. as follows;

Principle

Task-based reading instruction model, integrating with Collaborative Strategic Reading and creative thinking strategies, can help to develop students’ reading competence and strategies use in order to achieve their learning purposes. It can motivate learners to use the language in the real life situations. Task-based activities allow students using meaning focused more than form focused. Students develop their competence through collaborative reading and apply creative thinking strategies.

Objectives

To enhance students' reading comprehension ability and employment of reading and creative thinking strategies used after using task-based reading instruction model.

Procedural components comprise of 7 steps as follows;

Step1 (Pre-task)

Conceptualizing

1.1Model and teach strategies

- Preview
- Click and Clunk
- Get the gist
- Wrap Up

1.4 Form mixed ability groups with assigned role for each member

Step2 (Task Cycle)

Reacting

2.4 Implement Reading Strategies

Preview

Click and Clunk

Fix-Up

Get the gist

Wrap Up

Step3 (Post task)

Thinking Creatively

3.1 Model and Implement **SCAMPER**

3.2 Create product/Outcome

3.3 Make presentation

Step4 (Post task)

Evaluation

4.1 Evaluate reading comprehension ability

4.2 Evaluating products/outcomes by; (1) peers, (2) the teacher, and (3) self - assessment

4.3. Evaluate strategy usage

4. Model-implemented condition components

4.1 Social system: cooperative learning, individual learning, and learning by doing. Cooperative learning occurs when students work together in small groups to accomplish shared goals and to maximize their own and each other's learning. The goals students have to reach are (a) to assure that they learn the assigned material or complete the assigned task, and (b) to make sure that all other members of their group do likewise. (Johnson & Johnson, 1991, Klingner, J.K. et al., 2001). Students are assigned to work in groups of 4 with heterogeneous members in terms of gender, reading achievement level or other relating attributes. There should be rules for learning in groups in order to control noise in the class, keep students attention to the lesson, assure participation of all members, and keep time for each lesson. The teacher needs to carefully define and model appropriate group behaviors; some of them are how to listen attentively, ask clarifying question, take turns speaking, and resolve conflicts.

4.2 Principle of reaction: Teacher's role as a facilitator and students' role as learning and acquiring by doing.

(a) The teacher's role in facilitating group work learning; the teacher assigns students to groups and then assigns roles to each members of a group. At least 3 roles are essential for CSR; Leader, Clunk expert, and Gist expert while other roles; encourage, announcer and time keeper can be multiply assigned. The teacher should monitor the performance of each group by checking the learning logs of each group to assure that students are actively participating in all of the strategies and using them effectively, checking the definitions students have written for their clunks to assure that they are accurate, assisting groups with clunks that they have not been able to resolve so that understanding the text is easier for them, providing feedback for their gists and leading class discussion. The whole class activities are ideal at the beginning and at the end of each unit.

(b) The essential to success of cooperative learning groups is that each student in the group has a meaningful role that contributes to the overall success of the group. During the lesson students are assigned group tasks; each member has their own specific role as the following role description.

Leader

Leader's role: to guide the group in the use of 4 reading strategies (1) Preview, (2) Click and Clunk, (3) Get the Gist, and (4) Wrap Up plus 1 creative thinking strategy; SCRAMPER. The leader reminds group members when to do their jobs and helps the group to stay on track. The leader uses cue card to prompt group members about the 4 strategies and group assignments.

Announcer

Announcer's role: to make sure that each member of the group participates in group work by sharing their good ideas. When the leader indicates the announcer calls on different group members to read or share an idea and makes sure that all members have a chance to talk or no one talk too much. The announcer reminds the group to talk one by one.

Clunk Expert

Clunk expert's role: to help the group members figure out words they don't understand. The clunk expert starts by asking if any member has clunks then uses the Clunk Expert's cue card to help figure out clunks. The Clunk expert helps group members clarify any misunderstandings they may have and summarize the meaning of the clunk so that each member can write the meaning in their leaning logs.

Gist Expert

Gist expert's role: to work with the group to decide on the best gist for each section of the reading task or assignment. The gist expert helps the group decide on the main ideas for each section by asking members to write their gists in their learning logs, after the announcer calls on someone to share a gist, ask the group if they agree then urge the group to decide on the best gist.

Encourager

The Encourager's role: to watch the group and let group members know when they do something well. This helps all members feel part of the group and feel good about the contributions they make. The encourager is in charge to watch each member of the group, use the encourager's cue card to help thinking of good things to say about: (1) how your group worked together and (2) how the group helped each other learn, then help the group discuss things that will help the group work better together.

Timekeeper

The Timekeeper's role: to help the group complete the reading assignment in a timely way to make best use of the class time. The time keeper is in charge of setting the timer for each reading section starting when the leader tells the group to begin. The timekeeper should let the leader and other member know when it is time to move on.

Support system: Materials, tools and multimedia resources. The reading materials used for CREATE model are expository texts characterized by: (a) clues that help students predict what they will be learning, (b) definitions for key vocabulary built into the text, (c) one main idea in a paragraph with relevant supporting details, and (d) context that helps students connect new information with prior knowledge. Other needed tools are CREATE learning log, adapted from CSR Learning log, CSR Cue card or sheets, CSR Clunk cards. Furthermore multimedia resources are useful to provide background knowledge to students and help them visualize what they read.

Units, Learning Objectives and Teaching Procedures

Unit No. / Topic	Objectives	CREATE Model Teaching Procedures
Unit 1: Introduction to Business Unit 2: Jobs and Career Unit 3: Work Attitude Unit 4: Teamwork Unit 5: Networking Unit 6: Problem Solving Unit 7: Emails for business	1. Ss. will be able to employ reading comprehension strategies to interact with texts; Preview, Click and Clunk, Get the gist, and Wrap up 2. Ss. will be able to assess personal level of comprehension. 3. Ss. will be able to employ creative thinking strategies 4. Ss. will be able to work collaboratively	Components of the Model Step1 (Pre-task) Conceptualizing 1.1Model and teach strategies Preview/ Click and Clunk /Get the gist /Wrap Up Form mixed ability groups with assigned role for each member Step2 (Task Cycle) Reacting Implement Reading Strategies Preview/Click and Clunk/ Fix-Up/Get the gist/Wrap Up Step3 (Post task) Thinking Creatively 3.1 Model and Implement SCAMPER 3.2 Create product/Outcome 3.3 Make presentation Step4 (Post task) Evaluation 4.1 Evaluate reading comprehension ability 4.2 Evaluating products/outcomes by;

Unit 8: Culture Clash		(1) peers, (2) the teacher, and (3) self -assessment 4.3. Evaluate strategy usage

Lesson Content Specification

Objectives	**Task-based Activities**	**CRTE Model Teaching Procedures**	**Strategies**	**Linguistics Content**			**Task options**	**Evaluation**
				Functions	**Structure**	**Vocabulary**		
1. Ss. will be able to employ reading comprehension strategies to interact with texts; Preview, Click and Clunk, Get the gist, and Wrap up 2. Ss. will be able to assess personal level of comprehension. 3. Ss. will be able to employ creative thinking strategies 4. Ss. will be able to work collaboratively	1.Listing: Ss. brainstorm what they already know and don't know. 2. Creative Task: Ss. identify problems or limitation and then propose a creative solution based on the reading text.	Components of the Model Step1 (Pre-task) Conceptualizing 1.1Model and teach strategies - Preview - Click and Clunk - Get the gist - Wrap Up Form mixed ability groups with assigned role for each member Step2 (Task Cycle) Reacting Implement Reading Strategies Preview Click and Clunk Fix-Up Get the gist Wrap Up Step3 (Post task) Thinking Creatively 3.1 Model and Implement SCAMPER 3.2 Create product/Outcome 3.3 Make presentation Step4 (Post task) Evaluation 4.1 Evaluate reading comprehension ability 4.2 Evaluating products/outcomes by; (1) peers, (2) the teacher, and (3) self -assessment 4.3. Evaluate strategy usage	Reading Comprehension Strategies: Previewing Strategy 1.1Brainstorm 1.2 Predict Click & Clunk Strategy 2.1Idenfify Clunk 2.2 Use fix---up strategies Get the Gist strategy Find main idea 3.2 Find supporting Details 3.3 Write a summary Wrap Up strategy Ask questions Review 5.Creative Thinking Strategies: SCAMPER Techniques	- using context -identify the main idea -drawing conclusion -making inference	- Subject -verb agreement - Forming Wh-question - Parts of speech	-Words, phrases relating to business. - understanding root words and affixes	Inputs: Written text Conditions: Shared-information two-way optional information requirement convergent Processes: Discussion / dialogues Outcome: Written opened	Classroom Observation CRTE learning log Reading exercise Strategic learning log: think aloud for reading assignment Self-report reading strategies checklist Reading pre-test and post-test

Reading Comprehension Test

(90 MINUTES) No dictionaries allowed

In this test, you will read three passages. Each one is followed by several questions about it. For each question, you are to choose the one best answer., (A), (B), (C) or (D).

Passage1

Out into the big wide world

Today's graduates are entering one of the toughest job markets

in decades. Sylvia Morgan writes about how she finally landed that crucial first post.

I was by no means typical among my peers, but I feel I was well organized in my approach to job hunting. Even before graduation, when many of my friends were enjoying what they termed their 'final year of freedom', I was attending career fairs and getting an idea of which companies were hiring in my chosen field – publishing. I had some sit-down meetings with representatives at the fairs and distributed my CV, but even then, there was a feeling of 'let's wait and see'. Nobody wanted to commit and none of the companies seemed sure they would even have jobs to offer in the summer, assuming I graduated with the degree my lecturers expected from me.

I did, but found myself back home in July feeling I was starting again from square one. Although I had taken a short holiday straight after leaving university, I had spent it looking through newspaper job advertisements and online job sites. There had been very little movement in the publishing field and when I got home and found that none of the companies I had contacted before graduating were prepared to make a job offer, I made the pragmatic decision to widen my focus considerably.

I approached job hunting, as much as possible, as a job in itself. Monday to Friday, I put in nine-to-five days (with a break for lunch) filling out online application forms, sending out CVs and following leads. If something looked promising, I was prepared to work overtime in order to exploit the opportunity fully. When I got an interview, I did my homework as a sales representative on a business trip would: researching the company, plotting a sales strategy and trying to put myself in the potential employer's shoes by asking myself questions such as 'What are they looking for?'

So, the interviews did start coming. There would have been many more, however, if I hadn't had a strict rule; I refused any that even hinted at working as an unpaid intern. These positions are becoming more and more common in the UK, which I think is an extremely damaging trend. Not only do young people nowadays get into debt to obtain a degree, but they also have to be prepared to work for six months or a year without remittance, in the hope of a position with a salary at the end

of it. Certainly, you gain experience in the good positions of this kind, but in many you may end up as a glorified coffee maker.

Rejection is something you have to prepare yourself for mentally. First of all, because you will, in all likelihood, receive many of those dreaded emails (or letters, occasionally) before you get the break you are looking for. Secondly, because no matter how strong your self-confidence is, those brief polite sentences will eventually dent it. I strongly advise you not to walk that path alone. Compare notes with university friends and you will find many are going through the same thing. Without my friends, I would have felt like a failure and then I'd never have got a job.

Because I did, eventually, find someone who was prepared to overlook my lack of experience and appreciate my qualifications, I was offered a job and I accepted it. It was after 139 applications – I kept careful count. The starting salary isn't wonderful, but it's a young, fast moving company with good opportunities for promotion. Three months on, I could look back at my six months of unemployment as a waste of time, but I prefer to see it as a learning curve and a growth experience. This is the real world and the more leisurely life of academic development, careers counseling and self-discovery at university is over.

Reference: Out into the big wide world, Access on March 18th 2017, Available from http://www.macmillanenglish.com/uploadedFiles/wwwmacmillanenglishcom/Content/Samples/Improve_your_Skills_for_First/ImproveyourSkillsforFirstReading pp30-37.pdf.

1. From the first paragraph, we understand that
   a. Sylvia feels like she missed out on a lot of opportunities at university.
   b. many of Sylvia's fellow students didn't focus on job-hunting before graduation.
   c. the job fairs Sylvia attended led to some promising possibilities.
   d. Sylvia wishes she had done more to obtain a job pre-graduation.
2. What kind of job was Sylvia looking for a job?
   a. Publishing
   b. Advertisement
   c. Sale and Marketing
   d. Research and Development
3. Which choice best describes the structure of the first paragraph?
   a. Description
   b. Sequential

c. Cause and effect

d. Compare and contrast

4. What is the meaning of the first sentence in paragraph2 “I did, but found myself back home in July feeling I was starting again from square one. “?

a. Her house is near the Square One area.

b. She felt she had to start looking for a job from the beginning again.

c. She had got top scores in the last semester.

d. She had a short holiday in the Square One hotel.

5. After returning home from her holiday, Sylvia

a. decided to start applying to publishing companies from the beginning.

b. realized that she had been applying for jobs that she wasn’t qualified for.

c. immediately began searching newspapers and websites for jobs.

d. switched to a more realistic approach to job-hunting.

6. What point is Sylvia making in the third paragraph?

a. Sales jobs are very often the hardest ones to get.

b. An approach to finding a job must be professional.

c. One should be prepared to do overtime even when unpaid.

d. How a person finds a job shows how well he or she will do in it.

7. What does the word ‘remittance’ mean, in the fourth paragraph?

a. qualifications

b. experience

c. pay

d. duties

8. What would happen if Sylvia was offered a low salary job during an interview?

a. She might reject the job.

b. She might accept that job because she needed money.

c. She might accept that job because she wanted to get working experience.

d. She would have to consult her parents for making decision.

9. According to the last sentence in the fourth paragraph "Certainly, you gain experience in the good positions of this kind, but in many you may end up as a glorified coffee maker." what can we infer?

    a. Most people gain nothing from internship, only making coffee skill.
    b. Most people have to work in a coffee shop to earn money during internship.
    c. Working as a coffee maker can makes more money than an office worker.
    d. To be successful in any career, one must have coffee making skill.

10. When a job application ends in rejection, Silvia believes you should…

    a. share the experience with people who will empathize and encourage you.
    b. allow it to do the slightest damage to your self-image.
    c. treat it as a valuable lesson in self-reliance and work alone on your own.
    d. be prepared to examine your preconceptions about yourself.

11. What did Sylvia prepare herself before her graduation to get a job?

    a. Attending career fairs
    b. Meetings with representatives at the career fairs
    c. Distributing CV
    d. Waiting to see

12. How long had Sylvia spent looking for work?

    a. 6 weeks b. 3 months c. 6 months d. 3 years

13. What does make Sylvia satisfy for her job?

    a. high salary
    b. working condition
    c. easy work
    d. good opportunities for promotion

14. Which text structure does sixth paragraph primarily use?

    a. Sequential
    b. Cause and effect
    c. Problem and solution
    d. Compare and contrast

15. What does the word '**overlook**' mean in the sixth paragraph?

a. disregard

b. take care

c. notice

d. look after

16. What does the word '**unemployment**' mean in the sixth paragraph?

a. the state of not having a job

b. to use something or someone, especially in an effective way

c. a person or organization that employs people

d. self-training and development

17. If you ask for a job hunting advice from Sylvia, which of the following might be her possible advice?

a. try your best effort by preparing for interview and searching information.

b. be prepared for failures but don't give up.

c. take it easy, just wait and one day your opportunity will come to you

d. a and b are correct.

18. What can be inferred from this text?

a. It seems to be harder and harder for newly graduates to get a job.

b. Graduates can get a job easily if they have good preparation.

c. It becomes a trend that to get better jobs, people need to pass an internship.

d. It takes more than three months to get a job and more than two years to be settled.

passage2

Professionalism

Throughout our working lives, most of us will have many different jobs, each requiring a different level or set of skills. No matter the industry – from customer service to an office job to construction and the trades – all of these jobs have one thing in common: in order to succeed and move ahead, you need to demonstrate professionalism. Professionalism does not mean wearing a suit or carrying a briefcase; rather, it means conducting oneself with responsibility, integrity, accountability, and excellence. It means communicating effectively and appropriately and always finding a way to be productive.

Employers want new workers to be responsible, ethical, and team oriented, and to possess strong communication, interpersonal, and problem-solving skills. Wrap these skills up all together and you've got professionalism.

As today's labor market becomes more and more competitive, jobseekers will need to continually find ways to stand out from the crowd. There are few things an employer values more than employees who carry out their duties in a professional manner. Professionalism isn't one thing; it's a combination of qualities. A professional employee arrives on time for work and manages time effectively. Professional workers take responsibility for their own behavior and work effectively with others. High quality work standards, honesty, and integrity are also part of the package. Professional employees look clean and neat and dress appropriately for the job. Communicating effectively and appropriately for the workplace is also an essential part of professionalism.

Regardless of the job or industry, professionalism is easy to spot. On a construction site or in a trade, a professional worker will work hard and manage time effectively, including arriving and returning on time from breaks. A professional worker in a customer service setting will speak clearly and politely to customers and colleagues and have neat and clean appearance. In an office setting, an employee with professionalism will work productively with others and strive for a high standard and constant improvement. Professionalism may look slightly different in various settings, but the core elements are always the same – and give young employees an edge as they begin their careers.

Reference: The Department of Labor's Office of Disability Employment Policy (ODEP), Professionalism, Skills to Pay the Bills: Mastering Soft Skills for Workplace Success, page 35. Access January 10th 2017. Available from: https://www.dol.gov/odep/topics/youth/softskills/softskills.pdf,

19. Which text structure does this reading text primarily use?
    a. Sequential
    b. Description
    c. Problem and solution
    d. Compare and contrast

20. What is the main idea of the first paragraph?
    a. People must have many different jobs before succeeding.
    b. Customer service industry requires lower skills than other industries, like construction or trades.
    c. Each job requires a certain level of skills and only some jobs need professionalism.
    d. In order to succeed and move ahead, ones need to demonstrate professionalism.

21. What is the most important characteristic of professionalism?
    a. Wearing an expensive suit
    b. Carrying a brand name briefcase

c. Communicating effectively

d. Clean and neat

22. What is the BEST prediction you could make about “employees who carry out their duties in a professional manner”?

a. They will soon get promotion.

b. They will soon be lack out of energy.

c. They will be successful in their life.

d. They will get richer.

23. What property is not considered as professionalism?

a. Responsible

b. Team oriented

c. Interpersonal

d. Attractive

24. Which of the following employees are wanted by labor market?

a. Dress neatly and fashionable

b. Having high ego and prefer to work individually

c. Always depend on other colleagues in working

d. Work with honesty and integrity

25. “Regardless of the job or industry, professionalism is easy to spot.” Which of the following can be replaced the underlined word without changing the meaning?

a. Neither

b. Whether

c. Otherwise

d. No matter

26. How can we notice or spot a professional worker?

a. The one who always arrives to work and returning on time

b. The one who speak politely even though it is hard to understand

c. The one who is lack of interpersonal skill

d. The one who ignores the rules of employers

27. What does the sentence “Wrap these skills up altogether and you’ve got professionalism” in line3, paragraph2 means?
    a. To be a professional, one needs to be wrapped with suitable clothes.
    b. One has to demonstrate the professional skills one by one.
    c. One needs to have and use more than one essential skills at the same time.
    d. If one is good at wrapping things together, one becomes professionalism.
28. The worker who has neat and clean appearance demonstrating professionalism for…….
    a. Construction job
    b. All work settings
    c. Customer service
    d. Factory setting
29. What does “team oriented” in line1, paragraph2, mean?
    a. To be good at working individually
    b. To be good at working in team
    c. To speak politely to team members
    d. To be good at taking care of customers
30. What does the phrase “to stand out from the crowd” in line2, paragraph3 means?
    a. To separate from others
    b. To be the leader of others
    c. To stand in front of the queue
    d. To be outstanding among others
31. How can you show to the job interviewer that you are a professional?
    a. Dress properly.
    b. Explain them how you manage a teamwork in your former work.
    c. Make as much as excuses for the reasons you change your job.
    d. Show them a number of your certificate.
32. Which kind of workplaces may not need a professional employee?
    a. service providers
    b. government agencies

c. schools

d. none

33. Which characteristic is not included in the text as professionalism?

a. experienced

b. punctuality

c. accuracy

d. outgoing and cheerful

34. Why did the writer write this text?

a. to inform readers how important to be professional in working settings.

b. to compare between good and bad employees.

c. to promote a professional training course.

d. to encourage employees in recruiting professional employees.

Passage 3

Culture Shock

Modern life is characterized not only by the conveniences made possible by technological advances but also by greater mobility in search of still greater opportunities. It is this search for "greener pastures" that takes people across their national borders and into foreign countries all over the world. These major life changes, however, expose individuals to many novelties in a new culture, which are the causes of culture shock. Culture shock is a process through which most people who enter a new culture pass through before they adjust to life in their new environment. Psychologists tell us that there are five basic stages that human beings pass through when they enter and live in a new culture. This process, which helps us to deal with culture shock, is the way our brain and our personality reacts to the strange new things we encounter when we move from one culture to another.

Culture shock begins with the "honeymoon stage". This is the period of time when we first arrive in which everything about the new culture is strange and exciting. We may be suffering from "jet lag" but we are thrilled to be in the new environment, seeing new sights, hearing new sounds and language, eating new kinds of food. This honeymoon stage can last for quite a long time because we feel we are involved in some kind of great adventure.

Unfortunately, the second stage of culture shock can be more difficult. After we have settled down into our new life, working or studying, buying groceries, doing laundry, or living with a home-stay family, we can become very tired and begin to miss our homeland and our family, girlfriend/boyfriend, pets. All the little problems

that everybody in life has seem to be much bigger and more disturbing when you face them in a foreign culture. This period of cultural adjustment can be very difficult and lead to the new arrival rejecting or pulling away from the new culture. This "rejection stage" can be quite dangerous because the visitor may develop unhealthy habits (smoking and drinking too much, being too concerned over food or contact with people from the new culture). This can, unfortunately lead to the person getting sick or developing skin infections or rashes, which then makes the person feel even more scared and confused and helpless. This stage is considered a crisis in the process of cultural adjustment and many people choose to go back to their homeland or spend all their time with people from their own culture speaking their native language.

The third stage of culture shock is called the "adjustment stage". This is when you begin to realize that things are not so bad in the host culture. Your sense of humor usually becomes stronger and you realize that you are becoming stronger by learning to take care of yourself in the new place. Things are still difficult, but you are now a survivor!

The fourth stage can be called "at ease at last". Now you feel quite comfortable in your new surroundings. You can cope with most problems that occur. You may still have problems with the language, but you know you are strong enough to deal with them. If you meet someone from your country who has just arrived, you can be the expert on life in the new culture and help them to deal with their culture shock.

There is a fifth stage of culture shock which many people don't know about. This is called "reverse culture shock". Surprisingly, this occurs when you go back to your native culture and find that you have changed and that things there have changed while you have been away. Now you feel a little uncomfortable back home. Life is a struggle!

Reference : University of Victoria English Language Centre, Culture Shock, Access January 10th 2017. Available from: http://web2.uvcs.uvic.ca/elc/studyzone/490/wchild/wchild20.htm.

35. People might suffer from culture shock when…..

a. They expose to new and unfamiliar environment.

b. They touch unsafe electric wire outdoor.

c. They go aboard for a short trip.

d. They have been through the golden age of their lives.

36. Which text structure does the first paragraph primarily use?

a. Sequential

b. Cause and effect

c. Problem and solution

d. Compare and contrast

37. Which sentence best explains the main idea of paragraph 1?

a. People immigrate to other countries in search of better opportunities.

b. Modern life is characterized by many technological advances and greater mobility.

c. Culture shock, experienced by people living in a new culture, consists of five basic stages.

d. Our brain and our personality react to the strange new things we encounter.

38. Which text structure does paragraph 2-5 primarily use?

a. Sequential

b. Cause and effect

c. Problem and solution

d. Compare and contrast

39. The main idea of paragraph 2 is:

a. The "honeymoon stage" is the initial period of culture shock.

b. This stage got its name because everything is new and exciting for the newcomer.

c. Newcomers are excited by the new sights, sounds, language and foods.

d. The honeymoon stage can last for quite a long time.

40. The main idea of paragraph 3 is:

a. The inability to deal with problems in the new culture can lead to unhealthy habits.

b. The "rejection stage" is the most difficult stage in the process of cultural adjustment.

c. New arrivals in this stage "reject" the new culture by returning to their country or binding even more with other people from their culture.

d. This can lead to the person getting sick or developing skin infections or rashes.

41. The main purpose of paragraph 5 is to:

a. describe how newcomers feel in the "at ease" stage

b. warn of the difficulties newcomers may feel during this stage.

c. suggest newcomers to overcome all problems in the new culture.

d. Inform what and how newcomers can enjoy their lives.

42. In paragraph 5, the author does all of the following EXCEPT:

a. show what causes "reverse culture shock"

b. describes what specifically causes reverse culture shock.

c. defines the fifth stage of culture shock.

d. Suggest how to prevent “reverse culture shock”

43. In paragraph 1, sentence 5, the word **novelties** means

a. things which are new or unusual

b. things which have to do with novels

c. things which are very young or recent in age

d. things that can cause troubles

44. In paragraph 1, sentence 10, the word **encounter** means

a. to meet as an adversary or enemy

b. to come upon face-to -face

c. to count

d. to take care of

45. How can people pass through or overcome the rejection stage wisely?

a. Going back their hometown more often

b. Finding new group of friends and going out with them

c. Curing by eating and drinking good food and liquor

d. Adjusting themselves to the new environment

46. What might happen if a person suffers from reverse culture shock?

a. Moves back to his or her hometown

b. Suffers from mentally problem

c. Suffers with health problems

d. Probably never visit his or her hometown again

47. In paragraph 3, sentence 7, the word **rejection** means…

a. refusing to accept or consider something

b. refusing to live in a country

c. refusing someone as a lover or spouse

d. refusing to develop unhealthy habits

48. Which of the following stage that people encounter the most difficulties?

a. Honeymoon stage b. Rejection stage

c. Adjustment stage d. At ease at last stage

49. What is the purpose of the writer in writing this text?

a. To compare effects of culture shock from each stage.

b. To inform cause of culture shock from each stage.

c. To describe cause and effect of culture shock.

d. To encourage readers to overcome culture shock.

50. What can be inferred from this text?

a. When people go aboard, they will encounter difficulties.

b. Culture shock is so tough that only few people might not be affected by it.

c. If you aware the effects of culture shock and be prepared, you can overcome them wisely.

d. Culture shock stages will always happen to everyone, respectively.

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Table of Test Specifications

Part	Test Objective	Topics	Text Type	Language contents	Test types/objectives	Learning skill level	Weight/Time Allotment	Scoring Criteria
Reading Comprehension	To evaluate reading ability of Diploma students at Rayong Technical College before and after the treatment of CRTE Model	Reading Text Structure	Reading passages on different types of text structure	Rhetorical organization of Text structure	Multiple choices Predicting ability; finding clues in the title, subheading, pictures and content of passage, (Item no. 8,17, 22, 46) (b) identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (Item no. 3, 14, 19, 36, 38) (c) dealing with vocabularies, (Item no. 4, 7, 15, 16, 25, 27, 29, 30, 43, 44, 47) (d) recall of details, and main ideas, (Item no. 2, 5, 11, 12, 20, 21, 33, 35, 37, 39, 40, 41, 42, 48) (e) making inferential and summarizing (Item no.1, 6, 9, 10, 13, 18, 23, 24, 26, 28, 31, 32, 34, 45, 49, 50)	Reading ability	50 items/ 50 marks / 90 min.	One correct One mark

Table of Test Specifications

Standards and Objectives	**Number of Items**	**Percentage of Items**
Predicting ability; finding clues in the title, subheading, pictures and content of passage (Item no. 8,17, 22, 46)	4	8%
identifying text structures; description, sequence, comparison, cause and effect and problem and solution relationships (Item no. 3, 14, 19, 36, 38)	5	10%
dealing with vocabularies, (Item no. 4, 7, 15, 16, 25, 27, 29, 30, 43, 44, 47)	11	22%
recall of details, and main ideas, (Item no. 2, 5, 11, 12, 20, 21, 33, 35, 37, 39, 40, 41, 42, 48)	14	28%
making inferential and summarizing (Item no.1, 6, 9, 10, 13, 18, 23, 24, 26, 28, 31, 32, 34, 45, 49, 50)	16	32%
Total Test	50	100%

Self-report questionnaire

Name _____ Date _____
Reading Topic _____
Instruction: select 1 / 2 / 3 for each item. 1 means I rarely use the strategy.
2 means I sometimes use the strategy. 3 means I always use the strategy.

My reading strategies self-assessment checklist	rarely 1	Sometimes 2	Always 3
Preview Strategy			
I involved in brainstorming activity before reading			
I involved in predicting activity before reading			
I think about the cover, title and topic before reading.			
I think about what I already knew about the topic.			
I predict what will happen and adjust my predictions as I read.			
CLICK and CLUNK Strategy			
I stop and check to see if I understand what I'm reading.			
I identified CLUNK.			
I reread the sentence with the Clunk and look for key ideas to help me figure out the word			
I reread and discover the meaning of unfamiliar words by using context clues.			
I Break word apart and look for word parts (prefixes, suffixes, root words) or smaller words I know.			
I Look for a cognate that makes sense or use a dictionary to find out the meaning.			
Get the Gist Strategy			
I identify the gist or getting the main idea			
I identify the supporting details			
I wrote down gist in less than 10 words.			
Wrap Up Strategy			
I generated questions			
I wrote a summary or the passage.			

CRTE Learning Log
(Think Aloud assessment form)

Name _____ Date _____
Reading Topic
_____

Part 1 : Preview Strategy

BEFORE READING: Preview
1A. Identify the text structure: Record your think aloud protocol
_____
_____
1B. Brainstorm: Connections to prior knowledge
_____
_____
_____
1C. Predict: What I might learn about the topic
_____
_____
_____
Part 2 : Click and Clunk Strategy
DURING READING: Paragraph 1
Clunks Fix-up Strategies
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4

DURING READING: Paragraph 2
Clunks Fix-up Strategies
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4

DURING READING: Paragraph3
Clunks Fix-up Strategies
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4
_____=_____ 1 2 3 4
Part 3: Get the Gist Strategy
_____
_____
_____

Part4: Wrap up strategy

AFTER READING: Wrap-Up

Questions: Write questions and answers.

_____

_____

Review: Write one or two of the most important ideas in this passage.

_____

_____

Part5:SCAMPER Techniques

Product/Outcome/Solution derived by SCRAMPER technique; select and clarify what and how you use one or more of the following techniques.

S – Substitute

_____

C - Combine

_____

A - Amplify

_____

M - Minify

_____

P - Put to other

_____

E - Eliminate

_____

R - Rearrange

_____

Your creative idea (Visually describe your Product/Outcome/Solution derived by SCRAMPER technique; in forms of power point presentation, chart, graph, or other tangible forms)

_____

_____

_____

_____

_____

Creative Thinking evaluative form with Rubric score

Creative thinking Rubric				scores
Trait	Exemplary = 3	Satisfactory = 2	Unsatisfactory = 1	
Fluency: number of ideas generated.	Many ideas generated.	Good number of ideas.	Not many ideas generated.	
Flexibility: variety of ideas generated.	Ideas provide several distinct avenues worth pursuing.	A few distinct avenues identified.	Ideas are very similar or serve the same basic function.	
Originality: novelty of ideas.	Ideas are totally new or even unique.	Ideas are modifications or improvements of existing concepts.	Ideas are copies of existing ideas.	
Effectiveness: potential value of ideas.	Ideas meet all objectives.	Ideas show promise in meeting objectives.	Ideas offer little potential for meeting objectives.	
Total scores				

Source: https://www.victoria.ac.nz/__data/assets/pdf_file/0005/1062878/LO-1d-Rubric-for-Creative-Thinking.pdf

Group……/ Unit……..

Evaluated by ☐ Self-evaluation / ☐ Group……/ ☐ the Teacher

Appendix C
Analysis for validity and reliability of research tools

1. **Analysis for validity of needs analysis questionnaire**
2. **Analysis for validity of semi-structure interview form for English instructors**
3. **Analysis for validity of Exercise and lesson plan and Teacher manual**
4. **Analysis for validity, reliability, test item discrimination and difficulty index of English reading comprehension test**
5. **Analysis for validity and reliability of Self-report questionnaire for students' perceived use of reading strategies**
6. **Analysis for validity of CRTE Learning log (Think Aloud assessment form) and Creativity evaluative form with Rubric score**

มหาวิทยาลัยศิลปากร

Validation of Experts for Content Validity of Needs Analysis questionnaire

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Item	Statement	Opinion scores of experts		
		$\overline{X}$	S.D.	Level of needs
1	Part A:Topics of interests in learning English of learners Small talk/ Welcoming visitors	4.60	0.55	Highest
2	**Introduction into Business**	5.00	0.00	Highest
3	**Jobs and Careers**	5.00	0.00	Highest
4	**Team working**	4.80	0.45	Highest
5	Negotiation	4.60	0.55	Highest
6	Making presentation	4.80	0.45	Highest
7	**Business Correspondence**	5.00	0.00	Highest
8	**Cross Cultural Understanding**	4.80	0.45	Highest
9	Meeting	5.00	0.00	Highest
10	**Problems and Solutions**	4.80	0.45	Highest
	Mean of Part A	**4.86**	**0.32**	Highest
1	Part B:Language Functions need Socializing	5.00	0.00	Highest
2	Expressing opinions and ideas	5.00	0.00	Highest
3	Agreeing VS. Disagreeing	4.80	0.45	Highest
4	Describing procedures	4.20	0.45	High
5	Working with colleagues	5.00	0.00	Highest
6	Making requests	4.80	0.45	Highest
7	Making presentation	5.00	0.00	Highest
8	Making arrangement	5.00	0.00	Highest
9	Writing correspondence	4.80	0.45	Highest
10	Dealing with figures	4.40	0.55	High
	Mean of Part B	**4.80**	**0.38**	Highest

Item	Statement	Opinion scores of experts		
		$\overline{X}$	S.D.	Level of needs
	Part C: Appropriate learning activities			
1	Activities that emphasize on real-life situations	4.40	0.55	High
2	Activities that emphasize learning from various materials and media; for example printed text, video or audio	4.80	0.45	Highest
3	Working in pairs or in groups	4.60	0.55	Highest
4	Activities that focus on role-plays or stimulations	5.00	0.00	Highest
5	Activities that emphasize on practicing and presentation	4.60	0.55	Highest
6	Activities that emphasize more on communication or meaning than forms or grammar	5.00	0.00	Highest
7	More opportunities for research outside the class	4.80	0.45	Highest
8	More opportunities for learners to practice creative thinking skills	4.40	0.55	Highest
9	More opportunities for learners to evaluate their own works	4.60	0.55	Highest
10	Various means of evaluation; by examination, by evaluation of assignments and presentation	5.00	0.00	Highest
	Mean of Part C	**4.72**	**0.42**	Highest
	Mean of Total	**4.79**	**0.41**	Highest

Validation of Experts for Content Validity of the Interview form for English instructors towards current conditions, problems and needs of Vocational Diploma students on English teaching and learning

Item	**Opinion scores of experts**					$\overline{X}$	**S.D.**
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5		
1.1	5	5	5	5	5	5.00	-
1.2	5	5	5	5	5	5.00	-
1.3	5	5	5	5	5	5.00	-
1.4	5	5	5	5	5	5.00	-
1.5	5	5	5	5	5	5.00	-
2	5	5	5	5	5	5.00	-
3	5	5	5	5	5	5.00	-
4	5	5	5	5	5	5.00	-
5	5	5	5	5	5	5.00	-
Total Mean	5.00	5.00	5.00	5.00	5.00	5.00	-

Validation of Experts for Content Validity of the Lesson Plan, Teacher's manual, and Exercise on the Reading Instructional Model

Item	Statement	Opinion scores of experts					$\overline{X}$	S.D.
		Expert 1	Expert 2	Expert 3	Expert 4	Expert 5		
1	Learning objectives are written clearly.	5	5	5	5	5	5.00	-
2	The content is directly related to learning objectives.	5	5	5	5	5	5.00	-
3	The content is accurate and relevant.	5	5	5	5	4	4.80	0.45
4	Learning tasks and activities are explained clearly.	4	5	5	5	5	4.80	0.45
5	a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations	5	5	5	5	5	5.00	-
6	Learning activities are appropriate and comprehensive	5	5	5	5	5	5.00	-
7	Learning activities are corresponding to learning objectives and level of students	5	4	5	5	5	4.80	0.45
8	Time spent in each unit is appropriate	5	5	5	5	5	5.00	-
9	Assessment tools are clearly stated	4	5	5	5	5	4.80	0.45
10	Provide opportunities for students to use strategies	5	5	5	4	5	4.80	0.45
11	Roles of Teacher and students are appropriate	5	5	4	5	4	4.60	0.55
12	Assessment and evaluation are congruence to the learning objectives	5	4	5	5	5	4.80	0.45
Total Mean		4.83	4.83	4.92	4.92	4.83	4.87	0.34

Validation of validity and reliability of Pre and Post-test

Validation the relevance of each test item of Pre-test and Post-test to the objectives by Experts

Test Item	Assessment Objectives	Opinion scores of experts		
		$\overline{X}$	S.D.	Interpretation
Passage 1 1	Making inferential and summarizing	4.80	0.45	Highest
2	Recall of details and main ideas	5.00	0.00	Highest
3	Identifying text structure	4.80	0.45	Highest
4	Dealing with vocabularies	4.60	0.55	Highest
5	Recall of details and main ideas	4.80	0.45	Highest
6	Making inferential and summarizing	3.20	0.45	Medium
7	Dealing with vocabularies	4.20	0.45	High
8	Predicting abilities	4.40	0.55	High
9	Making inferential and summarizing	4.60	0.55	Highest
10	Recall of details and main ideas	2.80	0.45	Medium
11	Recall of details and main ideas	5.00	0.00	Highest
12	Recall of details and main ideas	4.60	0.55	Highest
13	Making inferential and summarizing	4.40	0.55	High
14	Identifying text structure	5.00	0.00	Highest
15	Dealing with vocabularies	4.60	0.55	Highest
16	Dealing with vocabularies	4.20	0.45	High
17	Predicting abilities	4.80	0.45	Highest
18	Making inferential and summarizing	4.60	0.55	Highest
19	Identifying text structure	5.00	0.00	Highest
20	Recall of details and main ideas	5.00	0.00	Highest
Passage 2 21	Recall of details and main ideas	4.80	0.45	Highest
22	Predicting abilities	3.00	0.71	Medium
23	Making inferential and summarizing	4.60	0.55	Highest
24	Making inferential and summarizing	5.00	0.00	Highest
25	Dealing with vocabularies	4.20	0.45	High
26	Making inferential and summarizing	4.80	0.45	Highest
27	Dealing with vocabularies	5.00	0.00	Highest
28	Dealing with vocabularies	3.00	0.00	Medium
29	Dealing with vocabularies	5.00	0.00	Highest
30	Dealing with vocabularies	4.20	0.45	High

Test Item	Assessment Objectives	Opinion scores of experts		
		$\overline{X}$	S.D.	Interpretation
31	Making inferential and summarizing	4.40	0.55	High
32	Making inferential and summarizing	3.20	0.45	Medium
33	Recall of details and main ideas	3.20	0.84	Medium
34	Making inferential and summarizing	5.00	0.00	Highest
35	Recall of details and main ideas	4.60	0.55	Highest
36	Identifying text structure	5.00	0.00	Highest
37	Recall of details and main ideas	4.20	0.45	High
38	Identifying text structure	4.00	0.00	High
39	Recall of details and main ideas	5.00	0.00	Highest
40	Recall of details and main ideas	4.60	0.55	Highest
Passage3 41	Recall of details and main ideas	5.00	0.00	Highest
42	Recall of details and main ideas	4.80	0.45	Highest
43	Dealing with vocabularies	3.20	0.45	Medium
44	Dealing with vocabularies	4.40	0.55	Highest
45	Making inferential and summarizing	4.60	0.55	Highest
46	Predicting abilities	3.00	0.00	Medium
47	Dealing with vocabularies	4.40	0.55	Highest
48	Recall of details and main ideas	4.40	0.55	Highest
49	Making inferential and summarizing	5.00	0.00	Highest
50	Making inferential and summarizing	4.80	0.45	Highest
51	Recall of details and main ideas	3.20	0.45	Medium
52	Making inferential and summarizing	5.00	0.00	Highest
53	Dealing with vocabularies	4.40	0.55	Highest
54	Dealing with vocabularies	5.00	0.00	Highest
55	Identifying text structure	3.20	0.84	Medium
56	Making inferential and summarizing	4.80	0.45	Medium
57	Recall of details and main ideas	4.40	0.55	High
58	Predicting abilities	5.00	0.00	Highest
59	Dealing with vocabularies	4.80	0.45	Highest
60	Dealing with vocabularies	4.80	0.45	Highest
	Mean of the Total	4.42	0.76	High

Item Discrimination and Difficulty Index Analysis of Pre and Post Test

Item	p	r	Interpretation	Item	p	r	Interpretation
1	0.53	0.27	Acceptable	26	0.60	0.40	Acceptable
2	0.73	0.40	Acceptable	27	0.73	0.40	Acceptable
3	0.70	0.33	Acceptable	28	0.67	0.40	Acceptable
4	0.63	0.60	Acceptable	29	0.70	0.33	Acceptable
5	0.63	0.47	Acceptable	30	0.67	0.27	Acceptable
6	0.77	0.33	Acceptable	31	0.53	0.40	Acceptable
7	0.67	0.27	Acceptable	32	0.53	0.40	Acceptable
8	0.67	0.53	Acceptable	33	0.63	0.33	Acceptable
9	0.67	0.40	Acceptable	34	0.70	0.47	Acceptable
10	0.53	0.27	Acceptable	35	0.67	0.53	Acceptable
11	0.57	0.33	Acceptable	36	0.67	0.40	Acceptable
12	0.67	0.40	Acceptable	37	0.60	0.40	Acceptable
13	0.53	0.53	Acceptable	38	0.73	0.40	Acceptable
14	0.60	0.40	Acceptable	39	0.60	0.27	Acceptable
15	0.63	0.47	Acceptable	40	0.67	0.27	Acceptable
16	0.70	0.47	Acceptable	41	0.53	0.27	Acceptable
17	0.67	0.27	Acceptable	42	0.50	0.20	Acceptable
18	0.67	0.40	Acceptable	43	0.57	0.33	Acceptable
19	0.70	0.33	Acceptable	44	0.67	0.27	Acceptable
20	0.63	0.47	Acceptable	45	0.60	0.27	Acceptable
21	0.67	0.40	Acceptable	46	0.50	0.33	Acceptable
22	0.73	0.40	Acceptable	47	0.60	0.40	Acceptable
23	0.50	0.73	Acceptable	48	0.53	0.27	Acceptable
24	0.67	0.40	Acceptable	49	0.47	0.53	Acceptable
25	0.70	0.33	Acceptable	50	0.53	0.27	Acceptable

The item discrimination index were between 0.47-0.77 and the Difficulty Index were between 0.20-0.73

An Analysis of Reliability (KR-20) of Pre-Post Test

Pre and Post Test	
Number of items	50
pq	11.41
S^2	114.03
r_{tt}	0.92

KR-20

$$R_{tt} = \frac{n}{n-1}\left[1 - \frac{\sum pq}{S_t^2}\right]$$

KR20 = [n/(n – 1)] x [1 – (Σpq)/Var], where KR20 is estimated reliability of the full – length test, n is number of items, Var is variance of the whole test (standard deviation squared), p is the proportion of people passing the item, q is the proportion of people failing the item, and Σ is summing up by multiplying each question's p by q, and then add them all up.

Validation of Experts for Content Validity of the Self-report questionnaire for reading strategy used

Item	Opinion scores of experts					$\overline{X}$	S.D.
	Expert1	Expert2	Expert3	Expert4	Expert5		
1	5	5	5	5	4	4.80	0.45
2	4	5	5	5	4	4.60	0.55
3	5	5	5	5	5	5.00	-
4	5	5	5	5	5	5.00	-
5	5	5	5	5	5	5.00	-
6	5	5	5	5	5	5.00	-
7	5	5	5	5	4	4.80	0.45
8	5	5	5	5	5	5.00	-
9	5	5	5	5	5	5.00	-
10	5	5	5	5	5	5.00	-
11	5	4	5	5	4	4.60	0.55
12	5	5	5	5	4	4.80	0.45
13	5	5	5	5	5	5.00	-
14	5	5	5	5	5	5.00	-
15	5	5	5	5	5	5.00	-
16	5	5	5	5	5	5.00	-
	4.94	4.94	5.00	5.00	4.69	4.91	0.28

Analysis of Reliability for Reading Strategy Usage Self-report questionnaire

Reliability

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded[a]	0	.0
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.92	16

Self-report questionnaire	
Number of items	16 items
Respondents	35 persons

Validation of Experts for CREATE Learning Log

Item	Statement	Opinion scores of experts					$\overline{X}$	S.D.
		Expert 1	Expert 2	Expert 3	Expert 4	Expert 5		
1	The congruence of items to the objectives	5	5	5	5	5	5.00	0.00
2	The comprehensiveness of all items to the objectives	5	5	5	5	5	5.00	0.00
3	The language use is written clearly	5	5	5	5	5	5.00	0.00
Total Mean		5.00	5.00	5.00	5.00	5.00	5.00	0.00

Validation of Experts for Creative thinking Rubric Score

Item	Statement	Opinion scores of experts					$\overline{X}$	S.D.
		Expert 1	Expert 2	Expert 3	Expert 4	Expert 5		
1	The congruence of items to the objectives	5	5	5	5	5	5.00	0.00
2	The comprehensiveness of all items to the objectives	5	5	5	5	5	5.00	0.00
3	The language use is written clearly	5	5	5	5	5	5.00	0.00
Total Mean		5.00	5.00	5.00	5.00	5.00	5.00	0.00

Appendix D
Results of Statistic Analysis

1. Efficiency Analysis of the CREATE Model

2. Results of Comparison of Pre-test and Post-test and t-test Analysis

3. Results of Comparison of Creative Thinking Evaluation Scores and the Prescribed Criteria of 70 %

Results of Efficiency Analysis of CRTE Model in the 1st, 2nd and 3rd Tryout

The first Tryout with 3 students

Unit	Scores from each unit								Total scores	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Process (E1)	Product (E2)
Student no./Total scores	10	10	10	10	10	10	10	10	80	50
1	7	6	7	7	7	6	7	7	54	32
2	8	7	7	9	7	8	9	7	62	39
3	8	9	9	9	10	8	10	8	71	42
Total	23	22	23	25	24	22	26	22	187	113
Mean	7.67	7.33	7.67	8.33	8.00	7.33	8.67	7.33	62.33	37.67
Percentage	76.67	73.33	76.67	83.33	80.00	73.33	86.67	73.33	77.92	75.33

The efficiency value of CRTE Model from the 1st Tryout was 77.92 (E1) / 75.33 (E2).

The second Tryout with 9 students

Unit	Scores from each unit								Total scores	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Process (E1)	Product (E2)
Student no./Total scores	10	10	10	10	10	10	10	10	80	50
1	7	8	9	8	9	10	9	9	69	43
2	8	7	9	8	8	9	9	8	66	42
3	7	9	8	8	7	8	8	9	64	39
4	7	6	7	8	7	7	8	8	58	37
5	8	8	8	9	8	8	7	8	64	41
6	8	8	8	7	7	8	8	7	61	40
7	8	8	9	10	9	9	9	10	72	42
8	8	8	7	8	9	8	8	9	65	39
9	8	7	9	8	7	7	9	8	63	36
Total	69	69	74	74	71	74	75	76	582	359
Mean	7.67	7.67	8.22	8.22	7.89	8.22	8.33	8.44	64.67	39.89
Percentage	76.67	76.67	82.22	82.22	78.89	82.22	83.33	84.44	80.83	79.78

The efficiency value of CRTE Model from the 2nd Tryout was 80.83(E1) / 79.78(E2).

The Third Tryout with 30 students

Unit	Scores from each unit								Total scores	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Process (E1)	Product (E2)
Student no./ Total scores	10	10	10	10	10	10	10	10	80	50
1	9	9	8	10	9	8	9	9	71	46
2	8	9	8	9	10	8	10	10	72	45
3	7	8	9	10	9	8	9	9	69	44
4	7	8	9	7	9	8	8	9	65	38
5	8	10	9	8	8	7	8	8	66	45
6	7	9	10	8	8	9	9	9	69	43
7	10	8	10	9	7	7	9	10	70	46
8	8	8	8	9	8	8	10	8	67	42
9	8	8	8	8	7	9	8	7	63	41
10	7	9	9	8	9	9	9	8	68	40
11	9	8	8	9	9	10	9	9	71	45
12	8	10	9	8	7	7	9	8	66	41
13	7	9	10	7	9	8	8	9	67	43
14	7	10	9	8	8	7	8	7	64	41
15	9	9	9	10	9	8	10	7	71	42
16	7	8	6	7	8	7	9	8	60	39
17	9	9	9	9	8	9	7	7	67	44
18	10	7	8	9	8	7	7	8	64	40
19	8	8	8	8	8	9	9	9	67	41
20	9	7	9	8	7	9	7	9	65	35
21	10	9	9	8	10	8	9	9	72	41
22	9	6	8	8	10	7	8	7	63	37
23	9	9	7	9	9	9	8	8	68	43
24	8	8	7	7	8	7	8	7	60	38
25	8	6	7	7	10	9	7	8	62	40

26	9	8	8	9	8	8	7	7	64	43
27	8	8	8	7	9	8	8	8	64	35
28	7	8	9	9	9	9	7	8	66	36
29	8	8	8	9	7	8	9	8	65	36
30	7	8	9	8	7	7	8	9	63	34
Total	245	249	253	250	252	242	251	247	1989	600
Mean	8.17	8.30	8.43	8.33	8.40	8.07	8.37	8.23	66.30	40.80
Percentage	81.67	83.00	84.33	83.33	84.00	80.67	83.67	82.33	82.88	81.60

The efficiency value of CRTE Model from the 3rd Tryout was 82.88(E1) /81.60(E2).

Results of Efficiency Analysis of CRTE Model in the Implementation

Unit	Scores from each unit								Total scores	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Process (E1)	Product (E2)
Student no./Total scores	10	10	10	10	10	10	10	10	80	50
1	8	9	8	10	9	10	8	8	70	46
2	7	9	7	9	10	9	9	8	68	46
3	9	8	9	10	9	8	10	9	72	43
4	7	8	7	7	9	8	8	9	63	44
5	8	10	8	8	9	9	8	9	69	45
6	9	9	9	8	8	8	8	8	67	43
7	10	8	10	9	8	9	9	9	72	48
8	8	8	8	9	8	8	9	8	66	47
9	8	8	8	8	9	10	8	9	68	41
10	9	9	9	10	8	9	9	8	71	40
11	9	8	8	9	8	8	9	9	68	45
12	8	10	9	8	8	8	8	8	67	42
13	7	9	10	7	9	9	8	9	68	43
14	7	10	9	8	8	8	9	7	66	41
15	9	9	9	10	9	10	10	7	73	45
16	7	8	6	7	8	9	9	8	62	39

17	9	9	9	9	8	9	7	7	67	44
18	10	7	8	9	8	9	7	8	66	40
19	8	8	8	8	8	8	10	9	67	37
20	9	7	9	8	8	8	9	9	67	35
21	10	9	9	8	8	8	9	9	70	42
22	9	6	8	8	8	9	9	7	64	37
23	9	9	7	9	9	8	8	8	67	43
24	7	8	7	7	7	7	8	7	58	34
25	8	6	7	7	7	8	8	8	59	39
26	9	8	8	9	9	8	9	7	67	34
27	8	8	8	7	7	8	8	8	62	43
28	7	8	9	9	9	9	8	8	67	42
29	8	8	8	9	9	9	9	8	68	40
30	7	9	9	8	7	7	8	9	64	41
31	8	9	7	7	8	7	8	7	61	38
32	8	7	8	9	10	9	9	9	69	42
33	9	8	8	9	8	8	7	7	64	44
34	8	7	8	7	9	8	8	8	63	45
35	7	7	9	9	9	9	7	8	65	45
36	8	8	8	9	7	8	9	8	65	42
37	9	7	9	8	7	9	7	9	65	42
38	10	8	9	8	10	8	9	9	71	39
39	9	6	8	8	10	7	8	7	63	38
40	9	9	7	9	9	9	8	8	68	34
Total	333	326	329	335	336	337	336	325	2,657	1,658
Mean	8.33	8.15	8.23	8.38	8.40	8.43	8.40	8.13	66.43	41.45
Percentage	83.25	81.50	82.25	83.75	84.00	84.25	84.00	81.25	83.03	82.90

The efficiency value of CRTE Model from the implementation was 83.03 (E1) / 82.90 (E2).

Results of Comparison of Pre-test and Post-test Score

Student no.	Scores		Student no.	Scores		Student no.	Scores		Student no.	Scores	
	Pre	Post		Pre	Post		Pre	Post		Pre	Post
1	18	46	11	16	45	21	17	42	31	13	38
2	17	46	12	19	42	22	16	37	32	18	42
3	15	43	13	13	43	23	15	43	33	18	44
4	17	44	14	15	41	24	12	34	34	17	45
5	18	45	15	18	45	25	14	39	35	16	45
6	11	43	16	13	39	26	15	34	36	15	42
7	19	48	17	16	44	27	13	43	37	19	42
8	17	47	18	15	40	28	17	42	38	16	39
9	13	41	19	13	37	29	14	40	39	16	38
10	15	40	20	14	35	30	16	41	40	12	34

มหาวิทยาลัยศิลปากร

The comparison of Creative Thinking Evaluation Scores with the Prescribed Criteria of 70% and the t-test Analysis

Student no.	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total
1	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
2	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
3	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
4	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
5	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
6	8.44	9.50	9.11	10.39	10.33	11.89	11.44	11.61	10.34
7	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
8	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
9	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
10	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
11	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
12	8.50	8.39	8.78	9.33	11.17	11.22	10.94	11.39	9.96
13	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
14	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
15	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
16	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
17	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
18	8.39	9.05	9.55	9.50	11.17	11.61	11.39	11.39	10.26
19	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
20	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
21	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
22	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
23	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
24	8.78	8.89	9.33	9.94	10.39	11.33	12.00	11.94	10.33
25	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
26	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
27	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
28	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
29	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
30	8.94	8.78	9.67	9.89	10.33	11.05	11.94	12.00	10.33
31	8.11	8.61	9.05	9.22	11.11	11.44	11.55	11.89	10.12
32	8.11	8.61	9.05	9.22	11.11	11.44	11.55	11.89	10.12
33	8.11	8.61	9.05	9.22	11.11	11.44	11.55	11.89	10.12
34	8.11	8.61	9.05	9.22	11.11	11.44	11.55	11.89	10.12
35	8.11	8.61	9.05	9.22	11.11	11.44	11.55	11.89	10.12
36	8.61	8.44	9.00	8.94	10.55	10.72	11.44	11.94	9.96
37	8.61	8.44	9.00	8.94	10.55	10.72	11.44	11.94	9.96
38	8.61	8.44	9.00	8.94	10.55	10.72	11.44	11.94	9.96
39	8.61	8.44	9.00	8.94	10.55	10.72	11.44	11.94	9.96
40	8.61	8.44	9.00	8.94	10.55	10.72	11.44	11.94	9.96
Mean	8.55	8.82	9.22	9.63	10.72	11.34	11.53	11.73	10.19

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Unit1	40	8.55	0.25	.03969
Unit2	40	8.82	0.36	.05764
Unit3	40	9.22	0.30	.04778
Unit4	40	9.63	0.46	.07299
Unit5	40	10.72	0.39	.06104
Unit6	40	11.34	0.35	.05556
Unit7	40	11.53	0.34	.05449
Unit8	40	11.73	0.25	.04022
Total	40	10.19	0.16	.02539

One-Sample Test

	Test Value = 8.4					
					99% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Unit1	3.717	39	.001	.14750	.0400	.2550
Unit2	7.335	39	.000	.42275	.2667	.5788
Unit3	17.209	39	.000	.82225	.6929	.9516
Unit4	16.818	39	.000	1.22750	1.0299	1.4251
Unit5	37.940	39	.000	2.31600	2.1507	2.4813
Unit6	52.829	39	.000	2.93500	2.7846	3.0854
Unit7	57.450	39	.000	3.13025	2.9827	3.2778
Unit8	82.744	39	.000	3.32825	3.2193	3.4372
Total	70.619	39	.000	1.79300	1.7242	1.8618