

**THE USE OF TASK COMPLEXITY IN WRITTEN LANGUAGE  
PRODUCTION BY INDONESIAN EFL LEARNERS AND THE  
RELATIONSHIP WITH TASK DIFFICULTY**

**A THESIS**

**By:**

**REYNITA ADLINA MAHARANI**



**MASTER OF ENGLISH EDUCATION PROGRAM  
TEACHER TRAINING AND EDUCATION FACULTY  
LANGUAGE AND ARTS EDUCATION DEPARTMENT  
UNIVERSITY OF LAMPUNG  
BANDAR LAMPUNG**

**2024**

## ABSTRACT

### THE USE OF TASK COMPLEXITY IN WRITTEN LANGUAGE PRODUCTION BY INDONESIAN EFL LEARNERS AND THE RELATIONSHIP WITH TASK DIFFICULTY

By

**Reynita Maharani**

Numerous studies have explored the use of tasks sequenced on the basis of task complexity (cognitive factors). Task complexity involves the resource-directing and the resource-depleting dimensions each of which has three aspects. With reference to the Cognition Hypothesis, tasks facilitate learners to improve better language performance when they are made complex (cognitively more demanding) and simple (less cognitive engagement) along with the resource-directing and the resource-depleting dimensions, respectively. However, very few studies have been conducted to particularly investigate different tasks for which every single aspect of the resource-directing was made complex and the resource-depleting dimensions were designed to be simple. The current study investigated the effect of three different levels of tasks on learners' written language performance in terms of complexity, accuracy, and fluency (CAF). The subjects of the study were 30 Indonesian EFL learners. The data were collected through recording while learners were performing the tasks. They were transcribed and were analyzed using ANOVA one way repeated measure. The results showed that the three types of tasks generated a statistically significant effect on accuracy and fluency, but syntactic complexity. This indicates that the findings partly confirm the Robinson's Cognition Hypothesis.

Furthermore, there was also an undeniable relationship between the students' written language production and their perceptions of the three tasks with respect to task difficulty within the affective factor, revolving around the aspects of the difficulty of the task, the degree of stress, confidence, interest, and motivation. The result of this investigation revealed a unique revelation. EFL students regarded a task manipulated with past tense as the most interesting and the most relaxing task. Moreover, it also positively affected their motivation in which it influenced their accuracy and fluency's mean scores which were the highest ones among the two other tasks.

**Keywords:** CAF measures, cognition hypothesis, students' perception, written language performance

**THE USE OF TASK COMPLEXITY IN WRITTEN LANGUAGE  
PRODUCTION BY INDONESIAN EFL LEARNERS AND THE  
RELATIONSHIP WITH TASK DIFFICULTY**

**By:**

**REYNITA ADLINA MAHARANI**

**A Thesis**

**Submitted in a Partial Fulfillment of**

**Master of English Education**

**Teacher Training and Education Faculty**



**MASTER OF ENGLISH EDUCATION PROGRAM  
TEACHER TRAINING AND EDUCATION FACULTY  
LANGUAGE AND ARTS EDUCATION DEPARTMENT  
UNIVERSITY OF LAMPUNG  
BANDAR LAMPUNG**

**2024**

Research Title : **The Use of Task Complexity in Written Language Production by Indonesian EFL Learners and the Relationship with Task Difficulty**

Student's Name : **Reynita Adlina Maharani**

Student's Number : **2223042002**

Study Program : **Master in English Language Teaching**

Department : **Language and Arts Education**

Faculty : **Teacher Training and Education**

**APPROVED BY**

Advisory Committee

Advisor

Co-Advisor

**Mahpul, M.A., Ph.D**

**Dr. Muhammad Sukirlan, M.A**

NIP 19650706 199403 1 002

NIP 19641212 199003 1 003

Chairperson of Department  
Language and Arts Education

Chairperson of Master in  
English Language Teaching

**Dr. Sumarti, S.Pd., M.Hum.**

**Dr. Muhammad Sukirlan, M.A**

NIP 19700318 199403 2 002

NIP 19641212 199003 1 003

**ADMITTED BY**

**1. Examination Committee**

**Chairperson : Mahpul, M.A., Ph.D.**

**Secretary : Dr. Muhammad Sukirlan, M.A**

**Examiners : 1. Prof. Dr. Patuan Raja, M.Pd.**

**2. Prof. Dr. Cucu Sutarsyah, MA**

**3. Dean of Teacher Training and Education Faculty**



**Prof. Dr. Sunyono, M.Si.**

**NIP 19651230 199111 1 001**

**4. Director of Postgraduate Program**



**Prof. Dr. Ir. Murhadi, M.Si.**

**NIP 19640326 198902 1 001**

**4. Graduated on : June 13<sup>th</sup>, 2024**

## LEMBAR PERNYATAAN

Dengan ini saya menyatakan dengan sebenarnya bahwa:

1. Tesis dengan judul **“The Use of Task Complexity in Written Language Production by Indonesian EFL Learners and the Relationship with Task Difficulty”** adalah hasil karya saya sendiri dan saya tidak melakukan penjiplakan atau pengutipan atas karya penulis lain dengan cara yang tidak sesuai dengan tata etika ilmiah yang berlaku dalam masyarakat akademik atau yang disebut plagiarism.
2. Hak intelektual atas karya ilmiah ini diserahkan sepenuhnya kepada Universitas Lampung.

Atas pernyataan ini, apabila dikemudian hari ternyata ditemukan adanya ketidakbenaran, saya bersedia menanggung akibat dan sanksi yang diberikan kepada saya, dan saya bersedia dan sanggup dituntut sesuai hukum yang berlaku,

Bandar Lampung, 1 Mei 2024

Yang membuat pernyataan,



Reynita Adlina Maharani

NPM. 2223042002

## **CURRICULUM VITAE**

Reynita Adlina Maharani was born on 21<sup>st</sup> April 1999 in Bandarlampung. She is the fourth and also the youngest child in her family.

In 2017, she majored in English Literature at Teknokrat University. Then, she graduated with Honors and was also awarded as the second best graduate with a GPA 3.94 in English Literature major in 2020. Shortly afterwards, she worked as an academic adviser in a private university in Bandarlampung. As a result, her passion in teaching thrived even more. Thus, in 2022, she decided to solely focus on teaching only by being a teacher in a private English course and also studying for her Master's Degree in English Education major at University of Lampung. Furthermore, her ambition is to become a University lecturer.

Her interests are in Literature in Language Teaching, Teaching English for Foreign Learners, and Research in English Language Education.

## **MOTTO**

*“Who controls the past controls the future.*

*Who controls the present controls the past.”*

*(Orwell, 1949)*



## **DEDICATION**

I bestow my sincere gratitude and deepest dedication to Allah SWT. Thank you for the guidance, strength, and for giving us a healthy life to complete this study. Furthermore, my profound appreciation goes to my late father, Imroni, who always believed in my brain, to my mother, Erna Lolita, whose love and support are boundless, to the countless authors whose books are the anchor of my humanity and morality. In addition, I impart my special dedication to all of my lecturers in the English Education program at University of Lampung, who have shaped my character and also instilled valuable knowledge and teaching skill during my study for the Master's degree. Thank you very much.

## ACKNOWLEDGEMENTS

First and foremost, I would like to bestow my gratitude to Allah SWT, the Most Gracious, and the Most Merciful for His blessing given to me during my study. May Allah's blessing goes to His final Prophet Muhammad (peace be upon him), his family and his companions.

This thesis entitled "Task Complexity and Learner's Perception of Task Difficulty in Written Language Production by Indonesian EFL Learners" is presented to the English Education Study Program of University of Lampung as compulsory fulfillment of the requirements for Magister Degree.

With deepest gratitude and a heart full of appreciation, I would like to extend my sincere thanks and deepest gratitude to all of them, especially to:

1. Mahpul, M.A., Ph.D., as my principal supervisor, thank you very much for your unwavering guidance, profound wisdom and also constructive feedback during my study. It was an honor for me to be guided by the expert of Task Based Language Teaching - Cognition Hypothesis. He is truly an exemplary of remarkable lecturer whose qualities I aspire to possess in the future.
2. Dr. Muhammad Sukirlan, M.A., a heartfelt appreciation goes to my co-supervisor for his immeasurable patience, kindness and profound knowledge during my study in this program. He is the representation of what humanity is.
3. Prof. Dr. Patuan Raja, M.Pd., for kindly serving as my first examiner. His willingness in sharing the knowledge and valuable feedback has i contributed immensely to the improvement of this thesis. This thesis would not be completed without his support.

4. Prof. Dr. Cucu Sutarsyah, M.A., for graciously serving as my second examiner. Your dedication of time, kindness and wise suggestion has helped the writer in composing the final preparation of the thesis.
5. All lecturers and Administration Staff of the Master Program in English Education Department, who have always given practical contributions and outstanding assistance in completing this study.
6. A sincere gratitude for my beloved parents, Imroni and Erna Lolita, who have taken good care of me and supported in every way possible.
7. Deepest appreciation for all the academic staff of English First Bandarlampung whose encouragement and support are ceaseless.
8. My thesis partners: Mulia Zalmetri, Kiromil Baroroh, Nina Setiana, Sefira Sefriadi, Shalsa Shafa Marwa, and Nurhidayah Nurhasanah. Thank you for the laughter and friendship that we have shared throughout this glorious academic journey.
9. All the students of MPBI 22, thank you for being excellent friends whose friendship remains pure and sincere. I am honored to be part of this batch.

Finally, the researcher wholeheartedly welcomes all suggestions or constructive feedback in improving the quality of this work. Therefore, I hope this thesis is able to expand further the knowledge and domain of Cognition Hypothesis and be resourceful to future researches.

Bandarlampung, 1 Mei 2024

The Researcher

**Reynita Adlina Maharani**

**NPM. 2223042002**

## TABLE OF CONTENTS

### I. INTRODUCTION

1.1	Background of Study .....	1
1.2	Research Questions .....	9
1.3	Research Objectives .....	9
1.4	Uses of the Research .....	10
	1.4.1 Theoretical Use .....	10
	1.4.2 Practical Use .....	10
1.5	Scope of Study.....	10
1.6	Definition of Terms .....	10

### II. LITERATURE REVIEW

2.1	Task Based Language Teaching.....	12
2.2	Definition of Tasks .....	15
2.3	The Difference between Task and Exercise .....	16
2.4	Previous Studies of Task-Based Language Teaching Approach.....	17
2.5	Cognition Hypothesis .....	19
	2.5.1 Task Complexity.....	20
	2.5.2 Learners' Perception .....	22
	2.5.3 Task Difficulty (Affective factors).....	23
2.6	Measures of CAF.....	25
2.7	Theoretical Assumption.....	26
2.8	Hypotheses .....	27

### III. METHODS

3.1	Design.....	32
3.2	Data (Variables) .....	29
3.3	Source Data .....	29

3.4	Research Instruments .....	30
3.5	Validity and Reliability .....	32
	3.5.1 Validity of the Content and Construct .....	33
	3.5.2 Reliability.....	33
3.6	Data Collecting Techniques .....	34
3.7	Data Analysis .....	36
3.8	Hypothesis Testing .....	39
<b>IV. RESULTS AND DISCUSSION</b>		
4.1	Result of the Research .....	41
	4.1.1 Statistically Significant Difference of the Three Tasks in relation to CAF.....	43
	4.1.2 The Relationship between Students' Written Language Production and their Perception of the Three Types of Tasks .....	49
4.2	Discussion .....	68
	4.2.1 Discussion of the First Research Question.....	68
	4.2.2 Discussion of the Second Research Question .....	70
<b>V. CONCLUSION</b>		
5.1	Conclusion.....	74
5.2	Suggestion .....	74

## **REFERENCES**

## **APPENDIX**

## LIST OF TABLES

Table 4.1 The Means of CAF for the Three Types of Tasks.....	43
Table 4.2 Repeated Measure ANOVA: Main Effects of Different Levels of Tasks for CAF Measures.....	45
Table 4.3 Mean differences of three different tasks for Complexity, Accuracy, and Fluency (CAF Measures).....	46
Table 4.4 Summary of the effect of three different tasks.....	47
Table 4.5 Results of Students' Perception.....	49
Table 4.6 Participants' Reasons about the Five Categories of three level of tasks.....	59
Table 4.7 The relationship between Students' Perception and Written Language Production (CAF measures).....	65

## LIST OF APPENDICES

Appendix 1. Normality Test of Task 1 .....	76
Appendix 2. Normality Test of Task 2 .....	76
Appendix 3. Normality Test of Task 3 .....	76
Appendix 4. Inter-rater Reliability of Task 1 .....	82
Appendix 5. Inter-rater Reliability of Task 2 .....	83
Appendix 6. Inter-rater Reliability of Task 3 .....	84
Appendix 7. Students' Scores in Task 1 .....	85
Appendix 8. Students' Scores in Task 2 .....	86
Appendix 9. Students' Scores in Task 3 .....	87
Appendix 10. The Complexity of the 3 Types Tasks .....	88
Appendix 11. The Accuracy of the 3 Types of Tasks .....	89
Appendix 12. The Fluency of the 3 Types of Tasks .....	90
Appendix 13. The 3 Tasks .....	91
Appendix 14. Questions Interview – Task Difficult (affective factors) – Students' Perception .....	92
Appendix 15. Students' Sample of Written Language Production .....	94

## **I. INTRODUCTION**

In this chapter, the researcher introduces the background of the research and also the purpose and novelty of this current research.

### **1.1 Background of Study**

In Indonesia, English subject is still the subject that EFL learners find difficulty despite having learnt it since elementary school. EFL learners may possess the ability to speak in English and utter some vocabularies; however, when they are asked to write down their thoughts, they still encounter an obstacle in writing down what they think. Although, writing skill in EFL learners has been taught throughout the years with the purpose so that learners could be prepared for future challenges in writing a text academically or professionally, EFL learners perpetually write down abundant errors in English. For instance, they have the mental cognition of cheese and they are able to pronounce it well; however, when they write the word down; some EFL learners still write it into “chese”. Thus, mistakes in writing is frequent among EFL learners.

Writing is a complex process in expressing perceptions, thoughts or views through written text. In Indonesia, EFL learners still face difficulty in their writing skill which in turn it correlates to their low comprehension of writing process (Octaviana, 2016; Fahmi & Rachmijati, 2021). However, writing skill is highly



crucial in daily life, both in social, educational and industrial contexts. Writing skill is connected to communicative skill. Communicative skill is the ability to deliver our ideas coherently. Writing is not only beneficial in educational field for students to achieve great grades for their ability in successfully voicing out their ideas coherently in written form; but, it is also a pivotal skill for any individual in professional world, since writing skill encompasses the ability to write official documents, reports and also enhance individuals performance in formal presentation. Moreover, writing guides learners to be concise and eloquent, both in workplace and educational field as a student or a worker (Ranaut, 2018; Bora, 2023).

Furthermore, past researches also indicated and revealed that vocabulary and grammar masteries are the primary reasons learners face difficulty when they write in English (Alisha et al, 2019). Moreover, Alfaruqy et al. (2022)'s research revealed that EFL learners struggled in grammar, mechanics and vocabulary which made their writing text to be unsuccessful. In addition, Riadil et al. (2023)'s research also strengthen the previous studies' claims in which they unraveled that EFL learners still faced difficulty in constructing a text with proper grammar. On top of that, the knowledge of sufficient number of vocabulary and the knowledge of organization of writing were also some of the learners' struggles in writing a text. To achieve a well-written language production, it must contain content, structure, vocabulary, proper grammar, spelling and also punctuation. There are several difficulties that learners encounter in writing a text. These are the difficulty of choosing a topic based on the genre of the intended text, the lack of

knowledge to make a coherent text, and the lack of motivation in learning to write a captivating text (Parmawati et al., 2020)

Numerous Indonesian EFL teachers seek various approaches to improve learners' writing skill. It is because writing skill is one of the important skills to master in English comprehension. Without the ability to compose a coherent text, learners will fail during their education and face immense hardship during their professional work life in the future. Thus, some EFL teachers employ task-based language teaching (TBLT) to enhance learners' writing skill. By definition, task-based language teaching is an approach that uses tasks as the root of examination, organizing, and instruction (Richards and Rodgers, 2001). Ellis (2003) in Nunan (2006) defines a task as a design or strategy that allows learners to learn language pragmatically to achieve the outcome or the goal of the study. The importance of task based language teaching (TBLT) has been recognized in language acquisition since 1980s. In accordance to the name of the approach "task-based", the teachers tend to give a specific activity that could enhance the language acquisition of the students and also sharpen their skills during the activity. Moreover, the students' critical thinking will be honed in the classroom. It is because task-based language teaching (TBLT) is centered around the students specifically.

The task that is conducted in the classroom through the approach of task-based language teaching (TBLT) is a pedagogical task to develop their language competence; but, the task is still related to the real world activity (Nunan, 2010). Moreover, the activity of the tasks are closely related to the students, such as the activity in daily life, for instance writing a formal letter, informal letter, telling a story, making brochure, making hotel reservation, filling out a form, making a

descriptive text, making a recount text, etc. Through this learning approach, the students could demonstrate their task in possible scenarios in the future. Not only their communicative and linguistics competences are enhanced, but they are also ready for future realistic scenarios.

Students are expected to be more active in the participation in the classroom's task with the approach of task-based language teaching (TBLT). Students have pivotal roles in this approach. It is because have they the independence to choose their linguistic wording and examine all options they have for them to complete their task (Breen & Candlin, 1980). Thus, when the students are active in the classroom, they are encouraged to be independent and responsible for their task which in turn will enhance their critical thinking. Therefore, the aim of task-based language teaching (TBLT) is to enrich students' participation in the classroom because this approach focuses on students rather than teachers.

The studies around task-based language teaching to improve writing skill has been conducted numerous times. A journal article entitled "Using Task-based Materials in Teaching Writing for EFL Classes in Indonesia" (Sundari et al., 2018). This research aimed to enhance learners' writing skill at university level. It also employed mixed method approaches with quasi experimental and content analysis. There were 210 participants who joined the research. These participants were also divided into experiment and control. The instrument to test the participants was through writing test. The result revealed that there was a difference between students who were taught using task-based learning and without task-based learning. Those who were taught with task-based language teaching (TBLT) showed a significance improvement, especially in the level of

lexical complexity and accuracy. In addition, task-based language teaching also provides a chance for teachers to create tasks that could give learners a chance to explore their communicative competence in a written language production which in turn will enhance their creativity and also critical thinking. Moreover, Johari (2018)'s research also claimed that task-based language teaching stimulated his learners in being more confident and learners who learnt through the approach of task-based language teaching (TBLT) attained higher score compared to those who were not taught using task-based language teaching (TBLT). Furthermore, another research entitled "The Impact of Task-Based Language Teaching on Learners' Writing Skills" (González and Pinzón, 2019). This study aimed to see the effect of task-based language teaching toward public school students' writing skill. This study employed Action Research methodology. This study revealed that the students' writing skill improved significantly. Their vocabulary enhanced, they produced less grammatical error, and their syntax in English language also improved. Moreover, their confidence also increased through the use of task-based language teaching (TBLT) in the classroom.

Furthermore, the successfulness of task-based language teaching (TBLT) also needs teacher's guidance in the classroom. It is indeed a student-centered approach. However, if the students are left behind to do their task alone without high support, it will render the approach to be in vain. It could be seen in a journal article entitled "The Implementation of Task Based Learning in Teaching Writing Descriptive Text to The Junior High School" (Saifudin et al., 2020). This study had the purpose in examining the use of task-based language teaching (TBLT) in learning descriptive text for 7 grader students in junior high school. The study

employed qualitative approach. The data was collected through observation, interview, and also the students' written language production. The result revealed that the writing products of the students were not good. The grammar, vocabulary and the structures were incoherent. It was because the teacher merely monitored the students and the teacher also did not adhere to the guidance in writing. Moreover, the teacher also did not implement the 4 stages of writing process. Thus, an excellent outcome of an approach is also determined by how the teacher carries out the approach within the classroom.

Robinson (2015) says that the success of learning a language would be affected by three factors known as Triadic Componential Framework. Thus, he proposed a framework known as Triadic Componential Framework (TCF) which includes (1) task complexity (cognitive factors); (2) task difficulty (learners' factors); (3) task condition (interactive factors). Furthermore, Robinson (2003) creates a difference between two dimensions within task complexity, which are resource-directing and resource-dispersing. Resource directing dimension is the dimension of learning that guides the students to linguistic aspect. However, resource dispersing focuses on affecting and altering learners' psychological condition. Robinson (2001) believes that task should be developed on the basis of task complexity (cognitive factors) since the other two factors which are task difficulty (learners' factors) and task condition (interactive factors) are difficult to predict. Furthermore, Robinson (2001) points out that task which is made complex along with the resource-directing dimension and simple for the resource-dispersing dimension would be the most ideal task to facilitate students to improve their language production. In other words, according to the cognition hypothesis, the most ideal task to promote

learning is when it is made complex along with the resource-directing and simple for the resource dispersing dimensions. Numerous studies have been conducted on investigating one dimension either in resource-directing or resource-dispersing (Cho, 2015; Shajeri & Izadpanah, 2016; Luo, 2022). Meanwhile, few explored the simultaneous manipulation of task complexity along two dimensions (Talebi, 2016; Masrom et al., 2015; Santos, 2018). With reference to the previous studies, no studies have ever been conducted to specifically explore the differences of task types simultaneously manipulated along the two dimensions according to every single aspect of the resource-directing and simple along resource-dispersing, except the study conducted by Wulandari (2022) which investigated within the speaking skill. Thus, it is worth to be followed up particularly from different view which is the written language production to confirm whether or not the results of this study support those of the spoken data. Moreover, very few studies of task complexity investigated the relationship between the degree of different types of task complexity and the students' perception. This is important to find out the extent to which the students' perceptions of the task fit their written language production. In addition, it is possible that important information regarding the aspect of designing task other than factors of task complexity or cognitive factors would be made.

In accordance to cognition hypothesis, a task made complex along the resource-directing could lead to learners' better performance in their linguistic aspects or competence. Meanwhile a complex task made along the resource-dispersing could emanate a worse result in learners' performance. Thus, in other words, a task made along complex in resource-directing and simple in resource-dispersing could

generate good result of language performance. Furthermore, task complexity in writing skill has proved to be thought-provoking and beneficial for students.

In this current research, the writer intends to create 3 tasks made along complex in resource-directing and simple in resource-dispersing to see their effects on learners' writing skill due to the fact that it has never been conducted before in writing skill. Each of these 3 tasks has 1 different complex variable in resource-directing and 3 simple variables in resource-dispersing. Moreover, this research also investigates the perceptions of the learners regarding the 3 manipulated tasks. The learners' perceptions are based on the affective factors of task difficulty. These affective factors deal with difficulty, stress, confidence, interest and motivation. These affective factors are crucial in shaping the learners' perception which is also in line with their written performance. It is commonly believed that learners who have low motivation, confidence and interest are usually more stressful in doing a task compared to the learners who exhibit high motivation, confidence and interest in doing a particular task.

No studies have been done to develop task complexity made complex for every single aspect of the resource-directing dimension and simple for the resource-dispersing dimension in a written language production. The study by Wulandari (2022) developed this model of task, but it was intended to explore students' spoken language production. Furthermore, studies related to students' perception with respect to task difficulty (affective factors) remain scarce. The previous studies in relation to students' perception in task difficulty conducted by Robinson (2001), Tavakoli (2009), Mahdavidad (2017), and Liang (2022) focused on a certain dimension of task complexity. To the best of the researcher's knowledge,

there is only one study that has conducted a research in task complexity within 2 dimensions, namely as resource-directing and resource-dispersing, combined with learners' perception in relation to task difficulty (affective factors) in oral production. It is conducted by Mahpul and Oliver (2018). Thus, in this current research, the research focused on two dimensions of task complexity, namely as resource-directing and resource-dispersing, combined with learners' perception in relation to task difficulty within written language production. Hence, the writer of this current research sees the importance to do so.

## **1.2 Research Questions**

This current study arises several research questions that the researcher shall investigate and seek the answers during the process of the study. These research questions are as followed:

1. Do students generate statistically significant difference of written language production in terms of complexity, accuracy and fluency (CAF) when performing 3 different types of tasks made complex for each aspect of the resource-directing and simple for the resource-dispersing?
2. Is there a relationship between the students' written language production and their perceptions of the three types of tasks?

## **1.3 Research Objectives**

1. To investigate the significance differences of three manipulated tasks on syntactic complexity, accuracy and fluency (CAF)
2. To explore the relationship between the students' written language production and their perceptions of the three types of tasks



## **1.4 Uses of the Research**

### **1.4.1 Theoretical Use**

This research aims to expand the study of task-based language teaching method (TBLT) combined with 2 dimensions of task complexity and also learner's perception in task difficulty.

### **1.4.2 Practical Use**

This research aims to introduce exuberance learning for teachers and students to further facilitate their L2 written production.

## **1.5 Scope of Study**

This study centers on investigating the written language production of every single aspects in task complexity made complex along the resource-directing and single along the resource-dispersing and the relationship between students' perception (task difficulty in affective factors) and their written language production.

## **1.6 Definition of Terms**

Task-based Language Teaching: is a teaching method to enhance a language skill by doing a task that is closely related to daily activity.

Task: task is a classroom exploration in which students utilize the target language and understand its meaning (Nunan, 1989)

T-Unit: a short unit that contains one independent clause and its independent clause (Hunt, 1970).

Task Complexity: it is a result of the attention, memory, reasoning, and processed information demands within the structure of a task on the language learner (Robinson, 2001).

Complexity: It is the lexical diversity and grammatical structures within the task (Bui & Skehan, 2018).

Accuracy: The ability to determine error sentences or to be able to recognize correct use of tenses, articles, etc (Bui & Skehan, 2018).

Fluency: refers to the learners' ability in using the target language without extensive pauses and correction (Kim, Nam, & Lee, 2016).

Perception: a thought about a certain occurrence that has the function to measure their attitude toward the occurrence itself (Hong, et al. 2003).

Writing Skill: the ability of an individual to compose a meaningful text that convey their thoughts as a means of communication.

These definitions serve the function to define the terms in a brief but concise way to fully assist the readers of the terms used in the research.

## **II. LITERATURE REVIEW**

In this chapter, the researcher divulges in the topic of TBLT, task, the cognitive hypothesis and also the measures of CAF toward writing skill. Moreover, the researcher also discusses her point of view toward the current research.

In learning English, there are 4 primary essential skills that students need to master. They are reading, writing, speaking and listening. When students successfully attain the mastery of these 4 skills, they are considered as individuals who have language competence which means people who can utilize a language to communicate clearly and also understand the language and its context. Within writing skill, an individual must be able to follow some aspects in order for the writing text to be coherent. These aspects are content, organization, language use, and also mechanics. Thus, in order to be able to write a text appropriately, an individual must excel in those aspects. In this research, the researcher aims to use two dimensions of learning in combination of TBLT to enhance writing skill toward high school students.

### **2.1 Task Based Language Teaching**

Task-based language teaching began its popularity in 1980s during the emergence of communicative language teaching approach. Prabhu was a teacher and also a researcher originated from India, he was the person who pioneered the approach of task-based language teaching (TBLT).

He also believes that this approach could stimulate learners cognitively in Second Language Acquisition (SLA) (Ji & Li, 2021). Furthermore, according to Ellis (2003), task-based language teaching is an approach that uses tasks as its learning activity to gain language acquisition in the classroom. Moreover, the activity of the tasks are closely related to the students, such as the activity in daily life, for instance ordering food in the restaurant, asking for direction, writing a formal letter, picking up a formal call and other activities. Thus, there is no gap between the task and the students.

In teaching a material, teachers must be creative. It is because a monotonous teaching without creativity or uniqueness might lead to the boredom of the students. Thus, teachers' responsibility is not only in presenting materials; but how they could present the materials in such a distinct way that could gain the rapt of attention of the students. Task-based language teaching gives teachers the opportunity to be creative and educative in their teaching progress. In accordance to the name of the approach "task-based", the teachers tend to give a specific activity that could enhance the language acquisition of the students which in turn will sharpen their skills during the activity. Moreover, the students' critical thinking will be honed in the classroom. It is because task-based language teaching is centered around the students specifically. Teachers still hold the position as mentors. But, students are expected to be more active in the participation in the classroom's task.

According to Breen and Candlin (1980), students have pivotal roles in task-based language teaching. It is because have the independence to choose their linguistic wording and examine all options they have for them to complete their task. Thus,

when the students are active in the classroom, they are encouraged to be independent and responsible for their task which in turn will enhance their critical thinking. Therefore, the aim of task-based language teaching (TBLT) is to enrich students' participation in the classroom because this approach focuses on students rather than teachers. Moreover, task-based language teaching also has its advantageous point of views such as it focuses on communicative fluency; but does not discard accuracy, it is learner-centered learning; but, it enables the teachers to be the guidance at the same time, and it creates 'natural' learning environment within the classroom (Ellis, 2009).

On top of that, according to Sholeh (2022), teachers have three roles in task-based learning. The first one is the one who determines the task for the classroom. In this role, the teacher examines the students' capability and needs. The second one is that the teacher prepares the students by introducing the foundation of the material, explaining the basic material of the task; explore all the wordings that could be used. The third one is the review. In this last role, the teachers supervise the ongoing progress of the students and give them feedback on what they should revise and hold on to.

## 2.2 Definition of Tasks

According to Nunan (1989), task is a classroom exploration in which students utilize the target language and understand its meaning. However, Willis (1996) states that task is project within a classroom in which students need to do to while using the target language to recognize the outcome of the project. Meanwhile, Richards & Rodgers (2001) describe a task is a classroom activity which uses a language. Ellis (2003) also creates distinctions between traditional pedagogy and task-based pedagogy. These distinctions could be seen as followed:

<b>Traditional form-focussed pedagogy</b>	<b>Task-based pedagogy</b>
Rigid discourse structure consisting of IRF (initiate-respond-feedback) exchanges	Loose discourse structure consisting of adjacency pairs
Teacher controls topic development	Students able to control topic development
Turn-taking is regulated by the teacher	Turn-taking is regulated by the same rules that govern everyday conversation (i. e. speakers can self select) .
Display questions (i. e. questions that the questioner already knows the answer)	Use of referential questions (i. e. questions that the questioner does not know the answer to)
Students are placed in a responding role and consequently perform a limited range of language functions.	Students function in both initiating and responding roles and thus perform a wide range of language functions (e. g. asking and giving information, agreeing and disagreeing, instructing) .
Little need or opportunity to negotiate meaning.	Opportunities to negotiate meaning when communication problems arise
Scaffolding directed primarily at enabling students to produce correct sentences.	Scaffolding directed primarily at enabling students to say what they want to say.
Form-focused feedback (i. e. the teacher responds implicitly or explicitly to the correctness of students' utterances)	Content-focused feedback (i. e. the teacher responds to the message content of the students' utterances) .
Echoing (i. e. the teacher repeats what a student has said for the benefit of the whole class)	Repetition (i. e. a student elects to repeat something another student or the teacher has said as private speech or to establish intersubjectivity) .

Thus, a task is a classroom project that is deemed to be beneficial for students to enhance their language acquisition. Hence, a task must be considerably good in academic aspects before it is carried out by the students. A task must be clear, challenging but still manageable in accordance to the students' competence, the task must include varied levels of difficulties; so that, the students could recognize their increased knowledge.

### **2.3 The Difference between Task and Exercise**

In the modern civilization, a great number of people use the term task and exercise interchangeably, even teachers use the terms as if they have the same meaning. However, task and exercise are two different terms. Nunan (1989) explains that the major difference between a task and an exercise is the outcome.

A task is nonlinguistic matter; but, an exercise is a linguistic matter. Moreover, a task is usually closely related to daily activities that are realistic. Furthermore, according to Ellis (2003) task has several pivotal features such as 1) it focuses on meaning, 2) involving the real-world process of language use, 3) it could be used for any of the 4 English skills, 4) it involves cognitive process, 5) it has a communicative outcome, 6) It is a workplan.

Furthermore, Ellis (2003) believes that task and exercise have differences and should not be used interchangeably. The differences could be seen as followed:

	Exercise	Task
Orientation	Linguistics skills should exist first in order to learn communicative skills	Linguistics skills expand through the communicative project
Focus	It focus on the form of the language	It only focuses on the meaning
Goal	Representation of knowledge	To attain communicative competence
Outcome	Evaluated by its adherence to the standards or structures	Evaluated by seeing whether the communicative goal has been successfully attained or not
Real World Relationship	To be used for future scenarios	A close relationship between real world activity and a task

In accordance to the definitions of the terms above, it could be concluded that a task is more closely related with daily activity and it focuses on the meaning of the language. However, exercise puts a definite focus on the structure or the linguistics aspects of the language.

#### **2.4 Previous Studies of Task-Based Language Teaching Approach**

Task-based Language Learning approach has also been analyzed by numerous researches to see its effectiveness in classroom activity. Putri and Ratmanida (2021)'s research was a quasi-experimental research. It aimed to investigate the influence of TBL approach toward high school students' reading comprehension, especially at SMAN 1 Bangkinang Kota. The research samples were 36 students of X MIPA 1 for the experimental class and another 36 students of X MIPA 3 for the control class. The instruments of the research were pre-test and post-test with 20 multiple questions. This research also employed quantitative research method and it used Paired Sample T-test in SPSS 23 as the analysis tool. The result



revealed that the mean of the pre-test in experimental class was 51.2. On the other hand, the post-test was 81.2. Thus, it concluded that the students who were taught through TBL approach were better in their reading comprehension compared to conventional teaching and learning method.

Furthermore, Rudd (2019) conducted a research toward second-year business students (N=81) at private university in Bangkok, Thailand. The students who were subjected to TBL approach were taught using this teaching and learning method for 1 semester or 16 weeks. Thus, the result of TBL approach would be compared toward prior score that was already achieved under conventional teaching and learning method through using t-test (0.05). The result revealed that students who were taught using TBL approach achieved higher score compared to conventional teaching which was resulted as (TBLT: 60.9 = Grade C+; TRAD: 54.93 = Grade C;  $p [0.0195] = \text{sig} < 0.05$ ).

Moreover, González and Pinzón's (2019) research was action research project that had the intent to investigate the influence of TBL approach toward public school's learners in their writing skill. Furthermore, the participants of the research must enhanced their writing skill to reach the levels of competence of CEFR or known as Common European Framework and also the Ministry of National Education (MEN). This research also employed Willis' framework of TBL approach that included pre-task, planning, report, and language focus. The research revealed that students achieved higher score in their writing. Their grammatical and vocabulary skills were enhanced and their syntax competence also increased significantly.

Thus, employing TBL approach for enhancing writing skill was positively proven by these previous studies due to its effectiveness in enhancing students' linguistics competence.

## 2.5 Cognition Hypothesis

Cognition hypothesis was pioneered by Robinson in 1995 and Gilabert in 2005. They believe that pedagogic task shall be based on task complexity. Thus, cognitive factors shall be manipulated. In other words, cognition hypothesis is a task-based pedagogy that involves cognitive process to improve task. Cognition hypothesis claims that increasing the cognitive demand along a certain dimension could lead to higher production of L2. Furthermore, Robinson (2001) created a framework known as Triadic Componential Framework. The components of the framework could be seen as followed:

<b>Task Complexity</b>	<b>Task Conditions</b>	<b>Task Difficulty</b>
(Cognitive Factors)	(Interactive Factors)	(Learners Factors)
<b>a) resource-directing</b>	<b>a) participation variable</b>	<b>a) affective variables</b>
+/- few elements	one-way/two way	motivation
+/- here and now	convergent/divergent	anxiety
+/- no reasoning demands	open/closed	confidence
<b>b) resource-depleting</b>	<b>b) participation variables</b>	<b>c) ability variables</b>
+/- planning	gender	aptitude
+/- single task	familiarity	proficiency
+/- prior knowledge	power/solidarity	Intelligence
Sequencing criteria -----		Methodological criteria
Prospective decisions about task unit		on-line decision about pairs and group

It is also believed that the focus shall be on cognitive factors since the other two factors are unpredictable. Thus, in cognitive factors, there are two known dimensions which are resource-directing and resource-depleting. These two dimensions have their own variables that could be manipulated to create a task for learners. Resource-directing variables are related to the cognitive demands. Thus, it focuses on vocabulary and syntax encoding. On the other hand, resource-depleting variables are related to performative demands such as the timing or known as planning time, single task or dual task, with prior knowledge or no prior. Thus, when the variables are increased, the task will demand more of learners' memory resources. In other words, resource-depleting makes the learners to pay more attention to task, while resource-directing centers around the linguistics aspects. Furthermore, Robinson (2001) suggests that raising complexity along the resource-dispersing would negatively impact the complexity, accuracy and fluency aspects of students' performance. On the other hand, Robinson (2003) believes that increasing cognitive demands of a task in resource-directing will enhance accuracy and complexity of L2 production.

Thus, in this current research, the researcher made tasks to be complex in every single aspect of the resource-directing while simple in every aspect of the resource-dispersing to fully facilitate the learners' written language performance.

### **2.5.1 Task Complexity**

Task complexity is a result of the attention, memory, reasoning, and processed information demands within the structure of a task on the language learner (Robinson, 2001). Furthermore, several studies have been conducted in exploring task complexity. Hosseini and Rahimpour (2010) explored the effect of here/now,

there/then variables in resource-directing toward L2 learners' writing performance on narrative tasks. They revealed that demanding task of there/then had no significant effect on learners' accuracy. Furthermore, Salimi et al., (2011) focused on resource-directing dimension, they stated that complex task increased fluency compared to simple task. In addition, complex task enhanced the complexity of the task itself. Attarzade & Farahani (2014) also investigated task complexity. They unveiled that learners' performance in listening comprehension was better in simple task compared to the complex task. This study revolved only in the dimension of resource-depleting. Thus, the researchers only manipulated the variables of planning time and prior knowledge under simple and complex task.

Moreover, Salimi (2015) stated that task complexity and focus on form on the accuracy of L2's oral performance made the oral performance of the learners significantly improved. The research only focused on simple and complex task. Furthermore, Afshar & Tofighi (2021) investigated the effect of task complexity in terms of resource-directing dimension toward lower-intermediate and advance language learners on argumentative tasks. They explained that task complexity in complex task created an effect in which the accuracy was decreased for lower-intermediate learners while fluency was increased in simple task. On the other hand, advance learners, task complexity boosted their accuracy but decreased their fluency. The higher the complexity of task, the more enhanced the accuracy and complexity for both of the learners and the task.

Furthermore, Wang and Jin (2022) stated that when learners had less prior knowledge and the task only contained few elements, their lexical variation was

higher. On the other hand, when learners had prior knowledge and the task had few elements, the lexical variation was lower. Furthermore, Kim (2022) argued that a simple task made along the resource-directing generated a better score compared to complex task. Long (1996) as cited in Robinson and Gilabert (2007) believes that the complex tasks give greater use compared to the simple tasks.

Robinson (2001) states that task complexity is the outcome of memory, reasoning and also attentional processing demands during the learning process toward the learners. Thus, when these dimensions are combined, they create effects on accuracy, fluency and complexity. Cognition Hypothesis claims that will help the learners to achieve higher accuracy and also complex L2 communication.

### **2.5.2 Learners' Perception**

Perception is a thought about a certain occurrence that has the function to measure their attitude toward the occurrence itself (Hong, et al. 2003). In other words, learner's perception is the use of language to describe a learner's thoughts or point of view toward a certain phenomenon or in particular situation.

Thus, learners' perceptions are greatly valued to be investigated in a particular context, especially if the research is on the basis of qualitative study in which it will be in-depth. Furthermore, in this research, learners' perceptions are correlated to what they thought of the tasks with respect to the task difficulty within the affective factors.

### **2.5.3 Task Difficulty (Affective factors)**

Ishikawa's (2006) study proves that manipulation of task complexity enhance learners with low-proficiency's writing skill. However, L2 learners also stated that complex task made them feel stressful due to its nature that demands more mental exertions. Furthermore, the dimension of task difficulty chosen in this research focuses on the affective variables. Hence, task difficulty has 2 variables which are affective variables (motivation, stress, interest, confidence, difficulty) and ability variables (intelligence, working memory) (Zohali, Zabihi, & Sanajou, 2017).

Robinson (2001) investigated the effects of cognitive complexity of tasks in relation to learners' perception of task difficulty. He asked the participants of the research to perform 2 versions of simple and complex task about giving direction through map. In the simple task, the map only covered a small and familiar area. Meanwhile, the complex task, the map covered a wide area in a familiar context. He revealed that cognitive complexity greatly influenced the learners' perception of task difficulty in respect to stress and difficulty.

Tavakoli (2009) also conducted a research in exploring learners and teachers' perceptions of task difficulty. Both groups of the participants were asked to complete four oral narrative tasks. In the interview session, it was revealed that cognitive and linguistics demands, task structure and also the needed information to complete the task influenced the learners and teachers' perception of task difficulty. Furthermore, affective variables (confidence, motivation, stress) may affect and alter the performance of the learners during completing the task.

Meanwhile, ability variables (intelligence, aptitude and cognitive style) are more stable and permanent (Liang, 2022). Moreover, Mahdavidrad (2017) conducted a research in the investigation of task complexity's effect toward EFL learners' perceptions of affective variables. The research unveiled that the learners exhibited low interest and motivation in doing the complex task.

In this research, the researcher creates 3 tasks that integrate the 2 dimensions of task complexity to see their effects on learners' writing skill. Three of these tasks are deemed to be complex + simple. In the first task, the task was made complex with many elements. As of the second task, it was made complex with reason demanding aspect. For the last task, it was made complex with there/then aspect or past form.

Thus, in this study, the researcher combines both dimensions, resource-directing and resource-depleting to see their effects on learners writing skill and also investigate the relationship between the learners' perception of the tasks in respect to affective factors in task difficulty dimension and their written production since the research that discusses the integration of both dimensions and learners' perceptions of task difficulty in writing skill toward high school students have never been explored before.

## 2.6 Measures of CAF

A research on complexity, accuracy and fluency (CAF) triad was firstly explored in the 1980s to explore the contradistinction between fluency and accuracy. However, complexity emerged during the 1990s (Craven, 2017). Below are the definitions of the measures of CAF:

**Complexity:** complexity in a task-based is measured by lexical diversity and grammatical structures within the task. It is typically measured as structural complexity (the length of a clause or T-unit) or lexical complexity (lexical diversity, lexical sophistication, and lexical density) (Bui & Skehan, 2018).

**Accuracy:** when it comes to accuracy, it concerns about the ability to determine error sentences or to be able to recognize correct use of tenses, articles, etc. In other words, it refers to the extent how the learners follow the system's rule of the target language such as the use of article, verb forms, and past-tense (Bui & Skehan, 2018).

**Fluency:** Segalowitz (2010) as cited in Pallotti (2020) believes that there are 3 kinds of fluencies, such as cognitive fluency, utterance fluency, and perceived fluency. Cognitive fluency is the ability in planning to deliver the speech. Meanwhile, utterance fluency is the performance of the speaker. On the other hand, perceived fluency is how the listener judges how fluent the speaker's speech is. In other words, fluency refers to the learners' ability in using the target language without extensive pauses and correction (Kim, Nam, & Lee, 2016). Thus, in this research, in analyzing the fluency of the students' written language production could be deciphered through the number of T-Units produced by them.



## 2.7 Theoretical Assumption

Task-Based Language Teaching (TBLT) puts a significant focus on form and meaning instead of only one of them. The other approaches such as Grammar-Translation Method (GTM) focuses on forms only, in which it means that GTM puts the center of the attention toward the linguistics competence. Meanwhile Audio-Lingual Method only practices the communicative competence but it puts aside the linguistics competence. Therefore, the principle of Task-Based Language Teaching (TBLT) is the most suitable ones.

As Task-Based Language Teaching (TBLT) believes in the importance of communicative and linguistics competences, it promotes real-world task. It is a task that has a close connection to real life activities. Thus, Task-Based Language Teaching brings the real world situation to the classroom.

In addition, it also promotes team-work in which learners are expected to be engaged in a discussion and express their own perspectives. Task-Based Language Teaching (TBLT) is also correlated with Cognition Hypothesis which was proposed by Robinson. By manipulating the variables within the dimensions, a complex task could be created. Robinson also deduces that a complex task will increase the accuracy and complexity of learners' performance, but it decreases the fluency of the learners. In accordance to this current study, it focuses mainly on writing skill, thus the researcher assumes by combining both dimensions of resource-directing and resource-depleting could have an effect on learners' writing skill.

## 2.8 Hypotheses

Based on the theoretical assumption above, the researcher has her hypothesis as followed:

H1: The manipulated tasks with the integration of resource-directing and resource-dispersing show significant effect in terms of complexity, accuracy and fluency.

H0: None of the manipulated tasks with the integration of resource-directing and resource-dispersing show significant effect in terms of complexity, accuracy and fluency.

Based on the previous studies and supporting theories, the hypotheses of this current research could be seen as above.

### **III. METHODS**

In this chapter, the researcher discusses the varieties of method the researcher employs in the research, namely the design, data (variables), data sources, data collection instrument, data collection procedures, data treatment and data analysis.

#### **3.1 Design**

According Leedy and Ormrod (2001), research is a sequence of process that require data being collected, analyzed, and interpreted. Furthermore, research design is a research segment that must exist in every research. It is one of the most pivotal parts in research because it will significantly affect the research itself.

By definition, research design is a structure of research that puts together all of the aspects of a certain research (Akhtar, 2016, p. 68). Therefore, in choosing a research design the researcher must choose meticulously. The researcher decides to employ repeated measures. Repeated measures is a research design that conducts multiple measures of the same subjects within the same condition or different condition. Furthermore, the researcher also employs mixed method research. It is because the researcher needs both quantitative and qualitative methods to investigate the proposed research question number 1 and 2 of this current study.

In this research, the researcher utilized the scores of the students that reflected the learners' competence through the manipulation of task complexity in writing skill

to see its effect on the learners. Thus, the data would be in the form of numerical. Therefore, it is in line with the research design which is quantitative research design. Meanwhile, the qualitative method is to explore the perceptions of the students to find out the relationship between their written production and perceptions.

### **3.2 Data (Variables)**

The variables in this research are dependent and independent variables. The dependent variable are students written language production and the learners' perception. On the other hand, the independent variable is the task-based language teaching (TBLT) as the approach to assist the classroom activity to make the teaching and learning progress to be more compelling and the cognition hypothesis.

### **3.3 Source Data**

The data sources are from high school students in Bandarlampung. The subjects could be seen from the description below:

#### **A. Subjects**

The subjects of the research were 30 high school students in first grade who have the same language competency.

#### **B. Setting**

The place the research was conducted at one of the private English courses in Bandarlampung known as English First (EF).

### 3.4 Research Instruments

This research has 2 research instruments. These instruments could be seen as followed:

- a. Written language production of the students would be acquired through the completion of the three type of tasks made complex along with the resource-directing and resource-dispersing. The model of the tasks was described as followed:

(TASK 1)  Many Elements (complex)	Planning Time (simple)
	Single Task (simple)
	Prior Knowledge (simple)
(TASK 2)  Reasoning Demands (complex)	Planning Time (simple)
	Single Task (simple)
	Prior Knowledge (simple)
(TASK 3)  There/Then (complex)	Planning Time (simple)
	Single Task (simple)
	Prior Knowledge (simple)

In accordance to the model above, in the first task, the task had many elements as the complex variable within the resource-directing dimension. Thus, the students were required to describe the similarities and also differences of some classrooms

provided within the task. Furthermore, the resource-dispersing was made simple. It consisted of planning time in which the students had 10 minutes to prepare what they wanted to write about. It was also a single task which means that the task was only one (one skill) and the students also had prior knowledge during doing the task. On the other hand, for the second task, it had reasoning demands as the complex variable in which the students were instructed to give their reasons which classroom they liked and why. Thus, the students were required to think critically to come up with some reasons during the process of completing the task. This second task was also made simple along the resource-dispersing. It had 10 minutes for the planning time. It was a single task and the students also had prior knowledge during completing the task. Furthermore, in the third task, it had complex variable of there/then in which the students were asked to describe the life of Moh. Hatta. This means that the task would require the students to use simple-past tense in their task. In addition, this third task was also made simple along the resource-dispersing dimension. Thus, it had a planning time which was 10 minutes prior doing the task. It was also a single task which means that the task was only one and within one skill and it also had the variable of prior knowledge. Thus, the students already had a prior knowledge during completing the task.

b. The learners' perception would be acquired through interview

This research also conducted an interview between the researcher and the subjects of the research. The interview was aimed to explore the second research question which was to investigate the relationship between learners' perception of the tasks and their written production. In other words, the interview was aimed to collect the data of the learners' perception of the three types of tasks. The interview

adopted Robinson's questionnaire (2001). The adopted questionnaire that would be implemented in the interview could be seen as followed:

The Learners' Options of Responses	The Category
I thought the task was easy/ I thought the task was hard	Difficulty
I felt relaxed doing this task/ I felt frustrated doing this task	Stress
I did not do well on this task/ I did well on this task	Confidence
The task was interesting/ the task was not interesting	Interest
I want to do more task like this/ I do not want to do more task like this	Motivation

Instead of using questionnaires, the researcher would choose interview due to the fact that interview could provide in-depth information, deeper exploration of the learners' perception, more valid compared to questionnaire since the researcher could confirm the statement again and the interviewee could ask a question, if they found a difficulty in the question.

### 3.5 Validity and Reliability

Validity and reliability are the pivotal instruments of the research that determine the accuracy of the data and whether these data could be held responsible or not.

In this research, the data were taken in the form of numerical and also statement, The numerical data were acquired through meticulous analysis of CAF aspects within the written production of the learners. Meanwhile, the statements were acquired through the interview.

### **3.5.1 Validity of the Content and Construct**

This current research is conducted in a private English course. Thus, the validity of the content is not based on the official curriculum that is usually implemented at formal school. Thus, in this research the validity of the content is related to the Cognition Hypothesis and its principle in the making of a complex task. Furthermore, the researcher was also guided by the expert in the field during constructing the content.

### **3.5.2 Reliability**

This study researches writing performance. Thus, it belongs to subjective test because it is related to organization, content and varying ideas that are created by the learners. In this study, the researcher creates 3 tasks to see their effect on the students' writing skill.

In scoring the learners' writing skill, the researcher focuses on accuracy, complexity and fluency. In other words, the researcher focuses on the effect of the tasks toward the learners. Furthermore, the reliability of the tasks would be examined through SPSS to see the significance effect of the tasks in form of numerical. The researcher employed Rank Order to investigate the correlation between the two raters. Furthermore, the



research would also follow the guideline of reliability's criteria proposed by Setiyadi (2018):

- Reliability range from 0.81 up to 1.00 is very high
- Reliability range from 0.61 up to 0.80 is high
- Reliability range from 0.41 up to 0.60 is average
- Reliability range from 0.21 up to 0.40 is low
- Reliability range from 0.00 up to 0.20 is very low

Furthermore, two raters examined the reliability of the students' written language production. The first one was the researcher and the second one was a postgraduate student who was also immersing herself in the field of Cognition Hypothesis. The results of reliability could be seen as followed:

Task	Reliability	Decision
1	.995	Very High
2	.999	Very High
3	.997	Very High

Thus in accordance to the results above, it is clear that all tasks are reliable as task 1 and 2 received .995. Meanwhile task 3 received .997.

### **3.6 Data Collecting Techniques**

Before the data were being analyzed, there were procedures that needed to be conducted to prepare prior the analysis. Below were the procedures of the data collection for acquiring the data for tasks:

- Firstly, the students were provided with task 1. This first task had the complex variable of many elements. Thus, the students were asked to describe many elements with 10 minutes as its planning time, with prior knowledge and it was only a single task (one skill). Then the teacher would collect their answer sheets.
- Secondly, the students were provided with task 2 in the next meeting. In this second task, it had complex variable of reasons demanding. Thus, the task required the students to provide reasons in accordance to the task itself. The reasons might be varied based on their perceptions. The task had 10 minutes as its planning time with the learners possessing prior knowledge and the task was a single one within one skill only. Then, the teacher would collect the answer sheets.
- Thirdly, the students were provided with task 3 in the next meeting. In this third task, it had complex variable of there/then. Thus, the task required the students to use past-tense in completing the task. The task had 10 minutes as its planning time with the learners having prior knowledge during completing the task. Furthermore, the third task was only a single task which meant it only encompassed one skill. Then, the teacher would collect their answer sheet.

Below were the steps of data collecting techniques in acquiring the data from interview:

- After acquiring the data from the written production of the students, the students would be interviewed by the researcher regarding their perceptions of the three tasks based on Robinson's (2001) task difficulty

variables through Robinson's (2001) questionnaire to measure their perceptions of task difficulty. Furthermore, the interview will also be recorded by the researcher with the consent of the learners without revealing their identity in respect to their minor age and professionalism. In addition, they would be interviewed one by one. During the interview session, the students would be asked by the teacher regarding their perceptions of the three types of tasks in terms of difficulty, stress, confidence, interest and motivation. The students were only provided with two possible answers based on Robinson's (2001) questionnaire. Thus, they either chose positive response or negative response.

### **3.7 Data Analysis**

The data of this research were in the form of written language production and also voice recordings to unveil the students' perceptions. First of all, the researcher must administer the 3 types of tasks. Thus, after collecting all the needed data, the researcher proceeded to analyze them. Below were the steps in analyzing the data:

1. After collecting the students' written language production, the researcher proceeded in analyzing the data manually with respect to CAF measures. The calculation for each measure is different. Thus, the researcher followed the following formula to gain the scores for complexity, accuracy and fluency:

- a. Complexity

The complexity's calculation is created by Foster and Skehan (1996) as cited in Dahmardeh & Shahmirzadi (2016) could be seen as followed:

I will tell you about my hobby. (C) || I love reading books in my leisure time, especially English books. (C) || Not only it increases my vocabulary and grammar masteries, (C) this activity is also entertaining (C) ||.

In accordance to the example above, “(C)” refers to clause and “||” refers to T-unit (terminable unit). T-unit is developed by Hunt in 1965. As cited in Suganob-Nicolau & Sukamto (2016), Hunt (1970) defines it as a short unit that contains one independent clause and its independent clause. Thus, it is a piece of discourse that can be separated. Thus, in accordance to the example above the text contains 4 clauses and 3 T-units. Thus, the syntactic complexity of the text could be calculated as followed:

$\frac{\textit{Total number of clauses}}{\textit{Total T-units}}$ $4:3 = 1.33$
--

Based on the calculation above, the complexity value of the text above is 1.33.

#### b. Accuracy

The calculation of accuracy adapts to Oliver & Mahpul’s (2018) research. However, in this research, it focuses on written data. Thus, instead of AS units they become T-units. The example of the text could be seen as followed:

I always eat breakfast every morning. (EF) || It \*are\* important meal. ||

I usually have English breakfast every morning. (EF) || It is very tasty,

especially the mushrooms. (EF) || It is always the meal I look forward to everyday. (EF) ||

In accordance to the text above, “EF” refers to error-free T-unit and “||” refers to a T-unit. Thus, there are 4 error free T-units and 5 T-units. The calculation could be seen as followed:

$\frac{\text{Number of error-free T-units}}{\text{Number of T-units}} \times 100$ $= 4 : 5 \times 100 = 80.00$
--

Based on the calculation above, the accuracy of the text above is 80.00.

### c. Fluency

Based on Benzehaf’s (2016) calculation, fluency shall be calculated by the total number of T-units. Thus, it could be seen below:

*I want to major in English Education || and being a university lecturer is my dream. || It is my ultimate dream. ||*

Based on the text above, there are words. Thus, the calculation of the fluency could be calculated as seen below:

$\frac{\text{Number of T-Units}}{\text{Number of T-Units}}$ $= 3.00$
--

In accordance to the calculation above, the fluency of the text is 3.00

2. After the researcher had attained the score of the written language production of the students in relation to the CAF, the researcher would analyze the acquired data through SPSS – one-way repeated measure

ANOVA to find out the statistical difference among the three tasks to answer the first research question.

Furthermore, the researcher analyzed the data acquired through the interview in the form of voice recordings. The analysis of the acquired data could be seen as followed:

- The students were asked several questions adopted from Robinson's (2001) questionnaire in terms of the difficulty, degree of stress, confidence, interest and motivation. Furthermore, their responses were divided into two categories. Negative and positive. The highest percentage of the responses were the ones selected to be presented in the research to be further explored on why they occurred in such ways. For instance, a learner's perception who thought task 1 was relatively easy would further be explored as to why she/he thought in such a way. Hence, this process of analysis requires qualitative method of research because the data would be in the form of paragraph instead of numerical form. Thus, the learners' perception of the three tasks would be described to ensure the relationship between the students' written language production and their perception.

### **3.8 Hypothesis Testing**

Hypothesis testing aims to test the possible outcome of the research. In this research, the researcher aims to explore the effects of 3 task complexity with the integration of two dimensions, resource-directing and resource-dispersing, toward learners' writing skill and also their perceptions regarding the tasks types. Below are the hypothesis testing that the researcher proposes:

H1: The manipulated tasks with the integration of resource-directing and resource-dispersing show significant effect in terms of complexity, accuracy and fluency.

H0: None of the manipulated tasks with the integration of resource-directing and resource-dispersing show significant effect in terms of complexity, accuracy and fluency.

In accordance to the hypothesis above, those are the hypothesis testing provided by the researcher. In other words, the researcher has the purpose to investigate the effect of task complexity with the integration of two dimensions toward learners' writing skill.

## V. CONCLUSION

This chapter discusses the conclusion of this research. Thus, it revolves around the theories that support the results of the research. Furthermore, it also suggests further researches in a similar field to extend the knowledge and also studies regarding Cognition Hypothesis.

### 5.1 Conclusion

This research proves to be beneficial in expanding the knowledge of cognition hypothesis, especially within the boundary of written language production in terms of the manipulation of cognitive factors along resource-directing and resource dispersing in relation to CAF. As Robinson (2003) believes cognitive factors shall be greatly considered in creating pedagogical tasks.

Furthermore, considering the students' performance based on CAF only is not adequate enough, for their perceptions are pivotal matters as well. Thus, analyzing the students' written language performance while also taking their perceptions as important matters prove to be beneficial in this research. On top of that, creating a task that was complex in the resource-directing dimension and simple in resource-dispersing dimension indicated a great and positive effect to the students' writing performance. While a complex task in resource-directing led the students to be more critical and enhance their linguistics competence, the simple variables of the resource-dispersing would help the participants to perform the task easier.



By undertaking a research in the field of Task-Based Language Teaching in relation to Cognition Hypothesis in written language production extends a new area in the said field of research, especially in the context of Indonesian EFL learners. However, further studies need to be conducted to expand the discussion of Cognition Hypothesis in the context of Indonesian EFL learners.

## **5.2 Suggestion**

In expanding the field of Cognition Hypothesis, further studies need to be made. This research focuses on the written language production and also the perceptions of the 1<sup>st</sup> grader of high school students in a private English course. Further research may undertake a research in a similar field in the context of Indonesian EFL undergraduate students or even postgraduate students in relation to their written language production. Furthermore, it would be best if future researches create tasks to be complex in both resource-directing and resource-dispersing and simple in both resource-directing and resource-dispersing toward the undergraduate or postgraduate students to investigate their cognitive ability in relation to CAF.

The researches in the field of Cognition Hypothesis remain scarcely in Indonesian EFL context. Thus, the suggested further studies above would be highly beneficial to widen the scope of Cognition Hypothesis.

## REFERENCES

- Afshar, H. S., & Tofighi, S. (2021). The Role of Task Complexity and Working Memory Capacity in L2 Accuracy and Fluency. *Journal of English Language Teaching and Learning*, 13(27), 389-416.
- Akhtar, I. (2016). Research Design. *Research in Social Science: Interdisciplinary Perspectives*, 68-84.
- Alfaruqy, D., Setyawan, H., & Rohman, T. N. (2022). Exploring First-Year EFL Students' Problems in Essay Writing. *ELE Reviews: English Language Education Reviews*, 2(1), 1-12.
- Alisha, F., Safitri, N., & Santoso, I. (2019). Students' Difficulties in Writing EFL. *Project: Professional Journal of English Education*, 20-25.
- Arjmand, N., & Khorasani, R. (2016). Task Complexity and Its Effects on Complexity, Accuracy and Fluency of EFL Learners' Written Production. *Global Journal of Foreign Language Teaching*, 6(3), 131-142.
- Attarzade, S., & Farahani, E. (2014). The Effect of Task Complexity on Iranian EFL Learners' Listening Comprehension across Aptitude. *Procedia - Social and Behavioral Sciences*, 98, 314-323.
- Benzehaf, B. (2016). Development of Complexity, Accuracy, and Fluency in High School Students' Written Foreign Language Production. *JEELS*, 3(2), 128-151.
- Bora, P. (2023). Importance of Writing Skill to Develop Students' Communication Skill. *Journal for Research Scholars and Professionals of English Language Teaching*, 7(35), 1-6.
- Breen, M. P., & Candlin, C. N. (1980). The Essentials of a Communicative Curriculum in Language Teaching. *Applied Linguistics*, 89-112.
- Bui, G., & Skehan, P. (2018). Complexity, Accuracy, and Fluency. *The TESOL Encyclopedia of English Language Teaching*. Hoboken: John Wiley & Sons, Inc.
- Cho, H. (2015). Effects of Task Complexity on English Argumentative Writing. *English Teaching*, 70(2), 107-130.

- Craven, L. (2017). Measuring Language Performance: Complexity, Accuracy and Fluency Measures. *The 2017 WEI International Academic Conference Proceedings* (pp. 25-27). Barcelona: The West East Institute .
- Dahlan. (2019). Task Complexity and Students' Narrative Writing. *Journal of Language Teaching and Learning, Linguistics and Literature*, 7(2), 368 – 379.
- Dahmardeh, M., & Shahmirzadi, N. (2016). Measuring the Written Performance Quality in terms of (CAF) Complexity, Accuracy and Fluency Constructs. *Pertanika Journal: Social Sciences and Humanities*, 24(2), 639-654.
- Ellis, R. (2003). The Methodology of Task-Based Teaching. *The Asia EFL Journal*, 11(5), 79-101.
- Ellis, R. (2006). The Methodology of Task-Based Teaching. *The Asian EFL Journal Quarterly*, 8(3), 19-45.
- Ellis, R. (2009). Task-based language teaching: sorting out the misunderstandings. *International Journal of Applied Linguistics*, 19(3), 221-246.
- Fahmi, S., & Rachmijati, C. (2021). Improving Students' Writing Skill Using Grammarly Application for Second Grade in Senior High School. *Professional Journal of English Education*, 4(1), 69-74.
- Gilabert , R. (2007). Investigating tasks in formal language learning. In *The Simultaneous Manipulation of Task Complexity along Planning Time and [+/- Here-and-now]: Effects on L2 Oral Production*, (pp. 44-68). Bristol: Multilingual Matters.
- González, L. E., & Pinzón, M. M. (2019). The Impact of Task-Based Language Teaching on Learners' Writing Skills. *Indonesian EFL Journal (IEFLJ)*, 5(2), 41-48.
- Hong, K.-S., Ridzuan, A. A., & Kuek, M.-K. (2003). Students' Attitudes toward the Use of the Internet for Learning: A Study at a University in Malaysia. *Educational, Technology & Society*, 6(2), 45-49.
- Ishikawa, T. (2006). The Effect of Task Complexity and Language Proficiency on Task-Based Language Performance. *The Journal of Asia TEFL*, 3(4), 193-225.
- Ji, X., & Li, L. (2021). Arguments for and Against Using Task-based Approach to Foreign Language Teaching The Appropriation of TBLT Adapt in the Chinese Context. *Proceedings of the 2021 3rd International Conference on Literature, Art and Human Development (ICLAHD 2021)* (pp. 305-309). Amsterdam: Atlantis Press.
- Jin, Y., Bot, K. d., & Keijzer, M. (2017). Affective and Situational Correlates of Foreign Language proficiency: A Study of Chinese University Learners of

- English and Japanese. *Studies in Second Language Learning and Teaching*, 7(1), 105-125.
- Johari, S. K. (2018). The Effects of Task-Based Process Writing Approach on the Academic Writing Skills among Second Language Tertiary Learners. *JER: Journal of ELT Research*, 3(1), 1-20.
- Kim, Y. (2022). Effects of Task Complexity on EFL Learners' Writing Behaviors and Performance. *English Teaching*, 77(4), 49-69.
- Kim, Y., Nam, J., & Lee, S.-Y. (2016). Correlation of Proficiency with Complexity, Accuracy, and Fluency in Spoken and Written Production: Evidence from L2 Korean. *Journal of the National Council of Less Commonly Taught Languages*, 19, 147-181.
- Leedy, P., & Ormrod, J. (2001). *Practical Research: Planning and Design* (7 ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Li, S., Ye, Z., & He, K. (2023). An Empirical Study on Task Complexity and Task Difficulty in L2 English Writing. *International Journal of English Language Studies*, 87-105.
- Liang, Y. (2022). The Relationship between Task Complexity, Task Difficulty, and Speaking Performance: The Case of Chinese EFL Learners. *Journal of Education and Practice*, 13(20), 72-78.
- Luo, X. (2022). The Effect of Manipulating Task Complexity Along Resource-Dispersing Dimension on L2 Written Performance from the Perspective of Complexity Theory. *English Language Teaching*, 15(9), 151-159.
- Mahdavidad, F. (2017). Affective Variables in Simple vs. Complex Tasks: A Study of Iranian EFL Learners' Perceptions. *International Journal of English Language & Translation Studies*, 5(3), 195-200.
- Masrom, U. K., Alwi, N. A., & Daud, N. S. (2015). The Effects of Task Complexity on the Complexity of the Second Language Written Production. *Journal of Second Language Teaching and Research*, 4(1), 38-66.
- Nunan, D. (1989). *Designing Tasks for the Communicative Classroom*. Cambridge: Cambridge University Press.
- Nunan, D. (2006). Task-based Learning in the Asian Context: Defining "Task". *The Asian EFL Journal Quarterly*, 8(3), 12-18.
- Nunan, D. (2010). A Task-based Approach to Materials Development. *Advances in Language and Literary Studies*, 1(2), 135-160.
- Octaviana, D. W. (2016). Students' Perceptions toward Their Writing in EFL Setting: A Study at SMA YKBBB Leles Garut. *TELL – US Journal*, 2(1), 74-81.

- Oliver, R., & Mahpul. (2018). The Effect of Task Complexity in Dialogic Oral Production by Indonesian EFL. *Asian EFL Journal*, 20(2), 28-59.
- Pallotti, G. (2020). Measuring Complexity, Accuracy, and Fluency (CAF). In G. Pallotti, *The Routledge Handbook of Second Language Acquisition and Language Testing* (pp. 1-9). England: Routledge.
- Parmawati, A., Santoso, I., & Yana. (2020). Improving Students' Writing Skill through Round Table Technique. *ELTIN Journal*, 8(2), 103-111.
- Putri, R. G., & Ratmanida. (2021). The Effect of Using Task-based Language Teaching on Students' Reading Comprehension at SMAN 1 Bangkinang Kota. *Journal of English Language Teaching*, 10(4), 578-587.
- Rahimpour, M. (2007). Task Complexity and Variation in L2 Learners' Oral Discourse. *The University of Queensland Working papers in Linguistics*, 1-9.
- Rahimpour, M., & Hosseini, P. (2010). The Impact of Task Complexity on L2 Learners' Written Narratives. *CCSE*, 3(3), 198-205.
- Ranaut, B. (2018). Importance of Good Business Writing Skills. *International Journal of Language and Linguistics*, 5(2), 32-41.
- Riadil, I. G., Rahman, A. N., & Chonpracha, P. (2023). Investigating EFL Learners' Difficulties and Strategies in Academic Writing Skill: A Qualitative Study. *JOURNAL OF ENGLISH LANGUAGE PEDAGOGY*, 8(1), 66-76.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- Robinson, P. (2001). Task complexity, task difficulty, and task production: exploring interactions in a componential framework. *Applied Linguistics*, 22(1), 27-57.
- Robinson, P. (2003). The Cognitive Hypothesis, Task Design, and Adult Task-based Language Learning. *Second Language Studies*, 45-105.
- Robinson, P. (2015). The Cognition Hypothesis, second language task demands, and the SSARC model of pedagogic task sequencing. In P. Robinson, *Domains and Directions in the Development of TBLT: A decade of plenaries from the international conference* (pp. 87-122). Amsterdam: John Benjamins Publishing Company.
- Robinson, P., & Gilabert, R. (2007). Task Complexity, the Cognition Hypothesis and Second Language Learning and Performance. *International Review of Applied Linguistics in Language Teaching*, 45(7), 161-176.
- Rudd, M. (2019). Examining the Effect of Task-Based Language Teaching on University Business Students in Bangkok. *Indonesian Journal of English Education*, 30-47.

- Sadeghi, K., & Mosalli, Z. (2013). The Effect of Task Complexity on the Quality of EFL Learners' Argumentative Writing. *Iranian Journal of Language Teaching Research*, 1(2), 115-134.
- Saifudin, A., Setiawan, S., & Anam, S. (2020). The Implementation of Task Based Learning in Teaching Writing Descriptive Text to The Junior High School. *Linguistic, English Education and Art (LEEA)*, 4(1), 109-125.
- Salimi, A. (2015). The Effect of Focus on Form and Task Complexity on L2 Learners' Oral Task Performance. *Advances in Language and Literary Studies*, 6(6), 54-62.
- Salimi, A., Dadaspour, S., & Asadollahfam, H. (2011). The Effect of Task Complexity on EFL learners' Written Performance. *Procedia - Social and Behavioral Sciences*, 29, 1390 – 1399.
- Santos, S. (2018). Effects of Task Complexity on the Oral Production of Chinese Learners of Portuguese as a Foreign Language. *Journal of the European Second Language Association*, 2(1), 49-62.
- Setiyadi, B. (2018). *Metode Penelitian untuk Pengajaran Bahasa Asing: Pendekatan Kuantitatif dan Kualitatif*. Lampung: Graha Ilmu.
- Shajeri, E., & Izadpanah, S. (2016). The Impact of Task Complexity along Single Task Dimension on Iranian EFL Learners' Writing Production. *Theory and Practice in Language Studies*, 6(5), 935-945.
- Sholeh, M. B. (2022). Implementation of Task-based Learning in Teaching English in Indonesia: Benefits and Problems. *Indonesian Journal of English Teaching*, 11(1), 88-99.
- Sholeh, M. B., Salija, K., & Nur, S. (2021). Task-Based Learning in English as a Foreign Language (EFL) Classroom: What, How and Why? *Journal GEEJ*, 134-146.
- Skehan, P. (1996). A Framework for the Implementation of Task-based Instruction. *Applied Linguistics*, 17(1), 38-62.
- Skehan, P. (2009). Modelling Second Language Performance: Integrating Complexity, Accuracy, Fluency, and Lexis. *Applied Linguistics*, 30(4), 510-532.
- Suganob-Nicolau, M. F., & Sukanto, K. E. (2016). Gender Differences in Writing Complex Sentences: A Case Study of Indonesian EFL Students. *Indonesian Journal of English Language Teaching*, 11(1), 69-80.
- Sundari, H., Febriyanti, R. H., & Saragih, G. (2018). Using Task-based Materials in Teaching Writing for EFL Classes in Indonesia. *International Journal of Applied Linguistics & English Literature*, 7(3), 119-124.
- Talebi, Z. (2016). The Effects Of Task Complexity Along Resource-Directing and Resource-Dispersing Factors on EFL Learners' Written Performance.

*Proceedings of ADVED 2016 2nd International Conference on Advances in Education and Social Sciences* (pp. 101-110). Istanbul: Ocerint.

- Tavakoli, P. (2009). Investigating Task Difficulty: Learners' and Teachers' Perceptions. *International Journal of Applied Linguistics*, 19, 1-25.
- Wang, L., & Jin, C. (2022). Effects of Task Complexity on Linguistic Complexity for Sustainable EFL Writing Skills Development. *Sustainability*, 14, 1-14.
- Willis, J. (1996). *A Framework For Task-Based Learning*. Reading, Massachusetts: Addison Wesley Longman.
- Wulandari, N. (2023). *The Effect of Task Complexity on Spoken Data of The Eleventh Grade Students at SMAIT Daarul 'Ilmi Bandar Lampung*. Bandar Lampung: Universitas Lampung.
- Zhan, J., Sun, Q., & Zhang, L. J. (2021). Effects of Manipulating Writing Task Complexity on Learners' Performance in Completing Vocabulary and Syntactic Tasks. *Language Teaching Research*, 1-22.
- Zohali, L., Zabihi, F., & Sanajou, N. (2017). Do Task Complexity Demands Influence the Learners' Perception of Task Difficulty? *International Journal of Applied Linguistics & English Literature*, 6(6), 71-77.