



# Framing Culturally-Integrated Material, Critical Thinking, and Writing Skills of Tertiary Level Students

<sup>1</sup>Satyawati Surya\*, <sup>2</sup>Nasmilah, <sup>3</sup>Karmila Mokoginta, <sup>4</sup>Noer Jihad Saleh

<sup>1,2,3,4</sup>Hasanuddin University

<sup>1</sup>Mulawarman University

**Abstract:** Students are required to have critical thinking ability to develop their personal skills and to prepare them for college, the workforce, and being responsible citizens. This research applies types of questions as guidance to prompt students to write. A teaching model on how to teach writing by framing and implementing culturally integrated material, critical thinking, and writing skills of tertiary-level students is developed. The research aims to describe the teaching of English writing implemented using culturally-integrated material about critical thinking skills and to discover the effect of teaching writing using culturally-integrated material about critical thinking skills on students' writing ability. This study applied both qualitative and quantitative methods. The qualitative method was utilized to describe the implementation process and give educators a general picture of how the new model was applied. The quantitative method was conducted through experimental research. Furthermore, the pre-test and the post-test scores are then analyzed using a dependent T-test. The result of the T-test shows that the value of significance (2-tailed probability) is 0.0001 (P value), meaning that the value is lower than the 5% (0.05) level of error significance. While the value of the test statistic is 11.76, which is higher than the t-table with  $df = 56$  ( $11.76 > +/- 2.000$ ). It means that there is an effect of teaching writing model by using culturally-integrated material about critical thinking skills on students' writing ability.

**Keywords:** critical thinking, culturally-integrated material, higher-order questions, writing skills

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## 1. Introduction

Recent education demands people to have the ability to solve problems appropriately by applying critical thinking. Getting knowledge by memorizing is just for beginner learners. The knowledge they memorized easily passed as long as they never applied or used it. However, the knowledge stays longer if people frequently practice and utilize it in their lives. Critical thinking is a kind of cognitive practice that needs some process to obtain results. The achieving goal is to be rational; and have quality in reasoning and problem-solving. Students with these kinds of abilities can communicate effectively as well as solve complex problems. They will be creators, critical thinkers, decision-makers, evaluators, open-minded and intelligent people.

As a matter of fact, to have the ability to think critically need some exercise. In classroom situations, teachers as well as lecturers encourage students to think critically. Designing and creating learning objectives that accommodate tasks and activities facilitating students' critical thinking are demanded nowadays. Lucia, Sofia, and del Pilar (2017) argue that developing critical thinking which is inherent in education during teaching practices is a must since societies need citizens who facilitate their progress. Anderson (2000) says that teachers could organize their goals and create categories or types of questions to build critical thinking and active learning. Moreover, types of questions range from a very low level, that is remembering, and then followed by understanding, applying, analyzing, and evaluating and a very high

level is creating.

This research is inspired to apply types of questions as guidance to prompt students to write. By giving questions, the students process their minds to think and carry out writing tasks. They show their qualities of thinking and communicating by convincing their arguments which reflects critical thinking. Students' writing products are hopefully increased as they are trained to build their critical thinking. At first, students are asked simple questions to respond by producing their memorization and their understanding of particular knowledge. Next, they are given more complex questions to make them think about how to apply, analyze, and evaluate until create something. Finally, the students can increase their writing products and critical thinking as well.

Besides the demand to create critical thinking, in reality, students live and engage in multicultural. Multiculture is the phenomenon in a classroom situation in which students come from different places bringing their own culture. An Environment where the students engage in study together must be created to develop multiculturally perspective skills to attain inclusive education. The students' competence to increase their perspective to another who has a different culture is an important factor to be well-designed in the form of self-development and training. The goal is to develop a multicultural perspective to create inclusive education regardless of students' differences and to build tolerance in the environment. This phenomenon inspired the researcher to frame culturally-integrated material, critical thinking, and writing skills at tertiary-level students. It means designing classroom activities in which the students discuss local cultural content by prompting students with higher-order thinking questions to trigger them to think critically and then pour it into their writing.

The first thing to do is to frame culturally-integrated material by designing and structuring materials for teaching. KNBBS (Knowledge and Science Bulletin Board System) and Sharer (2023) mention that cultural integration is a complex process of merging different cultural backgrounds and practices into a cohesive whole. In addition, Sharer explains the concept of cultural integration as the process of combining different cultures into a unified whole that occurs through the sharing of customs, beliefs, and practices among different cultures. So, culturally-integrated material is materials designed in teaching-learning activities to merge and combine different cultural backgrounds and cultural issues.

The second thing is framing critical thinking and writing skills in the teaching and learning process. Critical thinking is defined by Scriven and Paul (1987) as an intellectual, active, and skillful process to the concept, apply, analyze, synthesize, and evaluate information which is gained from observation, experience, reflection, reasoning, or communication. In this research, the process of gaining critical thinking involves students with the skilful process of experience and communication to understand, apply, analyze, evaluate, and create something by responding to questions. After the activities of discussing culture and answering critical thinking questions are conducted, the students write about the results of the communication or discussion in their composition. Since writing is a productive skill in English that shows the language ability of a student to communicate ideas and opinions in written form, it becomes the English skill that is developed in this research.

Actually, this research aims to develop a teaching model on how to teach writing by framing and implementing cultural-integrated material, critical thinking, and writing skills of tertiary-level students. The output of the research is the model of teaching writing and a course book. The critical thinking process is gained through asking questions about local culture that range from low-level to high-order level of thinking. By responding to these questions, students think critically and gain ideas to produce writing about cultures. This research also utilizes a scoring rubric for assessing students' writing ability as well as students' critical thinking in the new model of teaching. After developing the design of the teaching writing model by framing cultural-integrated material, critical thinking, and writing skills, the model will be implemented to tertiary-level students to discover the effect of the model on students' writing ability and critical thinking.

Furthermore, developing critical thinkers for academic purposes is one side to accomplish the studying period during studying at college or university. After the students finish and engage in society and the labor

market, they need to develop their personal lives by implementing their education and the ability to think critically and communicate to change professional circumstances. It is in line with the idea declared by the American Association of Colleges and Universities that critical thinking is important in education and aims to prepare students for college, the workforce, and responsible citizens. So, critical thinking and communication should be promoted in education.

In brief, this is a research and development (R & D) study that focuses on developing a model of teaching writing by framing culturally-integrated material, critical thinking, and writing skills of tertiary-level students. The product or the output of this research is a model of teaching writing and a course book. To validate and evaluate the model of teaching writing, experimental research is conducted by implementing the model to discover the effect of using it on students' writing ability. During the implementation, critical thinking ability is gained and trained through asking questions about local culture that range from low-level to high-order level of thinking. By responding to these questions, students think critically and gain ideas to produce writing about cultures.

This research has directions or objectives as the following:

1. To describe the teaching of English writing implemented using culturally-integrated material in reference to critical thinking skills.
2. To discover the effect of teaching writing using culturally integrated material in reference to critical thinking skills on students' writing ability.

## **2. Theoretical Framework**

### **a. The Concepts of Critical Thinking**

First of all, the definitions of critical thinking are clarified by some experts from different perspectives. Critical thinking as defined by Scriven and Paul (1987) is an intellectual, active, and skillful process to the concept, apply, analyze, synthesize, and evaluate information which is gained from observation, experience, reflection, reasoning, or communication. It will be the guide for having a belief in something and directing it to action. In addition, Elder (2008) mentions that critical thinking is thinking with self-guide and self-discipline which attempts to have the highest level of quality in reasoning. Furthermore, Elder explains that people who think critically have a tendency to be rational, reasonable, and empathic in their lives.

Moreover, Paul, Elder, and Barter (1997) declare that critical thinking involves systematic monitoring of critical thought that surface value ought to be analyzed and assessed further for convincing its clarity, accuracy, relevance, depth, breadth, and logicalness. A critical thinker shows some results of thinking critically, such as: exposing vital questions and problems, interpreting information effectively by using abstract ideas, producing well-reasoned conclusions and solutions, and then evaluating it based on relevant criteria and standards. They are also open-minded within alternative systems of thought, recognizing and assessing in order to obtain assumptions, implications, and practical consequences, and communicate effectively with others in figuring out solutions to complex problems (Elder, 2007).

In relation to some basic skills involved in critical thinking, Cottrell (2017) offers some actions, such as:

1. We work out whether we believe what we see or hear.
2. We take steps to find out whether something is likely to be true.
3. We argue our own case if someone does not believe us.

In addition to responding to information, Cottrell adds that critical thinking involves the following activities:

1. We need to identify correctly when we gain more information.
2. We select effectively the right type and level of information for the purpose.
3. We use the appropriate level of critical analysis in specific circumstances.

Regarding the complex process of critical thinking, critical thinkers undertake the process of identifying positions, arguments, and conclusions; evaluating the evidence; weighing up the opposing arguments; being able to read between the lines; recognizing techniques; reflecting on issues; drawing conclusions; synthesizing information; and presenting a point of view.

Furthermore, in educational matters having critical thinking is important. They say that encouraging students to think and engage in critical thinking is the indicator of the most successful classroom (Halpern 1996; Kurland 1995; Unrau 1997). Students who think critically are typically excited about their learning and make teaching enjoyable. The most difficult intellectual tasks are considered challenging and opportunities to use their critical thinking and engage it eagerly (Crawford, Soul, Mathews, and Makinster, 2005). According to Anderson (2000), teachers could create teaching and learning objectives for students to study and build critical thinking and active learning by organizing their goals and creating categories or types of questions. In creating questions and objectives, a very low level is remembering, followed by understanding, applying, analyzing, and evaluating and a very high level is creating. At this highest level, students are able to create new ideas and make new inferences. There will be a need to work at all levels. Students tap from lower to higher levels of critical thinking, requiring simple memory or recall, developing factual knowledge, asking high-level questions, and achieving higher levels of objectives. Recently educators and educational researchers have provided some guidelines for restructuring classrooms along these lines (Herrenkohl 1998; Herrenkohl 1999).

## **b. The Concept of Levels of Questions**

According to Crawford et al (2005), speaking about levels of questions refers to the difference between questions containing simple ideas that address details (such as names, dates, places, and capitals of counties or provinces) and questions that address more complex ideas, such as the relationships between concepts or causes of some event or situation. Low-level questions ask about facts and details. Knowing these facts does not ensure that the students will be able to use the facts to solve problems or make important decisions. Such questions might include the following examples:

- What is the year Indonesia obtaining its independence from Dutch?
- What temperature is the melting point of ice?
- What are the names of famous authors known in their literary works?
- On what country is the Amazon River?

These are the questions on the level of remembering. It is categorized into lower-level questions. Strategies that facilitate learning at lower levels include: orally rehearsing a fact repeatedly, writing and rewriting the information, and also reading and rereading material to be remembered. They do not ensure the memory of the information over a longer period. If the goal of education is to use those facts to solve problems and make decisions, then students are best served when they are asked questions that require them to complete more complex, higher-order critical thinking, using higher-order questions. Higher-order questions are those that ask how or why something happens the person providing the answer must engage in critical thinking and use facts and details in the process of answering the question. Higher-order questions demand students to focus on important information and use it to draw conclusions and make comparisons, for instance

- How did Indonesia's movement for independence from the Dutch impact people in Malaysia?
- Why does water near bridges and in the cities freeze later in the winter than water in lakes located in rural areas?
- The Mahakam River impacts many regions in East Kalimantan. How is its impact different for those regions near the village and those in the city?

## **c. Bloom Taxonomy**

According to Wilson (2001), the original cognitive domain of taxonomy was published in 1956 created by Benjamin Bloom as the first author and David Krathwohl as the second author. The Affective domain was not categorized until 1964 and David Krathwohl was the lead author on this endeavour. Moreover, in 2001

crucial revisions were published which became known as Bloom's Taxonomy by Anderson and Krathwohl. Actually, Lorin Anderson was once a student of Benjamin Bloom, and David Krathwohl was one of Bloom's partners as he devised his classic cognitive taxonomy.

This research focuses on applying Bloom's taxonomy revision which has six stages, that is: remembering, understanding, applying, analyzing, evaluating, and creating. The following table is adapted from Anderson and Krathwohl (2001) which shows the cognitive process dimension consisting of categories and cognitive processes, alternative names, and definitions.

**Table 1. The Cognitive Process Dimension**

<b>Categories and Cognitive Process</b>	<b>Alternatives Names</b>	<b>Definition and Examples</b>
1. Remember: Retrieve relevant knowledge from long-term memory		
1.1 Recognizing	Identifying	Locating knowledge in long-term memory that is consistent with the present.
1.2 Recalling	Retrieving	Retrieving relevant knowledge from the long term.
2. Understand: Construct meaning from instructional messages including oral, written, and graphic communication		
2.1 Interpreting	Classifying Paraphrasing Representing Translating	Changing from one form of representation
2.2 Exemplifying	Illustrating Instantiating	Finding a specific example of an illustration of a concept or principle
2.3 Classifying	Categorizing Subsuming	Determining that something belongs to a category
2.4 Summarizing	Abstracting Generalizing	Abstracting a general theme or major point(s)
2.5 Inferring	Concluding Extrapolating Interpolating Predicting	Drawing a logical conclusion from the presented information
2.6 Comparing	Contrasting Mapping Matching	Detecting correspondences between two ideas, objects, and the like
2.7 Explaining	Constructing Models	Constructing a cause-and-effect model of a system
3. Apply: Carry out or use a procedure in a given situation		
3.1 Executing	Carrying out	Applying a procedure to a familiar task
3.2 Implementing	Using	Applying a procedure to an unfamiliar task
4. Analyze: Break material into its constituent parts and determine how the part relate to one another		
4.1 Differentiating	Discriminating Distinguishing Focusing Selecting	Distinguishing relevant from irrelevant or important from unimportant parts of presented materials
4.2 Organizing	Finding Coherence	Determining how elements fit or function within a structure

	Integrating Outlining Parsing Structuring	
4.3 Attributing	Deconstructing	Determining a point of view, bias, values, or intent underlying presented material
5. Evaluate: Make judgment based on criteria and standards		
5.1 Checking	Coordinating Detecting Monitoring Testing	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented.
5.2 Critiquing	Judging	Detecting inconsistencies between a product and external criteria, determining whether a product has external consistency; detecting the appropriateness of a procedure for a given problem.
6. Create: Put elements together to form a coherent or functional whole; recognize elements into a new pattern or structure		
6.1 Generating	Hypothesizing	Coming up with an alternative hypothesis based on criteria.
6.2 Planning	Designing	Devising a procedure for accomplishing some tasks.
6.3 Producing	Constructing	Inventing a product.

Source: Anderson and Krathwohl (2001)

#### **d. Culture**

There are some definitions of culture to give insight into what culture is. Culture constitutes human products during their life including what they think (knowledge, ideas, values), feel (beliefs, interests), and act (attitude, behavior, arts, tradition) which are inherited by the next generation in their community (Harris, 1975; Critical Thinking Consortium, 2011). Culture is also defined as a set of traits or human characteristics that are shared and transmitted by non-genetic means (Mulder, Nunn, Towner, 2006). The other idea is that culture has been developed by the human race and is successively learned by each generation containing the whole complex of traditional behavior (Brumann, 1999)). Carley (1991) considers culture as the distribution of information (ideas, beliefs, concepts, symbols, technical knowledge, etc.) across the population and proposes a model for knowledge transfer based on interactions. In this research, the topic of discussion to be discussed is around ethnic cultures in Kalimantan including arts, traditional ceremonies, culinary, values and beliefs, and human traits or characteristics. The output of the discussion activities is composed of the cultures in Kalimantan.

#### **e. Culturally-Integrated Material**

It is necessary to clarify Culturally-Integrated Material which becomes the focus of this research. Cultural integration is a complex process that requires patience, understanding, and respect for the diversity of merging different cultural backgrounds and practices into a cohesive whole. In addition, successful cultural integration requires all parties involved and it begins with a willingness to learn and appreciate different cultural perspectives (Knowledge and Science Bulletin Board System. <https://www.knbbs.com/understanding-cultural-integration-what-does-it-mean/>). It means there are

materials based on culture merging different cultural backgrounds to appreciate cultural diversity. So, students' cultures and their regional local cultures might be the materials presented in culturally-integrated material.

Sharer (2023) explains the concept of cultural integration as the process of combining different cultures, ideologies, and values into a unified whole that occurs through the sharing of customs, beliefs, and practices among different cultures. It involves the mixing of different cultures and the preservation of individual cultural identities. It means the materials include a cultural combination of ideologies, values, customs, beliefs, and practices among different cultures into a unified whole to be shared to preserve cultural identities.

As Xiao (2010) mentions using English as an international language enables speakers to share their ideas and culture with people coming from a variety of linguistic and cultural backgrounds. It appoints that English as a medium for communication might be used for teachers/lecturers and students to discuss a variety of cultures as parts of their background. Language has the function of preserving cultures by sharing ideas as well as getting linguistic competence.

Three categories of culture presented in the textbook and materials based on Cortazzi and Jin (1999) are:

1. Source culture materials refer to the textbooks which present language learners' own culture. The main purpose is to enable learners to talk about their own culture to foreign visitors to their country rather than be prepared to encounter other cultures.
2. Target culture materials focus on one or two target cultures, such as the United Kingdom and the United States. It is the most popular instruction material in the EFL context.
3. International target culture materials involve textbooks that include a wide variety of cultures set in English-speaking countries or in countries where English is not a first or second language; but is used as an international language.

#### **f. The Model of Teaching**

The model of teaching is a kind of framework that describes the meaning, the characteristics, and the examples of teaching models to enable us to design and use the appropriate model based on our teaching goals. Wilson (2024) states that a model of teaching deals with the learning environment and instructional experience that can be constructed, sequenced, or delivered that provides educational components: curricula, teaching techniques, instructional groupings, classroom management plans, content development, sequencing, delivery, the development of support materials, presentation methods, etc. In addition, Bisht (2022) mentions a teaching model as a plan to design instructional material and to guide the instructions in the classroom that has the aim to make instructions effective in an interactive atmosphere to improve the curriculum. A model of teaching consists of guidelines for designing educational activities and environments that can also be utilized to shape courses of studies, instructional material, and guide instruction (Passi & Singh, 1991 in Bisht, 2022). In conclusion, the model of teaching is a plan to design instructional material, guide instruction, and educational activities dealing with a learning environment that provides teaching technique, content/material development, classroom management plan, and presentation method to make an effective and interactive atmosphere to improve the curriculum.

### 3. The Method

This study applied both qualitative and quantitative methods. According to Ary, Jacobs, Christ, and Razavieh (2002), mixed methods research combines quantitative and qualitative research methods in different ways, with each approach adding something to the understanding of the phenomenon. The goal of mixed methods research is to combine both approaches in creative ways that utilize the strengths of each within a single study.

In this research, the qualitative method was utilized to create the model of teaching writing by framing culturally-integrated material, critical thinking, and writing skills at tertiary-level students; and also described the implementation process to give general picture for educators on how the new model was applied.

Since the focus of the study was on developing the teaching writing model by framing culturally-integrated material, critical thinking, and writing skills, this research created the design containing the activities of writing assignments by using culturally-integrated material in reference to critical thinking skills on students' writing ability. Before the students were asked to write, they were given questions ranging from low-level to high-level thinking order about local culture.

To observe the effect of teaching the writing model using culturally-integrated material in reference to critical thinking skills on students' writing ability, an experimental study was carried out. Before treatment, this experimental group was employed a test of writing which were called pre-test. After treatment was conducted, the group would be tested again with the same test which was called post-test. The results of both tests were analyzed to see the effect of utilizing the model of teaching writing using culturally-integrated material in reference to critical thinking skills on students' writing ability. For this purpose, this research applied a dependent t-test. The calculation was supported by utilizing the SPSS 23 tool. Paired sample t-tests were used to test whether means of the same or similar group were different from each other under separate conditions (before and after intervention).

### 4. Findings and Discussion

The product of this research is the model of teaching writing which is completed by the course book. This model is designed based on the framework of definition and characteristics of the teaching model incorporating model examples, such as cooperative learning and critical thinking as proposed by Joyce, Weil, and Calhoun (2014) in *Models of Teaching*. A model of teaching consists of guidelines for designing educational activities and environments that can also be utilized to shape courses of studies, instructional material, and guide instruction (Passi & Singh, 1991 in Bisht, 2022). The model created consists of the blueprint of culturally-integrated material, critical thinking, and writing skills; RPS (rencana pembelajaran semester); lesson plan; and the model of scoring rubric. The following link is utilized to see the model using culturally-integrated material, critical thinking, and writing skills; and the course book (<https://drive.google.com/drive/folders/1VsLUC4uuBUyJPzdLdSFIWwIFj0x2Qc4f?usp=sharing>).

In this research, there are eight meetings for implementing the model of the teaching of English writing implemented using culturally-integrated material in reference to critical thinking skills. The first, second, and the third meeting are focused on building writing skills and critical thinking skills. The fourth meeting is the mixture on building writing skills and culturally-integrated material in reference to critical thinking skills, and the fifth until the eight meetings are focused on implementing the model of the teaching of English writing implemented using culturally-integrated material in reference to critical thinking skills.

The description of students' improvement in writing and critical thinking skills during six meetings proves that how successful the implementation of the model of teaching writing using the culturally-integrated material in reference to critical thinking skills on students' writing ability. The procedures of the implementation consist of five (5) steps: making groups of students that consists of five students in one group, finding information on particular topics about culture, answering critical thinking questions while discussing within small groups, presenting the answers to the whole class, and doing writing assignment

related to the topic discussed. As a result of the implementation of the model of teaching writing using the culturally-integrated material in reference to critical thinking skills on students' writing ability shows that students improve both their writing and critical thinking skills during the process of implementation.

**Table 2. The students' scores improvement during six meetings**

The description of the teaching of English writing implemented using culturally-integrated material in reference to critical thinking skills does not only present the procedures and activities during implementation but also students' writing improvement for writing and critical thinking aspects which includes: content, organization, unity & coherence, mechanical aspects, style and grammar, opinion & facts aspects, explanation, argument, and reason; logical initiation, evaluation, and creation; conclusion, suggestion, and prediction.

Meeting	content	organization	unity and coherence	mechanical aspects	style and grammar	Opinion and fact	Explanation argument and reason	Logical initiation evaluation and creation	Conclusion suggestion prediction
1	6.67	5.83	5.58	5.92	5.92	6.83	4.75	5.75	6.25
2	6.83	6.33	6.08	6.58	6.92	7.25	5.75	6.17	6.58
3	7.33	6.92	6.42	6.83	7.17	7.50	6.17	6.67	7.00
4	7.92	7.50	7.42	7.17	7.42	8.00	6.92	7.33	7.25
5	9.25	8.42	8.58	8.58	7.92	9.25	7.67	8.58	8.42
6	9.50	9.08	9.17	8.67	8.00	9.42	7.83	8.92	8.92

suggestion, and prediction.

Based on the scoring rubric applied for assessing writing results, the level of achievement consists of the levels of exemplary: 10, quality: 8, adequate: 6, need improvement: 4, and poor work: 2. The students got improvement from adequate level to quality level for all aspects during the implementation. It means the new model of teaching writing implemented using cultural-integrated material in reference to critical thinking skills is successful to improve students' writing and critical thinking skills.

Furthermore, the pre-test and the post-test scores are then analyzed by using dependent T-test with paired sample test. The computation is undertaken by using SPSS 23 tool. The result of T-test shows that the value of significance (2-tailed probability) is 0.0001 (P value), meaning that the value is lower than 5% (0.05) level of error significance. While the value of test statistic is 11.76 that is higher than t-table with df = 56 (11.76 > +/- 2.000). It means that there is a significance difference between the pre-test and the post-test or students writing ability before and after using culturally-integrated material in reference to critical thinking skills. In other word it is said that there is an effect of teaching writing model by using culturally-integrated material in reference to critical thinking skills on students' writing ability.

**Table 3. Paired samples t-test Results and Differences Analyzed Using SPSS Tool 23**

Mean difference	15.0526
Standard deviation of differences	9.6666
Standard error of mean difference	1.2804
95% CI of difference	12.4877 to 17.6175
Test statistic t	11.756
Degrees of Freedom (DF)	56
Two-tailed probability	P < 0.0001

#### Differences

D'Agostino-Pearson test for Normal distribution of differences	accept Normality (P=0.1924)
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Since the results of the implementation of the model of teaching writing using culturally-integrated material in reference to critical thinking skills show positive effect on students' writing ability, it is suggested for the lecturers of Intensive Writing Course to apply this model for further teaching. The impact of the model could improve writing, critical thinking skills, and students' perspective on multicultural. The students get experience how to engage to material, searching of local culture, small discussion, critical thinking questions, whole class discussion, and writing assignment. Moreover, this research contributes to developing knowledge on designing the model of teaching writing by framing culturally-integrated material, critical thinking, and writing skills of tertiary-level students. It also contributes to inclusive education by introducing local culture to students regardless of people's differences and discrimination.

The new model of teaching writing offers the new materials and activities to improve not only students' writing ability but also their critical thinking skills. It is in line with Lucia, Sofia, and del Pilar's argument in 2017 that developing critical thinking which is inherent in education during teaching practices is a must since societies need citizens who facilitate their progress. It is also supported by the American Association of Colleges and Universities that critical thinking is important in education and aims to prepare students for college, the workforce, and responsible citizens. Furthermore, the research of Critical Thinking Skill in Education titled A Systematic Literature Review done by Nor and Sihes showed an increase in the number of works on critical thinking in teaching which indicates a growing awareness of its importance and specific requirements in 21st-century learning education.

Observing the phenomenon in classroom situation, an environment where the students engage in study together must be created to develop multiculturally perspective skills to attain inclusive education. To attain the goal of having students' perspective in inclusive education, it is necessary to design a model that builds multicultural perspective and critical thinking as well. This model has impact on inclusive education since the students think that they become tolerance to others when learning other cultures. It is strengthened by Xiao (2010) who mentions that using English as an international language enables speakers to share their ideas and culture with people coming from a variety of linguistic and cultural backgrounds. In doing so, the students are able to understand and aware of cultural differences.

## 5. Synopsis of the Main Research Outcomes

This is a research and development (R & D) study that focuses on developing a model of teaching writing by framing culturally-integrated material, critical thinking, and writing skills of tertiary-level students. The products or the outputs of this research are a model of teaching writing and a course book. The following link is utilized to see the model using culturally- integrated material, critical thinking, and writing skills; and the course book: (<https://drive.google.com/drive/folders/1VsLUC4uuBUyJPzdLdSFIWwIFj0x2Qc4f?usp=sharing>). The model consists of the blueprint of culturally-integrated material, critical thinking, and writing skills; *RPS (rencana pembelajaran semester)*; lesson plan; and the model of scoring rubric. In addition, the course book consists of course identity, course overview, course objectives, and coursebook outline. There are 14 chapters in the coursebook outline containing materials for teaching writing and local cultural content of East Borneo.

## 6. Conclusions

The description of students' improvement in writing and critical thinking skills during six meetings proves that how successful the implementation of the model of teaching writing using the culturally-integrated material in reference to critical thinking skills on students' writing ability. There is an improvement from adequate level to quality level for all aspects of writing and critical thinking skills. The procedures of the implementation consist of five (five) steps: making groups of students that consists of 5 students in one group, finding information on particular topics about culture, answering critical thinking questions while discussing within small groups, presenting the answers to the whole class, and doing writing assignment related to the topic discussed.

Moreover, conducting experimental research design which uses only one group of experiment, the result of T-test using SPSS 23 tool shows that there is an effect of teaching writing model by using culturally-integrated material in reference to critical thinking skills on students' writing ability.

The readers that might be students, instructors, and educators are suggested to utilize the products of this research and consider the effect of using it in establishing students' writing ability, critical thinking skills, and inclusive education. For students, they are suggested to build not only their writing competence but also critical thinking and multicultural perspective which are reflected in their communication. These kinds of skills are essential for them in creating their thesis and presenting their arguments. Moreover, they become good and qualified citizen and professional workers. Instructors who can be teachers and lecturers are suggested to implement the model of teaching writing by applying the culturally integrated material in reference to critical thinking skills to teach their classes since the model has a positive effect on students' writing ability.

## **7. Limitations, Implications, and Further Directions of Research**

It is demanded in education to produce qualified graduates who have critical thinking and communicative competence to change professional circumstances for academic purposes and engage in society and the labor market. Critical thinking and communicative competence are challenging in education nowadays. It is important to produce the teaching writing model and a course book incorporating critical thinking activities to achieve communicative competence reflected in writing results. The readers that might be students, instructors, and educators are suggested to utilize the products of this research and consider the effect of using it in establishing students' writing ability, critical thinking skills, and inclusive education.

For students, they are suggested to build not only their writing competence but also critical thinking and multicultural perspective which are reflected in their communication. These kinds of skills are important for them in creating their thesis and presenting their arguments. Moreover, they become good and qualified citizen and professional workers. Students should be active and have good attitude to participate in engaging learning activities of teaching writing using the culturally-integrated material in reference to critical thinking skills.

For instructors that can be teachers and lecturers, they are suggested to implement the model of teaching writing by applying the culturally-integrated material in reference to critical thinking skills to teach their classes since the model give positive effect on students' writing ability. They can also measure their students' writing ability and critical thinking by using the scoring rubric which is created in this research. And for educators, they are suggested to design innovative curriculum to incorporate critical thinking and local culture materials as a substance in curriculum of any kinds of subjects. They delegate regulation to establish students' critical thinking and inclusive education as soft skills that are needed to be built. By having critical thinking skills, students are able to filter all information they got and think as critical thinkers. Furthermore, by having multicultural perspective, students are able to have tolerance and regardless discrimination and differences.

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