

## ANALYSIS OF STUDENTS' 4C SKILLS BASED ON THE PEDAGOGY MULTILITERACIES MODEL

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This research aims to analyze the students' 4C skills based on the Pedagogy Multiliteracies model implemented by the teachers in the classroom. The teachers are not familiar yet with the pedagogy multiliteracies model by Cope and Kalantzis which has four syntaxes of teaching; Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice. The researchers need to reveal how the teachers' teaching process is based on the model then relate them to the students' 4C skills. The subjects of the research are the teachers of English, Mathematics, and Bahasa Indonesia from two Senior High Schools in Sidoarjo. There are six teachers; three from the state and another from the private school. They belong to the best schools in the city. Observation, interviews, and questionnaires are used to collect the research data. The research shows that the student's critical thinking, creativity, and communication skills were on the low level since the teachers did not implement the teaching-learning process as the concept of the multiliteracies model yet. The collaboration skills were good enough since the teachers often design group works to complete the tasks. The teachers should try to teach using the multiliteracies pedagogy framework to enhance the students' 4C skills in this century.

Keywords: *4C Skills, Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice*

### 1. Introduction

Literacy instruction and learning in classrooms are evolving. Literacy curriculum and pedagogy must be implemented to allow for the successful growth and development of students' multiliteracies skills as technology allows for the exponential accessibility and production of multimodal texts. The term "multiliteracies" was coined by the New London Group (Mills, 2006; Kalantzis & Cope, 2008) to explicitly define how meaning-making in different cultural, social, or domain-specific contexts is made through different textual modes, including written-linguistic modes; oral, visual, audio, gestural, tactile, and spatial. As a result, multiliteracies describe the abilities and skills of those who interact with and make sense of multimodal texts within and across contexts.

According to the National Education Association (2010), what was considered a good education many years ago is no longer sufficient for success in college, career, and citizenship in the twenty-first century. Previously, mastering the "Three Rs" was sufficient (reading, writing, and arithmetic). However, in today's world, the "Three Rs" are simply insufficient. To compete in today's global society, students must be skilled communicators, creators, critical thinkers, and collaborators (4Cs). To prepare young people for citizenship and the global workforce, educators must supplement all of those subjects with the 4Cs.

Erdogan (2019) suggested that to provide the students with 4C skills for the future, these skills must be integrated into classrooms, schools, and districts across the country to produce citizens and employees who are adequately prepared for the twenty-first century. Communication and collaboration skills enable students to interact competently and respectfully with others in our global and digital era, particularly across cultural, diverse, and multinational workplaces and communities. Because many of the fastest-growing jobs and emerging industries rely on workers' creative capacity, students with



creative thinking skills can think unconventionally, question the herd, imagine new scenarios, and produce incredible work. Students' critical thinking and problem-solving abilities enable them to evaluate the information that bombards them every day - on the Web, in the media, in their homes, workplaces, and so on. It enables our students to assess the accuracy and value of information, analyze and evaluate information, make informed decisions, and take action with purpose. Businesses expect employees at all levels to identify problems, consider solutions and alternatives, and consider new options if their current approaches fail.

The teachers' way of teaching influences the students' skills in critical thinking, creativity, communication, and collaboration. As a result, innovations in various educational methods and models are required. In this case, a learning model that can accommodate these 4C abilities, pedagogy literacies based learning, must be developed. Learning with pedagogy multiliteracies models will significantly improve 21<sup>st</sup>-century skills.

The teachers, however, get difficulties in designing an instructional to enhance the students' 4C skills. Masters (2012) stated that teachers face challenges in their teaching practice in the twenty-first century, such as: improving teaching quality, creating lesson plans, creating exercises based on learning objectives, personalization, classroom management, material discussion, and mastery learning technologies. In other words, 4C skills are a development challenge for teachers in 21<sup>st</sup>-century education.

Based on the need for skills in the globalization era, the New London Group proposed multiliteracy, and the multiliteracies pedagogy they proposed aims at guiding students learn to fetch information from various types of models, as well as how to construct meaning and communicate through multimodality. Cope and Kalantzis (2000) have developed a pedagogical framework to help teachers deliver multiliteracies pedagogy effectively. This framework was originally known as the Multiliteracies Model, and it included four phases of the learning cycle. They were Situated Practice, was based on the world of learners' designed and designing experiences, Overt Instruction through which students shape for themselves an explicit metalanguage of design, Critical Framing, which relates meanings to their social contexts and purposes, and Transformed Practice in which students transfer and re-create designs of meaning (Kalantzis & Cope, 2000).

According to Navehebrahim (2011), in line with the New London Group's proposal, teachers in today's modern times are facilitators in the teaching and learning process, where they are the designers of the social futures for learners. To respond to these changes in work, public, and personal lives, New London Group researchers propose that literacy pedagogy incorporate new conceptions of design and meaning-making. The multiliteracies model will ensure that students' learning is meaningful and relevant to their interests and worldviews. Students' ability to shape their futures improves as they become multiliterate, constructing meaning while simultaneously drawing on experiential, contextual, and disciplinary knowledge they have developed about the world. Teaching that is thoughtful, responsive, and future-oriented is a critical link in this process.

The teachers need to improve their teaching and learning process in the class using the multiliteracies pedagogy framework. Nawawi and Christanti (2020) have promoted the new way of designing lesson plans using the multiliteracies model. From the new design of the lesson plans, the teachers will conduct the teaching and learning based on the syntax of the model. The teachers in Sidoarjo, however, did not know about the model yet. They have ever heard about multiliteracies theory which promotes the use of multiple literacy methods to learn and communicate, including linguistic, visual, audio, gestural, spatial, and multimodal methods. They don't just read letters when they read; they understand how they are arranged to convey meaning.

The teachers never designed the lesson plan using the multiliteracies model. They, however, have done some parts of the syntax unconsciously. The writers have researched the teachers' implementation of the multiliteracies model in the classroom. The result showed that only one of the six teachers implemented the situated practice, all of them have done the overt instruction, and none of them did the syntax of critical framing and transformed practice. In this study, therefore, the writers need to reveal



how the 4C skills of the students concerning their teaching practice in the class are based on the multiliteracies pedagogy model theory.

**2. Method**

This is descriptive qualitative research identified the students' 4C skills with the implementation of the Multiliteracies model by the teachers in the class. The subjects of the research were six teachers from two senior high schools in Sidoarjo. School A was a state school and school B is a private one. There were one Mathematics, English, and Bahasa Indonesia teacher from each school. The data was collected by observation, interviews, and questionnaires. The researchers observed the teaching-learning process and shared the questionnaire with 15 students of a class of grade XI from school A and 22 students in the same grade from school B. The data were presented descriptively supported with descriptive statistics using percentages, figures, and tables.

**3. Result and Discussion**

**3.1 The students' 4C skills**

The researchers have administered a test to measure the students' critical thinking skills. There were questions on Mathematics, English, and Bahasa Indonesia. The questions need higher-order thinking skills to answer. They had to answer the questions based on the text. There are seven questions; 2 questions on Math, 2 questions on English, and 3 questions on Bahasa Indonesia. They had 20 minutes to complete the test.

The questions consisted of analyzing (C-4) and evaluating (C-5) cognitive levels. The first question of Math was predicting the result of the tournament (C-5) and the second one was estimating something (C-4) based on the text. For English, there were two questions with two texts; one about biography and the other was a narrative text. The first question was reflecting a story (C-5) and the other was categorizing aspects from the text (C-4). The Bahasa Indonesia had three questions from three texts; a tale, an exposition, and a poem. The first question was correlating the content of the two tales, the second was detecting the differences between two exposition texts (C-5), and the last was illustrating the content of a poem (C-4).

The students from school A got an average of 10 on Math, 26,67 on English, and 35,56 on Bahasa Indonesia. While they were from school B got 27,27 on Math, 59,09 on English, and 46,97 on Bahasa Indonesia. The average results from both schools were 18,64 on Math, 42,88 in English, and 41,27 on Bahasa Indonesia. It could be concluded that the critical thinking of the students was just 34,26 and it belonged to a low level. The result of the critical thinking test of both schools was presented in the figure below:

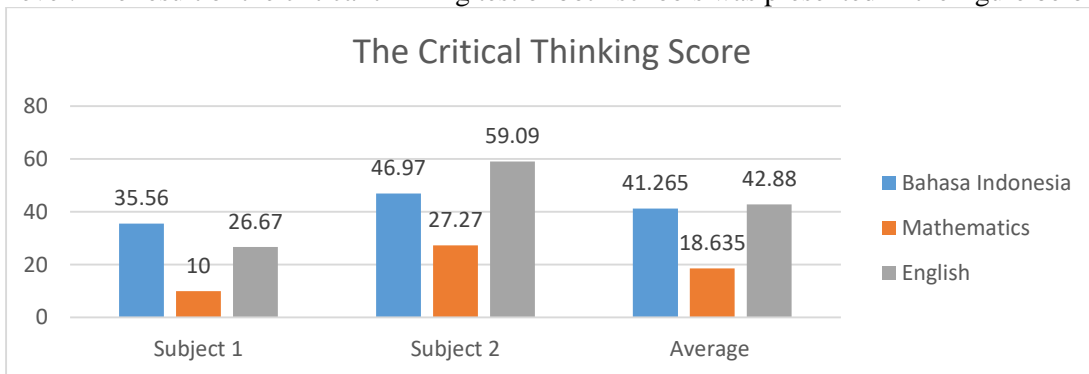


Figure 2: The average result of the critical thinking test

The creativity skill was measured by drawing something. The students had to create something which had a selling point from a little circle in the center of a paper. There are two criteria to assess the result; originality and elaboration. The indicators of originality were (1) it is an original idea, (2) it is different from the existing product, and (3) it has a selling point or is valuable for trading. The second



criterion was elaboration which means the ability to develop in detail the completion of the product in the drawing. The students got a score of 3 for drawing something in detail, got 2 for giving a little modification, and got 1 for no modification at all. The result of assessing the student's creativity in subject 1 showed that there were five students from 15 of them, 33%, got a good result while the others were on the medium to a low level. The scoring average was 67,78. The result in subject 2 was six students from 22 of them, 27%, getting a good score or in good creativity, while the others were not yet. The scoring average was 64,39%. The score of creativity skills from both schools was 66,09. The score of creativity skills was presented in the figure below:

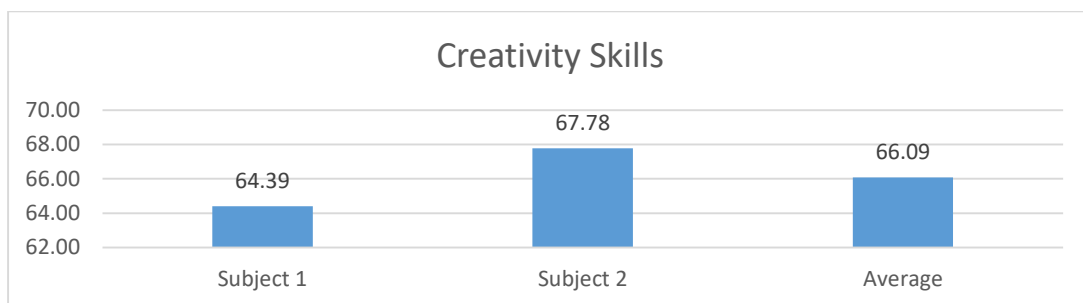


Figure 3: The result of the creativity test

The data of the student's communication skills, then, was taken from the observation and questionnaire. The researchers asked the students to present their results of drawing as if they were promoting a product. The other students, then, delivered questions or comments about the product. There was one student in each school who is willing to present with self-initiative. Most of the students from both schools needed to be ordered to speak. They did not have the initiatives to start speaking. Most of them could do a presentation, however, most of them did not do it fluently. One student from school A and two students from school B did it well. The researchers, then, delivered a questionnaire to identify the students' self-assessment on the communication skills. Seven questions were asked about their communication activities in the teaching-learning process. The data of the questionnaire from both schools could be shown in the table below:

The Statements	Always	Often	Seldom	Never
1. I have ever delivered a question initiatively in the class.	7,30%	19,50%	51,20%	22%
2. I ask a question to the teacher when he/she gives a chance.	4,90%	17,00%	53,70%	24,40%
3. I give respond actively to the teacher's question.	34,10%	26,80%	39,10%	0%
4. I give comments to my friend's opinion or question.	2,40%	14,60%	48,80%	34,20%
5. I ask the teacher when I get difficulties in understanding the lesson.	4,90%	34,10%	41,50%	19,50%
6. I share my opinion in a group discussion	20%	50%	27,50%	2,50%
7. I could do a presentation fluently and clearly.	31,70%	56,10%	12,20%	0%
The average	15,04%	31,16%	39,14%	14,66%

Table 1: The data of communication skills questionnaire

15,04% of students always communicate with their teachers or friends actively and 31,16% of them often do it. It meant that there was 46,20% of the students had good communication skills while the others needed the motivation to do it. The students who were seldom or never asking a question or giving a comment in the class were about 53,80%. It showed that they need a lot of stimuli to speak up



initiatively in the class. The data from statement 7 showed that there were 87,80% of students be able to do a presentation fluently and clearly. They did it well when they have enough time to practice before presenting in the class. They, however, could not perform the presentation fluently in limited time or directly without any practice.

The last skill was a collaboration one. The researchers observed the collaboration skills when they were learning in the class and delivered a questionnaire to get the data about the students' self-assessment on collaboration skills. The teachers gave opportunities to the students to collaborate in the class by grouping. They had to complete the tasks in a group. They had to manage their group themselves, even, out of school. There were students, however, not participating actively in a discussion. They did nothing in a discussion. They existed in a group without contributing anything. The researchers found 2 students in school A and 3 students in school B were more dominant than the others. They argued with their friends with angry manners to decide something about the task. The collaboration skills of the students were supported with the questionnaire data about their self-assessment. The students must answer the five statements with always, often, seldom, or never. The data was presented in the table below:

The Statements	Always	Often	Seldom	Never
I give my opinion in a discussion	39%	41,50%	18,50%	1%
I complete the task given by my group.	85%	12,50%	2,50%	0%
I like arguing in a group emotionally	0,00%	0,00%	10%	90%
I accept the group's decision and do it anyway.	78%	17,10%	4,90%	0%
I don't like anyone who has a different idea from me	0%	4,90%	17,10%	78%

Table 2: The data of collaboration skills from the questionnaire

There were 39% of students always giving an opinion in a discussion with their groups, and 41,50% of them often did it. They were about 97,5% of them willing to do the task given by the group while 95,10% of them accepted the decision of the group. The data showed that the students had a positive attitude in their groups. It was supported by the statement that 90% of the students never argued emotionally in the groups and 78% of them were alright having a different opinion with their group mates.

### 3.2 The Implementation of the Multiliteracies Model in the Teaching-Learning Process

The teachers did not understand the Multiliteracies model yet. One of them has ever known about the model, however, he did not understand the concept. The others understood the word "Multiliteracies" as the activities that were not only reading and writing a book traditionally but also involving other literacies, like finance, digital, and technology literacies. They did not know the Multiliteracies model that has four teaching syntaxes; Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice.

First, teachers should promote student interaction, discussion, and idea-sharing in the classroom by using situated practice. This is yet another example of how literacy is a social practice in which students can develop their knowledge by relating to and connecting to prior knowledge with others. While students need to share ideas in the classroom through discussions, in the twenty-first century and beyond, teachers should also be using, creating, and encouraging the use of situated practice outside of the classroom through the use of technological tools. Students can use a variety of online collaboration tools to continue communicating with communities of practice through online discussions. The English teacher from school A did the situated practice by discussing the topic in the opening session. He played

a video and related it to the students' prior knowledge and real-life in a discussion. The other teachers, however, opened the teaching-learning process by greeting, praying, checking the attendance list, and delivering the learning objectives.

While students should engage in the situated practice, they also require explicit instruction, especially when learning, understanding, and creating meaning in a variety of modes. Overt instruction assists learners in focusing on important features and gaining experiences that allow them to comprehend systematic, analytic, and cognizant explanations of various modes of meaning. The teachers have unintentionally done the overt instruction syntax in the teaching activities. They developed the teaching-learning activities with the models like the problem based-learning, discovery learning, and contextual teaching and learning. The teachers trained the students' collaboration skills by grouping them in completing the task. They stated that almost in every meeting they divided the students into groups to discuss the topic.

The next phase is critical framing. It requires students to take a step back from what they are studying and viewing it in context. Students must understand how the social/cultural context influences the selection of specific text, graphics, or sound from available designs, as well as how these factors influence comprehension in design. They must consider who created this design, as well as what and why they were attempting to accomplish it. The teachers, however, have not done the critical framing concept. They focused the activities on the students' comprehending of the content, not relating it to the real-life context.

The last syntax is the transformed practice where 21<sup>st</sup>-century educators can see students take their knowledge from situated practice, overt instruction, and critical framing and transform it through the design and creation of something new based on the meaning they have understood, created, and want to convey to an audience. It entails students applying the 'transformed meaning' in different contexts and, in the process, adding something of themselves. Transformative practice is arguably the most difficult and crucial aspect of multiliteracies practice. It demonstrates students' comprehension of texts and what they meant to them. One of the most important skills students will need to be successful outside of school is the ability to create multimodal texts. The teachers have not implemented the phase in the teaching-learning activities.

Nawawi, et.al (2022) has identified the teachers' activities based on the Multiliteracies model in the previous research and the result could be presented in the figure below:

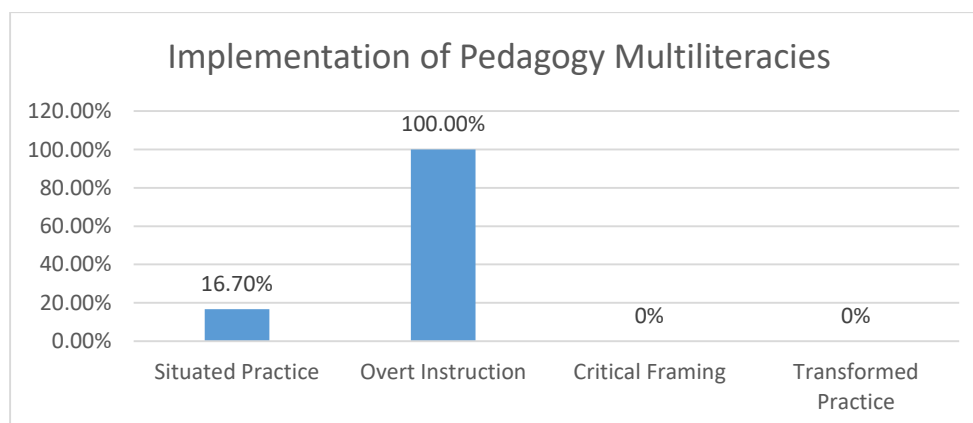


Figure 4: The analysis of teachers' activities based on the Multiliteracies Model

One teacher (16,7%) did teaching activities that implied the situated practice. All of them (100%) have done the situated practice, even at a different level. Two teachers implemented it as the indicators

of the situated practice completely while others did some of them. No one of them (0%) designed the activities on the critical framing and transformed practice.

#### 4. Conclusion

The students' 4C skills were in line with the implementation of the Multiliteracies model in the teaching-learning activities in the classroom. The low result of the critical thinking test reflected the lack of critical activities in the class. The teachers did not scaffold the students with the critical tasks and tests as the concept of the critical framing. The creativity of students was relatively low and it could be improved by the activities related to critical framing and the transformed practice. The teachers should create the tasks that are needed for critical thinking and creativity as the concept of the Multiliteracies model. The students' communication skills needed to enhance with the activities of discussing the relation of materials with real-life and promoting something they created. The teachers should design the activities as the concept in the critical framing and transformed practice syntaxes. The collaboration skills were good enough since the teachers have designed group work almost in every meeting. The students often collaborated in completing the task in the overt instruction syntax. The teachers asked them to do the exercise or make a presentation in a group. The researchers suggested that the teachers should implement the concept of Multiliteracies pedagogy in the teaching-learning activities. They could practice any teaching model, however, the concept of multiliteracies pedagogy was included.

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