



STRATEGIES FOR DEVELOPING CREATIVITY, CRITICAL, COMMUNICATION AND COLLABORATION: A COMPARATIVE TEACHING USING EXPLICIT AND METACOGNITIVE STRATEGIES

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Abstract:

The aim of this study was to identify the ability of students to use explicit and metacognitive strategies. A descriptive analysis was utilized on the instruments namely letter writing, comic strip and dramatization. Results showed that the ability of students using the explicit strategy of acquired ability in critical thinking and communication was Fairly Good (FG), and Good (G) acquired ability in creativity and collaboration. In the metacognitive strategy, the ability of students in critical thinking, creative thinking and communication skills was Fairly Good (FG), and Good (G) acquired collaborative ability. There was no significant difference between explicit and metacognitive strategies in developing the ability of students in Grades 6 to 4 C's. The researcher suggested that there will be another study similar to this in which many students will participate.

Keywords: explicit, metacognitive, 4C's, creative thinking, critical thinking

1. Introduction

Every shaper aspires to produce productive and intelligent students. Sometimes, the teacher feels apprehensive about the ability of the students especially when the tasks require a high level of thinking. Hence, developing these basic skills contributes a lot to the attainment of quality education. Education is one of the very important factors towards the development of an individual because it affects the future or the future consequences of each individual.

A successful individual is a creative, critical thinker, collaborative, and a good communicator (Sternberg, 2007). A student who has the analytical-intellectual ability can

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investigate the challenging problems of the world and can be considered a good investment and bridge to produce a 21st-century type of student. Riedel (2009) believes that having a 21st-century type of student should be the focus. The government's goal is to have a quality education, but it is hard to attain because of the factors that affect learning. However, the researchers believed that this study will serve as a bridge in response to the government's intentions.

21st-century explicit strategy is a strategy that is related to effective teaching. According to Leblanc (2016), this strategy is an educational intervention that many believe to be an effective way for students learning especially in reading, writing and mathematical-related works. At present, it has been introduced to the management of the Department of Education that it will be used by the teachers in teaching.

Although this strategy was introduced and teachers were advised to use it in teaching, the researchers were still encouraged to evaluate other strategies (metacognitive) because, after a few months of teaching using this strategy, the researchers had not seen a change in the ability of the students. Metacognitive strategy, according to Lu and Chen (2010), is an appropriate method and process in the mental development of students used in controlling their cognition. Writing activity is one of the metacognitive strategy activities that is considered an effective way of recognizing students' writing abilities.

According to Kapur (2019), a large number of students drop out of school due to poverty and lack of interest. Their education is no longer continued, as they will not be able to perform well in class and will only get low marks due to their discomforts. As a teacher who cares about the future of his/her students, s/he will not allow his/her students to lose their desire to learn and make their lives meaningless. To address this, Kapur (2019) developed this study as an intervention to help the problems of teachers in the present. According to Cusack, Del Mar, Chalmers, Gibson, and Hoffmann (2018), regardless of the strategy used, if the subject's skill is inconsistent with the children's ability, the strategy still becomes ineffective. Thus, the teacher should not stop fulfilling his/her role as a shaper of the knowledge of each individual.

Researchers were attracted to this study because over several years of teaching, cultivating the students' creativity, critical thinking and the ability to speak are still some of the problems identified. This is one of the big challenges for the researchers since these abilities must be possessed by the students in preparation for the new stage of their education which is high school life. Researchers believe that at the elementary level, teachers need to identify any weaknesses or shortcomings of the students in order to be able to address them so that they can prepare themselves for the secondary level. From the results of this study, the researchers hope to contribute or help teachers address this problem. This study examined the effects of explicit and metacognitive strategies on recognizing students' ability in their critical thinking, creative thinking; collaboration; and communication.

2. Theoretical/Conceptual Framework

This study is based on the statement of Dunlosky, et al., (2013) who stated that not all strategies and techniques contribute to the learning condition of students. This simply indicates that no one has yet proven that explicit, metacognitive, etc. strategy is one of the effective strategies in cultivating students' ability. Currently, it is a huge challenge for a shaper as to what strategy is appropriate to use within the classroom. Thinking of a particular instructional strategy and approach is a formidable task for a teacher. However, teachers are constantly experimenting with methods that should be used just to raise the quality of learning of each student.

Everyone has the right to develop a personal purpose and to have a unique sense of self. This theory reminds and values the well-being of each individual. The teacher is tasked with shaping the knowledge of the students. The teacher is assigned to convey knowledge and add to the efficiency of each student. In other words, every teacher is required to provide an adequate education. Dunlosky et al., (2013) further explained that the teacher will not stop looking for teaching strategies to develop students' abilities. As a teacher in elementary, using two strategies and finding out their shortcomings, can help their weaknesses and aid their deficiencies. The goal of education is to impart to students the knowledge, skills and habits that will give them the opportunity to become productive and patriotic citizens who can contribute to the development of their society.

Jenkins (2009) declared that skills are necessary for students to master them to experience school and life success in an increasingly digital and connected age. He stated that students need to cultivate digital and cognitive skills (4C's). In his statement, it is hoped that the students will already show proficiency in the four competencies (4C's). Any learning outcome will help teachers to fill in the gaps and weaknesses of the students.

3. Methods

A quasi-experimental design was used. The study participants were the students from grade 6 of the elementary schools in District II, Sogod, Southern Leyte. The respondents were divided into two groups based on their IQ test results. The first group used explicit instruction while the second group used metacognitive.

Three tasks, which were covered in the fourth mark, were prepared. The first task was to show the researchers a video related to the social problem. With, the students wrote a letter to the president of the Philippines for their request as the hope of the country. Second, the teacher narrated the life of former President Ramon Magsaysay. From here, the participants collaborated to create a comic about the life of Ramon Magsaysay. The third task was a dramatization. The group was given time to discuss what the theme was and how they would do the dramatization.

These three activities were conducted among the participants which were divided into two groups. The researchers set a time and date for the participants on when to

do/answer the prepared tasks. In assessing the ability of the two groups, the researchers recruited three fellow teachers who gave a score to each participant. The researchers prepared the rubric as a simple basis for correction. The rubric used was the neutral rubric from Monter (2015).

In the process of gathering data, the researchers first identified the IQ test of the students by giving a quiz. After identifying the IQ test of the students, the students were divided into two groups. The students were evenly divided based on the IQ test results. The IQ tests used by the researchers were taken from various websites. Mean was used to identify student's ability in critical thinking, creative thinking, collaborative ability and communicative ability.

3. Results and Discussion

This section presented the result of an analysis of effective strategies in developing selected 4C's of Grade 6 elementary-school students using explicit and metacognitive strategies.

3.1 Profile of Students Based on Gender and IQ Test

Table 1 showed that the Grade 6 students consisted of twenty (20) males and eighteen (18) females.

Table 1: Profile of Students Based on Gender and IQ Test

Gender	Group		Total	IQ Test			
	1.00	2.00		IQ	Group		Total
					1.00	2.00	
Male	10	10	20	4.00	1	0	1
				5.00	2	3	5
				6.00	3	2	5
Female	9	9	18	7.00	1	3	4
				8.00	1	3	4
				9.00	4	1	5
				10.00	2	2	4
				11.00	3	1	4

Fifteen (15) students got a score from 4-7, thirteen (13) got a score from 8-10 and ten (10) of the students got a score from 11-13. It is clearly shown in the table that predominant students obtained low IQ. This simply implied that grade 6 elementary students need to be exposed to exercises that use analytical and intellectual skills. This result means that the activities contained in the grade 6 study guide should feature activities that will develop students' IQ because the researchers noticed that the activities prepared in the guide did feature skills that can develop the students' analytical aspect. Inquirer (2017) explained that every year, the intelligence of students decreases. It was further explained that the decline in IQ of people today is due to their lifestyle and this is one of the reasons why the quality of education is declining around the world. Kleinfeld (2009), Yamson

(2017) also shared that each student’s IQ is one of the bases for dividing or grouping the classes especially when the tasks are related to Higher Order Thinking Skills (HOTS). The researchers believed that the results will be equal if a group have members with high IQ tests. Thus, the results of their activities may be good. On the other hand, when the IQ test of each member in a group is concentrated low, they may also get low scores or poor results in their work.

3.2 Students’ Ability to Selected 4C’s Using Explicit Strategies

Table 2 presented the result of the analysis of students’ ability in critical thinking, creative thinking, and collaborative and communicative abilities. The table showed that the ability of Grade 6 students in the four C’s are both relatively Good (G) in their creative and collaborative skills and Fairly Good (FG) in their critical and communicative thinking ability using explicit strategies.

Table 2: Ability of Students in 4 C’s using Explicit Strategies

4C’s	N	Minimum	Maximum	Mean	Description	Std. Deviation
Critical Thinking	19	1.45	2.90	2.2521	Fairly Good (FG)	.39557
Creative Thinking	19	2.33	3.63	3.0419	Good (G)	.41528
Collaborative	19	2.54	4.43	3.5618	Good (G)	.55378
Communicative	19	1.68	3.22	2.6060	Fairly Good (FG)	.47710

Indicator:

- 5.00 Proficiency (P)
- 4.00 Moderate Proficiency (MP)
- 3.00 Good (G)
- 2.00 Fairly Good (FG)
- 1.00 Not Good (NG)

Table 2 showed that critical thinking and communication skills still need to be cultivated by the students. Of the four C’s reviewed, critical thinking and communication are some of the difficult skills. It was clearly shown that the respondents obtained a low mean. This result is similar to the results of the studies by Monter (2016), Pabuaya (2015), Alam (2012) and Pelegrino (2010) regarding critical thinking and communicative abilities as being scored low and seeing students as vulnerable. Similar to Sanchez, Rodríguez, and Martínez (2019), the barriers to learning and participation have different natures and can occur at different levels such as the attitudinal, the organizational and the contextual. Thus, it is essential that professionals, in the field of education, are aware of the existence of the barriers, know how to identify them and are capable of proposing changes and improvements that eliminate the barriers in order to offer inclusive responses to students.

The communicative ability of students has always been a challenge for teachers. Like Jumadi and Astuti (2020), Sugito, Susilowati, Hartono, and Supartono (2017) and Ademiluy, Sule Mamman, and Dauda (2019), many interventions have been used to develop and cultivate the ability of students. The researchers believed that the communication ability of each individual should be cultivated to gain enough self-confidence. The teachers felt anxious with the result of the evaluation because it was

expected that the students' communicative ability would increase due to the strategy used in teaching. Researchers believed that when a student has the ability to communicate, he/she will have a way towards having a good education.

The creative and collaborative ability of the respondents both acquired Good (G) ability. Many researchers stated that many of today's students are good at composing stories, plays and novels because they are exposed to tele-series, movies and others seen in the mass media. This is why they get a high mean in creative thinking. Likewise, with collaborative ability, many of the students positively participate in class such as in group activities because they are confident in their answers since it comes from group collaboration.

It can be implied that the evaluation result is not very good and significant in relation to the ability of students in using explicit instruction. This result is in contrast to the statement of Rouijel, Bouziane, and Zohri (2019) who posited that explicit instruction of critical thinking skills has an effect on students' use of higher-order thinking skills in reading comprehension. Thus, the explicit strategy recommended by Ness (2011), Choo and Ahmad (2011) and Zhang (2012) should be used in teaching. However, what the researchers stated could not be applied as shown in the results of Table 2. This only indicated that the teachers in Grade 6 still need a lot of perseverance to develop and cultivate the ability of their students since this is what a teacher seeks.

3.3 Students' Ability to Selected 4C's Using Metacognitive Strategies

Table 3 showed the result of the ability of students to use metacognitive strategies. The table showed that only the collaborative metacognitive strategy achieved moderate efficiency which was higher compared to critical thinking, creative thinking and communicative skills.

Table 3: Ability of Students in Selected 4 C's using Metacognitive Strategies

4 C's	N	Minimum	Maximum	Mean	Description	Std. Deviation
Critical Thinking	19	1.39	2.57	2.0014	Fairly Good (FG)	.31622
Creative Thinking	19	2.00	3.82	2.7340	Fairly Good (FG)	.48592
Collaborative	19	2.44	9.46	3.5124	Good (G)	1.57663
Communicative	19	1.86	8.80	2.6696	Fairly Good (FG)	1.55288

Indicator:

- 5.00 Proficiency (P)
- 4.00 Moderate Proficiency (MP)
- 3.00 Good (G)
- 2.00 Fairly Good (FG)
- 1.00 Not Good (NG)

It is simply shown that metacognitive strategies are not conducive to cultivating students' ability in 4C's. The researchers believed that the reason why the participants obtained a low mean was because of the metacognitive strategy where the teacher would allow the students to decide on the approach to use or on what they would do. It simply means

that students or participants are not yet ready to be allowed into exercises that require deep thinking.

According to Yamson (2017), this strategy is negative for students because they cannot determine which part of their output should be changed. Sometimes, the students reacted negatively because they assumed that the teacher did not correct their answers or activities because they saw no sign that the teacher corrected them. What Yamson (2017) mentioned is possibly the reason why only relatively Fairly Good (FG) students acquired the critical, creative and communication skills presented in Table 3. However, Dumford and Miller (2018) explained that the metacognitive strategies are good strategies for cultivating the critical and creative thinking of students, especially in written tasks such as portfolios, journals, and so on. They also revealed that metacognitive strategies are most conducive to fostering learning performances.

The statement by Dumford and Miller (2018) is inconsistent with the result shown in Table 3 because of the four skills evaluated, the only collaborative ability is rated as Good (G). If Table 3 is examined, it can be seen that the acquired ability of the students is very low. This result is worrying because the participants tested will be embarking on a higher (secondary) level of education but they are not yet ready for the required and expected skills.

Aurora (2013) stated that as the demand for education continues to increase, teachers also continue to seek strategies that will increase the interest and abilities of students. Teachers have many grievances in their teaching on the weaknesses of the abilities of students, especially in 4C's. This is why his study focused on Metacognitive Strategy in Teaching Writing. In relation to Aurora's (2013) statement, Conti (2015) stated that metacognitive strategy is a method of self-correcting linguistic mistakes that captures the interest of students because they do not know their mistakes. The result shown in Table 3 indicated that this is a big challenge on the part of the teachers. It is a force that encourages the drive to continue developing the expected ability of the students.

3.4 Differences in Students 'Ability in Selected 4C's Using Explicit and Metacognitive Strategies

Table 4 presented the difference in the ability of students in using the two strategies. Based on the result presented, there was no difference in the ability of the students in the four C's using explicit and metacognitive strategies.

Table 4: Differences in Students 'Ability in Selected 4C's Using Explicit and Metacognitive Strategies

Variable	t-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Critical Thinking	2.158	36	.038	.25070	.11618
Creative Thinking	2.100	36	.043	.30789	.14664
Collaborative	.129	36	.898	.04935	.38337
Communicative	-.171	36	.865	-.06368	.37269

The two strategies used by the researchers were not conducive to cultivating the ability of the participants. It only showed that the participants are not yet ready for the tasks that require a higher level of thinking. It can be concluded that this result required a concerted effort to further develop the ability of students especially in Grade 6 where it needs to be the focus of the teacher so that they will be ready when it comes to secondary level of education. One of the ways to achieve this goal is to use various methods such as explicit strategies. This is one of the most effective methods suggested by the most tried and proven. Talafhah (2018) also suggested that metacognitive strategies are appropriate to use in cultivating writing ability. The result seen in Table 4 is in contrast to the result in Talafhah's (2018) study which stated that a positive combination of the explicit and metacognitive strategies in written tasks is efficient. In fact, the result of his study showed a good effect of the explicit and metacognitive strategy on the ability of his student. It will be noted that even though there is no difference in the ability of the students in the two strategies, the mean in the explicit strategy is higher than in the metacognitive. However, both are often in their ability to be relatively good. It simply means that by using the two strategies, it is easier to address the tasks given by the teacher using an explicit approach. Based on personal observation, the metacognitive strategy helps in developing the students' ability because this strategy will force students to think about which part of their writing needs to be changed because they have no idea where they make the mistakes. Students will discover their inaccuracy or weakness. The group also noticed through collaborative work brainstorming and panel discussion on how to improve their output. Meanwhile, in the explicit strategy, the students will wait for the teacher to tell them how to do it. In other words, spoon-feeding is unchallenging on the part of the students. The researchers realized that the participants were not yet very prepared for tasks that required a higher level of thinking. It can be concluded that the result will help the researcher to further develop the ability of students in grade 6 next year so that they will be ready for secondary-level activities.

5. Conclusion

The result suggested that both explicit and metacognitive strategies can help cultivate students' teaching ability in Grade-6 through 4 C's. It is indicated that the responsibility of being a teacher is a huge challenge that rests on their shoulders since they should not stop in cultivating their students' highest skills from critical thinking to macro skills. It simply implied that a teacher plays a major role in every life of his/her students in satisfying or shaping their respective abilities for them to become useful in the society to which they belong.

Conflict of Interest Statement

The author declares no conflicts of interest.

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Dina Vocal is an elementary school teacher. She currently holds a position as Master Teacher.

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