Developmental Process of Conceptual Understanding Through Reflective Journal Writing (RJW) among HUMSS (Humanities and Social Sciences) Students

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ABSTRACT: The evolving educational landscape has made it more challenging to create 21st-century learners who are prepared for the future and ready to take on the global competition. Furthermore, due to its themes, goals, and objectives, social studies is mostly necessary in the current world. Additionally, it encourages civic engagement and social interaction. Hence, this study investigated the effects of reflective journal writing (RJW) in improving students' conceptual understanding. The study involved Grade-12 students of a government-owned school in Olongapo, Philippines. The results revealed that the students' level of conceptual understanding is at a developing level before the use of the intervention. After the application and use of RJW, it has been observed that the level of conceptual understanding has improved. This research affirms the positive effects of journal writing on the students' enhancement of their conceptual understanding. Thus, teachers may consider the strategy for students' conceptual retention and enhancement. A parallel study may be conducted to validate the effects of the intervention in other contexts.

*Keywords -*Conceptual Understanding, Social Studies, Reflective Writing, Transformative Learning

I. INTRODUCTION

1.1 Background of the Study

Conceptual understanding in Social Studies is often the most demanding kind of mental activity. Some students are not able to catch up because for them it is a boring subject. It is more discussing about the past and the future, the cause and effect of a situation, and correlation of concept and ideas. Students in Social Studies are usually taking down notes then memorize it for completion. Social studies is very applicable in real-life situations. It can be seen in our everyday living of the students, but students always encounter difficulties in understanding the lesson. It is important for the students to know that this subject have a greater value into their lives because the goal of social studies is for us to be aware of the things happening around us and to promote civic competence through active participation in the community activities and programs. Therefore, it is a challenge for the teachers.

Reflective Journal Writing (RJW) is one of the instructional materials or learning tools that can be used in improving the conceptual understanding of social studies students. RJW can provide ways to illuminate automatic thinking and habits of mind, and can lead students through a transformative process, especially when the teacher engages the student in mutual dialogue. Journaling provides the learners with the empowerment, explicitness, authenticity and critical thinking that help the teachers in raising awareness about the importance of reflective teaching and leads to changes in teacher's reflective practices. Also, reflective journaling helps the students in criticizing their thoughts, accommodate understanding, promotes cognitive growth by identifying their consciousness as to what they are learning, what they currently know, and what they should know (Moghaddam et. al, 2020).

Reflective approach in teaching positively affects the learners significantly with their metacognition, cognitive, affective and application of critical practical knowledge. It enhances the growth and learning of the students. It also serves as a self-assessment tool of the student whether they learn or not. In order to facilitate social studies through student engagement, reflective journal writing can be used as a student-created learning resource that has a formative assessment benefit especially in terms of self-assessment and self-directed learning. Ahmed (2018) described reflective approach in teaching deals with problem-based approach that will entail student's engagement and calls for reflection on the learning process and problem-solving activity encourages active chaining to the success of learning.

The process often evokes conversation with self, another person, or even an imagined other person. Learning something that is new or different and then reflecting on what that means for a current or expected lesson can be an important outcome. Utilizing a journaling technique often helps students to solve problems and they work independently and it moves the students from rigid and simple thinking to flexible and critical thinking through critical self-reflection where dilemmas, contradictions, and evolving worldviews are questioned or challenged (Nurfaidah, et al, 2017).

According to Carter et. al (2017) it is important to make explicit value of journaling in helping learners increase their ability to reflect critically on what they are studying or learning through assessment of the reflective process with the rubrics/tool to provide feedback to the students and inform the effectivity of the practice. Another, teaching critical thinking has a direct relationship with the reflective practices of the students as it focusses to determine action or change of thoughts.

Further, Xhaferi & Xhaferi (2017) research shows that one of the benefits of the reflective writing advocate self-directed learning as student take responsibilities in their own learning and academic performance. The purpose of teaching is to have appropriate and effective instructional tools that were applicable to the learners. Journal entries allow the teacher to view through the student's word, the quality of comprehension and mastery of the material, as well as affected responses to the content (Thorsen, 2017).

RJW provides a structured way for the teacher and student to examine the student's thinking patterns or belief system. Teachers should provide instructional tool that is beneficial of teaching social studies classes to be more significant and relevant to the learners. The use of instructional tools might conclude a positive and negative outcome depending on how students responded. While teacher have been using reflective practice to reinforce learning among the students over the years, reflective practice can be encouraged as well to the teachers for them to improve teaching practices and self-awareness (Zulfikar & Mujiburrahman,2018).

Hence, the researcher has put in motion to look into the effects of Reflection Journal Writing in improving conceptual understanding of the learners.

1.2 Statement of the Problem

The study aims to explore the effects of reflective journal writing in improving the conceptual understanding of the Social Studies students.

Specifically, the research intends to answer the following questions:

1. What is the conceptual understanding of students in Social Studies before using the Reflective Journal Writing;
2. What is the conceptual understanding of students in Social Studies after the intervention;
3. Is there a significant difference in the conceptual understanding of the students in Social Studies before and after the application of the strategy; and
4. What are the problems encountered by the teacher in the application of the intervention?

1.3 Objectives of the Study

The study aims to explore the effects of implementation of reflective writing in the classroom setting prior to the academic performance of the students.

1.4 Significance of the Study

The researcher used reflective journal writing to improve the conceptual understanding of the students therefore the study aims to explore the effectiveness of reflective writing in the classroom setting prior to the academic performance of the students. This study is beneficial to the following:

The learners. The finding of this study will help the students to improve their conceptual understanding prior to academic performance in actual classroom setting through the use of reflective writing.

The teachers. The finding of the study will help the teachers improve the student's conceptual understanding and promote quality of education to be used as one of the strategies of the teachers in teaching.

The parents. This study will help the parents to support their children regarding their performance and it will motivate them to be more involved in their children's education.

The Administrator. Result of the study will help the school to maintain the active participation in every classroom and to improve the teaching methodology of the teachers.

1.5 Scope of the Study

The study entitled "Reflective Journal Writing in improving the conceptual understanding of the Social Studies Students" will focus on assessing and interpreting the effects of reflective journal writing in improving the conceptual understanding of the Social Studies students. The study involved Grade 12- HUMSS students of Mabayuan Senior High School during the S.Y. 2022-2023.

1.6 Definition of Terms

The following are the terms and definition which is used in the study:

Conceptual Understanding. It is knowing more than what the students have learned to apply and adapt new ideas into real life situation.

Reflection. It is an activity that requires an individual to examine the manner in which they have responded to a given situation ti increase awareness of one's assumptions and to enable better or different actions in the future.

Reflective Journal Writing. It is an instructional or learning tool to aid learners in terms of personal growth, synthesis, and/or reflection on new information that is acquired.

Reflective thinking Skill. It is skill using the reflective thoughts and ideas of the learners.

Social Studies. Social studies is the study of people in relation to each other and to their world. It is an issues focused and inquiry-based interdisciplinary subject that draws upon history, geography, ecology, economics, law, philosophy, political science and other social science disciplines.

Transformative learning. This is an orientation which holds that the way learners interpret and reinterpret their sense experience is, central to making meaning and hence learning.

II. RESEARCH METHODOLOGY

2. 1 Research Design

This study employed action research design that used within-group pretest-posttest experimental design. Action research is an orientation to knowledge creation that arises in a context of practice and requires researchers to work with practitioners. Unlike conventional social science, its purpose is not primarily or solely to understand social arrangements, but also to effect desired change as a path to generating knowledge and empowering stakeholders.

Moreover, action research designs are systematic procedures done by teachers (or other individuals in an educational setting) to gather information about, and subsequently improve, the ways their particular educational setting operates, their teaching, and their student learning as it is part of the educative process (Banegas & De Castro, 2019).

2.2 Respondents

The participants of this study were Thirty-three (33) Grade 12 – HUMSS B learners of Mabayuan Senior High School for School Year 2022-2023.

2.3 Sampling Method

The study used purposive sampling technique which involves deliberate selection of people considered to be the most appropriate source of data in line with the objectives of the study.

2.4 Research Instrument

In order to gather a reliable and valid data to determine the effectiveness of Reflective Journal Writing among the students of Grade 12 in Social Studies subject (Discipline and Ideas in Applied Social Science), the researcher conducted a diagnostic test (Pretest) / achievement test (Post-test). To fully assess the improvement of the students' academic achievement, they were evaluated based from their quizzes and activities during the conduct of the RJW.

The pretest/post-test composes of 50 items based from the topics covered for 2nd Quarter of the Second Semester S.Y. 2022-2023.The said assessment were based on the Most Essential Learning Competencies (MELCS) of the Department of Education. The knowledge, comprehension, application and higher-order thinking skills (HOTS) were measured in the test.

The Social studies Test is subject for content validity by School Quality Assurance Team (SQAT) to ensure the validity of the test. The test questionnaire was pre-administered to 50 students who have not yet taken the following topics in line with MELCS. Item analysis was implied to assess the exam's reliability.

2.5 Data Collection Procedure

Health protocols set by the Inter-Agency Task Force on Emerging Infectious Diseases (IATF) and the Department of Education was strictly implemented during the implementation of the study. Materials used were scrutinized by the School Quality Assurance Team (SQAT) to confirm the validity and reliability of the research instrument used in the study.

The data gathering procedure follows the following phases:

Phase 1. The pre-test was administered before the start of the unit to determine the academic achievement of the students before the application of the strategy.

Phase 2. During the application of the strategy, the students' performances were evaluated by means of quizzes both for individual and group works.

Phase 3. After the application of the strategy, the post-test was administered.

Phase 4. The results from the pre-test and post-test were compared to determine the effectiveness of the strategy.

2.6 Ethical Considerations

As observed by Fleming & Zeegward (2018) most of the researchers conducted over the years involved human participants. Thus, ethical consideration must be strictly complied to protect the participants before the research has been conducted. Established data after the research should not be subjected to discriminate the participants.

The researcher assures that the ethical principle will be followed as such: (a) Informed Consent, (b) Risk of Harm, Anonymity, and Confidentiality, and (c) Conflict of Interest.

Above all the mentioned ethical consideration, the research prioritizes the welfare of the student participants/respondents during the conduct of the study.

2.7 Data Analysis

Important data and information gathered, tallied and analyzed, and interpreted carefully on the basis of statistical statement. All data will be encoded, tallied, and interpreted using different statistical tools.

The following statistical treatments was used in analyzing the gathered data through MS Excel ToolPack Kit 2013 and SPSS v. 20:

1. Frequency and Percentage Distribution. This was employed to determine the frequency counts and percentage distribution of the raw scores of the respondents.

2. Weighted/Arithmetic Mean. This was used to determine the average of the responses.

3. Standard Deviation. Since the mean was chosen as the measure of center, this was used to measure the spread of how far the observations are from their mean. It is the square root of the variance.

Table 1. Verbal Description of the Level of Achievement in Pretest and Post Test

Interval	Descriptive Rating
41-50	Advanced
31-40	Proficient
21-30	Approaching
11-20	Developing
0-10	Beginning

4. T-test. This was used to determine if there is a significant difference between the pre-test and post-test.

III.   RESULTS AND DISCUSSION

3.1 Level of Conceptual Understanding of the Students before the Application of Reflective Journal Writing (RJW)

The results of the pretest was determined as shown on Table 2. It shows the level of conceptual understanding of the students before the application of the intervention.

Table 2. Frequency Distribution of Students' Scores in Pre-Test

Class Interval	F	%	Descriptive Rating
41-50	0	0.00	Advanced
31-40	0	0.00	Proficient
21-30	14	42.42	Approaching Proficiency
11-20	13	39.40	Developing
0-10	6	18.18	Beginning
Total	**33**	**100.00**	
Mean		**17.18 (Developing)**	
Sd	5.64		

The results of the pretest showed that 14 students (42.42%) of the students is in the Approaching Proficiency level and 13 students (39.40%) belongs to the Developing level. A total of 6 students (18.18%) is in the Beginning level. None of the students were found to be in Advanced and Proficient level during their pretest. It can be noted that the calculated standard deviation is 5.64 indicating that the class is homogenous in terms of conceptual understanding.

Before the application of the strategy, the students were classified in Developing Level as shown in weighted mean of 17.18. This shows that students were developing the required proficiency level in terms of Social Studies achievement before the application of the intervention. According to Hoo et. al (2020), misconceptions about various topics are typically an issue for pupils even before and as the year progresses. A lack of conceptual knowledge frequently leads to misunderstandings of instruction.

3.2 Level of Conceptual Understanding of the Students after the Application of Reflective Journal Writing (RJW)

To assess the effectiveness of the strategy used by the researcher, a post-test was administered after the five-week application of the RJW as shown on Table 4.

The post test results showed that 3 students or 9.09 % of the class were in Proficient Level. There were 21 students or 63.64 % of the students were in Approaching Proficiency Level. While there were 9 students or 27.27 % belong to Developing Level.   None of the students met the Advanced Level as shown in the table. The class recorded a 4.34 standard deviation which indicates that the class turned to be slightly homogenous after the intervention.

The result of the posttest clearly supported that reflective journaling could help students go through a transformational journey by illuminating automatic thought patterns and mental habits. (Chen & Bergner,2021).

Table 3. Frequency Distribution of Students' Scores in Post-test

Class Interval	F	%	Descriptive Rating
41-50	0	0.00	Advanced
31-40	3	9.09	Proficient
21-30	21	63.64	Approaching Proficiency
11-20	9	27.27	Developing
0-10	0	0.00	Beginning
Total	**33**	**100.00**	
Mean	**23.75 (Approaching Proficiency)**		
Sd	**4.34**		

To specify the level of conceptual understanding of the students, the researcher used the comparison of pretest and posttest using Table 4.

Table 4. Frequency Distribution of Students' Scores in Post-test

Class Interval	Pretest		Post-test	
	F	%	F	%
	n=33	100.00	n=33	100.00
41-50	0	0.00	0	0.00
31-40	0	0.00	3	9.09
21-30	14	42.42	21	63.64
11-20	13	39.40	9	27.27
0-10	6	18.18	0	0.00
Average	17.18 (Developing)		23.75 (Approaching Proficiency)	

It can be observed the difference of the result from pretest to posttest. It showed that the mean of the pretest increased from 17.18 to 23.75, gaining 6.57 points higher. The gained 6.57 points was a positive indication that the study was reliable and significant as it was cited that reflective journal is used for transformative instruction because it is powerful tool that will briefly assess the students learning in any field only if it is applied with deep language models (Nehyba & Štefánik, 2023).

3.3 Difference on the Conceptual Understanding of Students after the Application of Reflective Journal Writing

To easily determine the significant change in the Social Studies conceptual understanding of the class prior and after the application of RJW, a t-test table of Social Studies conceptual understanding is presented in Table 5.

The table showed a gain score of 6.57 from the pre-test mean score of 17.18 to post-test mean score of 23.75, indicating that there was an improvement in the conceptual understanding of the Social Studies students with the use of the intervention.

Table 5

T-test of the Pre-test and Post-test Mean Gain of the Grade 12 Social Studies Students in the Conceptual Test

Group	Posttest Mean	Pretest Mean	Gain Score	*t*-value	*p*-value	Remarks
Grade 12 SS Students	23.75	17.18	6.57	26.178	0.000	Significant

Note: Significant at p<.05

The t-test of dependent sample was employed to determine if there exists a significant difference after the application of the strategy. The t-value gained was 26.178 and the p-value was 0.0000.

This implies that there is a significant difference in the Social Studies conceptual understanding of Grade 12 Social Studies students of Mabayuan Senior High School after the application of the Reflective Journal Writing (RJW). This finding is parallel to the study of Stevens et. al (2023) that students must learn to think critically in order to be able to solve the new kinds of challenges they will unavoidably encounter in the future.

IV.   CONCLUSION

From the findings, the following conclusions are derived:

1.Prior to the intervention, the Social Studies students are developing proficiency in terms of Social Studies conceptual understanding.

2.After the application of the intervention, the conceptual understanding has improved to approaching proficiency level.

3.Reflective Journal Writing is an effective strategy in improving conceptual understanding.

4.Reflective Journal Writing is time consuming for the teacher as it entails careful analysis of the student's output.

V.   RECOMMENDATION

In view of the findings and conclusion, the researcher offers the following recommendation.

1.Social Studies teachers should engage their learners into reflective activities promoting self-directed learning among the students.

2.The RJW must be applied in a longer duration in the learning process to fully assess the strategy's effect in improving students' conceptual understanding.

3.Social Studies teachers may consider using the RJW to improve conceptual understanding of the students.

4.Teachers may give writing prompts or template for the students for the reflective journal writing of the students to minimize the time.

5.A parallel study may be conducted by other teacher-researchers to validate the effect of the intervention in enhancing students' conceptual understanding. A quasi-experimental research using control and experimental groups may be be conducted to explore if there exists a significant different between RJW and traditional method of teaching.

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