Enhancing The Skill In Stating Research Questions Using A Contextualized Module

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Abstract

This classroom based action research delved on enhancing the skill in stating a research question in Practical Research 1 subject of Late Afternoon Senior High School students. The study utilized an action research design. This was conducted in Francisco Bangoy National High School during the second semester of school year 2017-2018. Two students were taken into consideration as participants of the study. Baseline data were gathered to assess their performance. Contextualize module was utilized as the tool in helping students master the competency. Also, interview was conducted to validate the results of the quantitative findings. Data were analyzed using Thematic Content Analysis. The findings revealed that students performance after the intervention was implemented has recorded significant increased. Similarly, students claimed that the intervention was helpful and effective in addressing their need. Further, from those meaningful results, it can be reflected that students' success in the class was largely attributed to the kind of intervention implemented by the teacher which was suited to their need. Undeniably, the use of a module has helped them master the required learning competency. Hence, use of a module may be offered to teachers handling research subject.

Keywords: Skill, Research, Module, Contextualized.

Introduction and Rationale

During the first day of class, I asked my students about their ideas in writing research. Also, I asked their experiences about doing research. Some students had

negative perceptions about writing a research paper. Majority of my students did not have experiences in writing a research paper. My claim was initially confirmed by my previous engagement in teaching research where most of my students had shown difficulty in writing research paper both in Practical Research 1 and 2 subjects.

In addition, my students seemed to perform poorly in my previous formative assessments. I have noticed that they didn't have the materials or reference textbooks to use in studying the subject. They relied on the internet or used their data in their cellphone to search the words or assignments given to them. Definitely, blending their time in working and studying served as a factor that pulled down their performance, thus, affected the mastery of the teaching competencies.

Ordinarily, when I was running the show in my class to hit the competencies, I usually facilitated the discussion with the aid of multimedia presentation and wrote exercises. My students were gathered as groups. Every output was a product of group brainstorming and collaboration. However, within their group, there were students who were performing less compared to the others. I chat with these students and asked them why they did not participate in the group activity. One student said, he didn't have enough time to study his lesson due to work engagement and once he enters the classroom his body and mind were tired already. He added that he didn't have reference materials to use as guide. The other student said that there were words in the internet about research that were difficult to comprehend. And I didn't have the notes to review and update the lesson. In addition, results of their previous formative assessments, I found out that most of my students demonstrated poor performance. From this expression, appreciation to the subject seems to decrease. These manifestations prompted me to think of an intervention to address the needs of these two students. I understand that it is very difficult on their part because they are working at the same time. Nevertheless, I saw their effort in attending their classes and their dedication to finish their studies. As their teacher, I need to act to solve the problem immediately and give them alternative ways of dealing with the research subject.

Further, while I was browsing the net to look for the best intervention, I was directed to the use of a module or modular approach. However, a module was very formal and structured. Certainly, it came up my mind to contextualize the module to fit into the context of my students. According to the reports I read, Ethiopian course modules were beneficial at all levels of university studies and increased students' academic performance (Reddy, 2005).

Discussions above suit the idea of ANAFE (2010) which claims that contextualization as the content, method and materials used in teaching must be related to the experience, culture and environment of the learners. Indeed, a teacher's

job is to assist students in learning how to live effectively in the present while also preparing them to be creative and productive in the twenty-first century (Karem et al., 2011). Certainly, utilization of a module would definitely help students understand and master competencies. This will aid them to keep track on the lessons discussed by the teacher. Further, this will help teachers facilitate less on students and will ensure better performance of the students.

Literature Review

Schools are crucial in the development of children' reading and writing abilities (Chokwe, 2013). If students' writing skills are not sufficiently addressed in school, the higher education industry will always be flooded with academically under-prepared students. According to some academics, the problem of student writing is aggravated by teachers who are sometimes under-qualified, under-prepared, and inefficient (Engstrom 2008; Moutlana 2007; Niven 2005). I'm talking about what these students need to know in order to achieve.

There were ways that seemed to cause a difference in students' performance, based on related literature and studies. According to Matanluk et al., (2013), using Geography Teaching Module CSAA modules has the same effect as using the traditional strategy in raising poor cognitive levels. Nair and Muthiah (2005) discovered no differences in score marks between the control group and the low cognitive level treatment group. Nonetheless, the curriculum proved quite helpful in improving students' higher-order thinking skills. The results could be applied to other social sciences (Matanluk et al., 2013). Furthermore, this was in line with the findings of Steffe (1995) and Von Glasersfeld (2008), who said that using this strategy can help people.

Furthermore, the usage of a module has enticed students to actively participate in the teaching and learning process (Lee, 2007; Glasersfeld, 2008; Matanluk, 2011). Lee (2007) and Tobias and Duffy (2007) both came to similar conclusions (2009). In addition, in an intervention study conducted by Silk and Somblingo (2015), students who received intervention, that is, metacognitive methods, had superior reading comprehension outcomes than students in the other school who did not receive any intervention. In addition, Ali et al. (2010) found that operationalizing a modular approach helped motivate students and that they gained more from it. Overall, it shows that the modular learning group performs much better than the standard teaching group. The formulation of short-term goals and the intensity of the teaching technique were connected to improved motivation. Modularization influenced positive advances in teaching methods.

Conceptual Framework and Research Questions

Certainly, the problem of this action research was stated below:

How can I enhance the skill of my Senior High School students in stating a research question in Practical Research 1 subject?

It was believed that modules have the potential to enhance performance of students in the subject. The problem on performance must be addressed immediately for students to appreciate the significance of research.

Scope and Limitation

This action research was solely focused on enhancing the skill in stating a research question in Practical Research 1 subject of Late Afternoon Senior High School students. This was conducted in Francisco Bangoy National High School during the second semester of school year 2017-2018. Two students were taken into consideration as participants of the study. The study adhered to the ethical guidelines set forth to avoid any problems in dealing with the participants. Contextualized module was developed as an aid in enhancing students' skill in stating a research question. Data were gathered after the participants had utilized the module.

Further, the study was limited only on enhancing the skill of Senior High School students in one specific competency in Practical Research 1 subject. Time for developing and reproduction of the module served as other limitations of the study.

Method

This study made use of action research design utilizing a single case within subject design with repeated measures. The design was apt to the study since it established baseline data on previous performances of my students in Practical Research 1 subject. This was done at least five times until a stable data pattern was observed. Also, data were gathered or collected several times after the implementation of the contextualized module.

Sampling

The study utilized purposive sampling technique. Purposive sampling is a qualitative research technique for identifying and selecting information-rich situations in order to make the most efficient use of limited resources (Palinkas et al., 2015). This entailed locating and selecting individuals or groups of individuals who were particularly knowledgeable or experienced regarding a topic of interest (Creswell & Plano Clark, 2011).

In this regard, two students described as the research participants were

involved. The learners displayed the fitted characteristics required in the study. Their poor performances in the previous assessments served as indicator of their qualification as participants in this undertaking. The intervention was administered to all students attending in the late afternoon class schedule, however the focus of this action research was the two participants identified in the study.

Intervention

Previous performances of my students in mastering the competencies have indicated a roller coaster ride. There were students who manifested better performance that is why they were on top. Others were found at the bottom. Ordinarily, I facilitated my class with the use of Multimedia or Information and Communication Technology integrated instruction, provision of sample templates, and hands on activities which aided them in performing the activities in class. However, series of browsing engagement in the internet lead me to utilize the following in order to solve the problem, these were the contextualizing module or modular approach and competency-based exercises. Hence, these activities and practices aided my students to improve their skill in Practical Research 1 subject.

Among the identified possible solutions, a contextualized module was utilized. I believed that allowing my students to utilize contextualized module lead to deeper understanding of concepts and enabled them to follow guide examples in doing research. In addition, the module was portable and contextualized where they can relate to the samples presented based on their daily activities or experiences. On times when students were not busy, they can easily browse the module, thus they were learning on their own phase and became independent learners.

Indicated below were the steps in the implementation of the contextualized module: first, after students have identified or formulated their research title, they were asked to write research questions based on their own style or understanding. Second, students submitted their research questions and assessed by the teacher. Third, the teacher developed a rubric for scoring the formulated research questions. Initial result was recorded. Fourth, implementation of the contextualized module was done. The contents of the module aided students in stating research questions correctly. Fifth, students again wrote their outputs. These were assessed by the teacher using the same rubric utilized in the previous activity. Sixth, additional exercises from the module were given to students who after the series of activities have not yet learned the skill in writing research questions.

Sources of Data/ Instrumentation

The baseline data were taken from records of the previous performances of students

in my Practical Research 1 subject, specifically, the results of their formative assessments. Meanwhile, during the implementation of the contextualized module, scores of the students in stating research questions were recorded and this was aided by the use of rubric or checklist. Additional exercises in the module required students' skills to state research questions correctly. Still, scores of the students were assessed by means of rubric or checklist.

Ethical Consideration

In this action research, ethical guidelines were observed in the conduct of this significant endeavour. First, I ensured that no harm was inflicted to the students. Second, informed consent was secured and confidentiality of data was treated with utmost care.

Data Analysis

To generate meaningful responses, the data gathered were processed using appropriate descriptive statistics. Scores were analyzed using Mean. This was presented in textual, tabular and graphical form. Further, interview and observation data were analysed using thematic content analysis.

Results and Discussion

This section presents the graphical analysis and theme generated before and after the contextualized module is implemented. First, the discussion covers on the baseline manifestations of students' performance in the subject. Second, it highlights the thematized responses of students. Similarly, after the intervention is implemented, the generated results are analyzed and interpreted. Lastly, a comparison based on their performance serves as the concluding stage of the analysis.

Baseline Observations of Students' Performance

Highlighted in Figure 1 is the graphical presentation of students' scores prior to the implementation of the intervention. The teacher tested the students' skills twice. The students

were allowed to formulate their own research questions based on their approved research title. Rubric was developed prior to the checking of their research questions. Each question corresponds to 10 points. In this context, students were required only two questions. From the generated results, the first testing generated scores of 5 and 3 while the second testing it recorded scores of 5 and 5. The resulting mean scores of both students were 5 and 4. From this manifestation, my students scored poorly in stating research questions competency. Also, I observed that

they lacked the skills or no engagement in making research questions correctly. In addition, a problem in understanding grammar and correct usage or basic language skills was not manifested in my students.
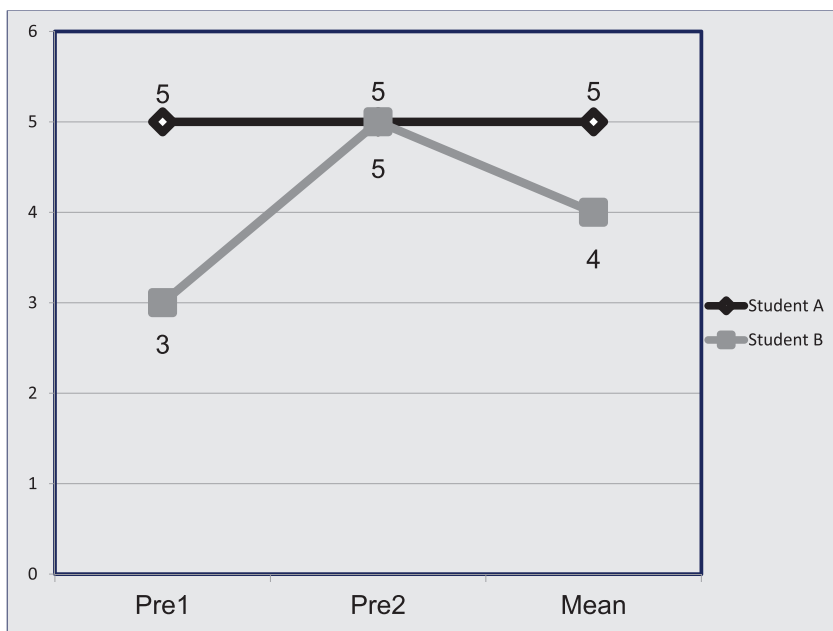

Figure 1. Students Scores Prior to the Implementation of Intervention

The findings above appear to support various academics' claims that under-qualified, under-prepared, and inefficient teaching staff members increase the problem of student writing (Engstrom 2008; Moutlana 2007; Niven 2005). Furthermore, Engstrom (2008) claims that schools concerned about assisting underprepared students' academic achievement and persistence must educate teachers, not just students, about what these kids need to study and succeed.

Difficulties Encountered Before the Implementation of Intervention

This part gives support to the quantitative findings reflected above. When I did an interview before and after I gave the task, I solicited information from my students. Majority have echoed their sentiments in the crafting of research questions. Undeniably, when I approached my participants, I asked them, did you find difficulty in the formulation of research questions? Participant A immediately replied, *"Lisod kaau sir, wa jud ko kasabot sa amo study"*, then I made a follow up question, why it was difficult? He answered, *"dili jud bya ko ganahan* of research *sir kay lisod og kapoy tapos wala pud ko idea ani kay wala ko kabuhat og research before."*

The other participant added that *"lisod kaau mag English2x sir, murag mali jud amo nabuhat, unta naa mutabang sa amo, inig balik namo sa amo grupo sir basi mkatama na mi"*. From these responses, I observed that students' difficulty was hindered by the lack of interest and engagement in research, and proficiency on the English language. These themes were depicted in Figure 2.
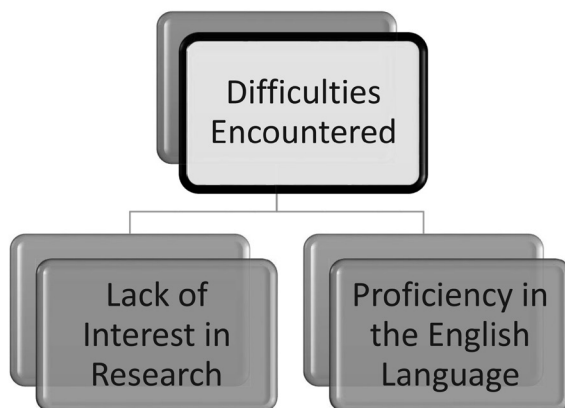

Figure 2. Difficulties Encountered by Students

The first theme highlighted lack of interest in research. As elaborated by participant A, *"mawad an na ko og gana usahay sir kay dili ko kasabot og kapoy kaau aq lawas. Usahay dugay ko mahuman bantay tindahan mao luya ko inig sulod sa imo klase. Lisod pa jud kaau kay puro English ang tubag."* This response affirmed that because of work and time engagement of the student in his task affected his interest in the subject. Moreover, this seems to affect his overall performance. The other participant shared his side on her interest on the subject. She echoed that *"gusto jud ko mkabalo og research sir khit basic concepts lng para magamit naq sumday sa ako klase. Kaso sa previous lessons nato lisod jud d i labi na mag oral recitation, makulbaan ko og mahadlok ko"*. These statements pointed out that participant has tried her best to learn the basic of research however the difficulty of the lesson due to lack of simplified materials seem to hinder their interest.

The second theme revealed proficiency of the English language. Participant A has responded that learning English was difficult, she said, *"kalisod jud mg construct og sentences in English sir, labi na ng mga words or vocabulary maglisod jud ko og gamit ana sa sentence. Sa amo research kailangan jud naq og samples sir para mkasabay ko sa tama sa pgbuhat."* Another issue that was evident was

their skill in the crafting of sentences. The affirmative on this manifestation was the failure to master basic skill in the lower years. The other participant lamented that *"unta sir e bisaya na lng ang pgbuhat sa questions para dali lang lisod man gud mg English sir bah."* This pointed out that participant has demonstrated difficulty in expressing their ideas in English. This may be attributed to factors before that hinders their understanding.

Implementation of Contextualized Module

This part exemplifies the result of the implementation of contextualizing a module on students' performance in stating research questions in Practical Research 1. The module was introduced after students' demonstrated difficulty in stating research questions. Their performance was found to be poor. Thus, the teacher gave the module to the students for them to be guided on how to properly construct research questions. There were examples presented in the module and such examples were linked to their work activities.

During the administration of a module, students were guided on how to formulate questions based on their approved title. They can mimic the examples presented in the module. The pattern of formulation was determined. They have shown eagerness, excitement and satisfaction in the crafting of research questions.

From the results presented in Figure 3, it showed that students' performance has increased after the modular approach was introduced. Students' scores have shown remarkable increases after two tests were given to the students. Student A registered scores of 10 and 15 while student B recorded score of 15 for each test or activity. This means that
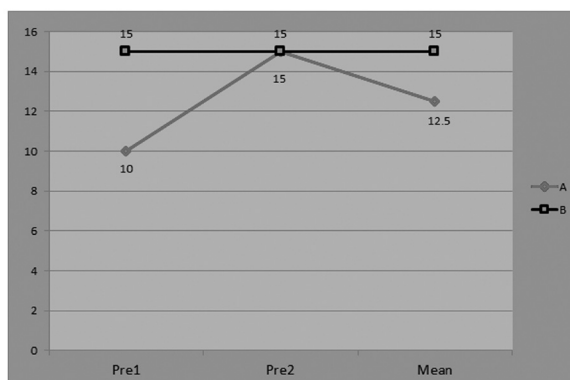

Figure 3. Students Scores After the Implementation of the Contextualize Module

the use of a module has contributed a better understanding on how to state research questions correctly.

The findings supported Reddy's (2005) claim that course modules were effective at all levels of university study in Ethiopia and increased students' academic performance. In addition, the program proved particularly effective in improving students' cognitive skills in higher thinking order. The results could be applied to other social sciences (Matanluk et al., 2013).

Moreover, an interview was conducted pertaining to the implementation of the module. Students were asked on the usefulness of the module. One participant echoed that *"ang modyul sir kay makatabang sa amo kay naa nay examples og mkasabay mi labi nag nay mo coach sa imo. Makarelate pud mi sa examples."* These lines have affirmed that providing learners with material that are within their level helped them understand or grasp the content correctly. The other participant supported the view of the former, *"bitaw sir, makatabang jud ni kay madala dala namo, tapos makasabot mi kay naa d i syay pattern sa pg construct".* This pointed out that if examples are presented clearly students can follow the
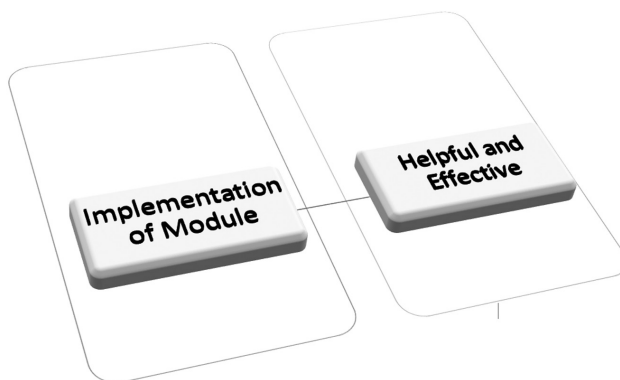

Figure 4. Implementation of the Module

task correctly. Definitely, they can generate better response. From the responses generated, it can be gleaned that the theme culled out was helpful and effective. This was defined as the usefulness and effectiveness of the module in helping students how to state research questions correctly. The theme was presented above.

The result above is in agreement with the findings of Silk and Somblingo

(2015), revealed students of the school who received intervention demonstrated better performance scores than those of the students in the other school who did not receive any intervention.

Comparison of Students' Performance

Reflected in Figure 5 is the comparison of students' performance. Based on the results, students scored a mean score of 4.5 prior to the implementation of the intervention. On the other hand, when contextualizing module was implemented, the students scored a mean score of 13.75. This means that students' performance has improved after they were exposed to the intervention. The module has helped them improved their skills in stating research questions in Practical Research 1.
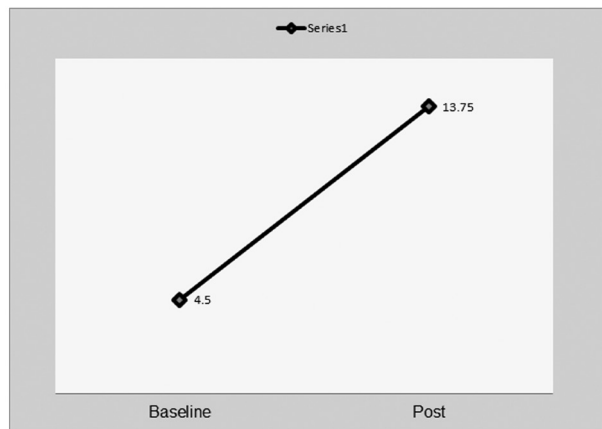

Figure 5. Comparison of Students' Performance

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The findings backed up those of Steffe (1995) and Von Glasersfeld (2008), who claimed that using a module allows students to practice problem-solving and higher-order thinking skills. Furthermore, the usage of a module has enticed students to actively participate in the teaching and learning process (Lee, 2007; Von Glasersfeld, 2008; Matanluk, 2011). Shamsuddin et al., (2005), Lee (2007), and Tobias and Duffy (2009) all came to similar conclusions.

Reflection

After the implementation of the intervention, some things crossed to my mind. One was intervention must be perfectly carried out. In the development of materials, it must be prepared ahead of time. Second, students conditioning must be checked prior to performing the different tasks. Third, their language proficiency or basic skills in English must be checked before write shop activity. Fourth, students may be allowed to read research papers and let them explain the content of the paper based on their own understanding, thus, this served as engagement activity. Fifth, words written in the material must be within the level of the students. Simple, friendly and relatable lines or phrases are highly encouraged. Sixth, teachers must be generous in rewarding students since the subject is quite boring and difficult. In this sense, they will be motivated to write and participate. Seventh, encouraging words in the research class must be regularly expressed. Eighth, praise every student or group for every output they generate.

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