Challenges in Teaching Exploratory Courses of Technology and Livelihood Education using Pedagogical Approaches

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Abstract: K to 12 Program includes academic and vocational tracks which sustain a continuum toward preparation for higher tertiary education and skills development qualifications for National Certificates I, II and III. The implemented curriculum has its overarching goal the holistic development of every Filipino learner with 21st century skills who is adequately prepared for work, entrepreneurship, middle level skills development and higher education. In this light, the acquisition of knowledge and skills as well as values and attitudes necessary to help the learners enter the world of work should be given emphasis. Schools have the responsibility to uplift every student's academic and lifelong learning.

Quantitative research design which applies the use of statistics was used in the study. More specifically, the approach used was descriptive method which is concerned with how or what exists is related to some preceding event that has influenced or affected a present condition or event. Hence, it is deemed to be suitable to use in the present research for it aims to find out the challenges in teaching T.L.E exploratory courses using pedagogical approaches at Gov. Feliciano Leviste Memorial National High School.

Findings revealed that TLE teachers were challenged to a very great extent in using the pedagogical approach in teaching exploratory courses for the reason that the preparation of daily lesson log should be guided with the pedagogical approaches. Additionally, there were inadequate supplies of learning materials particularly the tools and equipment that should be use in facilitating the learners' performance task. Teachers are also challenged in the preparation of instructional materials as guided by the pedagogical approaches to integrate innovative teaching and learning experiences.

Based on the findings, it is recommended that the teachers guided by the pedagogical approaches in teaching should inculcate sequential and meaningful activities as reflected in their daily lesson log. Teachers should also attend training, seminars and workshop which will help them to become more familiar in the use of pedagogical approaches in teaching and learning process. To enhance the interest of the students, teachers should prepare instructional materials using pedagogical approaches as guide to integrate innovative teaching strategies.

The Proposed Intervention Program was developed in this study which addresses strategies for teachers on how to enhance the delivery of instruction in teaching T.L.E exploratory courses using pedagogical approaches at Gov. Feliciano Leviste Memorial National High School.

Keywords: K to 12 Program, Vocational Tracks, Pedagogical Approaches

1. Introduction

K to 12 Program includes academic and vocational tracks which sustain a continuum toward preparation for higher tertiary education and skills development qualifications for National Certificates I, II and III. The newly implemented curriculum has its overarching goal the holistic development of every Filipino learner with 21st century skills who is adequately prepared for work, entrepreneurship, middle level skills development and higher education.

The overarching goal of the K to 12 program proved that the teaching of TLE plays a very important role in the realization of the overall goal of the curriculum. Technology and Livelihood Education in Grades 7 and 8 are exploratory in nature. Exploratory courses focus on five basic common competencies. It includes the, use of tools, equipment and paraphernalia, maintenance of tools, equipment and paraphernalia, performance of mensuration and calculation, interpretation of drawings and plans and, the practice of occupational safety and health procedures.

Among the learning areas, the Technology and Livelihood Education subject is the most experiential, interactive, interdisciplinary and value-laden such as cultural, aesthetic, vocational, political-economic and moral values. It is in this learning area that provides the Filipino learners the quality time to demonstrate practical knowledge and life's skills that have been gained, especially the skills of vocational efficiency and empathy.

Technology and Livelihood Education intends to develop knowledge, skills, values and attitudes that will prepare the students for entry into the world of work. This will enable the students to gain understanding and acquire competencies in various activities as they relate to Home Economics, Agriculture Arts, Industrial Arts and Entrepreneurship. The programs of vocational education in this country are provided for in Act Number 3377, otherwise known as the Vocational Act of 1927. Article XIV, Section 5 of the 1935 Philippine Constitution, also provides for the development of vocational efficiency.

Regional Memorandum No. 233, s. 2016 regarding the implementation of pedagogical approaches mandated by R.A

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194

10533 states that the curriculum shall use pedagogical approaches that are constructivist, inquiry-based, reflective, collaborative and integrative. This was designed to assist all teachers facilitating learner-centered instruction in making the curriculum relevant and in strengthening teaching and learning process that would rebound to better performance of all learners in any assessment given by Department of Education.

In connection with this, teachers were continuously giving much effort in teaching T.L.E to make it more interesting and meaningful to every learner with the use of applicable pedagogical approaches in every lesson. However, it is a sad note that as of now, students under Grade 7 and Grade 8 taking exploratory courses in TLE were confused on what particular courses will take when they reach the next year level. At their young age, they tend to just pick the easiest one or the available courses offered by the school. Students just rely on what they just already know for the reason that they were not exposed on the different learning tracks.

2. Literature Review

In the K to 12 Basic Education Program Guide (2012) stated that constructivist, collaborative, integrative, inquiry-based and reflective are the pedagogical approaches to be implemented and used by teacher in teaching-learning process. In constructivist approach, teaching of all the subjects is anchored on the belief that the learner is not an empty receptacle who is mere recipient of instruction. Rather, the learner is an active constructor of knowledge and a maker of meaning. The role of the teacher becomes one of a facilitator, a-guide on the side rather than a dispenser of information, the-sage on stage. Moreover, the learners become the active-meaning-make and not the teacher who is imposing the meaning. This means that learners construct their own knowledge and understanding of what is taught out of their experiences.

Main (2013) showed that learners under constructivism settings exhibited significantly stronger and positive interest and value belief about the subject. Also, the results showed initial evidence that while interaction in the context of constructivist literature is important to the learning process, social interaction may not be the only key to better performance. Rather, unlike the social constructivist focus on social interaction, interaction with a variety of materials and situations including but not limited to mentors, modules, instruments, probe questions, and peers contribute collectively and positively to the learning experiences of the learners.

Moreover, teachers should use teaching approaches that have differential effects on the achievement of students in English. Specifically, constructivist teaching approaches have superior effects on achievement than traditional teaching approach. These approaches have higher impacts on retention of the concepts than those who used traditional methodologies.

Bingham (2011) accentuated that different collaborative approaches used in teaching English which include the parallel, station and alternative models improved learners' performance and outcomes. With these approaches, learners clearly enjoyed learning more and felt like they were behaved in the treatment group. Based on the results, most learners appreciated working more in a classroom where teachers employed wider variety of collaborative teaching structures.

Adeyemi (2010) described that integrative approach can also be referred to as the multidisciplinary approach, which denotes the teaching of concepts across more than one subject area or approach. He explains that in this approach, teachers combine a variety of methods, techniques, and technical devices. Integration, in this sense, means using relevant ideas from many disciplines or approaches. Aina (1979) posits that integration can be used within and across disciplines. For example, language can either be taught within itself by focusing on the four skills of listening, speaking, reading, and writing or across disciplines by integrating concepts, themes, and ideas from different subjects. The integrative approach is beneficial to students. Langa and Yost (2007, p. 65) state that this methodology helps students make connections.

Adeyemi (2010, p. 12) cited that the integrative approach provides students with more comprehensive learning that is rich and interesting. As a result, it makes the classroom atmosphere more enjoyable and thought-provoking. Moreover, Knowles and Smith explain that the integrative approach to teaching literature "can facilitate collaborative learning as well as help students become independent problem solvers" (2001, p. 77).

In the study conducted by Lee (2014) the inquiry-based teaching in second and foreign language pedagogy found out that inquiry teaching method works best on theme-based texts on the grounds that coherent instructional discourse. It can proceed on specific topics and bring out new expressions and patterns in a progressive manner.

More so, learners were positive, by and large, on the inquiry-based instructional approach. Responses from the assessment manifest that this type of Socratic teaching (Foundation For Critical Thinking, 1997) is valid and efficacious as an approach in second language instruction. She included in her findings the importance of a natural and meaningful information exchange to take place when there is a need for an organized and logical sequence of ideas relevant to both contextual and personal experience of learners. Furthermore, the sound utilization of visual/multimedia resources has been illustrated as a highly favorable feature complementing the inquiry instructional process.

Guthrie (2010) in her study "Reflective Pedagogy: Making in Experiential Based Online Courses" presented that reflective pedagogies provide a framework in which to facilitate the achievement of a wide range of competencies and literacies. This approach appears particularly powerful in all types of learning environment in which critical inquiry and engaged discourse are complimented by participation in real-world on-site experiences. The synergies possible when geographically dispersed students join to explore issues related to experiential learning, civic engagement, and making a difference in local

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195

communities provide an exciting context for additional studies. These synergies are boundless when reflective pedagogy and experiential learning combine with technology-based systems that enable broad access to educational opportunities of 21st century learners.

Navaneedhan (2014) asserted in her study that reflective teaching as innovative approach shown positive feedbacks for the continuous professional growth of teachers. In line with the findings, she emphasized that reflective practice can be a beneficial form of professional development at both the pre-service and in-service levels of teaching. Thus it developed critical thinking and promotes experimental learning of the learners. The significance of the results connotes that reflective approach to teaching gives freedom to teachers to impose their own methodology enhancing rational thinking especially in open and distance learning (Reflective Teaching Pedagogy as Innovative Approach in Teacher Education through Open and Distance Learning).

The study conducted by Legania (2011) identified how collaborative approach provides teachers and students opportunities to reflect on their current instructional practices. The study also emphasized on collaborative approach as a process-oriented approach to teaching that teachers should understand first the theoretical concepts on the effectiveness of collaboration in sustaining students' participation. Through collaborative approach, students reduce anxiety and close-mindedness by giving them opportunity to understand the given topic deeply.

A. Research Questions

The present study aimed to identify the challenges experienced by the teachers teaching TLE exploratory courses using pedagogical approaches at Gov. Feliciano Leviste Memorial National High School.

Specifically, the researcher would like to seek answers to the following research questions:
1. To what extent did the TLE teachers used the following pedagogical approaches:
   a) constructivist;
   b) collaborative;
   c) integrative;
   d) inquiry-based and
   e) reflective?
2. To what extent did the teacher faced challenges in teaching TLE exploratory courses using pedagogical approaches?
3. Based on the findings, what intervention program maybe proposed to enhance the delivery of TLE instruction on exploratory courses?

B. Plan for Data Analysis

The researcher used quantitative research design which applies the use of statistics. The researcher also used the frequency and percentage in ranking the extent of challenges faced by the T.L.E teacher using pedagogical approaches. More specifically, the approach used in conducting this study was descriptive method which is concerned with how or what exists is related to some preceding event that has influenced or affected a present condition or event.

3. Results and Discussions

The results and discussion of the study are presented in accordance with the research questions.

A. Extent of TLE teachers in Using of Pedagogical Approaches

Table 1
Extent of TLE teachers in Using of Pedagogical Approaches

Pedagogical Approaches	Mean	Verbal Interpretation	Rank
1. Constructivist	4.54	Very Great Extent	2
2. Collaborative	4.56	Very Great Extent	1
3. Integrative	4.33	Great Extent	4
4. Inquiry-Based	4.23	Great Extent	5
5. Reflective	4.40	Great Extent	3
Average Weighted Mean	**4.41**	Great Extent	

The table shows that teachers were using pedagogical approaches to a great extent as it garnered an average weighted mean of 4.41 respectively. Collaborative approach ranked first with a weighted mean of 4.56 and interpreted as to a very great extent. This indicates that activities in this approach were the most fitted activities used for the delivery of lessons. This was followed by constructivist approach with a weighted mean of 4.54. This means that teacher believed that through experimental activities, students may learn various knowledge. Third in rank was the use of reflective approach that encouraged learners to engage in a process of self-observation and self-evaluation manifested with a weighted mean of 4.40. Collaborative approach was also in teaching exploratory courses to a great extent. It was manifested by the weighted mean of 4.33. In this approach, students developed camaraderie for they were allowed to work in group for acquiring and discovering learning through experience and getting the prior knowledge of the other group member. Last in rank was the inquiry-based approach with a weighted mean of 4.23. This signified that teacher used different approaches depending upon the ability and capability of the learners. They relieved that if they used the suited approaches in teaching-learning, the process will be successful and learning will take place.

B. Challenges experienced by the Teachers in using Pedagogical Approaches

Table 2 revealed that the teacher-respondents experienced challenges to a very great extent in making the prescribed daily lesson log (DLL) which were not parallel with the pedagogical approaches and ranked first which has a composite mean of 4.97. The teacher-respondents also faced challenges in using the approaches due to the inadequate supplies of learning materials like modules, tools and equipment as evidenced by the weighted mean of 4.95. It also revealed that the teacher-respondents challenged to a very great extent on the preparation of instructional materials guided by the pedagogical approaches with a weighted mean of 4.93 and this ranked third.

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196

Table 2
Challenges experienced by the Teachers in using Pedagogical Approaches

Indicator	Mean	Verbal Interpretation	Rank
1. Lack of training for teachers in using pedagogical approaches.	4.95	Very Great Extent	2
2. Insufficient knowledge about various pedagogical approaches.	3.35	Great Extent	9
3. Belief of teachers using pedagogical approaches is time consuming.	4.47	Very Great Extent	5
4. Unaware of the benefits of using various approaches.	4.49	Very Great Extent	4
5. Difficulty in the step by step process in the approaches.	3.39	Great Extent	7
6. Unparalleled approaches to the prescribed Daily Lesson Log (DLL)	4.97	Very Great Extent	1
7. Lack of internet connection in accessing LRMDS.	3.33	Great Extent	10
8. Unavailability of supplementary materials for teachers	4.44	Very Great Extent	6
9. Lack of assistance for teachers who need support in using various approaches	3.37	Great Extent	8
10. Instructional Materials align with pedagogical approaches.	4.93	Very Great Extent	3
Average Weighted Mean	**4.64**	**Very Great Extent**	

Last in rank in the challenges faced by T.L.E teachers was the lack of internet connection in accessing LRMDS wherein in this site, teacher-respondents were supposed to acquire additional knowledge and able to develop more meaningful ideas about the lesson showing a weighted mean of 3.33.

4. Plans for Dissemination and Utilization

After determining the challenges experienced in teaching T.L.E exploratory courses using pedagogical approaches, the researcher developed an intervention program addressing strategies that would help enhance and develop teachers teaching skills in the delivery of their lessons. This program can be disseminated to the teachers who are teaching exploratory courses and they can utilize it in other students in the school and even in the secondary schools in the district if they wish to utilize the output of this research.

A. Proposed Intervention Program

This study is limited in determining the challenges experienced by the teachers in teaching T.L.E exploratory courses using pedagogical in order to develop an intervention program that would help in the enhancement of the delivery of the lesson.

Table 3
Proposed Intervention Program

Area/S Of Concern	Objective/S	Proposed Strategies	Person's Involved	Time Frame
Preparation of daily lesson log guided by the pedagogical approaches	To be able to develop quality daily lesson log, and to actually be able to use the prepared log in the learning process of the student. To be able to make students understood, using their current techniques used like the sequential activities employed in the lesson proper. To avoid confusion in the sequence of the activities while teaching exploratory courses lesson.	• Assess the strengths and weakness of the teaching process following the revised Daily Lesson Log under K to 12. • Explicit instruction to clearly understand the different part of the lesson log. • Survey students' needs and problems resulting to their poor performance in TLE and looking for activities to be include in the course.	✓ School Head ✓ Department Head ✓ Master Teacher/s ✓ Teachers ✓ Students	Year Round
Awareness on the different pedagogical approaches used in teaching Exploratory courses under K to 12 curriculum	To be able to implement different pedagogical approaches in teaching which may support the reflective cycle of continuous improvement to develop their skills in delivering high-quality, personalized instruction that ensures learning for all students in all classrooms.	• Provide a seminar-workshop which will make the teacher aware on the different pedagogical approaches used in teaching. • Interact with different expert in the field which will teach them to understand the different activities under various pedagogical approaches. • Use delivery modes that model (I do it), engage all students (We do it) and allow students to try out new learnings (You do it).	✓ School Head ✓ Department Head ✓ Master Teacher/s ✓ Teachers ✓ Students	Year Round
Preparation of instructional materials using pedagogical approaches	To be able to integrate innovative teaching using the latest trend of instructional materials that will make the learning process beneficial both the teacher and the learners.	• Create an account where you can access on LRMDS to be updated with the current trends. • Enhance the interest of the students on participating on the class using technological tools. • Help students experiencing frustration when attempting to cope with the different realia that will promote understanding of the lesson.	✓ School Head ✓ Department Head ✓ Master Teacher/s ✓ Teachers ✓ Students	Year Round

5. Recommendation and conclusion

Based on the findings, it is recommended that the teachers guided by the pedagogical approaches in teaching should inculcate sequential and meaningful activities as reflected in their daily lesson log. Teachers should also attend training, seminars and workshop which will help them to become more familiar in the use of pedagogical approaches in teaching and learning process. To enhance the interest of the students, teachers should prepare instructional materials using pedagogical approaches as guide to integrate innovative teaching strategies.

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