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## Effectiveness and acceptability of textbook instruction paired with locally-developed quality-assured MELC-based learning activity sheets for modular instruction

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### Abstract

This study assessed effectiveness and acceptability of Textbook instruction paired with locally developed quality assured MELC-based Learning Activity Sheets for modular instruction in DepEd Schools Division of Calbayog City during the curriculum year 2020. Utilizing the descriptive-assessment research method, this involved all school heads & teachers in DepEd Schools Division of Calbayog City thereby incorporating total or complete enumeration as its sampling technique and the one thousand learner respondents that can understand the content of the questionnaires chosen via random sampling. Results revealed that self-learning modules create an effective learning environment for the learners to learn. These contain the answers to all possible queries, confusions, and questions that may come into the mind of the learner at the time of learning. These also provide immediate feedback on the performance of the students. These also help to maintain a high-interest level and sufficient motivation for the learners enriching its features such as Self-explanatory, Self-contained, Self-directed, Self-motivating and Self-evaluating which help to cater the needs of all types of learners.

**Keywords:** Self Learning Modules; Learning Activity Sheets; Quality Assurance; Modular Instruction; Department of Education

### 1. Introduction

The Modular instruction using the available Textbook paired with quality-assured MELC-based Learning activity sheets is a kind of learning delivery that knows no boundaries. It provides a feasible alternative to the new normal education structure in the country. In comparison to the conventional school system, modular instructions offer more flexible learning when it comes to time, module selection, sequence, place, content, and method of learning. Instead of classroom-based teaching, it holds classes in what they refer to as a Home Learning Center (HLC) which can just be about any space available— home, barangay hall, house, chapel, and in extreme cases even under the tree. While modular seems to be a flexible approach in teaching and learning than the prevailing structured formal school system, the teachers and the learners have their share of difficulties on the ground. This scenario was backed up by the statement of DepEd Secretary Leonor Magtolis-Briones as explicitly expressed as: “Education cannot wait,” to maintain the education of millions of Filipino students, the government implemented a distance learning approach.

Distance Education also known as correspondence education or home study, is a form of education where there is little or no face-to-face interaction between students and their instructors. This type of modality has three categories. In which, one of the highly convenient for most of the typical Filipino students is Modular Distance Learning. It was also the most preferred learning system of the majority of parents/guardians based on the result of the Learning Enrollment and Survey Form (LESF).

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With the LESF results, it was guaranteed that all Filipinos no matter what their status in life will receive quality education and to provide all Filipinos the chance to have access to complete basic education in a move that fits their distinct situations and needs.

The implementation of Modular Learning Instruction focuses on utilizing learning modules using the available textbook in the field. These self-learning modules for advanced elementary and secondary were designed for self-learning. Moreover, in the implementation of the Modular Learning Approach, the use of supplementary learning materials and other instructional support is encouraged particularly those that are developed by the facilitator to suit the local needs and context. However, the challenge is to produce contextualized self-learning modules that answer the needs of out-of-school youth and adults. Moreover, capturing the nature of learners in the country produce a diverse result. Different teaching practices have been developed over time from individual communities. Hence, no two poor communities who need formal education will have the same educational needs. In this regard, contextualized learning is a must, like teacher-made modules and instructional materials. Additionally, to encourage learners to continue learning for life, just like ordinary pupils in the non-formal system, relevant and appropriate learning materials must inspire them, that they see value in whatever they learn that the lessons learned are applicable and related to their lives.

The researcher coordinated and participated in the planning for the development and implementation of Textbook-based instruction paired with quality assured MELC – based Learning activity sheets in DepEd Schools Division of Calbayog City with an end view to find out the effectiveness and acceptability by all learners in the locality.

On the other hand, the researcher has been looking for instructional materials like locally developed self-learning modules that would be effective in teaching these learners. Though modules are provided by the department, there is inadequacy concerning the development of the problem-solving and critical thinking skills of the learner and to be more specific and realistic, the printing or reproduction for 1:1 learning materials for the learners.

For this reason, the researcher was encouraged to conduct a study to find out the effectiveness and acceptability of textbook instruction paired with locally developed quality assured MELC-based learning activity sheets for modular instruction in DepEd Schools Division of Calbayog City..

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## 2. Literature Review

Reiser (2013) cited that student for them to develop an understanding of subject matter requires that teachers know what students already understand and believe about the world. These prior conceptions serve as foundations for building new understandings. Teachers can only use students' prior knowledge if they know what it is. For instance, in science, we know that students are likely to hold a continuous model of matter rather than a particulate model. Contextualization activities help relate the ideas to be learned to students' prior ideas. For example, benchmark lessons and bridging activities challenge students to make predictions or explain findings and elicit prior understandings on which new understandings can be built.

Reiser also added that students may bring particular kinds of knowledge and experience that are unique to their cultural, ethnic, and socioeconomic backgrounds. Students may also lack the prior knowledge and experience necessary to engage in dialogue and collaboration around scientific concepts simply because they have not had access to certain experiences. In addition, students may bring epistemological stances and ways of knowing that diverge from those valued in science classrooms and communities. We use several strategies that make instructional materials accessible to students and that teach science in deep and meaningful ways. The strategies draw from, incorporate, extend, and challenge students' community-based ways of knowing and funds of knowledge, such as locating community problems related to the concepts under study, engaging youth in specific activities related to those problems, and involving parents and community members as classroom participants who discuss their knowledge and experiences regarding science concepts and related community problems. This literature is related to the current study since it gives the prerequisite on how to utilize modules in teaching.

Cross as cited by Balderas (2016) on the characteristics of the module he stressed that learning modules are the progeny of two reform movements in education that included programmed learning and mastery learning. Mastery learning plans contain the major features of the present-day modules, such as educational objectives were specified. Instruction was organized into learning units. Diagnostic progress tests were administered after each unit. Mastery of one unit was required before the learner is allowed to proceed to the next module or unit. She said that modules should be self-contained, self-pacing, short and well defined, adequately motivating, properly sequenced, providing opportunities for interaction with learners, clearly written with the correct language, accurate, not in conflict with other subject matter and values, and utilizing every opportunity to achieve learning outcomes.

Nepomuceno as cited by Balderas (2016) described the modules in the following on distinctive, identifiable skills or set of skills or outcomes other than skills. It is fairly short to make students use their study time efficiently. It is essentially self-teaching, even though it may encourage group work. It blends theory and practice and combines doing with reading and reflecting. It provides a list of further readings or sources related to the skill being promoted. It provides suggestions to students for participating in the design of their projects, explanatory activities, and evaluation criteria. It is reality-oriented in the sense that it involves the students in a real situation if not possible, tried to use stimulation technique. It provides feedback for improvement and redesign. With these characteristics, he cited the following reasons why modules are needed in teaching. The first is to develop learning autonomy, ensure satisfactory minimum standards, provide remedial units, provide basic education, upgrade content, enhance competencies of teachers, integrate theory and practice, cater for individual differences in learning, cater for different groups within the one course, consolidate critical points in a course, facilitate industrial certification, provide resources for distance education, encourage mastery and encourage a changed role for the teachers. He also defines a module as one that provides an opportunity for organizing numerous sequences of experience to reflect the special interests of the teacher or student. Self-instructional units allow the teacher to focus on student deficiencies in subject matter that must be corrected and also serve to eliminate the necessity of covering subjects already known to the student. It provides a way of assessing students' progress in learning. It reduces the routine aspects of instruction learning. The teacher is free to engage in personal contact with the student. The independent nature of self-instructional units facilitated the updating of study materials without major revisions. It serves as a model for teachers who wish to develop their materials and insert their personalities.

This literature is important since it gives a description of what a module is and how it can help the students. The European Learning Path Organization as cited by Mercedes (2016) talks about the difference between a “module” and a “unit”. A module aims at developing an identifiable and certifiable portion of the curriculum, expressed in terms of competence objectives.

These objectives should be achieved within a clear and realistic time limit (language modules usually range between 20 and 30 hours). This time limit is an important feature of the modular organization since the whole curriculum is built around the idea that time and human and material resources should be spent to achieve foreseeable results. This, of course, may introduce an element of rigidity – therefore a modular organization implies constant monitoring and feedback to ensure that learning is work-in-progress. Units, too, are generally based on clearly defined objectives (often described in terms of grammar, vocabulary, functions, skills, etc.). Modules, however, seem to be aiming higher – to enable learners to achieve a level of competence that should be described in terms other than just grammar, vocabulary, or functions. Units often remain a sub-division of modules (although they may also be called in different ways: stages, steps, etc.), but the focus of modules – their overall organizing principle - should be of a different kind. Mercedes also defines a module as having the statement of purpose, desirable prerequisite skills, instructional objectives, implementers of the modules, the modular program, related experience, evaluative pretest, and assessment of the module. This literature is important because it gives a clear definition of another form of independent learning.

According to UNICEF (2017), the reason why we can no longer only rely on ‘business as usual’ strategies based on more teachers, more classrooms, and more textbook’s, targeted interventions are needed to reach the most marginalized children and youth who are out of school today, including those with disabilities; from ethnic, religious or linguistic minorities; and children affected by armed conflict.

Ali (2010) On the Effectiveness of Modular Teaching in Biology at Secondary Level at Asian Social Science, the major purpose of the study was to explore the impact of modular teaching on the achievements of students. The results of the study were in the favor of modular teaching approach and Findings reported significant gender differences in the general comprehension of male and female learners where male learners performed significantly better than female learners on general comprehension-based tests, therefore, it is suggested that this approach should be widely used in the conventional classroom at various levels of education. He further concludes that most learning packages are entirely individualized but group experiences can be built in them. The main driving force behind the introduction of modules in the teaching-learning process lies in the fact that they have roles that can help to solve key educational problems. This is large because they satisfy the basic condition for promoting effective learning and are extremely flexible in implementation. The use of such packages considers individual differences and permits students to work at their own pace. This is important to the present study because it shows the effectiveness of modular teaching.

Highland (2015) in her study about Self-Paced Individualized Learning, points out that students do not learn at the same rate or with the same methods as their peers. She proposes a solution to this by developing a self-paced, individualized classroom. A classroom in which students are allowed to learn at their own pace and take control of their learning. In this study, she analyzed data taken from my classroom of 7th and 8th-grade mathematics students. She studied how

taking control of their learning affected their attitude and understanding of mathematics. The results showed increases in students' abilities to learn independently. Mathematics learning increased. The study showed an increase of between 11 -55% more math standards attained during the school year. Besides the mathematical knowledge gained, her students learned how to use an informational text to gain understanding and clarity about a topic. They learned how to take initiative and ask for help when needed. Students learned to trust one another and seek help and lessons from peers. The study is important to the current study since it gives the advantages of the modular learning approach and the benefit of having it in the instruction.

Cardoso (2007) in her study School drop-out and push-out factors in Brazil: The role of early parenthood, child labor, and poverty descriptive evidence suggests that extreme poverty, early parenthood, and child labor may be factors pulling teenagers out of school. Nevertheless, a multivariate framework of analysis may uncover other relevant variables associated with school dropout and eventually bring into question the relevance of the ones previously highlighted. Moreover, a set of potentially confounding factors should be included as controls in the empirical analysis. A major issue to be tackled is the potential early parenthood. Those who drop out of school are not a random sample and therefore a simple comparison of the schooling decisions of teens working and those not working, or those who are parents and those who are not, are likely to yield biased results. In particular, there may be omitted factors we cannot capture that affect the decision to abandon school but are also determinants of early parenthood and work status. Among such factors, one might include the child's ability, motivation, and in general his/her preferences. We, therefore, adopt an instrumental variables approach. We consider first of all the age indicated by the teenager as the ideal age to first have sexual relationships as an instrument for early motherhood. The underlying idea is that the belief about the right age to start having sex is likely to induce variation in the age at which motherhood or fatherhood first takes place, but it should have no additional direct impact on the probability of leaving school. This is important to the present study because it gives some issues that need to be present in the module of the learner.

Malik (2012) in her study about the effects of modular and traditional approaches on students' general comprehension, her paper addresses the differential effect on students' general comprehension taught through modular and traditional teaching approaches at the secondary school level. The study was conducted in one male and one female secondary school. The sample for experimenting was selected randomly from the population of grade 9 students. Data were obtained through the administration of the general comprehension-based teacher-made test.

## 2.1 Research Questions

This study determined the effectiveness and acceptability of textbook instruction paired with locally developed quality assured MELC-based learning activity sheets for modular instruction in DepEd Schools Division of Calbayog City. It sought to answer specifically the following:

- What is the level of effectiveness and acceptability of the locally developed Learning Activity Sheets (LAS) as evaluated by the teacher and learners concerning:
  - content;
  - language;
  - presentation; and
  - assessment?
- Is there a significant difference in the level of effectiveness and acceptability of the locally developed Learning Activity Sheets (LAS) as evaluated by the respondents in terms of their profile?
- What is the level of performance of the learners before and after exposure to the locally developed Learning Activity Sheets (LAS)?
- Is there a significant difference in the performance of the learners before and after exposure to the locally developed Learning Activity Sheets (LAS)?
- Is there a significant difference in the performance of the learners before and after exposure to the locally developed Learning Activity Sheets (LAS) in terms of their profile?

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## 3. Methods

This study utilized the descriptive-assessment research method. Descriptive assessment is intended to help researchers determine why behavior and certain phenomenon occurs rather than how often it occurs. Both are important questions to ask and to answer, but for understanding under which conditions the behavior occurs, descriptive data is the best route. This is further utilized to categorize, label, and determine behavioral occurrences patterned from social stigma (Neuman, 2015). This method was utilized since the primary purpose of the present study is to assess the Effectiveness

and Acceptability of Textbook Instruction paired with Locally Developed Quality Assured MELC-based Learning Activity Sheets for Modular Instruction in DepEd Schools Division of Calbayog City.

Since this study determined the effectiveness and acceptability of Textbook instruction paired with locally developed quality assured MELC-based Learning Activity Sheets for modular instruction in DepEd Schools Division of Calbayog City during the curriculum year 2020, an assessment is deemed necessary. This involved all school heads & teachers in DepEd Schools Division of Calbayog City thereby incorporating total or complete enumeration as its sampling technique and the One thousand learner respondents that can understand the content of the questionnaires will be chosen by random sampling.

This further utilized a standardized questionnaires/checklist that involved all indicators crafted based on the clauses of the Learning Activity Sheets Standards. Since the instruments used were standardized and had been validated and used in other studies, no validation of instrument was required. The researcher directly employed the questionnaire and fielded out to the respondents.

The key-result areas were highlighted which were gathered based on a survey questionnaire that sets all the dimensions of the Self-Learning Modules. Data were analyzed through sound statistical tools via SPSS version 24. The following tools were used for the statistical analysis: for the profile of the respondents, frequency, percentage distribution, and other descriptive statistics will be used; for the level of effectiveness and acceptability, weighted mean and standard deviation will be used; for the test of significant difference of the level of readiness when grouped according to the profile, two-way ANOVA will be used; and for the test of the significant relationship of the level of readiness when grouped according to the profile, multiple regression analysis were used.

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#### **4. Results and discussion**

The study revealed that the students exposed to self-learning modules achieved higher in the specified units of English grammar than those exposed to the conventional mode of teaching and retained higher in the specified units. Greager and Murray also found that the Modules helped the students to learn as well as provided better chances to the students to interact with the teacher because it reduced the routine instruction time. Teachers should use self-learning modules to meet the challenge of individual differences. With the help of self-learning modules, an effective learning environment can be created in the classroom. The provision of intrinsic reward creates a good feeling among the students, and they become active learners. Knowledge through Self Learning Modules helps to inculcate self-study habits and self-confidence among students which are very much essential for enhancing learning. They become independent thinkers.

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#### **5. Conclusion**

Self-Learning Modules create an effective learning environment for the learners to learn. These contain the answers to all possible queries, confusions, and questions that may come into the mind of the learner at the time of learning. These also provide immediate feedback on the performance of the students. These also help to maintain a high-interest level and sufficient motivation for the learners. These Self Learning Modules have enriched features such as Self-explanatory, Self-contained, Self-directed, Self-motivating and Self-evaluating which help to cater to the needs of all types of learners. It is therefore recommended that there should be intensification of the retrieval of modules to ensure completeness of outputs. Updated checking, recording, and giving of feedback to the learners and parents should be made the soonest possible time. Further, the weekly home learning plans should be provided to the parents and learners to ensure proper guidance in answering the modules and understanding the instructions. Modules should be used in the delivery of instructions considering its implications, impacts, do ability, economics, usability, and it should be continued, strongly recommended, and suggested under the New Normal Education.

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#### **Compliance with ethical standards**

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