



EFFECT OF MODULAR LEARNING APPROACH ON THE ACADEMIC ACHIEVEMENT OF STUDENTS

A LITERATURE REVIEW PAPER

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ABSTRACT

This paper aims to review various articles that explain the effect of modular learning approach on the academic achievement of the students. Specifically, the details determine the effect of modular learning approach basing from the articles published from 2016-2021. Further, the review focuses on the findings and conclusions of the articles reviewed as it reveals the results supporting students using a modular learning approach has significantly improved and increased the level of the academic achievement of the students.

Keywords: Modular learning, academic achievement,

INTRODUCTION

The spread of Covid-19 has brought a rapid change in the country not only in its economic stability but also in the education system. Schools have been promptly locked for personal engagement, transactions and students curricular activities following the order of President Rodrigo Roa Duterte, to suspend “face-to face” classes in adherence to the advisory of Department of Health that Philippines be put under Enhanced Community Quarantine. With that, the Department of Education then had to shift and craft realistic learning platform without compromising its objective to deliver a continuous and quality learning among its students and yet promoting health awareness.

Despite the pandemic, the Secretary of Education, Leonor Magtolis Briones, reiterated that the DepEd maintains its commitment to provide quality education to all Filipinos and makes education accessible to all Malipot (2020). Apparently, since Filipinos are tough and resilient to any mishaps, students were able to cope with whatever is conventional changes that may arise.

Due to the health threat of the pandemic, the DepEd decided to bring education to the comfort of their homes as they continuously developed different learning modalities to ensure that education is accessible to all and to ensure the continuity of education. The sudden transition from the traditional to new normal in the teaching and learning process, three learning modalities were offered by the DepEd for the school year 2020-2021, blended, distance and homeschooling learning modalities. According to Llego (2020), Blended learning is a combined face-to face with any or a combination of online distance learning, modular distance learning (MDL), and TV/radio-based instruction. On the other hand, distance learning modality refers to a learning modality where learning takes place between the teacher and the students who are geographically distant from each other during the teaching-learning process. Modular Distance Learning (MDL), Online Distance Learning (ODL) and TV/Radio-Based Instruction were the types of distance learning modality. Lastly, homeschooling is an alternative delivery mode that seeks to provide students with basic education in their homes with the aid of parents, guardians, or tutors.

Based on the Learner Enrollment and Survey Forms, it reveals that the alternative learning modalities offered by the DepEd, 7.2 million students enrollees preferred to use “modular” distance learning, TV and Radio based instruction and other modalities while 2 million enrollees preferred online learning modality, Malipot (2020).

Modular learning can be in printed or digital format. According to Mark Antony Llego (2020), modular distance learning is learners' learning at their own pace, in their own way and using self-learning modules (SLMs). It can be printed/digitized format/electronic copy that is appropriate to learners, and other learning resources like learners' materials, textbook, activity sheets, study guides and other learning materials. Learners can access electronic copies of learning materials on a computer, tablet PC, or smartphones. CDs, DVDs, USB storage and computer-based applications can be used to deliver e-learning materials, including offline E-books. The teacher takes responsibility for monitoring the progress of learners. While the learners may ask help from them via-email, telephone, text messaging/instant messaging, etc. Teachers shall do home visits to learners if the learners need remediation or assistance in his/her module. Any member of the family or other stakeholders in the community can aid. In addition, modular learning is a form of distance learning that uses self-learning modules (SLM) and follows the most essential learning competencies (MELCS) provided by DepEd (Manlangit, Paglumotan and Sapera).

The success and effectiveness of distance learning depends on the study materials Jayaram and Dorababu (2020). Therefore, to cater to the needs and abilities of each student, DepEd focused on self-study modules as the main learning tool that can serve all students, which can be combined with other modalities of delivery learning that students have access to. Self-study materials depend on harnessing the various means and channels of communication to adapt them to the needs of learners. In distance learning like modular learning, teachers and students are apart from each other, thus SLMs must serve as teachers. All the learning experiences that a learner can have in a classroom set up will be experienced by the learners in the distance learning with the

prepared SLMs. The SLMs prepared encourage autonomous/ self-directed learning (Malipot, 2020).

However, using modules has its advantages and disadvantages. According to (Nardo, M.T.B, 2017), the use of modules advocates self-directed learning. Using modules for learning leads to better self-study or learning skills among students. The concepts presented in the modules engross students in learning. The tasks provided develop a sense of responsibility among students. and they progressed on their own. They learn to learn; they are empowered. In addition, the students participate in real experiences. They discover new things, and they experience their knowledge on their own. Students learn to reflect on their own experiences, thus developing new skills, learning through modular direct students to be in charge of their own learning.

The use of modules has its disadvantages also. According to Bijeesh (2017), without the presence of the faculty and their classmates who remind them of their assignments the chances of getting distracted and losing track of deadlines are high. In addition, in the study of Dangle, and Sumaoang (2020) they revealed the main challenges that emerged in the implementation of modular distance learning where budget is not enough in the making and delivery of modules; students had a hard time answering their tasks on their modules and the lack of knowledge of parents academically to guide their child/children.

With all the advantages and disadvantages of using the modular learning as a learning modality, this paper aims to determine the effect of printed modular learning on the academic performance of the students.

DISCUSSIONS

This pandemic has paved the way for the implementation of different learning modalities like the Modular Distance Learning as an urgent response to ensure the continuity of education. The following studies were reviewed to determine the gap in existing related literature related to the effect of printed modular learning on students' academic performance.

Different studies were conducted to determine the achievement of students in the traditional and new normal way of teaching. According to Melad (2016) the using the "Quadratic Function" module has shown that a modular approach to teaching improves student achievement. Using the module as an approach as a corrective teaching material has increased the student achievement level of the students compared to the traditional way of teaching. In the published paper by Satyarthi (2021) on the effective learning strategy for secondary school students-modular approach found out that modular teaching method was better than the traditional teaching method. So, this modular approach can improve students' learning capacity as well as to facilitate them to read this self- learning material besides the book. Furthermore, Naboya (2019) concluded that a modular approach is more effective compared to conventional methods in teaching Inorganic Chemistry. Reading comprehension moderates the effect of the teaching method on student's achievement levels in Inorganic Chemistry.

There were studies conducted with regards to the effect of modular learning on the academic performance of the students in Mathematics. Lim (2016) in his study on the effectiveness of modular instruction in word problem solving of BEED students, revealed that modular instruction in teaching Mathematics, particularly in word problem solving, is an effective approach to learning. Moreover, Khalil, and Yousuf (2020) revealed in their paper on the effect of modular approach teaching on achievement of secondary school mathematics students found out that scores of the students in modular approach is higher. Furthermore, in a published paper by

Jazim, Anwar, B. and Rahmawati (2017) on The Use of Mathematical Module Based on Constructivism Approach as Media to Implant the Concept of Algebra Operation showed that the use of constructivism-based mathematics module was very effective in improving students' mathematical understanding on algebra operation material. In addition, in the use of modules in learning mathematics the result of observation conducted showed that students with high academic ability were active in the discussion.

In the different learning areas, Gossenheimer, Bem, Carneiro, and de Castro (2017) conducted a study on the impact of distance education on academic performance in a pharmaceutical care course. The study found out that student performance was better in the distance education module. Rahmawati, Lestari and Umam (2019) concluded in their study on the analysis of the effectiveness of learning in the use of learning modules against students learning outcomes that the average mathematics learning outcomes of students using modules were higher compared to students who did not use the module. In a published paper by Ambayon (2020) on modular-based approach and students' achievement in literature., the study conducted the performance of the college students in literature in the use of modular approach had improved from poor to excellent achievement whereas the students who did not use modular approach had relatively improved from poor to fair achievement. Another study by Oparina & Rakova (2018) on the Modular Approach to Teaching and Learning English Grammar in Technical Universities revealed that the module approach in teaching is effective for improving students' knowledge. Its Modular approach to teaching and learning in the English grammar is found to be effective in teaching and increases students' understanding and critical thinking.

A study by Valencia (2020) Modular Approach in Teaching Science 10 showed that when using a modular approach to teaching, student performance was significantly improved on test

results and was described as competent. This indicates that the approach has clearly shown a vital link in increasing students' academic achievement. While Yazon (2017) in his article on module validation and effectiveness in assessing students learning, found the module to be effective in facilitating the learning process.

CONCLUSION

After several consultations and reviews, it was revealed that the effect of modular learning approach on the academic achievement of the students has come to realization. Students using the modular learning approach significantly increased the academic performance of the students. It also exhibited that from the different learning areas such as Mathematics, Science and English rational improvements in the academic performance of the students who used the modular learning approach.

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