



EFFECTIVENESS OF MODULAR DISTANCE LEARNING IN MATHEMATICS IN THE NEW NORMAL: A LITERATURE REVIEW

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ABSTRACT

This pandemic brought many difficulties to the educational system especially to the parents, teachers, and students. The people used to call this phenomenon as “New Normal” wherein certain adjustments were made just to ensure that education never stops. In line with this, this explanatory paper aims to review different articles and journals that explain the effectiveness of modular distance learning in Mathematics in the new normal. Moreover, the review focuses on the findings and conclusions of the articles reviewed.

Key Terms: Modular Distance Learning, Mathematics, New Normal

INTRODUCTION

In this time of COVID-19 epidemic, schools were closing and there was no face-to-face connection between instructors and children (Magsambol, 2020). To meet these unusual obstacles, schools in the Philippines switched from traditional face-to-face teaching to a distant learning strategy. This is a way of learning delivery in which interaction occurs between teachers and students who are geographically separated from one other during teaching, and the lesson is delivered outside of the conventional face-to-face platform

According to Alcantara (2015), education is highly vital in everyone's life, therefore studying mathematics is very significant in man's everyday life. To assist students, grasp the lessons, teachers who support learning should plan and utilize many tactics and approaches. She went on to say that creating a learning module is a significant amount of work that a teacher would put in to help pupils learn.

With this, Alcantara (2015) also stated that modules are the most frequently accepted learning resources, thus it is critical to plan ahead of time. It has an influence on learning because the usage of this material has already spread around the world, and its use has an effect on the learning process of students all over the world, particularly in the field of mathematics.

Learners access electronic copies of learning materials on a computer, tablet PC, or Smartphone, CD'S /DVDs /USB storage and computer-based application can all be used to deliver e-learning materials, including offline E-Books. The learners may ask assistance from the teacher via E-mail telephone, text message/instant messaging etc.

With this literature review, it helps the comprehension expansion of the researcher about the topic opt to conduct. In addition, the reviewed journals and articles would help the researcher in addressing the gaps manifesting on this kind of topic.

RESULTS

In Mathematics, the students' perspectives agreed on employing a modular distant learning technique. They agreed on several advantages of this method (Dangle, 2020). The students acknowledged that the use of a modular remote learning strategy in mathematics poses minimal difficulty. Students' academic performance improved as a result of the modular distance learning technique in mathematics. Based on the percentage grade indicators, the kids' academic achievement was highly good.

According to Nardo (2017), professionally developed modules for students to utilize can assist in meeting students' diverse language learning requirements. The usage of learner autonomy among students since it increases self-confidence, particularly when students do not require much monitoring from teachers. Students do well on the modules' items, indicating that they can complete activities on their own. The performance of the experimental and control groups in routine activities, assigned tasks, and evaluative tasks did not differ significantly, suggesting that the modules may be utilized by students without much instructor interaction.

Moreover, Fabro (1980) proved that these modules should be easy, interesting and really familiar terms of readiness, relevance and reliability like those prepared in simple language will enable the students to maximize their learning; let the students take their time and study them anywhere – reception or within the library without such plenty help from the teacher; give the students an opportunity to develop how of responsibility to their own learning; provide the teacher an efficient way of assessing the students' progress in learning by themselves through summative test.

The objectives sought by the modules were attained. Thus, the use of modules can significantly increase learning of Mathematics. This trend could be attributed to the particular proven fact that the students can reassess and all over again on the module in cases wherein they need to review the concepts not adequately learned. The findings agreed to the results of the study of Reyes (1994) on "Cooperative Effectiveness of Modular Instruction and Traditional type of Instruction on Students' Performance in Solving Problems about Conic Sections". She revealed that the number of performances of the experimental group is higher and concluded that there is a bonus of learning modules towards better performance thus, module provide reinforcement, enrichment, and source.

Hence, Reyes recommended that students should be exposed to modular instruction in teaching-learning wherein this type of instruction the student is permitted to precede through the work as rapidly as his/her ability and level of motivation thus, developing in them self-confidence and independence. As aforementioned by the studies and related literature, modules may be of great help to both the students and so the teachers in effecting the teaching – learning process. This may be one in every of the many ways during which learning is of convenience to the clientele and can easily retain the knowledge on the students' mind.

Meanwhile, Dangle and Somaoang (2020) discovered that numerous obstacles were experienced by teachers in Modular Distance Learning supported the data. Most pupils are unable to review on their own. Seventy percent of them are unable to readily follow the directions within the modules. As a result, modules were frequently submitted late, and thus the bulk of the answer sheets are blank. Teachers are short on resources for reproducing and

delivering programs. The printer occasionally fails to figure properly. within the worst-case scenario, there is not any power.

As a result, they have difficulties printing and mass-producing modules. Some students are unable to complete their modules on time because they spend the majority of their study time educating their siblings about their modules and assisting their parents in the field. The teachers believe that students' responses in their modules have little validity, and that mastery of the lectures is most likely impossible to achieve. Parents are unable to assist their child/children due to a lack of expertise. Certain parents, according to some teachers, did not complete their education. Some teachers have poor cellphone reception. Finally, instructors have a lot of paperwork to examine and record.

SYNTHESIS

The articles reviewed showed that there is an effectiveness of modular distance learning in Mathematics. However, the literature reviewed shows insufficiency of studies on the difficulties being encountered by the students in answering modules in Mathematics. These certain difficulties were important matters to discuss especially in this pandemic period. Hence, it is recommended to conduct further studies on the other difficulties being encountered by the students in learning Mathematics through modules.

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