



**EFFECTIVENESS OF MODULARIZED INSTRUCTION IN TEACHING
A LITERATURE REVIEW PAPER**

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Abstract

The key purpose of this research was to find out the effectiveness of modular approach in teaching to assess the learners learning, performance and achievement and to determine whether the modular teaching is more effective than traditional methods. The study was experimental type. Equivalent group study design was used. Population was Grade Two pupils Teofila Z. Rovero Memorial Elementary School. Sample size was consisted of 100 pupils. The data were collected from both groups (controlled and experimental) analyzed and interpreted by using mean, standard deviation, and t-test using statistical package SPSS. The result' scores were in the favor of usage of modular teaching approach. So, it is recommended that the modular approach should be widely used at various levels of education.

Keywords:

Individualized Instruction, Independent, Modular Approach, Modularized Instructions, Self-contained, Self-learning

INTRODUCTION

Teaching is an interaction process which takes place for achieving desired objective. It is an intimate contact between teachers and learners. It is also a process of attending to people's needs, experiences, and feelings, and intervening so that they learn things, earn knowledge and skills, and go beyond in their life.

The concept of “module” is strictly linked to the idea of a flexible language curriculum, which should provide all those concerned with education (primarily learners and teachers, but also parents and administrators, as well as society at large) with a framework to establish clear and realistic language learning objectives. This paper aimed to find out the effectiveness of using modularized instruction in teaching learning process in this time of pandemic. Modular instruction is an alternative instructional design that uses developed instructional materials which are based on the needs of the learners in which they engaged themselves in learning concepts presented in the module. Modules are increasingly being used in many countries as a way of organizing a language curriculum. Therefore, many course books are now structured based on “modules” rather than “units”, and most teachers, when faced with this innovation, wonder whether this is really a new development, opening new paths for learning and teaching, or whether it might not just be “old wine in new bottles”. This is an attempt of the researcher that to introduce a short article of improving teaching method through this article. Modular instruction is an alternative instructional design that uses developed instructional materials which are based on the needs of the students. Students are encouraged to work on various activities that are interesting and challenging to maintain focus and attention thereby encouraging independent study.

The purpose of this research was to find out the effectiveness of modularized instruction in teaching to assess the pupils learning, performance and achievement and to determine whether the modular teaching is more effective than traditional methods. The major purpose of the study was to explore the impact of modular teaching on the achievements of students. The research discusses the benefits of using modules for instruction such as the acquisition of a better self-study or learning skills among students. Students are encouraged to work on various activities that are interesting and challenging to maintain focus and attention, thereby encouraging independent study. Students engaged themselves in learning concepts presented in the module. They developed a sense of responsibility in accomplishing the tasks provided in the module. With little or no assistance from the teacher, the learners progressed on their own. They learned how to learn; they were empowered. Modular instruction is an alternative instructional design that uses developed instructional materials which are based on the needs of the students.

This study is anchored on the theories on individualizing instruction through modules. According to Kemp and Smelie (1989), individualizing instruction plays a big role in modular instruction. Its main attributes include the individual assuming responsibility for their own learning, proceeding with

activities and materials at their own level and studying at their own pace. This principle is in consonance with Thorndike's law of readiness and law of effect where the law of readiness states that when a person is prepared to respond or act, giving the response is satisfying and being prevented of doing so is annoying.

DISCUSSION

These days, there is a move toward modular approach to curriculum implementation. The approach has drawn a special attention in most nations' education system in all levels even in the primary levels. Modular approach is an emerging trend educational thinking that shifts traditional method of instruction to an outcome-based learning paradigm. Many see modular instruction as another tool to help educators achieve its goal of exposing students/learners to the new normal. Like everything else in our society today, education has been experiencing rapid change. It must change to keep up with our ever-changing world of work where occupations are here today and gone tomorrow. One of the largest changes in recent years has been the addition of technology education facilities with individualized instructional modules (deGraw & Smallwood, 1998).

Modular approach to teaching is enables the learner to have control over her/his learning and accepts greater responsibility for learning. It demands greater maturity on the part of the learner, the modules are more appropriate for more mature learners. Modular teaching is more effective in teaching- learning process as compared to the traditional teaching methods because the learners can learn at their own pace and at their very convenient time. The belief that self-pacing is desirable on the part of the learners because they do not achieve at the same time.

Modularization is based on the principle of dividing the curriculum into small discrete modules or units that are independent, nonsequential, and typically short in duration. Students accumulate credits for modules which can lead to the qualification for which a specified number of credit point is required. According to Hornby, as cited in Yoseph and Mekuwanint (2015) and Malik (2012), module is a unit of work in a course of instruction that is virtually self-contained and a method of teaching that is based on the building up of skills and knowledge in discrete units. Linnel (1995) said that students must deal with the fact that the world is continuously changing and be able to cope with different situations. Walker (2000) stated that we must present as many situations as possible to our students so they can cope with the unpredictable future. Wright (1997) stated that

students must be taught to do things in a variety of ways. Modular instruction offers a way for technology education to carry out its goals.

Luna (1998) finds that many middle school students are proud of their work and anxious to take projects home to show parents. Modularized instruction downplays the skills that take-home projects may teach, thereby emphasizing concepts for learning instead.

Modular teaching is a new approach in classroom settings, for experience taking in encounters in instruction also it has been getting much consideration. The system of taking in modules has turned into a piece of all level of instructions. Teaching through module is a self - taking in bundle managing one topic/ unit. It could be utilized within any setting helpful to the learner and may be finished at the learner's own pace. Sufficient hypotheses furthermore practices are accessible for the useful requisition of secluded educating in our classrooms. Consequently, a study was directed to check the adequacy of modular teaching. Got information was investigated, analyzed and results were drawn.

Review of the Literature A learning module is an instructional package that deals with a single conceptual unit of the content, and it contains the materials necessary for relatively independent learning (Bevis, 1973). Modules provide opportunities for learners to be responsible for their own learning; learners can pace themselves within a framework set up by the teacher, and they become active participants instead of passive learners (Russell, 1974). Huckabay (1981) states that exposing students to independent learning, such as modular content, is essential in developing their abilities and desire to continue their education specially during this time of pandemic in which face to face is not allowed in school.

A modular system of higher education curriculum, according to Ali, Ghazi, Khan, Hussain, and Faitma (2010), is largely a response to the very growing sectors of business, industry, and consumers' choice in general. It emphasizes more explicate outcomes in relation to each small part of the degree, rather than the more broadly defined "course" in general. As opposed to most traditional curriculum designs, modular design gives greater student autonomy in constructing the programs and greater range of entry gates and exit points (Ali et al., 2010). These authors further explained that modularity enables the design of the curriculum to meet students' needs, thus moving the curriculum from the supply side (what universities want to deliver) to the demand side (what students and their employers identify as what they want). Modular instruction meets the needs of today's students more adequately than traditional instruction both with respect to the quality of learning and the content.

A module is a self-contained, independent unit of instruction prepared for the purpose of attaining specific instructional objectives. It is characteristically self-directing since it includes instructions on how the various investigation will be pursued also included is a listing of the materials and other resources that should accompany the text of the module. Classroom instruction using modules is described as self-pacing where the pupil progress through the learning tasks at his own rate (Salandanan, 2001). Lockwood (1998) differentiated the characteristic of textbook and modules and pointed out the advantages of the latter, to wit: modules arouse interest, written for learner use; give estimate of study time; are designed for a particular audience; always gives aims and objectives, may have many ways through it; are structured according to the needs of the learners; primarily emphasize self-assessment; can be alert to potential difficulties; always offer summaries; are personal in style; are content unpacked; have more open layout; always conduct learners' evaluation; provide study skills advice; require active response; and aimed at successful teaching. According to Salandanan (2009), self-instructional materials are those which are described to be self-contained, and the manner of presentation is such that the learning activities can be undertaken individually or in small groups. These materials are most effectively used in individualized instruction programs. The self-instructional module helps in providing remedial instruction for slow learners and enrichment materials for fast learners. Topics can best be presented through these self-instructional materials. With the use of one, the student is allowed ample time and assistance to finish the prescribed learning activity at his own pace. The lesson will surely be enjoyed, and the experience gained will be satisfying.

Most learning packages are entirely individualized but group experiences can be built in it. The main driving force behind the introduction of modules in teaching learning process lies in the fact that they have roles that can help to solve key educational problems. This is largely 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. That is why Loughran and Berry (2000) pointed out that individuals learnt more at their own pace, because "Telling is not teaching and listening is not learning." But it is a process of first absorbing and then expression of concepts. So, it is best achieved by self - learning.

In recent years, home study or homeschooling has been a great option for parents and their children. Home study programs are designed to provide an alternative learning system for students who cannot avail formal instruction in a regular school or for families who want to try the non-traditional route. It addresses the student's individual differences and recognizes special needs and

various learning styles. In homeschooling, the parent is the primary teacher. If the parent is not capable or available, they can hire tutors that will discuss the reference materials. Student performance and exam results will be assessed by the homeschool providers, in line with DepEd's curriculum. Home study programs can be an effective learning style because it provides customized content that students can learn at their own pace. If you are wondering where you can enroll, here is a list of some schools in the Philippines offering home study programs.

Modular teaching is concerned for each student as an individual with his/her own special aptitude and interest, goal of helping each student to think for himself, and allowing the individuality to each learner. The emphasis must be on the one-one student with unique abilities, aspiration, and influencing experiences and, again to provide quality education, the teacher must personalize and individualize the instructional program. When a teacher devoted to individual learning, he/she finds time for personal discussion with students and giving them individual help. The individual learning may help in developing many notable and self-reliant characters, and in much more modern ways, students enjoy periods in which they pursue their interests and satisfy their curiosities (Manlove & David, 1985).

Malik (2012) also contends that the teaching approach in modularized program should allow students to proceed at their own pace, give opportunity to choose their own learning style, and allow them to identify their strengths and weaknesses. Moreover, as explained by Loughran and Berry (2005), such learning approach permits the student to work at their own pace (Kain, 2003; Nadeem, 2013).

Use of self-learning modules in teaching is another form of individual used instructions. This is called modular approach of teaching and learning (k.Jaya sree,2004)if self-learning modules are available on some topics they can be given to the students as assignments for self-learning .scientific attitude refers to an individual's outlook towards life. Attitude is a method condition / a stabilized method set which express itself in a tendency to react to any member of the class of stimuli in the same general way. Robert Ebel (1997)

Modular approach provides more flexibility to distance teaching mode as well to learners (Sejpal, 2013). Modular instruction is one of those teaching approaches where the students must learn everything in the module using his own effort at his own pace. This method differs from the traditional one wherein a teacher presents the les-son and the students just listen to learn the concepts present-ed. To surpass the difficulties faced by the students in the traditional

classroom situation, modular approach may be a good alternative since it is student-centered, self-paced, and requires no notetaking, Gonzales, (2015).

The Philippine Education Quarterly (1985, as cited by Figuerres, 1994) reported that modules can take the place of a teacher. These self-learning devices help pupils to learn or acquire skills, knowledge, and information in the absence of a teacher. These materials provide sufficient reinforcement, enrichment, and source materials. They also allow the learner to work at a rate style and level situated to his capacity.

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According to Struyven, Dochy, and Janssens (2010), for students to acquire these skills, schools need to be organized around the learner not the teacher. educational reforms have emphasized the concept of student-centeredness as one of its threads. Student-centered learning takes the idea of what is to be learned from what the teacher desires to teach and directs instruction to what students need to learn.

Using modular approach to teach the English language as compared to the traditional method of using a textbook is meant to increase active learning and improve critical thinking, as well as problem solving skills. It is given the lecturer the opportunity for conducting formative assessment in the classroom. Standardized textbooks have their own styles, and their contents, depth of coverage of materials, and organization, may affect the teaching and learning environment. Thus, the use of a module presents a more flexible learning environment for both instructors and learners, Cheng, and Abu Bakar (2017). The objective of the module is to deliver resources to teachers that will let them to convert their classrooms into dynamic, student-centered learning milieus (Stewart & Wilkinson, 1999, as cited by Sadiq & Zamir, 2014)

CONCLUSION

Basing on the different literature that I have read; the following conclusions were drawn. 1. Overall, modular teaching is more effective as teaching learning process for biology and all subject areas as compared to traditional teaching method. Because in modular teaching the students are provided the opportunities of learning at their own pace, according to their ability level and needs. 2. Students in the modular approach outscored the students working in traditional learning mode have no priority over students taught by traditional method in all learning areas. But it could not be generalized. Although basic

knowledge of biology and all subject areas of both groups was same in the of data analysis pretest. Overall modular approach is more effective as compared to traditional method. 3. It is a self-learning style in which immediate reinforcement is provided in the form of feedback to practice task, which motivate the student. Hence, the modular approach is considered to create interest among the students as they are free to learn at their own pace.

It is also concluded that the use of Modules in teaching Math specifically word problem solving, is an effective teaching approach. Effective in the sense that it helped the subjects of the study learn concepts in mathematics without cramming in keeping up with the pacing of the teacher. The use of modules in teaching these concepts in Math was very useful for the respondents in developing their individual learning study habits. Though the results of this study showed that learning took place in both groups using the two methods of teaching, the subjects who were taught using the modular approached performed significantly better than the subjects exposed to traditional lecture method and it is concluded that modular approach is an applicable and effective teaching approach that could be used in teaching mathematics subjects.

Therefore, modular instruction is more operative in teaching learning method as equated to usual teaching approaches because in this modular approach the students learn at their own stride. It is unrestricted self-learning panache in which instantaneous reinforcement, comment is provided to practice exercise, which stimulate the students and build curiosity in them. Modular approach helps to maximize the chances of student involvement in classroom in respect to accomplish the given tasks at the spot.

References:

- Barnes, J., P. Mayer, R. Alfred and Hayman. (2000). *Modularization of Curriculum at Secondary Level*. Kogan Page, London, UK. pp.6798
- Ali, R., Ghazi, R., Khan, S., Hussain, S., & Faitma, T. (2010). Effectiveness of modular teaching in Biology at secondary level. *Asian Social Science*, 6(9), 49–54. doi:10.5539/ass.v6n9p49 [Crossref], [Google Scholar]
- Brown, S., & Saunders, D. (1995). The challenges of modularization. *Innovations in Education and Training International*, 32(2), 96–105. doi:10.1080/1355800950320202 [Taylor & Francis Online], [Web of Science®], [Google Scholar]
- Barnett, R., G. Parry, and K. Coate (2004). *Conceptualising Curriculum Change*. In M. Tight (Ed.), *The Routle*

Figuerres, O. (1994) "Development and validation of learning packages in automotive technology III". Unpublished doctoral dissertation, De la Salle University

Aggabao, Ambrose Hans. Development and Evaluation of Individualized Self-Instructional Modules on Selected Topics in Basic Mathematics. (Journal of Research, Isabela State University, Vol. XI, No. 1, January –December 2002)

Ali, R., Ghazi, R., Khan, S., Hussain, S., & Faitma, T. (2010). Effectiveness of modular teaching in Biology at secondary level. Asian Social Science, 6(9), 49–54. doi:10.5539/ass.v6n9p49 [Crossref], [Google Scholar

Joanne L. Stewart and Valorie L. Wilkerson, 1999, A Guide to Teaching with Modules [Hope College]

Dr. Jayasree P, 2004, Distance Education and Improvement of Curriculum, P.G (Pedagogics, Vol. Attended Workshop on "Innovative Strategies for the Effective Transaction of instructions, pp 55-59)

