



## **INSTRUCTIONAL PROGRAMMING AS A LEARNING TOOL FOR ENHANCING SELF INSTRUCTIONAL DELIVERY AMONG JUNIOR SECONDARY SCHOOL STUDENTS IN KEBBI STATE, NIGERIA**

**DR. H.S. ALIERO (SENIOR LECTURER)**

DEPARTMENT OF EDUCATION

FACULTY OF EDUCATION

KEBBI STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY ALIERO,

KEBBI STATE, NIGERIA

harunaaliero@gmail.com

GSM NO: 08089840292

**Abstract:** *The thrust of this paper is to examine the role of program learning in the achievement of self-instructional delivery. The meaning of program instruction and its categories has been adequately provided. Guided learning approach and the function of the teacher have been explained exhaustively. The major forms of guided learning (computer-based education, computer managed instruction, computer supported learning aids and computer assisted instruction) were captured in a greater detail. Finally, conclusion and recommendations were presented.*

**Keywords:** Instructional programming, Learning tool, Enhancing self, Instructional delivery, Junior secondary school

## INTRODUCTION:

### INSTRUCTIONAL PROGRAMMING:

Is a method of self – instruction achieved by a series of carefully designed items, which require response from the learner and then provide information as to the accuracy of the response? It is a method of presenting new subject matter to students in a graded sequence of control steps. Students work through the programme material by themselves at their own rate and at the end of every stage, test their comprehension by answering questions. The instruction is a package which can be defined as a product as well as a process.

**Instructional Programming as a process:** Is the designing of instructional materials into very small steps and then arrange in a carefully designed sequence, which leads from known to unknown.

**Instructional Programming as a product:** are replicable instructional packages, that are designed to fit the teaching machines i.e. computer program diskettes.

### Types of Programming:

There are two main types of programs, these are the linear type developed by Skinner and the branching type developed by Crowder.

**Linear programming:** A method of teaching program construction, derived from studies of discrimination learning in animals. The learning material is split up into very small steps, each of which requires the learner to make a response, usually by completing one or two words omitted from a sentence. Errors are kept to a minimum and immediate knowledge of result is given after each response.

**Branching programming:** A method that enable a learner to proceed through the instructional material through one of several possible paths. A learner is first provided with the information to be learnt and then asked a question about the information presented. A number of possible answers to the questions are provided from which the learner must select.

**Guided learning.** The simplest form of guided learning is a selected reading list with a simple self- assessment element, so that the student can be assured of his satisfactory completion of the unit. Guided learning may be found in many forms from the reading list through program books to sophisticated computer- aided learning projects. Guided learning packages can only be devised effectively by subject specialists.

In using guided learning approach, the teacher has two functions:

- I. The function of a program developer i.e. the teacher evaluates, edits packages and work with teaching team.
- II. The function of an instructor, inside the classroom, the teacher gives instruction, diagnoses, improvises, demonstrates and generates discussion.

The students on the other hand work with the teacher or instructional aids. Also a student works with the entire class or works alone.

**Computer - Based Education:** The use of computer is another method by which individualization of instruction is being undertaken. The use of computer in education is an extension and rather a sophisticated level of programmed instruction. It is the application of

technological information processing device to present instructional event that are designed, developed and produced for an individualized learning situation.

The term computer based education (CBE) is a general term used to describe the educational environment which is characterized by the use of computerized technology to aid the learning process.

The CBE therefore, includes all forms of the applications of the computer in education; these are computer managed instruction (CMI), computer supported learning aids (CSLA), and computer assisted instruction (CAI).

**Computer Managed Instruction (CMI).** CMI provides prescriptive and diagnostic guidance to the learner. The emphasis is on the management of instruction. The function of the computer under this setting includes data processing which facilitates decision making for effective administrative management, classroom management and individual student management. It also includes the generation of data concerning the physical maintenance of learning environment, student- teacher ratio courses in the computer system, order of course demand, counseling information availability of resources and record keeping. Records may include data in testing, grading, diagnosis and the monitoring of the learners progress.

#### **Computer Supported Learning Aids (CSLA)**

CSLA can be described as a library, where learners can have access to stored information. The information required is released upon the learners' request. It is a programmable system that can work much like a calculator. It has been found capable of solving difficult and time consuming problems in engineering, mathematics and physics. This kind of learning is characterized by the sharing and construction of knowledge among participants and using technology as their primary source of communication or as their common resource. It can be implemented in an online and classroom learning environment.

#### **Computer Assisted Instruction (CAI)**

CAI is an automated instructional technique in which a computer is used to present an instructional program to the learner through an interactive process. Some of the functions that can be performed using the CAI include presenting materials, or problem situations, guiding students thinking, responding to students questions, assessing student performance, managing students path through a course by selecting the material to be presented, assigning tasks to be performed and any combination of the functions listed. It has completely modernized the way that students learn, both in the average classroom and in the language learning settings. It makes lesson more interactive and engaging and can spark the interest of even the most reluctant pupil.

The great thing about this teaching method is that it can be implemented in every type of classroom, from the kindergarten art class to a medical school class in which students use computer models to learn to operate on the human body. It can also help students take classes.

#### **Conclusion:**

The programme instruction was introduced as a radical reconstruction of the traditional procedures for teaching. Its aim is to simplify learning and teaching activities from the misery of lecture method. The innovators that followed were encouraged to expand human freedom and dignity by providing learners with more customized programme of

instructions in a more caring context with one-to-one contact. Methods were developed which are more amenable to objectives, examinations, testing and revision (Molenda 2008).

**Recommendations:**

- I - Instructional programming can be used to improve students' academic achievement.
- li –ongoing feedback and correction from the teacher is assured
- lii – Development of lessons through extensive testing and revision

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