DEVELOPMENT OF THE PROGRAMMED INSTRUCTION MATERIAL

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OBJECTIVES

After going through this topic, students will be able to:

- Describe the steps of programmed study.
- Point out the things in preparation for the event.

INTRODUCTION

In previous topic we discussed types of programming. Now, the main thrust of the above topic will be on development of programmed instruction material -- Programmed built to study a specific task.

STEPS OF PROGRAMMED MATERIAL

Programmed study is the creation of a highly specialized task. The composition is divided into three major phases, these are followings:-

1. Preparatory phase.
2. Developmental phase.
3. Evaluative phase.

1. PREPARATORY PHASE

The first step of the program before creating programmed study is preparation. The following post Including—

A. Selection of the Topic or Units to be Programmed

The title of the episode or make programme If selected, the following considerations should be his choice—

I. The title of the first episode or a program is not available?
II. What is the case with any other method that can effectively be taught?
III. Episode students approach it more simple, logical and psychological being presented by this is the most interesting, useful and appropriate.
IV. What the students meet course requirements?
V. The person making the program a full command of the episode?
VI. Automatic logical sequence in the episode, he is not so much the long and the short amount of time Under the prospects of effective teaching?
VII. What is the proper format of the episode?

B. Writing Information's Related to the Previous Knowledge of Students

This program is for students. Therefore, prior to the program, the students made the program is— the student's age, gender, socio-economic, psychological level, interests, abilities, backgrounds and prediction should collect information relating to the conduct of the program should accordingly.

C. Writing Objectives in Behavioral Term

This term is used to render the objects under them are written in practical language. The transactions and 'job analysis' are both actions. These objectives the type Robert magear, miller, gronlund and needed from one approach or approaches to davey Method is used. Objectives appropriate functional type - select actions and should be used. Practical the objective criteria are helpful in making examinations.

D. Development of Specific Outlines of Content

Students' prior experiences, practices and foreknowledge and pre-determined objectives consistent with the subject is planned. In this framework it is necessary to build therein all the subject comes up, the program have to make. Subject to the framework should make logical or psychological grounds. Subject outlines when creating content even the experts are ready to help.

E. Construction of Criterian Test

Under the terms of the last students practices, criteria for evaluation of the test is constructed. The specific objectives of this trial Consistent objective questions are asked. Itis used to evaluate all those behaviors and skills the program is designed to teach. The test criteria are called. The

purpose of these tests is to know reach the learning objectives of the student and the norms or not. If you did not get to what extent? Why and how are reached can access them.

2. DEVELOPMENT PHASE OR WRITING THE PROGRAMME

Under this post is written to the actual programs or initiatives. Decisions before writing a variety of are like:

1. Program which method should be written, linear, Branching or Mathematics Etc?
2. Learner's prior behavior/prior experience, How are they?
3. Assignments purpose—Which ones are being set?
4. Topic—What is the nature of the object?

Programe study of the fundamental principles of the program type should always be careful. Especially Should take note of the following three things:

A. Designing of Frames

In the post, subject to the Frame (short—as short sentences) are written. Frame consists of three components—

1. <u>Stimulus</u>—The organ that situation to generate response as subject matter is presented to students in order to inspire students to respond.
2. <u>Response</u>—Post after reading is some kind of student responses must.
3. <u>Reinforcement/Feedback</u>—The right responses from the student's own response get matching and the reinforcement or feedback.

Generally, Included in the program are four types of post

1. <u>Teaching Frames</u>—These posts before students through innovative subject matter is presented. These terms are in any program is approximately 60% to 70%.
2. <u>Practice Frames</u>—New subject matter/after teach new knowledge, knowledge practice is to make the creation of permanent posts. Students learned to use them using knowledge to practice again and again. Term can be placed up to 20% to 25%.
3. <u>Testing Frames</u>—Test steps to test the knowledge learned by students is constructed. The objective is to evaluate the knowledge learned. The 10% to 15% can be placed.

4. <u>Using Primes and Prompts to Guide Student's Responses</u>—
    This type of program should be written so that students do more and more accurate response. When the student appropriate are not able to respond to the Primes and Prompts is used. Using auxiliary words and supplementary information under Primes is used to indicate to the students the correct response. Use them preamble positions is more. prompter signals which are a type of adjective Reducing students' incorrect responses to help students reach the

correct response attach. These relate to subject is matter details, suitability and nature of the response.

Programmes are offered in more request them respectively at the end of the program is to be deleted altogether. This process is called Fading.

B. Sequencing of Frames
Frame designed to ensure the continuity of the post (providing the proper order) are arranged. This logical sequence of psychological when organizing the 'teaching should use the formula. The Frames there are three main methods for providing proper order—
a. Matrix Method
b. Ruleg Method and
c. Egrul Method.
Above these a method should be needed more than one method in accordance with the objectives of many programs has been used.

C. Writing Initial Draft
After making the above type designation and Frame must write the program.
Editing—Editing should carefully designed programs of the Draft. Editing These are the three key things to note:
- The subject matter of a technical error, so it does not in any way be viewed. at this stage Subject expert help can be obtained.
- Program—With the help of experts, it is seen that the original Draft techniques of instruction in the program,as Compositions, Frames give proper order or style of the original draft— language is not an error.
- Language—Prepared with the help of experts in the Draft grammar mistakes, Spelling errors and inappropriate and ambiguous language, is used to detect and fix. Instruction instructions obscurity, language uncertainty of the shortcomings and the inappropriateness of examples given are correct and original Draft the necessary changes are made.

3. TESTING AND EVALUATION PHASE

This last task is the creation of the programmes, prepared under the revised Draft program is tested and evaluated. Following activities are conducted in:

1. Individual Tryout - This program is administered at 4-5 students and it is detected in the finished program Draft position, size, language, suffixes, and memorandum relating to Upakramk - what are drawbacks. In addition, students' responses are noted and the necessary changes are made in the cleanup programme.

2. <u>Small Group Tryout - converting and re refined program</u> Students Group is to be administered. Necessary changes in the Draft and the students are asked for suggestions for improvement. The Views and taken note of the time and re-revision and refinement of all these programs is on the ground.

3. <u>Field Tryout</u>—Program for the finalization of the program, a representative sample re-administered to the 10 to 20 students' reactions have been extensively and made suggestions based on the revised draft again. This test is based on the programmes relevance and validity is installed.

4. <u>Evaluation</u>—Based on the data obtained from field tests to evaluate the following things Error Rate—The following formula is used to determine

$$Programme\ Error\ Rate = \frac{Total\ no.of\ errors\ \times 100}{Total\ no.of\ Responses\ \times No.of\ Students}$$

Error rate of 5%–10% linear program and can be up to 20% Branched programmes.

5. <u>Programme Density</u>—The difficulty level of the programmes is detected. The following formula is used to determine -

$$TTR(Type\ Token\ Ratio) = \frac{Total\ no.of\ Different\ Types\ of\ Responses\ in\ a\ programme}{Total\ no.of\ Responses\ Required\ in\ a\ Programme}$$

6. <u>Sequence Progression</u>—Sequence Progression can be seen with the help of Scalogram. Criteria Scalogram table is created on the basis of test scores. The table Based on the sequence of program flow is seen. If you look at the table shows that in the course sequence If the system is not fair to have to try to improve the program.

SELF CHECK QUESTIONS

1. Describe major phase development of the programmed instruction material conducted in preparation.
2. Discuss the composition or writing initiatives.

SUGGESTED READING

Educational Technology - Distance learning material of Education(NOU)
Educational Technology - S.K Mangal and Uma Mangal

TOPIC (S) FOR NEXT CLASS

Concept and uses of M.S. word

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