



Construction and Effectiveness of E-Content for Educational Psychology

RESEARCH PROJECT SYNOPSIS

(A Minor Research Project conducted with the Assistant of UGC)

**Submitted
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(Synopsis)

1.0 Introduction

The process of teaching learning aims at transmission of knowledge imparting skills and formulation of attitudes, values and behavior. Teaching is a complex activity, which is a cluster of different roles and responsibilities. A teacher has to master multiple roles in order to become more professional. The professional competence can be expanded in two ways: first by increasing the range of teaching strategies that is needed to be employed; second by becoming increasingly skillful in the case of these strategies (Joyce and Weil, 1972). The purpose of teaching is to maximize learning. (Gagne, 1963), Bruner (1972) emphasized four major features of theory of instruction in effective teaching:

1. Predisposition towards learning
2. Structural body of knowledge
3. Sequences of material to be learnt
4. The nature and paring of reward and punishment.

It means that a theory of instruction in teaching is concerned with how what one wishes to teach can best be learnt, with improving rather than describing teaching. It is true that teaching is a process by which teachers and, trainees create a shared environment including sets of values and beliefs, which turn into colours their views of reality.

Now a days, educationist doing a work on how to trainees learn more and more to content? And also how teacher gets facilitate in teaching process. Form this idea, there are lots of educational research would be done. One wonderful thought came as an E-learning which is correlated with computer. On this bases researchers think more and more the utilization of the computer. And after that E-content was produced in education world. Now a days many institutes promote E-content. MHRD, UGC, School of Commissioner -Gujarat and many Institutes give economical grant to develop this type of content.

In UG level of Education branch, Educational Psychology is a complex subject to understand as well as teaching. So researchers decided to develop E-Content of some

basic fundamental units of Educational Psychology and also to measure its effectiveness.

Now a days ICT is used in all fields. In education field we can see the use of computer in different forms like ICT, CAL, CAI, CBL, CBM and E-Learning etc. Researches say that audio-visual and animated pictures type contents are liked and become easy to understand as compare to another form of learning. In Teacher Education, Educational Psychology subject is compulsory for all trainees and after a long teaching experience, we felt that it would become very useful for trainees to study educational psychology. So researchers have decided to make an electronic content for educational psychology subject.

2.0 Statement of the problem

The present study was undertaken with the objective of construction and effectiveness of the some units of E-content of Educational Psychology for the B.Ed. trainees. The study has been entitled “The Construction and Effectiveness of E-Content for Educational Psychology”.

3.0 Importance of the study

The importance of research is as follows:

Education Psychology is the heart of teaching-learning process. Teacher must have knowledge of rules, methods and technique of Education Psychology, Before entering in the classroom.

The aim of Education is the all kind development of child, then it is necessary for every teacher to know the basic fundamentals of Education Psychology and its application. This is the importance of Educational Psychology which is the reason to take up as a study of this project.

4.0 Objectives of the study

In present study researcher stated objectives of study as under.

- To construction an E-Content for Educational Psychology.
- To try-out the E-Content programme of Educational Psychology.
- To measure the effectiveness of E-Content with reference to gender.

5.0 Hypothesis of the study

Hypothesis is the presumptive statement of a proposition or a reasonable guess, based upon the available evidence, which the researcher seeks to prove through his study. A hypothesis is a statement of that the investigator believes will be the relationship between two or more variables in a study.

The null hypotheses are merely the statistically and logically equivalent to the opposite of the research hypotheses. The null hypothesis always identifies the population and comparison groups involved. It always specifies the nature of the difference to be tested and how it will be measured. In the present study following null hypotheses were formulated:

Null Hypothesis

1. There will be no significant difference in mean score of educational psychology between the Experimental Group taught through E-Content programme and Traditional Group taught through traditional teaching method.
2. There will be no significant difference in mean score of educational psychology between the boys and girls taught through E-Content programme.
3. There will be no significant difference in mean score of educational psychology between the Experimental Group taught through E-Content programme and Traditional Group taught through traditional teaching method at Replication Stage.

6.0 Limitation of the Study

It is hoped that the procedure adopted for the present study is adequate enough to throw sufficient light on the problem under investigation. Despite all possible precautions taken to get valid and reliable results, certain limitations have crept into the study, which are inevitable in the case of a study of the present type, conducted on E-content of Education Psychology.

The limitations include the following:

1. The study was confined to only two classes.
2. Only basic concept of Education Psychology was prepared.
3. Some trainees were not present in whole experimental programme due to their personal reason.

7.0 Scope of the study

The present study has made an attempt to test the construction and effectiveness of E-Content for Educational Psychology of B.Ed. trainees. It is expected that the findings of the study will help the curriculum planners to make needed changes in the content of basics of Educational Psychology. It will also help the teachers to understand the effectiveness and necessity for the application of E-content. It will be of great help to all those who are concerned with educational strategies. It is hoped that the findings of the present study will help to open new frontiers in educational practices.

8.0 Definition of the key words

Some of the important terms used in the present study are defined below for the sake of clarity.

- Effectiveness:** The term ‘effectiveness’ stands for the condition resulting in when the influence of one factor or condition is dependent on the presence or absence of another factor or condition.
- Construction:** To develop the content regarding units in deferent forms and then synthesis its an according to psychological order.
- E-Content:** It is an approach to teaching concepts in which the teacher provides computerised audio, video, picture, photographs, texture and examples of relevant content.
- Experimental group:** The group, which was given treatment by one of the instructional programme.
- Control group:** The group, which was given learning experience through global teaching programme (traditional teaching method) by his school’s teacher.
- Educational Achievement:** Score on Educational achievement test developed by researcher, was considered as the Educational achievement.

IQ: The Score obtained by the trainees on ‘Desai Verbal-Non-verbal Group Intelligence Test’, developed by K.G.Desai (1992) was termed as intelligence.

Pre-achievement: Trainee’s Under Graduate Result considering as a their pre-achievement.

9.0 Variables of the Study

Variables are the conditions or characteristics that the experimenter manipulates, controls or observes. The following variables were involved in the present study.

Independent Variable. The independent variables are the conditions or characteristics that the experimenter manipulates or controls in his or her attempt to certain their relationship to observed phenomena. In the present study, the independent variable was ‘E – Content Programme’

Dependent Variable. The dependent variables are the conditions or characteristics that appear, disappear or change as the experimenter introduces, removes or change as independent variables. In the present study the dependent variable was ‘Educational Psychology Achievement’

Controlled Variable. In present study, two types of control variable were involved. One was subject related control variables and second was student’s personal domain related control variables. The following variables were controlled during the implementation of the treatment.

Subject related control variables were as:

1. Standard 2.Medium 3.Subject 4.Content

Intervening Variables. It was assumed that the following variables might have been affected during the study,

1. Interest and enthusiasm towards the subject
2. Novelty (Innovative aspect) of the study
3. Others’ help
4. Interaction among the group and between the groups

10.0 Research Design of the Study

In present Study Experimental Research method was used. Two random group only post test design experimental design was used for this Experiment.

11.0 Population and Sample of the Study

The population of the present study is comprised of computer acquainted trainees studying in B.Ed. Colleges of (Gujarati medium) Surendranagar City.

“One of the first steps in designing quantitative research is to choose subjects... As a group, subjects are usually referred to as the sample.” This was an experimental study wherein the trainees of the sample were to be taught for a specific period of time in the actual classroom situation. The independent variable was method of instruction. The E-content programme developed for examining their effectiveness needed a college having computer laboratory and LCD projector with screen respectively. Another important consideration in the selection of the sample was willingness of the college authorities to allow the experiment to be conducted in their college as the experiment requires specific setting in time-table and volunteer teacher. During the study experiment and replications of the experiment was to be carried out. So, permission of the college authorities was solicited by writing letter to college having computer facilities.

Thus, two volunteer B.Ed. Colleges were selected purposively.

Shri C. H. Shah Maitri Vidyaeeth Mahila College of Education and Smt. M. M. Shah College of Education of WadhwanCity were conducting the experiment. In each of college the experimentation stage two equivalent groups of trainees were formed. The groups were made equivalent by utilizing their previous achievement of graduate level.

The two Groups were subjected to the treatment phase randomly. One of these groups was treated as experimental group, and the other was treated as Control group (No instruction group). The trainees of the control group were thought through traditional teaching method. The sample profile is given in table 1, 2 and 3

Table 1
Sample Profile according to Hypothesis - 1

Group	Treatment Phase	No. of Boys and Girls
Experimental group	Instruction through E-Content	13(Girls),16(Boys)
Control group	No instruction was given	15(Girls), 14(Boys)
Total	-	58

Table 2
Sample Profile according to Hypothesis – 2

Group	Treatment Phase	Effect on gander No. of Boys and Girls
Experimental group	Instruction through E-Content	27 – Boys
Control group	No instruction was given	27 – Girls
Total	-	54

Table 3
Sample Profile at Replication stage

Group	Treatment Phase	No. of Boys and Girls
Experimental group	Instruction through E-Content	14(Girls),14(Boys)
Control group	No instruction was given	14(Girls), 14(Boys)
Total	-	56

Table 1 indicates the treatment/no treatment to which each of these groups was subjected.

Table 2 indicates measure the effect of E-content programme on gender

Table 3 indicates measure the effect at replication stage

In each experiment more than fifteen subjects were taken as “in research comparing groups there should be at least fifteen subjects in each group”. As the E-Content programme developed for examining its effectiveness needed a computer for each individual, the number of computers in the school must correspond the number of trainees in the group.

The selected groups were similar to a large extent because the trainees in all the groups were studying in afternoon college wherein the medium of instruction was Gujarati and the syllabus of Education Psychology was taught to the trainees of class B.Ed was same. All the trainees in the entire sample belonged to the age group of 20 to 23 years. They represented the middle and the upper middle socio-economic classes.

12. 0 Development of E-Content Programme

For the development of E-Content programme the researcher has undergone the following steps:

- 1) Determination of the Population
- 2) Determination of Instructional Objectives
- 3) Content selection
- 4) Organization of the Content
- 5) Strategize Learning Opportunities
- 6) Development of story board / text material
- 7) Development of PowerPoint Presentations
- 8) Creation of Video martial
- 9) Development of Outline with methodological considerations
- 10) Development of Exercise Sheet
- 11) Making the Presentation effective

- 12) Development of Unit Achievement test
- 13) Development of Answer key
- 14) Development of Guideline / manual

13.0 Techniques for Data Collection

For final data objectively two trainees of two colleges were selected. The sample was made equal in IQ. For that verbal-non verbal IQ test was apply. Than apply E-content programme on experimental group and traditional method on control group. After experiment achievement test was apply on trainees for getting educational psychology score.

Test procedure and reading of instruction for test was performed properly in a college. Answer key for test was prepared and all filled answer sheets were checked properly. Thus score of test was derived.

Standards for evaluation were as under:

- (i) For every right answer students get score '1'.
- (ii) For every wrong answer students get score '0'.
- (iii) Sum of right answer in test was considered as achievement score of that test.

14.0 Methods for Data Analysis

In present study researcher measured the effect of E-content programme. for analysis of data computer software MS-Office and SPSS-17 were utilized.

15.0 Finding outs of the Study

Findings of the study were as under.

- E-content programme was effective in comparison with traditional teaching method. It means students got higher achievement taught through E-content.
- E-content programme was done equal effect on gander.

16.0 User's Manual

The Aim of Present E-Content Programme is to assist and instruct the teacher trainee, teacher educator and also researcher who work on construction of E-Content. It also encourages students who inspire for self-learning. This manual can be useful to the users for the clarity and better understanding of the programme.

Objectives

1. To orient the trainees with concept of E-Content.
2. To clarify the concept of Education Psychology.
3. To inspire the trainees to become independent learner.
4. To motivate and encourage the trainees by this unconventional method of learning.

The E-Content Programme

E-Content Programme CD is appended as Appendix – 6. In the CD following matter related Programme was included related to fifteen teaching points of basic Education Psychology.

I. Index (Home)

In this section Index of the E-Content programme of Education Psychology is given. Here fifteen teaching points are included of basic Education Psychology of B.Ed. Curriculum. Index is hyperlinked with the other teaching material likes PPTs, Video and Texts.

II. Text Material

In this section text material of education psychology is given. In this section also graphics file likes photographs are included which related to teaching points. After end of each teaching points short objective type evaluation sheet and its answers are given.

III. Power Point Material

In this section Power Point material of education psychology is given. There are fifteen ppts are given. In this section also input a photographs, animation, colourful background etc. which related to teaching points.

IV. Video Content

In this section video material of education psychology is given. There are fifteen videos are given related teaching points.

V. Evaluation Sheet

In this section Evaluation Sheet is given. There are forty questions are given. Questions are MCQ type in nature, each has four answers. Answer sheet is not given.

VI. References

In this section references are given, which was used for preparation for this thesis. Researcher, students, trainees, research scholar can used for its further research with reference to E-content or E-learning.

VII. Requirements

The required apparatus and materials for the commencement of the programme are mentioned as under.

1. Computers with Windows XP operating system.
2. Microsoft office 2007 or more over version installed.
3. Multimedia projector for group learning.
4. Projection Screen for group learning.
5. C. D.-of E-Content Programme
6. Head phone
7. Evaluation Sheet for Unit Test
8. Scoring Key for evaluation.

VIII. Selection of the Room, Seating Arrangements and Arrangement of the Apparatus

The present programme can be conduct in two ways 1. With personal computer and 2. With multimedia projector. About thirty students can learn by using computer and about thirty to thirty five students can learn by using multimedia projector at a time. The seating arrangements should be done in such a way that it would convenient for the students to read the matter on the screen form their seating place.

The seating arrangements should be done according the best view zone. The blank space left by the two students of the front row should be occupied by the second row students so that every student gets a clear and direct view of the screen. The room should be as far as possible noise free.

IX. Orientation towards E-Content Programme

The teacher should preview the whole E-content programme in the class room. At the first teacher should introduce the content matter, instructional objectives and the novelty of the teaching method in short and effective manner.

The teacher should instruct them to note the important points during the entire run of the programme and discuss it with them after the implementation of the programme with slideshow, video or text material.

X. Step for the Implementation of E-Content Programme.

- Ask the teacher students for on the computer.
- Ask to teacher students to insert a CD of E-content Programme.
- Open the E-content programme and start to learning of Education Psychology.
- Instruct to trainees that first go to Home and after than go related text, ppts and video material.
- They can evaluate of their self using a short MCQ type test which is given in text martial.
- Home work related to the points is given to the students at the end of the explanation of each section to check the learners understanding. The students are asked to write the answers in their notebooks.
- At that time the teacher should supervise them and clear their doubts if there are any.
- After that the correct answers should be provided and teacher should ask them to exchange their notebooks with one another for the correction.

XI. Outline, Planning of Each section and the schedules.

Day	Teaching Points	Expected Timing
1	Educational Psychology : Meaning, Form, Methods like Experiment, Observation, Case Study, Sociometry	45 minutes
2	Stages of Human Development	45 minutes
3	Characteristics and developmental tasks of Human Stages (According to Having Heartz)	45 minutes
4	Indian Adolescence : Characteristics of Adolescence and Behaviour problems	45 minutes
5	Indian Adolescence : Behaviour problem like To Addict,	45 minutes
6	Indian Adolescence : Characteristics of Adolescence, Behaviour problem like and their remedies	45 minutes
7	Requirements of Adolescence : Mental and Physical	45 minutes
8	Requirements of Adolescence : Emotional and Social	45 minutes
9	School Programme for Mental health and Physical fitness for trainees	45 minutes
10	School Programme for Social development and Emotional development for trainees	45 minutes
11	Thwarting, and Frustration : Meaning, Form and Educational Implication	45 minutes
12	Conflict : Meaning, Form and Educational Implication	45 minutes
13	Defence Mechanism : Day dreaming, Rationalization	45 minutes
14	Defence Mechanism : Identification and its Educational Implication	45 minutes
15	Theories of Learning : Meaning and Form	45 minutes
16	Classical Conditioning Experiment of Pavlov	45 minutes
17	Try and Error Experiment of Thorndike	45 minutes
18	Operant conditioning Experiment of Skinner	45 minutes
19	Educational Implication of Classical Conditioning, Operant Condition, and Learning by Try and Error	45 minutes
20	Parameters affecting to Teaching-Learning Process –Part –I	45 minutes
21	Parameters affecting to Teaching-Learning Process –Part –II	45 minutes
22	Transfer of Learning : Meaning, Importance and Types	45 minutes
23	Motivation : Form, Types and Characteristics of Internal Motivate trainees	45 minutes
24	Concept of Memory	45 minutes
25	Techniques of increase of Memory, causes of forget	45 minutes

XII.Evaluative Unit Test

At the end of entire session, it is necessary to measure the achievement of the students; the teacher can administer the unit test as post-test.

The teacher may assess the test papers with the help of answer key and can evaluate the learner's achievement.

17.0 Educational implications

In any research it is not sufficient to derive only result of study. For researcher, it is important to specify the usability of research done and how outcomes of research can be implemented in educational setting. Researcher stated the educational implications of present study as under:

- It will be use for the trainees of Pre-P.T.C, B.Ed., D.Ed., and other educational trainees.
- It will be use for pure psychological stream students.
- It is also useful for the Teacher-Educator.
- It is also useful for the Researcher and Research Scholar students.
- Programme will useful for trainees for learning convectional educational psychological bases.

18.0 Recommendations

Researcher completed research in field of Psychology, Experimental Research and as well as Educational Technology. To expand the limits of knowledge in field of present study and in related other fields, researcher insists for following research works.

- Researcher can construction other subjects E-content programme likes Measurement and evaluation, School Management, Educational Statistics, Educational Policies etc.
- Researcher can also constructed E-content programme at various level like D.Ed., Pre-P.T.C or High school and Higher Secondary Level.
- Researcher can also developed E-content in school subjects like Science, Mathematics, English, Sanskrit, Social studies, Guajarati, Hindi etc.

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