



Developing an IT Enabled Module for Teaching Microeconomics at Higher Secondary Level

KEYWORDS

IT enabled module, microeconomics, blended learning, and academic achievement

Himanshu Tripathi

Research Scholar (Regn No. 1270/2015-16), Alagappa University, Karaikudi, TamilNadu,

Dr. JE Merlin Sasikala

Assistant Professor, College of Education, Alagappa University, Karaikudi, TamilNadu

ABSTRACT Present study is an attempt to make study of Economics subject more flexible with emphasis upon individual learning. This can be achieved if a teacher teaches the subject with the aid of technology. Basic concepts of Economics described in its branch-Microeconomics can make their place at the cognitive level of understanding of the student if it is taught in an interesting way using an IT enabled module. In order to verify the effectiveness of the developed module it is tested upon 50 students while teaching Microeconomics. A pre-test was conducted after teaching Microeconomics by conventional method. Later, a post-test on same topics and sample was conducted after teaching the subject using IT enabled module. Tests so conducted revealed the effectiveness of the developed IT enabled module. It enables the student to have conceptual understanding of Microeconomics subject easily.

INTRODUCTION:

Today's world is modernized and individualistic. Every individual in today's world is more specific about his/her choice. Similar is the trend in educational field where he/she is more inclined towards flexible forms of learning with an emphasis upon the individual learning. Now days more emphasis is given upon the use of Educational Technology in teaching-learning process. IT enabled module adds following advantages to the teaching-learning process:

- Makes it more effective
- Learning at own pace
- Helps in planning to study at own convenience
- Cost-effective

I reviewed various abstracts and research journals and found that most studies pertain to effectiveness of E-learning, some studies pertaining to software development and the remaining studies are in general connected to the topic of research. Scholars including Felix (2007) developed and validated an e-content on the topic rDNA technology in Biotechnology. Jayakumar (2007) attempted on the development and validation of e-content on transport etc. Due to the increasing importance and wide scope of the subject Economics in every field I decided to develop an IT enabled module for the subject, pin focusing upon Microeconomics (class XII) of CBSE board. Further, I evaluated and assessed the reliability and validity of the module.

NEED AND SIGNIFICANCE:

Economics is a subject upon which whole world relies since barter system. One of its field Microeconomic theories has its own value and all other fields of economics could not be understood without understanding Microeconomic principles. These principles are to be retained in mind forever to apply them in other related fields. Economics teaching at school level faces the challenge of using traditional face to face classroom teaching. Present trend of teaching Economics at school level involves theory explanation along with demonstration. Moreover to understand an economic concept, merely 35-45 minutes of a class period is not sufficient enough. An IT enabled module for Microeconomics of class XII (CBSE) will be a blended form of teaching.

AIM:

Microeconomic concepts should make their place at cognitive level of understanding in the mind of students of Higher Secondary classes.

OBJECTIVES:

- To integrate the conventional face to face and IT enabled module teaching.
- To test the level of achievements through blended learning modules in Microeconomics subject.
- To evaluate the effectiveness of blended learning module in Microeconomics subject.
- To study the ICT readiness of students.

STATEMENT OF THE PROBLEM:

DEVELOPING AN IT ENABLED MODULE ON MICROECONOMICS SUBJECT OF CBSE BOARD AMONG STUDENTS AT HIGHER SECONDARY LEVEL.

HYPOTHESES:

Students taught with IT enabled module perform better academically in Microeconomics subject than those students taught with conventional method of teaching.

There is no significant difference between the achievement of students taught with conventional method and students with IT enabled module in understanding graphical presentation of Economic Laws.

There is no significant difference between the achievement of students having/not having previous computer knowledge and taught Microeconomics with IT enabled module.

There is no significant difference between the achievement of students whose parents have/ does not have higher educational qualification and taught Microeconomics with IT enabled module.

The attendance of students taught with IT enabled module is more.

RESEARCH DESIGN:

Variables:

In this study IT enabled module method of teaching and

conventional method of teaching are the dependent variables, the scores of achievement test of two treatment groups are independent variables. Previous computer knowledge, social background etc. are extraneous variables.

Sample & Population:

Includes **sample** (50 students of class XII from five different CBSE Board schools of Trivandrum District, Kerala) and population includes students at Higher Secondary level studying Microeconomics subject in Trivandrum District.

Tools:

- Developed IT enabled module
- Achievement test prepared.

Execution of the project:

- Development of theoretical part into .pdf format and images into .jpg format.
- Presentation of the brief of the whole lesson into a power point presentation/slide form with emphasis upon animated graphical presentation of various theories.
- Uploading of video of each chapter taught by an expert over 'YouTube' and linking it with the chapter.
- FAQs with regard to content of the module - Quiz pertaining to content for formative evaluation.
- At last hyperlinks to be created to link the different destinations such as 'click here' or 'connect to'. This would definitely help the learner to get additional information from other resourceful webs about the subject.
- Above developed module was presented to sample population. Earlier they were taught with conventional method of teaching/ face to face with teaching aids like chart papers, models etc. A test was conducted on the chapters taught on Microeconomics. Later same students were taught with the developed IT enabled module and again a test was conducted covering those taught topics on Microeconomics.

Analysis of Data (pre-test and post-test scores):

Table 1: Test scores in Microeconomics

Test	Students	No. of questions	Average Marks
Pre-test(conventional method)	50	50	52.34%
Post-test(IT enabled module)	50	50	68.72%

This table shows that the academic achievement of students taught with IT enabled module in Microeconomics is more than those taught with conventional method of teaching.

Table 2: Test scores in Microeconomics subject involving questions based on graphical representation:

Test	Students	No. of questions	\bar{x}	σ	T value
Pre-test	50	20	12.68	2.03	7.49
Post-test	50	20	10.01	1.49	

Pre-test	50	20	12.68	2.03	7.49
Post-test	50	20	10.01	1.49	

This table shows that there is significant difference between the achievements of students taught with conventional method and students taught with IT enabled module in understanding graphical presentation of Economic Laws. Hence, the hypothesis is rejected. Students taught with IT enabled module in Microeconomics have better understanding of Economic Laws represented by graphs than those taught with conventional method of teaching.

Table 3: Test scores in Microeconomics subject of students having previous computer knowledge and taught with IT enabled module:

Test	Students	No. of questions	\bar{x}	σ	T value
Students not having previous computer knowledge	29	20	8.31	1.39	11.92
Students having computer knowledge	21	20	14.14	2.07	

This table shows that there is significant difference between the achievement of students having previous computer knowledge and taught with IT enabled module in understanding graphical presentation of Economic Laws. Hence, the hypothesis is rejected. They have better understanding of Economic Laws.

Table 4: Test scores in Microeconomics subject of students whose parents are highly qualified and taught with IT enabled module:

Test	Students	No. of questions	\bar{x}	σ	T value
Students (qualified parents)	14	20	15.45	1.07	7.79
Students (parents not qualified)	36	20	11.67	1.68	

Here also difference is significant and hypothesis is rejected. Students whose parents are highly qualified will acquire more.

Table5: Attendance of students:

Test	Day1	Day2	Day3	Day4	Day5	Day6
Conventional Method	48	46	49	45	45	43
IT enabled module	47	47	48	50	49	49

Attendance clearly shows that students are more interested in learning through IT enabled module rather conventional method.

CONCLUSION OF THE STUDY

The IT enabled module on Microeconomics subject is more effective in making the concepts clearer. Since these concepts are understood at the cognitive level can be utilized in future while dealing with household problems or while making economic policies at higher level.

REFERENCE

- [1]Beard, L.A., & Harper, C. (2002). Student perceptions of online versus on campus instruction. *Education* 122, 658–663. | [2]Felix (2007) e-Content on rDNA technology in Biotechnology, Unpublished M.Ed. dissertation, Bharthidasan University Tiruchirappalli.. | [3]Jayakumar (2007) Development and validation of e-Content on 'transport' for the higher secondary commerce students". Unpublished M.Ed. dissertation, Bharthidasan University Tiruchirappalli. | [4]John W. Best and James V. Kahn, (2001), *Research in Education: Seventh Edition*, Prentice-Hall of India Pvt. Ltd, New Delhi – 110 001. | [5]Kothari, C. R. (2004): *Research Methodology, Methods and Techniques* (2nd Revised Edition), New Age International Publishers, New Delhi. | [6]ERIC-Educational Resource Information Center, (2010). *Researches on Computer Assisted Instruction*, retrieved from <http://www.eric.ed.gov>. |