

Comparison of Educational Comics Instructional Material and Traditional Method in Terms of Conceptual Understanding in Economics of Ninth Graders

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Abstract

The Present study entitled “Comparison of Educational Comics Instructional Material and Traditional Method in terms of Conceptual Understanding in Economics of Ninth Graders” is belonging to the area of Educational Technology. The objective of the present study was “to compare Adjusted Mean Scores of Conceptual Understanding in Economics of Educational Comics Instructional Material Group and Traditional Method Group by taking Pre- Conceptual Understanding in Economics as Covariate. The researcher developed an Educational Comics on some concepts of Economics for ninth graders. The study was experimental in nature. Pretest-posttest control group design was used. The sample for this study comprised of about 60 students of class Ninth. The sample was selected through listed Hindi Medium school of M.P. Board in Indore City, out of them one school i.e. Anand Higher Secondary School was selected randomly. Data were collected through Economics Concept Understanding test, which developed by Investigator. One Way Ancova was used for data analysis. Researcher found that Comics Instructional Material was significantly superior to Traditional Method when groups were matched statistically with respect to Pre-Conceptual Understanding in Economics variable.

Introduction

The Present study entitled “Comparison of Educational Comics Instructional material and Traditional Method in terms of Conceptual Understanding in Economics of Ninth Graders” is belonging to the area of Educational Technology. The first impact of present technology is the trend towards individualized instructional materials. Use of new material and modes of instructions have increased enormously during the past few years. In the modern time, the focus of teaching method is to be shifted from teacher-centered to child-centered to make them more active, so that, one can be motivated for self learning through Teachers support. For self learning there are so many types of Instructional Material. One of them is Educational Comics. Comics carry very interesting, amusing and thrilling, reading material for entertaining as well as educating the readers. In comics, usually the same characters enact some rapidly moving story in a sequence of closely related colorful illustrations along with some essential verbal description. The events are arranged chronologically or in some order which suits the communication of a tale. Comics are printed material in which Cartoons or Pictures are arranged with verbal description. It is a powerful communication medium. It helps to develop personality of children and modify their behaviour.

Theoretical Framework

The use of comics as an instructional medium could be hypothetically supported by reference to a number of psychological theories. The dual coding theory proposed by Paivio (1971, 1986) attempts to give equal weight to verbal and non-verbal processing. (Paul Aleixo & Claire Norris, 2010) Paivio states: "Human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events. Moreover, the language system is peculiar in that it deals directly with linguistic input and output (in the form of speech or writing) while at the same time serving a symbolic function with respect to nonverbal objects, events, and behaviors. Any representational theory must accommodate this dual functionality."

Dual coding theory assumes innate contributions to cognition and individual differences because all human nature is the product of the interaction of genes and the environment. More layers of complexity are built on these basic assumptions, including accounts of meaning, memory, knowledge organization, and learning. One direct implication of the theory is that pictures or concrete language (e.g., juicy hamburger) should be understood and recalled better than abstract language (e.g., basic assumption), a consistent research finding.

Rationale of the Study

Cartoon and Comics are visual Graphic material. They are used as an Instructional Material. They are good attention-capturing device. Their appeal is universal irrespective of age, sex and cultural difference and almost all the subjects of the school curriculum can be taught through Comics as an Instructional Material. Comics carry verbal description along with the visual pictorial contents for telling a story. In the field of comics some researches have been done. These are by Sones (1944), Hutchinson (1949), Haugard (1973), Karlkoenke (1981), Ziv (1988), Casper (1999), Keogh and Naylor (2000), White (2001), Beard and Rhodes (2002), Glenn (2002), Song et. al (2008). They found that comics are beneficial in developing and assessing student's ideas & thinking. Comics are a good way of expressing feelings and other emotions rather than traditional technique. Comics were the only way to motivate the students to read. It was one of the important ways to insert humour into their classes and humour affects positively the teaching – learning process. Also, they found that pictures tell any story more effectively than words and visual quality of comics helped the students of Low and middle Intelligence levels. Sones (1944) compared comics with pictures to comics with text. He found that visual quality increases learning. Ziv (1988) conducted the first study in a one - semester college statistics course involving 161 students. The second experiment included 132 students in a one- semester introductory psychology course. He found that the experimental groups who received content – related humor in their lesson consistently scored higher than the control groups.

From the all above studies it concluded that comics are very effective instructional tools for educational purpose. It makes teaching-learning process entertaining. Beside entertainment comics have more direct roles in teaching-learning process i.e. as a warm up activity, as an instructional activity and as an assessment tool. But there are few researches conducted on comics as an instructional material in Science

stream in abroad and as well as in India. Therefore, investigator wants to check the role of educational comics in Social Science subject.

Statement of Aim

Comparison of Educational Comics Instructional Material and Traditional Method in terms of Conceptual Understanding in Economics of Ninth Graders

1.7.1 KEY TERMS

Educational Comics

An educational comic is an interesting, amusing and thrilling instructional material, in which Cartoons or Pictures are arranged with verbal description. Cartoons, Pictures and Verbal descriptions are closely related with illustrations. Comics which prepared for the Educational purpose, convey information of any concept systematically to the students. So that student can understand the concept in interesting way and retained the knowledge for long time period.

Objective

The Objective of the present study was as follows:

To compare Adjusted Mean Scores of Conceptual Understanding in Economics of Comics Instructional Material Group and Traditional Method Group by taking Pre-Conceptual Understanding in Economics as Covariate.

Hypothesis

The hypothesis of the study was as follows:

There is no significant difference between Adjusted Mean Scores of Conceptual Understanding in Economics of Comics Instructional Material Group and Traditional Method Group by taking Pre-Conceptual Understanding in Economics as Covariate.

Delimitation

The delimitations of the study were as follows:

1. The study was restricted to only IX class students.
2. The study was restricted to only Hindi Medium School.
3. The sample was drawn from M.P. Board Private Co-Ed School of Indore.
4. The treatment continued for only five days at the rate of 40 minute per day.
5. Comics were developed in Hindi Language.
6. The Comics were developed only on the "Concept Consumer Surplus" of Economics Subject.
7. Only Two Segments were developed in the Comics.

Sample

The present study was experimental in nature. The sample for this study comprised of about 60 students of class IX. The sample was selected through listed Hindi Medium school of M.P. Board in Indore City, out of them one school was selected randomly. The sample was divided into two groups. One group was designated as

Experimental Group and the other as Control Group. The Group which received the treatment is known as Experimental Group and the other Group which continued through traditional method is known as Control Group. The age of students ranged from 14 to 15 years.

Experimental Design

The present study was experimental in nature. Design of the study was Non Equivalent Control Group Design. The layout of the research design is as follows:

$$\begin{array}{ccc} O_1 & X & O_2 \\ O_3 & . & O_4 \end{array}$$

Where-

- O_1 - Pre-Test of Experimental Group
- O_2 - Post- test of Experimental Group
- O_3 - Pre-Test of Control Group
- O_4 - Post-Test of Control Group
- X- Treatment
- . - Teaching by Traditional method

Variables of the Study

Independent Variable: Teaching Method

Dependent Variable: Conceptual Understanding in Economics

Tool

The Conceptual Understanding in Economics was assessed with the help of Economics Concept Understanding Test, developed by the investigator. The M. P. Board prescribed syllabus was considered. This test comprised of questions related to the concept "Consumer Surplus". The questions comprised of all levels of cognitive domain. The questions were objective, very short and short answer type questions. The total marks of the Economics Concept Understanding Test were 20. The students were asked to attempt all the questions.

Data Collection

First of all, one school was selected randomly for the present study. After getting the permission from principal of school the rapport was established with the students of Experimental and Control Group. Pre Economics Concept Understanding Test was administered on the both groups and assure them that this test is not related to their exams and the scores will be used only for the research work. After completing the pre-testing of students, the concepts of Economics were taught to Experimental Group through comics. Before starting teaching, all relevant information about Comics Instructional Material was given to the students. The treatment was given to the Experimental group. On the other control group was taught through Traditional Method. After completing the concept, both the groups were post tested on Economics Concept Understanding Test, which was parallel to pre-test.

Statistical Techniques

The data was analysed by using One Way ANCOVA.

Results

The objective “to compare adjusted mean scores of Conceptual Understanding in Economics of Comics Instructional Material Group and Traditional Method Group by taking Pre-Conceptual Understanding in Economics as covariate” data were analysed with the help of one way ANCOVA. The results are given in table 1.0

Table 1.0

Summary of ANCOVA for Conceptual Understanding in Economics by taking Pre-Conceptual Understanding in Economics as covariate.

Source of Variance	Df	SS _{v,x}	MSS _{v,x}	F _{v,x}
Treatment	1	28.49	28.49	5.93*
Error	57	273.81	4.80	
Total	58	325.33		

*significant at 0.05 level

From table 1.0 it is evident that adjusted F-value is 5.93 which is significant at 0.05 level with df 1/57. It reflects that adjusted mean score of Conceptual Understanding in Economics of Comics Instructional Material Group differs significantly from that of Traditional Method Group when Pre-Conceptual Understanding in Economics was considered as covariate. Thus, the null hypothesis that the adjusted mean score of Conceptual Understanding in Economics of Comics Instructional Material Group and Traditional Method Group do not differ significantly by considering Pre-Conceptual Understanding in Economics as covariate is rejected.

Further, the adjusted mean score of Conceptual Understanding in Economics of Comics Instructional Material Group is 15.36 which is significantly higher than that of Traditional Method Group whose mean score of Conceptual Understanding in Economics is 13.96. It may, therefore be concluded that the Comics Instructional Material was found to be significantly superior to Traditional Method when groups were matched statistically with respect to Pre-Conceptual Understanding in Economics variable.

Discussion

The objective of the study was to compare adjusted mean scores of Conceptual Understanding in Economics of Comics Instructional Material Group and Traditional Method Group by taking Pre-Conceptual Understanding in Economics as covariate. The finding of this objective was that the Comics Instructional Material was found to be significantly superior to Traditional Method when group were matched statistically with respect to Pre-Conceptual Understanding in Economics was taken as covariate. It might be stated that the present result show that Comics Instructional Material provide better understanding of concept, because in comics, picture or cartoons are arranged with verbal description. So for that students' more senses are involved in comics. Beside entertainment comics play an important role in teaching- learning process. It might enhanced curiosity, interests, attitude, motivation of students to read. Hutchinson (1949), Ziv (1988), White (2001), Glenn (2002) provide evidence relating to the use of humour and its positive effects on teaching and learning. However Whisonans (1998) holds the contrary view that Humorous comic strip not affect significantly the cognitive learning if

comic strips are not related to the curriculum content. But in present study finding shows the comics quite effective as they were related to subject – content.

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