



# ENHANCING HISTORICAL APPRECIATION: STRATEGIC SHIFT OF *TEACHING THROUGH EDUCATIONAL COURSEWARE*

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## ABSTRACT

*History is more than an effort to collect information about the past. Various studies and research oriented papers have empirically established that teaching of history through the medium of technology have significant and positive relationship with appreciation. This study investigates the impact of educational courseware on enhancing secondary school students' Historical appreciation. Educational Courseware for teaching provides individualized attention even in a group of students. New media have an efficient prospective that motivates the students to assimilate the concepts. Hence, the present study is an attempt to make the teaching of history in an interesting one. The study aimed to develop an Educational Courseware for enhancing Appreciation of History among Secondary school students by measuring its relative effectiveness with Constructivist learning. Key findings indicate that educational courseware not only improves students' engagement and interest in history but also promotes deeper understanding and appreciation of the subject. The study concludes with recommendations for educators, curriculum developers, and policymakers on adopting evidence-based approaches to integrating educational technology in history education. By focusing on teacher preparedness and promoting student-centered learning, this study outlines a roadmap for revolutionizing history education, ensuring it is both meaningful and impactful for students in the digital age. The findings of the study will highlight the need to use innovative multimedia materials in the History classroom. Further, the findings may also be of immense help to the Secondary school teachers of History, the student teachers as well as the secondary school students by providing encouragement, training and support to inculcate positive attitude towards History and thereby enhancing their appreciation of History.*

**Keywords:** Historical Appreciation, Educational Courseware, Constructivist Strategy.

## INTRODUCTION

High school history teachers frequently struggle to maintain student interest and cultivate a strong passion for the topic. Passive learning and decreased interest may result from traditional approaches' inability to close the gap between historical events and students' contextual understanding. As a technologically advanced teaching tool, educational courseware provides a vibrant substitute for traditional teaching methods. Courseware may make history classes more engaging and relatable by using multimedia components like images, animations, and interactive modules. The efficacy of educational courseware in comparison to the constructivist strategy—a learner-centered approach that emphasizes critical thinking and active exploration—is examined in this study. The research attempts to ascertain which approach more effectively fosters historical learning and participation by looking at students' capacity to recognize historical events and their significance. The results have

ramifications for teachers looking for creative ways to enhance high school history instruction and create a lifelong interest in the subject.

## OBJECTIVE

1. To compare the effectiveness of Educational courseware and Constructivist strategy in enhancing Appreciation of history among Secondary school students

## HYPOTHESES

1. The Educational Courseware will be significantly more effective than Constructivist Strategy for enhancing Appreciation of History among Secondary school students

## ANALYSIS

The scores obtained initially from the administration of the Appreciation of History scale to both the Experimental and Control Groups were considered as the Pre-test scores. Then the Experimental Group was exposed to Educational Courseware and the Control Group to Constructivist strategy of teaching. After the experimental treatment, the test was again administered on both Experimental and Control Groups. The scores obtained thus were considered as Post-test scores. The data regarding the effectiveness of Educational Courseware and existing method of teaching among Secondary School Students is analysed

### A. Before experiment

One of the main objectives of the study is to test the effect of Educational Courseware on Appreciation of History among secondary school students. For achieving this objective, firstly the investigator compared the pretest scores of Appreciation of History between experimental and control groups.

The Arithmetic Means and Standard Deviations of the Pre-test scores of Secondary School Students in the Experimental (N=99) and Control (N=99) Groups were computed and the data and results of the test of significance of difference in the Mean scores are given in Table 1.

**Table 1**

***Details of Comparison of Mean Pre-test Scores on Appreciation of History of Experimental and Control Groups***

| Group              | N  | Mean  | Std. Deviation | t-value | p-value |
|--------------------|----|-------|----------------|---------|---------|
| Experimental Group | 99 | 43.79 | 6.92           | 0.172   | p>0.05  |
| Control Group      | 99 | 43.64 | 5.41           |         |         |

From table 4.59, it can be seen that the critical ratio for the pre- test mean score on Appreciation of History is 0.172 for experimental and control groups. This value is lower than the tabled value for significance at .05. Hence the difference in the pre- test mean score on Appreciation of History of the experimental and control groups is not significant even at .05 level. That is the initial level mean score of Appreciation of History (pre-test) of the experimental group (students using the courseware) and control group (students using existing method) are almost equal.

### B. After experiment

The Arithmetic Means and Standard Deviations of the Post-test scores of Secondary School Students in the Experimental (N=99) and Control (N=99) Groups were computed and the data and results of the test of significance of difference in the Mean scores are given in Table 2.

**Table 2**

***Details of Comparison of Mean Posttest Scores on Appreciation of History of Experimental and Control Groups***

| Group              | N  | Mean  | Std. Deviation | t-value | p-value |
|--------------------|----|-------|----------------|---------|---------|
| Experimental Group | 99 | 54.29 | 8.07           | 8.27    | P<0.01  |
| Control Group      | 99 | 45.93 | 6.00           |         |         |

From table 4.60, it can be seen that the critical ratio for the post-test mean score on Appreciation of History is 8.27 for experimental and control groups. This value is higher than the tabled value for significance at .01 level. Hence the post-test mean scores on Appreciation of History of the experimental group is higher than that of control group. That is in the post test, students using the Courseware has a higher score on Appreciation of History compared to that of students not using the Courseware. It can thus be inferred that Educational Courseware is more effective than existing method of teaching in enhancing Appreciation of History of Secondary School Students.

### **C. Effectiveness of Educational Courseware on Appreciation of History**

The Gain in Performance and the Genuineness of the difference in scores on Appreciation of History was estimated to test the effectiveness of Educational Courseware in enhancing Appreciation of History among Secondary School Students. This is explored in two stages.

#### **1. Gain score**

The difference in the Mean Pre- and Post-test scores of the Total Sample of Secondary School Students was tested for significance of their Mean Gain scores. The data and results of the test of significance on the Mean Gain scores are given in Table 3.

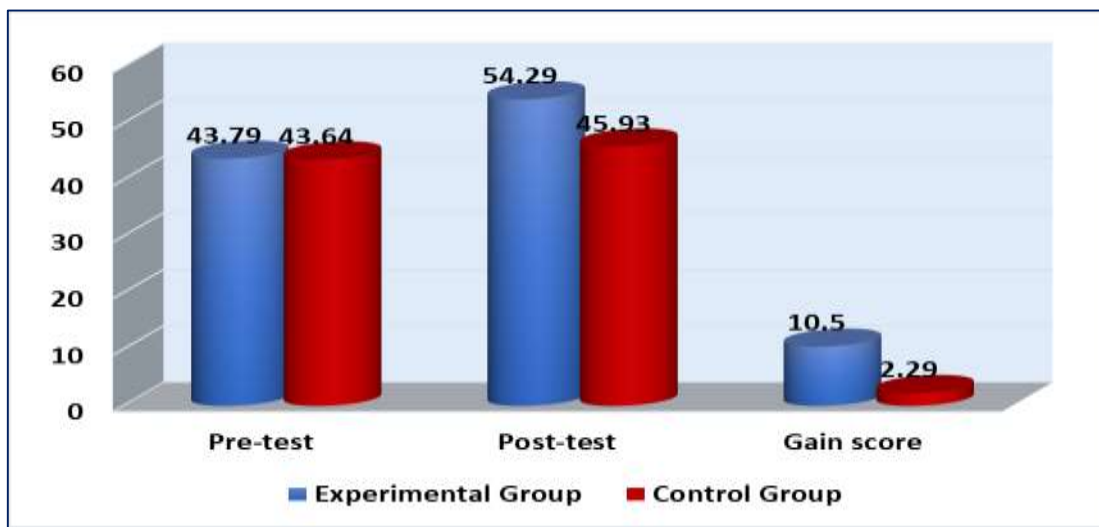
**Table 3**

***Details of Comparison of Mean Gain Scores of Appreciation of History between Experimental and Control Groups***

| Group              | N  | Mean  | Std. Deviation | t-value | p-value |
|--------------------|----|-------|----------------|---------|---------|
| Experimental Group | 99 | 10.50 | 4.35           | 15.22   | P<0.01  |
| Control Group      | 99 | 2.29  | 3.14           |         |         |

From Table 4.61, it can be seen that the critical ratio for the mean gain score on Appreciation of History between experimental and control groups is 15.22. This value is higher than the tabled value for significance at .01 level. Hence it can be inferred that the mean gain score on Appreciation of History is higher for students using the courseware than that of students using existing method of teaching.

The comparison of Pre-test, Post-test and Mean Gain scores of Experimental and Control Groups on Appreciation of History presented in Figure 1.



**Figure 1** *Pre-test Post-test, and Mean Gain Scores on Appreciation of History of Experimental and Control Groups*

## 2. Genuineness of the Difference in scores

The Pre- and Post-test scores of Appreciation of History of Secondary School Students in the Experimental Group taught using Educational Courseware and those of the Control Group taught using existing method of teaching were subjected to Analyses of Variance and Covariance (ANOVA and ANCOVA) as well as the Calculation of Adjusted Means so as to determine the effectiveness of the former over the latter.

### a. Summary of Analysis of Variance (ANOVA)

The Analysis of Variance for the Pre-test scores and the Post-test scores of the Students taught using Educational Courseware and existing method of teaching were tested for significance and the results are presented in Table 4.

**Table 4**

*Summary of Analysis of Variance of Pre-test and Post-test Scores on Appreciation of History of Experimental and Control Groups*

| Variable                          | Source of Variance | Sum of Squares | df  | Mean Square | F     | Sig. |
|-----------------------------------|--------------------|----------------|-----|-------------|-------|------|
| Appreciation of History Pre-test  | Between Groups     | 1.136          | 1   | 1.136       | .029  | .565 |
|                                   | Within Groups      | 7569.455       | 196 | 38.620      |       |      |
|                                   | Total              | 7570.591       | 197 |             |       |      |
| Appreciation of History Post-test | Between Groups     | 3462.545       | 1   | 3462.545    | 68.42 | .000 |
|                                   | Within Groups      | 9919.010       | 196 | 50.607      |       |      |
|                                   | Total              | 13381.556      | 197 |             |       |      |

Table 4.62 shows that the F value obtained for pretest score is 0.029, which is less than the Table value and hence not significant. This indicates that there is no significant difference between the Pre-test scores of Secondary School Students in the Experimental and Control Groups. Table 4.62 also shows that the F value obtained for posttest is 68.42, which is greater than the Table value and hence is significant at 0.01 level. The



significant F value indicates that both the Experimental and Control Groups differ significantly in their Post-test scores of Appreciation of History.

### b. Summary of Analysis of Covariance (ANCOVA)

The Total Sum of Squares and Adjusted Mean Square Variance for Post test scores of Appreciation of History are computed and the results of the Analysis of Covariance are presented in Table 5.

**Table 5**

*Summary of ANCOVA of Posttest Score on Appreciation of History by Groups with Pre-test Scores on Appreciation of History as Covariate*

| Source                              | Sum of Squares | df  | Mean Square | F        |
|-------------------------------------|----------------|-----|-------------|----------|
| Corrected Model                     | 10565.714      | 2   | 5282.857    | 365.843  |
| Intercept                           | 234.280        | 1   | 234.280     | 16.224   |
| Appreciation of History<br>Pre-test | 7103.169       | 1   | 7103.169    | 491.902  |
| Group                               | 3341.581       | 1   | 3341.581    | 231.41** |
| Error                               | 2815.842       | 195 | 14.440      |          |
| Total                               | 510584.000     | 198 |             |          |
| Corrected Total                     | 13381.556      | 197 |             |          |

\*\*Significant at 0.01 level

It is clear from table 4.63 that the obtained F -ratio is 231.41, is greater than the tabled value at 0.01 level of significance. The significant F- ratio shows that the means of posttest scores of students in the experimental and control groups differ significantly after they have been adjusted for difference in the pretest Score on Appreciation of History. Therefore, educational courseware has significant effect in Appreciation of History.

### c. Calculation of Adjusted Means

The Adjusted Means for the Post-test scores (Y Means) of Students in the Experimental and Control Groups were computed. The data and results are shown in Table 6.

**Table 6**

*Data for Adjusted Means of Post-test Scores on Appreciation of History of Experimental and Control Groups for Total Sample*

| Groups             | N  | M <sub>X</sub> | M <sub>Y</sub> | M <sub>YX</sub><br>(Adjusted) | t-value | p      |
|--------------------|----|----------------|----------------|-------------------------------|---------|--------|
| Experimental Group | 99 | 43.79          | 54.29          | 54.22                         | 15.22   | P<0.01 |
| Control Group      | 99 | 43.64          | 45.93          | 46.00                         |         |        |

SE<sub>D</sub> between two adjusted Y Means – 0.540, Mean difference -8.22

In Table 4.64, it can be seen that the difference in Adjusted Means for the Post-test scores of the Experimental and Control Groups was tested for significance and 't' value (15.22) was found to be significant at

0.01 level. The Experimental Group is superior to the Control Group ( $M_{YXC}=46$ ,  $M_{YXE}=54.22$ ). This points to the fact that Appreciation of History of Students in the Experimental Group is far better than that of the Students in the Control Group. It may therefore be concluded that the Students exposed to Educational Courseware have enhanced Appreciation of History as compared to those exposed to existing method of teaching. In other words, Educational Courseware is more effective than existing method of teaching in enhancing Appreciation of History among Secondary School Students.

## FINDINGS

1. There is no significant difference between the mean pre-test scores on Appreciation of History for the experimental and control groups ( $t= 0.172$ ,  $p>.05$ ). That is the initial level mean score of Appreciation of History (pre-test) of the experimental group (students using the courseware) and control group (students using Constructivist method) are almost equal.
2. There is a significant difference between the mean post-test scores on Appreciation of History for the experimental and control groups ( $t= 8.27$ ,  $p<.01$ ). There is a significant difference between the mean gain scores on Appreciation of History for the experimental and control groups ( $t= 15.22$ ,  $p<.01$ ). There is a significant difference between the adjusted mean score on Appreciation of History for the experimental and control groups ( $t= 15.22$ ,  $p<.01$ ). That is Educational Courseware is more effective than existing method of constructivist strategy of teaching in enhancing the Appreciation of History of secondary school students for total sample.

## CONCLUSION

Educational courseware significantly enhances students' appreciation of history compared to Constructivist strategy of teaching. Similar results were reported by Clark and Mayer (2016), who found that digital learning environments can foster a deeper understanding and appreciation of historical contexts by providing immersive and interactive experiences.

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