Chapter 6

SUMMARY, FINDINGS, CONCLUSIONS
AND SUGGESTIONS

6.1 The Study in Retrospect
6.2 Hypotheses of the Study
6.3 Objectives of the Study
6.4 Methodology
6.5 Conclusions Based on the Findings
6.6 Tenability of Hypotheses
6.7 Educational Implications of the Study
6.8 Suggestions for Further Studies
CHAPTER 6

SUMMARY, FINDINGS, CONCLUSIONS AND SUGGESTIONS

The focus of the study was to ascertain the relative effectiveness of Electronic Media Based Instructional Strategy and the Present Activity Oriented Approach in creating Environmental Awareness among the Secondary School Pupils of Kerala. This Chapter gives a brief Summary of the study in retrospect which includes the Statement of the Problem, Objectives of the Study, Hypotheses formulated for the Study, Methodology, The variables in the study, The tools and techniques used, Procedure of the Data collection and the Statistical techniques used. The conclusions emerged out of the study based on the analysis form the major part of this chapter. The educational implications which are the contributions of the study are also included as the test part along with the Suggestions for further Research in the field of Electronic Media Based Instruction.

6.1 The Study in Retrospect

In the present study, the Investigator made an attempt to ascertain the relative effectiveness of Electronic Media Based Instructional Strategy and the Present Activity Oriented Approach in creating Environmental Awareness among the Secondary School Pupils.
6.2. Hypotheses of the Study

1. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Secondary School Students.

2. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Secondary School Students.

3. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Secondary School Students.

4. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Ethics of Secondary School Students.

5. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Boys at Secondary School level.

6. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Boys at Secondary School level.
7. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Boys at Secondary School level.

8. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Ethics of Boys at Secondary School level.

9. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Girls at Secondary School level.

10. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Girls at Secondary School level.

11. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Girls at Secondary School level.

12. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Ethics of Girls at Secondary School level.

6.3 Objectives of the Study

1. To compare the Effectiveness of Electronic Media Based Instructional Strategy with that of the Present Activity Oriented Approach with regard to Total Environmental Awareness of Students at Secondary level.
2. To compare the Effectiveness of Electronic Media Based Instructional Strategy with that of the Present Activity Oriented Approach with regard to Environmental Theory Awareness of Students at Secondary level.

3. To compare the Effectiveness of Electronic Media Based Instructional Strategy with that of the Present Activity Oriented Approach with regard to Environmental Application Awareness of Students at Secondary level.

4. To compare the Effectiveness of Electronic Media Based Instructional Strategy with that of the Present Activity Oriented Approach with regard to Environmental Ethics of Students at Secondary level.

5. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Total Environmental Awareness of Boys at Secondary level.

6. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental Theory Awareness of Boys at Secondary level.

7. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental Application Awareness of Boys at Secondary level.

8. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental Ethics of Boys at Secondary level.
9. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Total Environmental awareness of Girls at Secondary level.

10. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental Theory awareness of Girls at Secondary level.

11. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental application awareness of Girls at Secondary level.

12. To compare the Effectiveness of Electronic Media Based Instructional Strategy with the Present Activity Oriented Approach with regard to Environmental Ethics of Girls at Secondary level.

6.4 Methodology

The major objectives of this investigation was to ascertain the relative effectiveness of Electronic Media Based Instructional Strategy and the Present Activity Oriented Approach in creating Environmental Awareness among the secondary School pupils of Kerala. The study was conducted following Pre-test Post-test Non equivalent group design where there were one experimental group and one control group. The experimental group was taught through Electronic Media Based Instruction and the control group was taught through the Present Activity Oriented Approach. To compensate for the lack of equivalences among the groups, the technique of Analysis of Covariance was applied ( ANCOVA ).
Six divisions of Standard VIII students of three schools from Thrissur District of Kerala were selected for the study. St. Aloysious High School, Elthuruth. Little Flower GHS, Olarikkara, and High School, Arimpur were the selected Schools. Thus the sample consisted of 215 students from all the three schools in which 90 students (42 boys and 48 girls) were in each experimental and control groups.

For the purpose of the present study the Investigator prepared and borrowed the following materials and tools.

2. Lesson Transcript and learning materials based on Present Activity Oriented Approach on Environmental Science.
3. Environmental Theory Awareness Test
4. Environmental Application Awareness Test
5. Intelligence Test
6. Environmental Ethics Scale

The major objective of the present study was to find out the effectiveness of Electronic Media Based Instruction over the Present Activity Oriented Approach in creating environmental awareness among the secondary school pupils. The procedure adopted for the study was as follows. The Investigator prepared and standardized two environmental awareness tests. Environmental theory Awareness Test and Environmental Application Awareness Test were used as pre test and post test to measure the environmental awareness of students before and after the
experiment. In addition to that the Investigator used an Environmental Ethics Scale Standardized by Hassin Taj before and after the experiment. The experimental group was taught through Electronic Media based Lessons (Video Lessons) prepared by the Investigator with help of LCD projector and the control group was taught using present Activity Oriented Approach by investigator himself.

The different statistical techniques employed in this study were, Mean Standard deviation, Critical Ratio, and Analysis of Covariance.

6.5 Conclusions Based on the Findings

The major conclusions based on the statistical analysis of data, obtained from the comparison of Electronic Media Based Instruction and the Present Activity Oriented Approach in creating environmental awareness among the secondary school pupils was formulated under the following heads.

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE TOTAL ENVIRONMENTAL AWARENESS OF SECONDARY SCHOOL STUDENTS.**

The conclusion is substantiated by the following findings of the study.

1. The mean post - test scores of experimental group that was taught through the Electronic Media Based Instruction (Total Environmental awareness) is found to be higher than that of the control group which was taught through the Present activity oriented approach.\( \text{M}_1 = 69.4 \ ; \ \text{M}_2 = 64.55 \). The critical ratio of the mean values of post – test scores of the experimental
group and control group \((\text{C.R.} = 10.039 \ P < 0.01)\) indicates that there is a significant difference between the Total Environmental Awareness of experimental and control groups. The mean post test score of experimental group that was taught through Electronic Media Based Instructional Strategy is found to be higher than that of the control group.

2. The gain scores of the experimental and control groups which were subjected to the analysis of critical ratio \((\text{C.R.} = 7.26 \ P < 0.01)\) showed that there is significant difference between the mean gain scores of experimental group and control group. The mean gain score of the experimental group is 29.81 and Control group is 25.96.

3. The value of analysis of covariance \((F_{y,x} = 95.94 \ P < 0.01)\) is significant at 0.01 level. From \(F_{y,x}\), it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly difference from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating Total environmental awareness.

4. The ‘t’ value for the adjusted mean of post test scores of experimental and control group \((t = 9.89 \ P < 0.01)\) is significant at 0.01 level. This indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is 69.27, which is significantly higher than that of the control group, whose
adjusted mean of the post score is 64.69. Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA on creating Total Environmental Awareness.

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL THEORY AWARENESS OF SECONDARY SCHOOL STUDENTS.**

The conclusion is substantiated by the following findings of the study.

1. The mean post-test scores of experimental group that was taught through the Electronic Media Based Instruction (Environmental Theory awareness) is found to be higher than that of the control group which was taught through the Present activity oriented approach. ($M_1 = 36.03; M_2 = 33.83$). The critical ratio of the mean values of post-test scores of Environmental theory Awareness of the experimental group and control group ($C.R. = 7.70$, $P < 0.01$) indicates that there is a significant difference between the Environmental Theory Awareness of experimental and control groups. The mean post test score of experimental group that was taught through Electronic Media Based Instructional Strategy is found to be higher than that of the control group.

2. The gain scores of the experimental and control groups which were subjected to analysis of critical ratio ($C.R. 5.08$, $P < 0.01$) showed that there is significant difference between the mean gain scores of experimental group
and control group. The mean gain score of experimental group is **17.58** and control group is **15.78**.

3. The value of analysis of covariance ($F_{y,x} = 55.19 \ P < 0.01$) is significant at 0.01 level. From $F_{y,x}$ it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly different from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating environmental theory awareness.

4. The ‘t’ value for the adjusted mean of post test scores of experimental and control group ($t = 7.46 \ P < 0.01$)is significant at 0.01 level. It indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is **36.01**, which is significantly higher than that of the control group, whose adjusted mean of the post score is **33.86**. Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA on creating Environmental Theory Awareness.
ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL APPLICATION AWARENESS OF SECONDARY SCHOOL STUDENTS.

The conclusion is substantiated by the following findings of the study.

1. The mean post-test scores of experimental group that was taught through the Electronic Media Based Instruction (Environmental Application awareness) is found to be higher than that of the control group which was taught through the Present activity oriented approach. \(M_1 = 33.37; \ M_2 = 30.83\). The critical ratio of the mean values of post-test scores of Environmental Application Awareness of the experimental group and control group (C.R. = 6.74 \(P < 0.01\)) indicates that there is a significant difference between the Environmental Application Awareness of experimental and control groups. The mean post test score of experimental group that was taught through Electronic Media Based Instructional Strategy is found to be higher than that of the control group.

2. The gain scores of the experimental and control groups which were subjected to the analysis of critical ratio (C.R. 4.93 \(P < 0.01\)) showed that there is significant difference between the mean gain scores of experimental group and control group. The mean gain score of experimental group is 12.8 and control group is 10.2.
Summary, Findings, Conclusions and Suggestions

3. The value of analysis of covariance \( (F_{y,x}= 45.99 \ P < 0.01) \) is significant at 0.01 level. From \( F_{y,x} \), it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly different from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating Environmental Application awareness.

4. The ‘t’ value for the adjusted mean of post test scores of experimental and control groups \( (t = 6.82 \ P < 0.01) \) is significant at 0.01 level. This indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is 33.27, which is significantly higher than that of the control group, whose adjusted mean of the post score is 30.82. Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA on creating Environmental Application Awareness.

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL ETHICS OF SECONDARY SCHOOL STUDENTS.**

The conclusion is substantiated by the following findings of the study.

1. The mean post - test scores of experimental group that was taught through the Electronic Media Based Instruction (Environmental Ethics) is found to
Summary, Findings, Conclusions and Suggestions

be higher than that of the control group which was taught through the Present activity oriented approach. \((M_1 = 107.9 ; M_2 = 89.81)\). The critical ratio of the mean values of post-test scores of the experimental group and control group \((C.R = 10.14 \ P < 0.01)\) indicates that there is a significant difference between the Environmental ethical Awareness of experimental and control groups. The mean post-test score of experimental group that was taught Through Electronic Media Based Instructional Strategy is found to be higher than that of the control group.

2. The gain scores of the experimental and control groups which were subjected to the analysis of critical ratio \((C.R. = 9.29 \ P < 0.01)\) showed that there is significant difference between the mean gain scores of experimental group and control group. The mean gain score of experimental group is 66.15 and control group is 49.02.

3. The value of analysis of covariance \((F_{y,x} = 99.16 \ P < 0.01)\) is significant at 0.01 level. From \(F_{y,x}\), it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly different from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating Environmental Ethics.

4. The ‘t’ value for the adjusted mean of post test scores of experimental and control group \((t = 10.02 \ P < 0.01)\) is significant at 0.01 level. This indicates that the adjusted mean of the post test scores of the group taught through
EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is 107.80, which is significantly higher than that of the control group, whose adjusted mean of the post score is 89.93. Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA on creating Environmental Ethics.

ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE TOTAL ENVIRONMENTAL AWARENESS OF BOYS AT SECONDARY SCHOOL LEVEL.

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Awareness scores (Total Environmental Awareness) of boys in the experimental and control group were compared, the difference between the mean was found to be statistically significant. (C.R. = 5.14 P < 0.01). The Experimental group excel the control group boys (M1 = 67.26 M2 = 63.97).

2. When the Total Gain Scores of the Environmental Awareness of Boys in the Experimental and control Group were compared, the difference between their means was found to be statistically significant. (C.R. = 4.77 P < 0.01). The Experimental Group mean is greater than that of the Control group mean (M1 = 28.16 M2 = 25.07).
ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL THEORY AWARENESS OF BOYS AT SECONDARY SCHOOL LEVEL.

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Theory Awareness scores of boys in the experimental and control group were compared, the difference between the mean was found to be statistically significant. (C.R. = 5.94  P < 0.01). The Experimental group excel the control group boys (M1 = 35.69; M2 = 33.35).

2. When the Gain Scores of the Environmental Theory Awareness of Boys in the Experimental and control Group were compared, the difference between their means was found to be statistically significant. (C.R. = 4.88  P < 0.01). The Experimental Group mean is greater than that of the Control group mean (M1 =17.23; M2 =14.83).

ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL APPLICATION AWARENESS OF BOYS AT SECONDARY SCHOOL LEVEL.

The conclusion is substantiated by the following findings of the study.
1. When the Post test Environmental Application Awareness scores of boys in the experimental and control group were compared, the difference between the mean was found to be statistically significant (C.R. = 3.35, P < 0.01). The Experimental group excel the control group boys (M1 = 31.57; M2 = 29.59).

2. When the Gain Scores of the Environmental Theory Awareness of Boys in the Experimental and control Group were compared, the difference between their means was found to be statistically significant (C.R. = 4.33, P < 0.01). The Experimental Group mean is greater than that of the Control group mean (M1 = 10.90; M2 = 9.02).

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL ETHICS OF BOYS AT SECONDARY SCHOOL LEVEL.**

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Ethics scores of boys in the experimental and control group were compared, the difference between the mean was found to be Statistically significant (C.R. = 7.87, P < 0.01). The Experimental group excel the control group boys (M1 = 111.64; M2 = 88.40).

2. When the Gain Scores of the Environmental Theory Awareness of Boys in the Experimental and control Group were compared, the difference between their means was found to be statistically significant. (C.R. = 7.11, P < 0.01).
The Experimental Group mean is greater than that of the Control group mean ($M_1 = 67.71; M_2 = 45.78$).

**Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Girls at Secondary School Level.**

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Awareness scores (Total Environmental Awareness) of Girls in the experimental and control group were compared, the difference between the mean was found to be statistically significant ($C.R. = 11.47 \ P < 0.01$). The Experimental group excel the control group girls ($M_1 = 71.27; M_2 = 65.06$).

2. When the Total Gain Scores of the Environmental Awareness of Girls in the Experimental and control Group were compared, the difference between their means was found to be statistically significant ($C.R. = 6.09 \ P < 0.01$). The Experimental Group mean is greater than that of the Control group mean ($M_1= 31.25; \ M_2 = 26.72$).

**Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Girls at Secondary School Level.**

The conclusion is substantiated by the following findings of the study.
1. When the Post test Environmental Theory Awareness scores of Girls in the experimental and control group were compared, the difference between the mean was found to be Statistically significant. \((C.R. = 5.63 \ P < 0.01)\). The Experimental group excel the control group girls \((M_1 = 36.33; M_2 = 34.25)\).

2. When the Gain Scores of the Environmental Theory Awareness of Girls in the Experimental and control Group were compared, the difference between their means was found to be statistically significant \((C.R. = 3.41 \ P < 0.01)\). The Experimental Group mean is greater than that of the Control group mean \((M_1 = 18.10; M_2 = 16.6)\).

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL APPLICATION AWARENESS OF GIRLS AT SECONDARY SCHOOL LEVEL.**

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Application Awareness scores of girls in the experimental and control group were compared, the difference between the mean was found to be Statistically significant \((C.R. = 10.79 \ P < 0.01)\). The Experimental group excel the control group girls \((M_1 = 34.93; M_2 = 31.02)\).

2. When the Gain Scores of the Environmental Theory Awareness of Girls in the Experimental and control Group were compared, the difference between their means was found to be statistically significant. \((C.R. = 5.37 \ P < 0.01)\).
The Experimental Group mean is greater than that of the Control group mean ($M_1 = 13.31; M_2 = 10.16$).

**ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY (EMBIS) IS MORE EFFECTIVE THAN THE PRESENT ACTIVITY ORIENTED APPROACH (PAOA) ON THE ENVIRONMENTAL ETHICS OF GIRLS AT SECONDARY SCHOOL LEVEL.**

The conclusion is substantiated by the following findings of the study.

1. When the Post test Environmental Ethics scores of girls in the experimental and control group were compared, the difference between the mean was found to be Statistically significant ($C.R. = 6.75\; P < 0.01$). The Experimental group excel the control group girls ($M_1 = 104.66; M_2 = 91.04$).

2. When the Gain Scores of the Environmental Theory Awareness of Girls in the Experimental and control Group were compared, the difference between their means was found to be statistically significant. ($C.R. = 6.19\; P < 0.01$). The Experimental Group mean is greater than that of the Control group mean ($M_1 = 64.79; M_2 = 51.85$).

### 6.6 Tenability of Hypotheses

The study provides sufficient evidence to decide the validity of the hypotheses set for it. An attempt has been made to examine the validity of the hypotheses.

1. The first hypothesis formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the
Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Secondary School Students”.

The analysis of covariance of pre-test and post-test scores of secondary school pupils in the experimental and control group with respect to Total Environmental Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the first hypothesis, and this hypothesis stands accepted.

2. The second hypothesis formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Secondary School Students”.

The analysis of covariance of pre-test and post-test scores of secondary school pupils in the experimental and control groups with respect to Environmental theory Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the second hypothesis, and this hypothesis stands accepted.

3. The third hypothesis formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Secondary School Students”.

The analysis of covariance of pre-test and post-test scores of secondary school pupils in the experimental and control group with respect
to Environmental Application Awareness shows that there is significant
difference between the means of post test scores of the two groups. The
finding of the study substantiates the Second hypothesis, and this hypothesis
stands accepted.

4. The fourth hypothesis formulated by the Investigator states that
“Electronic Media Based Instructional Strategy (EMBIS) is more effective
than the Present Activity Oriented Approach (PAOA) on the Environmental
Ethics of Secondary School Students”.

   The analysis of covariance of pre-test and post-test scores of
   secondary school pupils in the experimental and control group with respect
to Environmental ethics shows that there is significant difference between
the means of post test scores of the two groups. The finding of the study
substantiates the fourth hypothesis, and this hypothesis stands accepted.

5. The Fifth hypothesis is formulated by the Investigator states that “Electronic
   Media Based Instructional Strategy (EMBIS) is more effective than the
   Present Activity Oriented Approach (PAOA) on the Total Environmental
   Awareness of Boys at Secondary School level”.

   The analysis of covariance of pre-test and post-test scores of Boys in
   the experimental and control group with respect to Total Environmental
   Awareness shows that there is significant difference between the means of
   post test scores of the two groups. The finding of the study substantiates the
   fifth hypothesis, and this hypothesis stands accepted.
6. The Sixth hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Boys at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Boys in the experimental and control group with respect to Environmental Theory Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the sixth hypothesis, and this hypothesis stands accepted.

7. The Seventh hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Boys at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Boys in the experimental and control group with respect to Environmental Application Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis, and this hypothesis stands accepted.

8. The eighth hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Ethics of Boys at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Boys in the experimental and control group with respect to Environmental Ethics shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis, and this hypothesis stands accepted.

9. The 9th hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Total Environmental Awareness of Girls at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Girls in the experimental and control group with respect to Total Environmental Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis, and this hypothesis stands accepted.

10. The 10th hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Girls at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Girls in the experimental and control group with respect to Environmental Theory Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis and this hypothesis stands accepted.
11. The 11th hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Girls at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Girls in the experimental and control group with respect to Environmental Application Awareness shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis, and this hypothesis stands accepted.

12. The 12th hypothesis is formulated by the Investigator states that “Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Girls at Secondary School level”.

The analysis of covariance of pre-test and post-test scores of Girls in the experimental and control group with respect to Environmental Ethics shows that there is significant difference between the means of post test scores of the two groups. The finding of the study substantiates the hypothesis, and this hypothesis stands accepted.

6.8 Educational Implications of the Study

The world in which we live is changing rapidly and the field of education is experiencing these changes in particular as it applies to Media Services. The old days of an educational institution having an isolated audio-visual department are
long gone. The growth in use of Electronic media within the education sector has accelerated in recent years, and looks set for continued expansion in the future.

Teachers primarily require access to learning resources, which can support concept development by learners in a variety of ways to meet individual learning needs. The development of electronic media technologies for learning offers new ways in which learning can take place in schools. Enabling teachers to have access to multimedia learning resources, which support constructive concept development, allows the teacher to focus more on being a facilitator of learning while working with individual students. Extending the use of various electronic media learning resources to the home represents an educational opportunity with the potential to improve student learning.

The representation of information by using the visualization capabilities of video can be immediate and powerful. While this is not in doubt, it is the ability to choose how we view, and interact, with the content of digital video that provides new and exciting possibilities for the use of digital video in education. There are many instances where students, studying particular processes, may find themselves faced with a scenario that seems highly complex when conveyed in purely text form, or by the use of diagrams and images. In such situations the representational qualities of video help in placing a theoretical concept into context.

Video can stimulate interest if it is relevant to the rest of the information on the page, and is not ‘overdone’. Video can be used to give examples of phenomena or issues referred to in the text. For example, while students are reading notes about
a particular issue, a video showing a short clip of the author/teacher emphasizing the key points can be inserted at a key moment; alternatively, the video clips can be used to tell readers what to do next. On the other hand, it is unlikely that video can completely replace the face-to-face lecture: rather, video needs to be used to supplement textual information.

One of the most compelling justifications for video may be its dramatic ability to elicit an emotional response from an individual. Such a reaction can provide a strong motivational incentive to choose and persist in a task.

The use of video is appropriate to convey information about environments that can be either dangerous or too costly to consider, or recreate, in real life. For example: video images used to demonstrate particular chemical reactions without exposing students to highly volatile chemicals, or medical education, where real-life situations can be better understood through video.

Environmental education enabled the child to become awareness of the environmental hazards such as pollution, deforestation, conservation of environment, environmental health problems etc. to realize the relationship between various concepts, children must visualize as they read. But it is too difficult to visualize what has been read when it is not within the experience of the children. For this reason it is the teacher’s responsibility to provide visual aids of all kinds including motion pictures of rewarding classroom experience extends to the home.
Govt. of Kerala provided digital Handycam and editing software every school in Kerala as the part of the curriculum. The teacher can develop various video lessons and video clipping for his students and society very easily. In short, to realize the need for maximizing the Environmental Awareness among the students’ electronic media can play a major role. Electronic media can bring the whole phenomena occurring in the world to the class room.

6.9 Suggestions for Further Studies

When the investigator completed the study it was felt that a series of allied studies might be conducted in accordance with the present one. Such related studies may extend the scope of the present one and further generalization become possible. Some of the areas in which further studies can be carried out are listed below.

1. Similar type of experimental researches can be carried out to compare the effectiveness of EMBIS and PAOA in other subjects also.

2. It will be useful to conduct the similar research over a large sample including students of different types of schools situated in urban as well as in rural locality.

3. Effectiveness of EMBIS may also be studied for teaching the concepts related with other subjects of curriculum.

4. Similar Studies can be conducted at other levels – Primary, Higher Secondary etc.
5. Similar Studies can be conducted with better experimental designs to collect more reliable data.

6. Electronic media based programme among public with respect to Environmental Awareness, Health Awareness etc. can be studied.

7. Correlation of Different Media based Instructional Packages can be studied.

8. A Survey Study based on the utilization of different Electronic Media in Classroom Instruction can be studied.

9. Preparation and Validation of Various Educational Video Lessons of different subjects can be studied.

10. Influence of Educational and other Channels to create Population Awareness and HIV/AIDS Awareness among the students can be studied.

11. Comparative study on the utilization of different Electronic Media in Classroom teaching can be studied.

12. A study may be undertaken to find out the opinion of pupils towards Electronic Media based Instruction.

13. A Study on the attitude of teachers towards the teaching using Electronic Media in Classroom can be studied.

14. A Study on the Interest created by Electronic Media Based Instruction can be studied.

15. A study on the effectiveness of Interactive Video method in different subjects can be studied.

16. Role of IT@School- Kerala in developing various media based instructional packages for classroom teaching can be studied.