

CHAPTER VI
SUMMARY

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SUMMARY AND CONCLUSION

6.1.0 INTRODUCTION

Education is seen as the foundation of society which brings economic wealth, social prosperity and political stability. Hence, it plays an important role in the overall development of human being. Educational institution is concerned with the development of the whole child—physical, intellectual, cultural and aesthetic qualities. To achieve this goal, we have a system of schooling with different subjects and curriculum at different levels, a process of transacting those curriculums and a process of evaluation system. There is a need to strengthen each and every components of schooling with the help of new ideas and research to enhance the quality of the system. Social science is one of the subjects in the school system offered compulsorily till standard X and later as optional subjects. The major purpose of this subject is to socialize the citizens. There is a need to strength this subject at school level both in its transaction and evaluation. The present study is an attempt in this direction to strengthen the social science teaching- learning and evaluation at school level with the help of open book environment.

6.2.0 OPEN BOOK EXAMINATION

Open Book Examination is an alternative form of examination in which examinees are allowed to consult their class notes, text book and other approved material while answering examination questions. Though this practice is common in law examinations, it is mostly unheard in other subjects. Radical and puzzling through the idea may sound to those who are used to conventional examination; it is ideally suited to teaching programmes that especially aim at developing the skills of critical and creative thinking. Open book examination is meant for real life application of bookish and classroom knowledge using critical and creative thinking (Mohan, 1997). The use of such examinations presupposes certain preparation of students, teaching strategies, methods, and approaches. In particular, it demands that the course focuses on a set of intellectual skills, rather than on the information content which could be developed in a specific environment can be called as Open Book Environment.

6.3.0 CLOSE BOOK EXAMINATION & OPEN BOOK EXAMINATION

A closed book examination or the traditional examination is probably the most common method of student assessment used in all levels of the education system in India. It can be easily used to test students' abilities of storing-recall-reproduction, and understanding as well as knowledge. A closed book examination, if well-designed, can also be used to test a student's ability to think and apply his knowledge.

Hoffman (1996) noted that closed book examinations require memorization but little original thought. It force students to memorize information rather than understand concepts and as a result, students walk away from the class learning very little. Such examinations do not prepare the student for practical, real-life situations. On the other hand, open book examinations can be used to differentiate those who truly understand the concepts from those who have merely crammed the night before. Hence, open book examination helps to develop a system of teaching-learning and evaluation system that makes the learners fit to survive in the future real life situations developing the thinking ability of the learners. It is the need of the hour to use an open book examination and in turn that demands an open book environment.

6.4.0 OPEN BOOK ENVIRONMENT

In an open book environment, teaching is not transferring information from the library or text books to the students' minds. Rather, true teaching is that teaching students how to learn i.e. teaching should equip students with the ability to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and to make intelligent decisions which is coinciding with some of the aspect of constructivist learning environment. According to this view, the main focus of teaching is the acquiring of skills, modifying and creating knowledge that is of processing information, rather than the information content itself. In this approach, the focus shifts from rote learning to the development of certain mental faculties which needs an environment to think about any content, analyze and synthesize it and will decide the application of the content knowledge in a suitable logical manner realizing the environment around him/her. It could be possible if ample freedom will be given to the learner to realize the content, to ask the questions related to his doubt or confusion

without any fear and will try to find out the answer of those questions with the help of peer and the mentor, will find the suitable applications of the gained knowledge and will verify the application he/she chosen on the basis of suitable logic and thinking. It could be only possible in an atmosphere where learners and his/her logic will be given due weightage and opportunities would also be provided to the learner to self-verification of his/her logic. In short, it can be said that Open Book Environment is an atmosphere of teaching learning which could help learners to attempt an open book examination effectively.

6.5.0 CLOSED BOOK ENVIRONMENT AND OPEN BOOK ENVIRONMENT

Closed Book Environment treats teaching as ‘dissemination of knowledge’. The teacher’s role is viewed as facilitating the transfer of information from textbook to the students’ minds. In this environment, what the students is expected to do is to understand this information, retain it, and retrieve it during the final examination. In close book examination success depends on the amount of information memorized, and the efficiency with which it is reproduced. On the contrary open book environment is more dynamic and smart. It helps students to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and make intelligent decisions. The focus here is to develop certain higher level mental faculties among students. In this environment, freedom is given to the learner to realize the content, to ask the questions related to their doubts or confusions without any fear and will try find out the answer of those questions with the help of peer and the mentor, will find the suitable applications of the gained knowledge and will verify the application he/she chosen on the basis of suitable logic and thinking. Ultimately, OBEn helps the learner to manage the open book examination effectively.

The prime focus of the present study is to develop an open book environment which would help both the students and teachers to face the open book examination in any subject. The developed open book environment once tested can be applied to all the subjects. Considering the feasibility of the study for the researcher, the teaching of social science was considered for the experimentation. In the present study the researchers is concerned for the subject of social science as he has expertise and

knowledge of the subject in comparison to other subjects and his interest is more inclined towards the subject of social science.

6.6.0 CONCEPT OF SOCIAL SCIENCE

Society grows with individual and individual grows with the environment of the society. They are interdependent and their growth is simultaneous and continuous, which means that the study of society should be in relation to its individuals and vice versa. The social science is concerned with the study of society (in general or specific term).The word 'science' may be confusing but here it simply means a branch of knowledge studied in a scholarly and systematic way by observation. It studies the human culture and how human relate to each other in those culture. The purpose of social science in school education is to help the pupils learn how to relate to one another and how to improve our world culture. National Council for Social Studies (NCSS,1992) defines the concept of social science as “the integrated study of the social sciences and humanities is to promote civic competence. Within the school programme, social science provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion and sociology, as well as appropriate content from primary purpose of social science is to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.” Therefore the subject of social science is quite challenging and need to comprise new proportions. According to NCF (2005), “The Social Science encompasses diverse concerns of society and includes a wide range of content, drawn from the disciplines of history, geography, political science, economics and sociology. The selection and organization of material into a meaningful social science curriculum enable the students to develop a critical understanding of society, is therefore a challenging task. The possibilities of including new dimensions and concerns are immense, especially in view of the student’s own life experience.” Similarly, Secondary Education Commission: (1952-1953) states that “Social studies, as a term is comparatively new in Indian education. It is meant to cover the ground traditionally associate with History, Geography, Economics, and Civics etc. The whole group studies has therefore to be viewed as a compact whole whose object is to adjust the students to their social environment which include the

family, community, state and Nation so that they may be able to understand how society has to come to its present forms.”

6.7.0 OBJECTIVES OF TEACHING SOCIAL SCIENCE

The objective behind teaching Social Science at school level is to make a good citizen who has the consciousness of his past, his environment and has the understanding to plan for the future accordingly. According to National curriculum Framework (2005) following are the objectives of teaching Social science.

- a) To develop national understanding.
- b) To develop social and economic challenges facing the nation.
- c) To relate the content as much as possible to students every lives.
- d) To develop the respect for the past freedom fighters and great personalities of India.
- e) To develop critical appreciation for conservation and environmental concerns.
- f) To develop different values example, liberty, justice, fraternity, dignity etc.

6.8.0 PRESENT SCENARIO OF SOCIAL SCIENCE TEACHING, LEARNING AND EVALUATION

The social science content requires the teacher to have a wide educational background in the social science discipline. The subject areas commonly associated with Social Sciences are mainly from history, geography, and civics. This diverse subject matter places a Social Science teacher in a position where they must be well trained in a variety of disciplines. Currently, in many classrooms, social sciences are taught through teacher centered activities. This involves techniques like memorization of facts, lectures and a heavy reliance on textbooks (Rice & Willium, 1999).

In Indian schools also the same situation prevails. As reported by Banarjee (2007), who tried to track down the evaluation, popularity and utility of Geography as a school subject in Indian schools has further stated that the teachers, in most cases, refrain from explaining the concept part or the diagrams. A common practice in teaching was to switch over to the descriptive part and ‘complete’ the syllabus. Practical skill development was largely out of reach. This practice over the years has created a kind of fear among pupils about geography, map and map reading. It has been viewed on the report of MHRD (1997) committee that the present position of

Social Studies in school curriculum is nowhere. It has been found that the pupils who come out of Secondary Level Certificate examination do not possess knowledge of even the rudimentary of Geography and History of India.

A similar condition in Andhra Pradesh schools has been found by Nageshwar (2011). According to him Social Science teaching in schools of Andhra Pradesh is dull, passive, teacher and textbook oriented. It is fostering rote learning with little or no scope for constructivism. Local specificity and relevance to real life is also missing in the teaching learning process.

Knowing the scenario of teaching learning and evaluation in schools and considering the nature and benefits of OBE and OBEn, it seems to be quite essential to implement OBE system in Indian schools that needs an OBEn. There is a need to have some research work in the area of OBEn. Even, considering the interdisciplinary nature of the social science and the hidden objectives to make the future citizens of this country to understand and internalize the past, present and the future of the country, there is a drastic need to bring a paradigm shift in the transaction of this subject. In the present study the researcher is trying to shift the present pattern of curriculum transaction in social science with the help of an open book environment.

6.9.0 IMPLICATION OF THE REVIEW OF RELATED LITERATURE FOR THE PRESENT STUDY

Though a good number of works has been conducted in the area of social science instruction, the researcher has not come across any study related to social study teaching with open book examination or open book examination. From the researches in the area of open book examination, a large number of studies were found on the perception of teachers about the open book examination. The experimental studies on open book examination reviewed showed that open book examination is considered only in the context of student's evaluation i.e. a tool for testing product and nobody talks about the open book environment. Hence, in the present study open book environment was considered as a tool for process as well as product related to teaching learning. Hence, the present study is an attempt to develop an open book environment to teach Social Study.

6.10.0 RATIONALE OF THE STUDY

“Education has continued to develop, diversify and extend its reach and coverage since the dawn of human history; every country develops its system of education to express and encourage its unique socio-cultural identity and to meet the challenge of the times” (NPE, 1992). The system of education includes the structure of education, methodology i.e. inputs to the education and curriculum, its transaction process (instructional process) and its evaluation. Further NPE (1992) emphasized, “The country (India) has reached stage in its economics and technological development when major efforts must be made to derive maximum benefits from the aspect already created and to ensure that they reach all section. Education is highway to that Goal.” With this aim in view, it is high time to reframe the age old evaluation practice and methods of teaching. In the process of time many new concepts are being implemented in the school education system of which few are related to the teaching learning, few are related to environment building and few are related to evaluation reforms. All these reforms are meant to improve the quality of school education. One of such reform is Open Book Examination (OBE) which is designed to improve the quality of teaching learning and evaluation system of the school. As it is known that open book examination is different from the traditional examination where questions will be more analytical and subjective and the answer of the questions will not be directly available in books, whether the students learning with the present system of teaching learning will be comfortable to attend open book examination. The researcher felt that it will not be so easy for the students to appear in the open book examination and felt that there is a need for creating an environment which would help students to face the open book examination with less difficulties. Considering all these points, the researcher is interested to design and implement an Open Book Environment to help students to face the open book examination in future.

In an open book environment, focus would be teaching students how to learn i.e. teaching should equip students with the ability to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and make intelligent decisions. It could create a constructivist learning environment. In this process, the focus would shift from rote learning to the development of certain mental faculties. It could be possible if ample freedom will be given to the learner to realize the content, to ask the questions related to their doubts or confusions without any fear and will try find out

the answer of those questions with the help of peer and the mentor, will find the suitable applications of the gained knowledge and will verify the application he/she chosen on the basis of suitable logic and thinking. In short, it can be said that open book environment is an atmosphere of teaching learning which could help learners to attempt an open book examination effectively.

Social science is one of the subjects, which deals with the human relations sciences hence having huge significance for the peaceful existence of the civilization. George & Madan (2009) stated that the study of Social science are often seen as easy, probably because they deal with issues and processes that surround us all the time, and on which we have ideas and positions. This apparent simplicity is deceptive. Teaching the complexity of human being is not an easy task. They further emphasized “social science is after all most practical, dealing with affairs that everybody participates in, and best learnt by doing the fact that the decline of the social science can only spell danger for the quality of public life in our country”. In Indian classroom climate it is the most common complain that social science meant only for rote learning and cramming. Considering the interdisciplinary nature of the social science and the hidden objectives to make the future citizens of this country to understand and internalize the past, present and the future of the country, there is a drastic need to bring a paradigm shift in the transaction of this subject which could be realized through an open book environment.

Secondary education is one of the very important stage of which precedes elementary education and proceeds higher education. Students of secondary education are at adolescence stage and they are at very crucial stage. This stage is very important for them academically as it prepares them for specialization. A good result at this stage determines the future of a student and hence a very critical stage which need a sound base in academics. Open book examination and open book environment at this stage can help the students to develop higher order thinking skills and huge application of the content learned in the real life. Hence, the researcher considered the secondary stage for the present study. CBSE, partially implemented the open book examination in the year 2013 and similarly the researcher is implemented this research on open book environment in the same year. Hence, any interventions related to open book examination may indirectly help the students to be prepared for the open book

examination. The findings of the present study can be used as a helping hand to the schools affiliating to CBSE. Further standard VIII is considered quite safer for any experiment in comparison to any other standards of secondary education. Standard VIII being one of the lower standards of the education system, any negative influence of the experiment may not affect much in their academic career and time is a major constraint for the standard IX and standard X students as they are quite closer to their board examination. Hence, the researcher considered standard VIII as the sample for the study.

From the review of related literature, it was found that very few studies have been conducted on open book examination. Very few studies were available in this area. Most of the available studies are on the perception of different personnel on open book examination and very few experimental studies were found where open book examination is being used in a traditional environment. No study was found using an open book environment in an open book examination. Hence, the researcher prepared an open book environment to facilitate open book examination in teaching social science and the conception of the present study.

6.11.0 RESEARCH QUESTIONS

The researchers designed the present study keeping the following research questions in mind and to search the answer of these research questions.

- Whether an open book examination system is effective for improving the teaching learning in social science?
- Whether an open book examination needs an open book environment?

6.12.0 STATEMENT OF THE PROBLEM

Development and Implementation of an Open Book Environment in Teaching Social Science among Standard VIII Students.

6.13.0 OBJECTIVES OF THE STUDY

The present research was conducted having the following objectives.

1. To design and develop an open book environment to facilitate standard VIII students to face open book examination in Social Science.

2. To implement the developed open book environment to facilitate standard VIII students to face open book examination in Social Science.
3. To study the effectiveness of the developed open book environment in terms of the achievement (content knowledge, logic, divergent thinking and overall achievement) of standard VIII students in Social science.
4. To study the effectiveness of the developed open book environment in terms of the reaction of students towards the developed open book environment.

6.14.0 HYPOTHESIS OF THE STUDY

Following null hypothesis were formulated to be tested at 0.01 level of significance.

H₀₁ “There will be no significant difference between the mean achievement scores of the standard VIII students in the content knowledge in Social Science studied in open book environment and those studied in traditional environment”

H₀₂ “There will be no significant difference between the mean achievement scores of the standard VIII students in the logic in Social Science studied in open book environment and those studied in traditional environment”

H₀₃ “There will be no significant difference between the mean achievement scores of the standard VIII students in the divergent thinking in Social Science studied in open book environment and those studied in traditional environment”

H₀₄ “There will be no significant difference between the mean score of overall achievement of the standard VIII students in Social Science studied in open book environment and those studied in traditional environment”

6.15.0 DEFINITION OF THE TERMS USED

1. **Open Book Examination (OBE):** Open book examination consists of open book environment and open book testing.
2. **Open Book Testing (OBT):** In the present study Open book testing is one in which examinees are allowed to consult their class notes, textbooks and other approved material while writing answers in the examination.

3. **Open Book Environment (OBEn):** In the present study Open book environment is an environment of teaching and learning that facilitates the students to face Open Book Testing (OBT) which help students to acquire knowledge, to modify existing knowledge on the basis of new experience, to build new knowledge, and to apply available knowledge to solve problem and make intelligent decisions.

6.16.0 OPERATIONAL DEFINITION OF THE TERMS USED

1. **Overall Achievement in Social Science:** Overall achievement in social science is the total marks scored in the achievement tests developed by the researcher.
2. **Effectiveness in terms of achievement:** Effectiveness in term of achievement is the significant difference in the post test achievement scores of the experimental and control group in Social Science.
3. **Effectiveness in terms of reaction:** Effectiveness in terms of reaction is the overall positive reaction (more than or equal to Intensity Index of 4) of the students towards develop open book environment. A Likert type 5 point reaction scale developed by the research.
4. **Intelligence:** Intelligence is the score obtain by a student by using the Raven's **Standard Progressive Matrices (SPM).**
5. **Content Knowledge:** Content Knowledge is the sum total of the score in Social Science related to the capability of a student considering the accurate and appropriate use and application of learnt material or content of the subject.
6. **Logic:** Logic is the sum total of the score in Social Science related to the cognitive ability of a student to replicate the answer of a question in a wide-ranging manner according to strict principles of validity to make it easy through argument, deductive reasoning and consistent inference.
7. **Divergent Thinking:** Divergent thinking is the sum total of the score in Social Science related to the cognitive aptitude of a student to create the answer of a question in a pioneering and non-traditional way using the content knowledge and logic.

6.17.0 DELIMITATION OF THE STUDY

The present study is delimited to the standard VIII students of the selected two English Medium schools following Central Board of Secondary Education (CBSE) curriculum in the state of Gujarat for the academic year 2013-2014.

6.18.0 DESIGN OF THE STUDY

The present study was experimental in nature. Under quasi-experimental design, post-test equivalent controlled group design was used in this present study. The design in detail is presented below:

| | | |
|----------------|---|----------------|
| O ₁ | X | O ₂ |
| O ₃ | C | O ₄ |

Where, O₁ and O₃ are pre-test (Intelligence Test),

O₂ and O₄ are post-test,

X stands for Experimental Group and

C stands for Control Group.

6.19.0 POPULATION

All the class VIII students (approximately 11000students) of the 280 English Medium schools across Gujarat following Central Board of Secondary Education syllabus during the academic year 2013-2014 constituted as the population for the present study.

6.20.0 SAMPLE OF THE STUDY

Two schools i.e. New Era Senior Secondary School and Ambe School-Manjalpur from the Vadodara city of Gujarat State were selected with the help of convenient sampling method, those who were agreed to participate in the research study. Standard VIII students of New Era Senior Secondary School were selected as experimental group and the same standard VIII students of Ambe School, Manjalpur were selected as control group.

6.21.0 TOOLS USED

To collect the data following tools were used.

- a) Intelligence Test-Raven's Progressive Matrices
- b) Achievement test on social science
- c) Reaction scale.

6.22.0 DEVELOPMENT OF OPEN BOOK ENVIRONMENT

Framework for an open book environment was prepared with the help of experts working in the area of open book examination and social science teaching; accordingly methods and approaches will be decided; and activities, techniques etc. were designed to create an open book environment in social science classes. The major purpose of the present study was to develop an environment that will help students to answer the questions in an open book examination. Considering this aspect in mind, the open book environment was planned and developed to create critical thinking and divergent thinking among students. Considering the said components of the OBEn attempt was made by the researcher to prepare a specific type of lesson plan with the following points to create an OBEn while teaching social science.

- 1. Content to be covered:** It includes the points of discussion in the classroom for a specific topic including the units and sub units of the content to be covered in a class.
- 2. Learning Objectives:** It refers to the expected outcome of a content of teaching in terms of change in student's behavior both in a short period of time and a long span of time. Hence, both general as well as specific educational objectives to be achieved after completion of a specific topic in terms of knowledge, understanding, reflections and skills were placed in the lesson plans.
- 3. Content Presentation in Brief by the use of Technology:** It was one of the very important aspects of the open book environment where attempt was made to prepare certain teaching learning materials like, power point presentation, video clips and audio clips as per the availability of the materials in the open and free source from internet. Major purpose behind the development of such material was to make the students thoroughly understand the topic. Apart from this, the developed material helped teachers to present and explain the content briefly by saving some time for doing other activities related to thinking.

- 4. Questions of Cognitive Conflict/ Cognition/Cognitive Reflection:** These were five to ten questions of very higher order thinking like synthesis and evaluation were prepared from each and every content of teaching. These questions were designed to make the students work in groups to have thinking among them through brain storming using the acquired content knowledge. Questions in the Cognitive conflict are the questions to create a conflicting situation in the mind of the students and to find the possible answers to the questions. These questions were prepared to make the whole class to think in small groups after completion of each unit.
- 5. Collaborative Learning Activities/Intra-group Discussion:**For the present research, small groups working with the cognitive questions is called as collaborative learning activities.This collaborative learning activity/ inter group discussion was included in the lesson plan to make the students work collaboratively in small groups. After the brainstorming and discussion among the group they would prepare a write up which would be presented by one or more member/s in the whole class.
- 6. Inter-group Sharing:** After completion of the discussion among themselves and having a answer of the cognitive question, one or more members of each group would present their answer of the cognitive question and discussion points that they had done in the group in the inter group discussion or sharing.
- 7. Concept Mapping:** At the end of each chapter, the students were asked to prepare a concept-map by their own on the basis of their understanding of different components and to cognitize it. Through this concept map, teachers whatever taught in the class and students whatever understood about the content, students need to prepare a pictorial or line diagram of important points related to the whole content in a compact way which could be kept in the mind in such a way that it could be visualized at any point of time and can get the information from it. As very less emphasize was given to memorization in the open book environment, the concept mapping was used to make the process of memorization easier.
- 8. Giving Assignments:** At the end of every chapter, a provision of giving individual assignment was kept in the open book environment through the lesson plan which was of application in nature related to the surrounding environment including newspapers, TV, internet etc.

9. Questions for Open Book Examination: Open book environment was designed to prepare each and every student to perform well in the Open Book Examination at the end of the semester. To get representative questions for open book examination from different chapters easily and to make students aware about different types of questions those could be asked in an open book examination, open book questions were prepared for every lesson and had a place in the lesson plan.

6.23.0 IMPLEMENTATION OF THE OPEN BOOK ENVIRONMENT

The implementation of the open book environment was done in the standard VIII of the experimental school for the whole academic year 2013 and 2014 including semester I and semester II in Social Science. For that, training programmes, lesson plans, tools for data collection and teaching learning content materials in Social science were prepared by the researcher. The teacher of the experiment school was oriented and trained by the experts. The teacher was provided with lesson plans and learning materials and was asked to go through these materials as he was supposed to conduct the classes as per the lesson plans using the provided content materials. The contents were presented by the teacher with the help of Power Point Presentation through the LCD projector. Physical setting of the standard VIII class room (experimental group) was modified to have the facilities for small group work by the students. In this direction, it was continued for the whole semester I and II. Throughout the academic year, the researcher used to monitor the teacher and the classes every day and provided feedback to them as per the need.

6.24.0 PROCEDURE OF DATA COLLECTION

Data were collected quantitatively and qualitatively in the present research throughout the year. Quantitative data were collected through intelligence test, achievement tests and in the end of the year the reaction scale was administered with the experimental group to know their reaction towards the open book environment. Qualitative data like teaching learning environment of the social science classes of the experimental group was recorded through personal observation and also by the modern technique throughout the academic year to observe the behaviour of students and teachers in the open book environment.

6.25.0 PROCEDURE OF DATA ANALYSIS

The collected data of semester I and semester II was taken combined. The data obtained from the achievement tests were analyzed by using quantitative data analysis techniques. Mean, Standard Deviation, Standard Error of Mean and Mann-Whitney U-test were used to analyze the quantitative data. Data collected through reaction scale was analysed quantitatively with the help of percentage and Intensity Index. Collected data through observation were analyzed qualitatively using content analysis.

6.26.0 MAJOR FINDINGS OF THE STUDY

Following were the major findings of the present study.

1. In an Open Book Examination (OBE), Open Book Environment was found significantly better than traditional Close Book environment in enhancing scores in content knowledge, logic, divergent thinking and achievement.
2. Open Book environment helped students to write answers in a better way than the traditional close book environment in content knowledge, divergent thinking and logic in Social Science. It also helped students to score better in their overall achievement.
3. Open Book Environment (OBEn) and Open Book Examination (OBE) were found effective in terms of the reaction of students. The students in an Open Book Environment showed their positively agreed response in most of the components related to OBEn and OBE separately and as a whole.

6.27.0 IMPLICATIONS OF PRESENT STUDY

Finding of the present study have following implications.

The present study reveals that OBEn was found significantly better than traditional environment in enhancing achievement scores of students. Both OBEn and OBE were found effective in terms of the reaction of students. Thus, before implementing Open Book Examination, traditional practice of the classroom should be changed in the line of OBEn. Few attempts are initiated by the CBSE during last few years in the form of introducing the concept of Open Text Based Assessment (OTBA) for standard IX and XI students. The findings of the present study can strengthen the initiatives started by CBSE. There is a need to implement the Open Book Examination in the schools in full phased with an Open Book Environment to bring certain change in our traditional

system of education. Open Book Examination (OBE) questions are asked from higher order thinking skill. Students have to think to their own for writing these types of question because direct answers of such questions would not be found from the text books or study materials. In our traditional examination system most of the questions are asked directly from the text books and those questions are mostly of knowledge based. These types of questions bound the children to memorize the answer of the questions without adding any type thinking to it. Even in the traditional close book examination, questions of higher order thinking could be asked. But students should be prepared well and give them an environment to answer the questions of higher order thinking. The various examination bodies including state boards and central board could start preparing the question papers including more 'higher order thinking skill'. It is high time to reframe our educational that would help our children to develop their fullest personality.

6.28.0 SUGGESTION FOR FURTHER STUDIES

The present research was limited to Social Science teaching at standard VIII in CBSE affiliated schools of Vadodara in Gujarat. The Open Book Environment was given to Social Science students only of New Era Senior Secondary School in Vadodara city. The researcher would like to suggest some more area and issues for the further studies which are as below.

- Similar study can be conducted into other standards and in different affiliated boards.
- OBEn can be implemented in other subjects also.
- OBEn can be implemented in other stages of learning like higher secondary and higher education stages.
- Some more strategy for OBEn can be adopted by future researchers.
- The effect of Open Book Environment can be seen in terms of some other variables like, examination anxiety, development of communication skills, problem solving abilities, change in social behavior etc.

6.29.0 CONCLUSION

Knowing the scenario of teaching learning and evaluation in schools and considering the nature and benefits of Open Book Examination (OBE) and Open Book

Environment (OBEn), it seems to be quite essential to implement OBE system in Indian schools that needs an OBEn. There is a need to have some research work in the area of Open Book Environment (OBEn). Even, considering the interdisciplinary nature of the social science and the hidden objectives to make the future citizens of this country to understand and internalize the past, present and the future of the country, there is a drastic need to bring a paradigm shift in the transaction of this subject. In the present study the researcher tried to shift the present pattern of curriculum transaction in social science with the help of an open book environment. The developed Open Book Environment to teach social science to standard VIII students of CBSE was found to be effective in enhancing achievement of students in Social Science in comparison to the traditional Close Book Environment. It is the time to think and reconstruct the true purpose of our education system. To get the maximum development of students' thinking abilities we should have change the present examinational system. It is the time to think again on the policies of Education, curriculum framework of education for the coming generation in the changing nature of the society. The present study is a perfect attempt in this direction to develop the logical thinking, divergent thinking, creativity and imagination among students through open book examination. The findings of the study revealed that in an Open Book Examination (OBE), Open Book Environment was found significantly better than traditional Close Book environment in enhancing scores in content knowledge, logic, divergent thinking and achievement among students. The findings of the present study have huge implication for the present system in terms of creating an environment where the scope will be there to develop the social science as well as higher order of thinking among our students for the better future for all subject.