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# A CRITICAL STUDY OF IMPLIED VALUES IN SCIENCE TEXTBOOK OF NCERT OF CLASS 6<sup>th</sup>

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**Abstract:** The main aim of this paper is to study the implied values in Science textbook of NCERT of class 6<sup>th</sup>. Sixth grade Science textbook of NCERT was reviewed and analysed extensively to comprehend values in elementary students. The implied values are studied using the content analysis method. The Findings of this study reveal that the content of NCERT Science Text Book has many obvious scientific values, psychological values, disciplinary values and social values in almost all the topics which may be taught while teaching learning process. Science subject is not only based on facts but it also has a full scope of recognition of values, ideal act of valuing. The only need is, teacher is required to understand the values in given content and find innovative teaching techniques to impart the same to students.

**Keywords-** Implied Values, Science, Textbook

## I. INTRODUCTION

**“Education means the bringing out of the ideas of universal validity which are latent in the mind of every man”- Socrates**

Education not only gives a platform to succeed but also the knowledge of social conduct, strength, character and self-respect. . Education is a continuous learning experience, learning from people, learning from success and failures, learning from leaders and followers and then growing up to be the person we are meant to be. The main motto

of education is inculcate values, skills in us to mark a superior conduct and living.

Values regulate and guide human behaviour and action in our day to daily life. Values in general reflect one’s personal attitudes and judgements, decision and choices, behavior and relationships, dreams and vision. They influence our thoughts, feelings and actions. Values are like the rails that keep a train on the track and help it move smoothly, quickly and with direction. Values give firmness and direction to life and bring important dimensions of meaning. Values are central to one’s life since they are normative in all of one’s actions and understanding.

Science is viewed as a branch of knowledge or study dealing with a body of facts or truths systematically arranged and showing the operation of general laws. It may also be defined to include systematic knowledge of the physical or material world; systematized knowledge in general; knowledge of facts and principles; and knowledge gained by systematic study. There are certain moral values, such as concern for people, empathy, and kindness that are important in setting research priorities in science and in determining the uses of science.. There is a need to incorporate these humanitarian values into the science and technology spheres, while maintaining and reinforcing the intrinsic values of science.

Values intersect with science in three primary ways. First, there are values, particularly

epistemic values, which guide scientific research itself. Second, the scientific enterprise is always embedded in some particular culture and values enter science through its individual practitioners, whether consciously or not. Finally, values emerge from science, both as a product and process, and may be redistributed more broadly in the culture or society.

## II. NEED OF THE STUDY

Value-based education should be designed in all subjects so as to make students more confident and independent. It would enable the youths to learn to use science for peace and prosperity of mankind. So, value-based education should find a place in the curriculum for the development of human consciousness. Thus for the proposed study, the science book has to be analysed, and the rationale for this study is to share how the implied values like scientific, psychological, disciplinary and social values can be developed in students through science curriculum.

## III. SIGNIFICANCE OF THE STUDY

The ruined of values in society is the reason of the research is as follows: J. P. Naik has said that "Education is essential a threefold process imparting information teaching of skills and education of values". In the present education system, the emphasis is almost exclusively on the first of these objectives, viz. the impartation of information. From thoughts of J.P. Naik it is clearly explained that moral education has a vital role in human life, moral education has been ignored in our education system till yet. The first thing is that research would be helpful to attract the attention of the teacher, parents that science subject is not only to attain knowledge of science but also to develop different kinds of values through it. The second thing is that if we are able to enhance innovative methods in teaching of science, mainly focusing on the desired values, we can achieve the expected objectives of science teaching. Third thing, the content of science textbooks that clearly addresses

the insight into human relationships, social values and attitudes. These are indispensable to enable the new generations to participate efficiently in the affairs of community, the state, the country and world at large. The fourth thing is that the conclusions and the recommendations of this research will be helpful to science teachers in context of improving science teaching techniques to enhance different kinds of values.

## IV. OBJECTIVES

- (i) Critical study of scientific values implied in the science textbooks of class 6<sup>th</sup>.
- (ii) Critical study of disciplinary values implied in the science textbook of class 6<sup>th</sup>.
- (iii) Critical studies of social values implied in the science textbook of class 6<sup>th</sup>.
- (iv) Critical study of psychological values implied in the science textbook of class 6<sup>th</sup>.

## V. METHODOLOGY

The research design which has been adopted here was Content analysis method. Content analysis is used for the study of recorded information, or information which has been recorded in texts, media, or physical items. It is also used for analyzing historical material, especially for documenting trends over time. 6th grade science book of NCERT was taken as sample for the study. Tool used in the study is content analysis form. A self-made content analysis form is prepared to study the implied values in science textbook of class 6<sup>th</sup> and the data was collected from the Science textbook which was the secondary source for this study.

## VI. DATA ANALYSIS

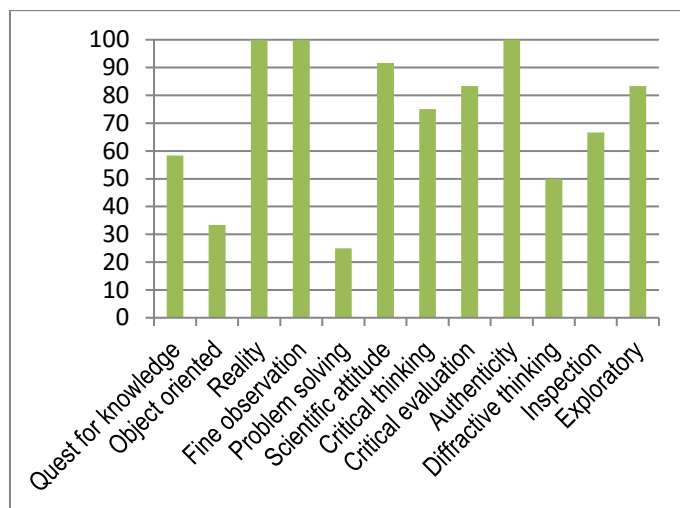
The data is analyzed to study the values like scientific, psychological, disciplinary and social values chapter wise in science textbook of NCERT of class 6<sup>th</sup>.

## VII. RESULTS

The scientific, psychological, disciplinary and social values obtained in Science textbook of NCERT are as follows-

### I. INDEX-1 SCIENTIFIC VALUES

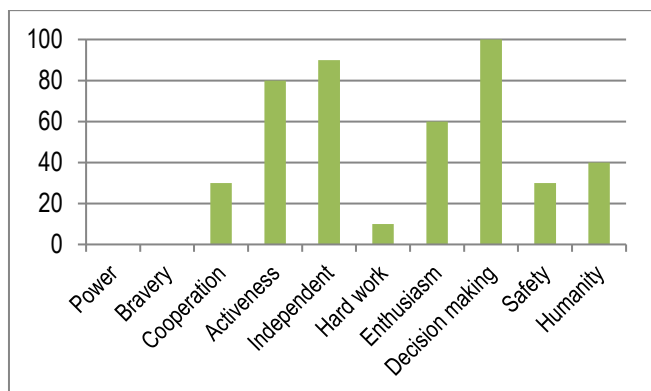
VALUES	TOTAL	OBTAINED FREQUENCY	PERCENTAGE
Quest for knowledge	12	7	58.33
Object oriented	12	4	33.333
Reality	12	12	100.00
Fine observation	12	12	100.00
Problem solving	12	3	25.00
Scientific attitude	12	11	91.66
Critical thinking	12	9	75.00
Critical evaluation	12	10	83.33
Authenticity	12	12	100.00
Diffractional thinking	12	6	50.00
Inspection	12	8	66.66
Exploratory	12	10	83.33



**INTERPRETATION:** In the above index 1, the values like quest for knowledge, fine observation, reality, exploratory, critical thinking, critical evaluation, authenticity, diffractional thinking, inspection and the scientific attitude are found sufficient in science textbook but the values like object oriented, problem solving are limited.

### INDEX-2 SOCIAL VALUES

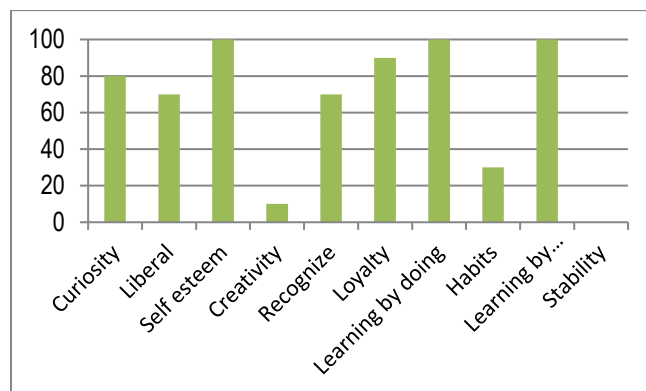
VALUES	TOTAL	OBTAINED FREQUENCY	PERCENTAGE
Power	10	0	00.00
Bravery	10	0	00.00
Cooperation	10	3	30.00
Activeness	10	8	80.00
Independence	10	9	90.00
Hard work	10	10	100.00
Enthusiasm	10	6	60.00
Decision making	10	10	100.00
Safety	10	3	30.00
Humanity	10	4	40.00



**INTERPRETATION:** In the above index 2, the values like power and bravery are null and the values like cooperation, activeness, independent, hard work, enthusiasm, decision making, safety, humanity are sufficient in quantity in science textbook of class 6<sup>th</sup>

#### INDEX-3 PSYCHOLOGICAL VALUES

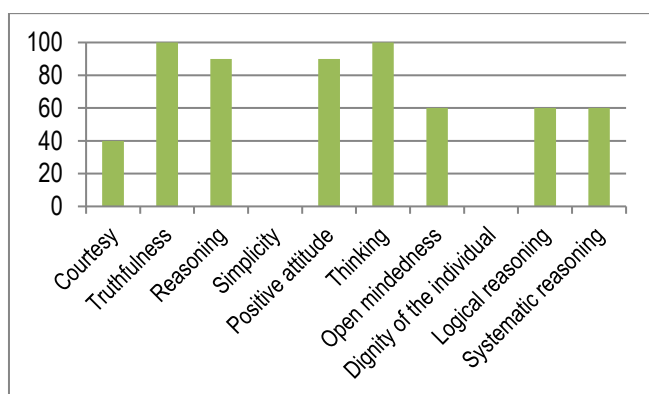
VALUES	TOTAL	FREQUENC Y	PERCENT AGE
Curiosity	10	8	80.00
Liberal	10	7	70.00
Self esteem	10	10	100.00
Creativity	10	1	10.00
Recognize	10	7	70.00
Loyalty	10	9	90.00
Learning bydoing	10	10	100.00
Habits	10	3	30.00
Learning by observation	10	10	100.00
Stability	10	0	00.00



**INTERPRETATION:** In the above index 3, the values like curiosity, liberal, self esteem, recognize, loyalty, learning by doing, habits and learning by observation are sufficient in quantity but the value like creativity is very less and the value stability is null.

#### INDEX-4 DISCIPLINARY VALUES

VALUES	TOTAL	OBTAIN ED FREQUE NCY	PERCENT AGE
Courtesy	10	4	40.00
Truthfulness	10	10	100.00
Reasoning	10	9	90.00
Simplicity	10	0	00.00
Positive attitude	10	9	90.00
Thinking	10	10	100.00
Open mindedness	10	6	60.00
Dignity of the individual	10	0	00.00
Logical reasoning	10	6	60.00
Systematic reasoning	10	6	60.00



**INTERPRETATION:** In the above index 4 the values like courtesy, reasoning, truthfulness, positive attitude, thinking, logical reasoning and systematic reasoning, open mindedness are sufficient in quantity but the values like, simplicity, dignity of the individual are null.

### VIII. RESULT DELIBERATION

It was found that the scientific values, psychological values, disciplinary values and social values are included in sufficient quantity according to the class in science textbook of NCERT.

### IX. CONCLUSION

From the above study it can be said that the content of NCERT Science Text Book has many obvious scientific values, psychological values, disciplinary values and social values in almost all the topics which may be taught while teaching learning process.

### X. EDUCATIONAL IMPLICATION

- Teachers will come to know that Science not only deals with facts but it also deals along with the development of values.
- Teachers will be able to identify these values and can do their planning accordingly.
- Teachers will be able to organize different activities to inculcate values among students naturally.
- Teachers will give importance to values along with the subject matter.

- Skits, role plays propagating moral values can be performed by students under the guidance of teachers.

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