



An Investigation into the Students' Attitude Towards Modified Science Textbook

KEYWORDS

Attitude, Equitable Education, Science text book

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ABSTRACT *The purpose of this paper is to find out the attitude of students towards the modified science textbooks given under equitable education. About 1573 high school students took part in the research. An attitude scale was constructed by the investigator and was administered. The findings of the study indicated that there was a significant difference in attitude of students based on the class of study and 8th class students were more favourable and happy with the new style of textbook than their 9th counterparts. It was seen that there is no change in attitude of students depending on the different type of schools in which they study.*

1. Introduction

Attitude has Cognitive, Affective and Conative components; it involves beliefs, emotional reactions and behavioural tendencies related to the object of the attitudes (McGroarty, 1996). It has an evaluative aspect, a disposition and tendency to react positively or negatively to something. It is, in short, the way someone thinks or behaves. Fortunately, attitudes are not static and can be changed by identifying the sources of negative attitudes and correcting them. Students' attitudes towards the modified textbook based on equitable education system in Tamil Nadu play some part in explaining their success in learning. Attitudes therefore affect the rate of development and the final proficiency achieved by the students in any educational system.

Equitable Education or Samacheer kalvi or Tamil Nadu Uniform System of School Education was introduced in Tamil Nadu in all government, government aided, matriculation, corporation and schools under Anglo Indian scheme in the academic year 2011-12 with the aim of ensuring social justice and provide equal quality education in all the schools in the state.

The voices and observations of the students' can reflect the experiences they are having, and can provide invaluable information toward understanding their experiences in the competitive activities offered in the text books based on the new system of education namely, Samacheer kalvi or equitable education.

In this study a survey of high school students' attitude towards the content and style of science text books implemented under equitable education was conducted. The survey used a rating scale which was distributed to 1573 students of 8th and 9th class studying in different government, government aided and corporation schools in Coimbatore city. The survey aimed to identify the students' attitude towards the change in science textbook style under equitable education system.

2. Research objectives

This study has two main objectives:

- To find out students' level of attitude towards change in science textbooks under equitable education system
- To examine if there is any statistically significant difference in attitude of students towards change in science textbooks under equitable education system based on the variables class of study and type of school in which they study.

2.1 Research questions

Based on the objectives, the research questions are:

- What are students' general attitudes towards the new science textbooks selection under equitable education system?
- Whether the learner background variables Class of study and Type of school shows significant difference in students' attitudes towards the textbooks introduced under equitable education system.

3. Methodology

3.1 Participants

The sample population consisted of 1573 high school students from ten different schools in Coimbatore city. The participants who took part in study were students from 8th and 9th classes. In each school, the rating scales were distributed to students after establishing rapport with them.

3.2 Instrument

The researcher collected the quantitative data through a rating scale 'Students attitude towards Science Text Books (SASTB)' for assessing the attitude of students towards the content and style of text books distributed under equitable education.

The scale included 25 items, structured as statements with the options 'Strongly Agree' and 'Strongly Disagree'. The questionnaire was reviewed by two experts in curriculum development and two teachers from school before it was distributed to the participants of the study. The initial scale consisted of 30 items which was reduced to 25 items based on item analysis. The reliability coefficient of the final scale was found to be 0.84. A personal data sheet was also administered to collect the demographic data.

4. Results and discussion based on rating scale

4.1 Attitude level of students

The attitude level of the students' towards modified science textbook were found based on mean and standard deviation and the results are given in Table 1.

Table 1. Attitude level of students

Attitude Scores	Number of Students	Percentage
Less than 52	294	18.69
Average (52-67)	1033	65.67
Greater than 67	246	15.64

The Table 1 indicates noticeable details about the attitude of students towards the new science textbook. Nearly 66 % of the students have a moderate attitude towards the new science textbook whereas 18.69 % of students possess a highly favourable attitude towards the new science book. Only 15.64 % of the students do not have a favourable attitude towards the newly implemented science text book.

4.2 Attitude of students based on class of study and type of school

An analysis was done to find whether class wise there will be difference in attitude towards equitable education. Means and standard deviations for the SASTB for 8th standard and 9th standard students were found and Student t-test was done to find out if there is any statistically significant difference in attitude based on class of study and the value is given in Table.2

Attitude of students from government (N=585), government aided(N=214) and corporation schools (N= 776) towards the new science text book followed under equitable education were considered for the study and the scores obtained were subjected to Analysis of Variance and the F- value obtained is also given in Table 2.

Table 2. Attitude of students based on class of study and type of school

Attitude Scores	Group I 9 th class students (N1=757)		Group II 8 th class students (N2=816)		t -value
	M1	SD	M2	SD2	
		57.71	8.24	62.18	7.02
Type of school and attitude					
	Source of variation	Sum of squares	Degrees of Freedom	Mean square	F-value
	Between Groups	6.581	2	3.290	0.052 ^{NS}
	Within Groups	99147.73	1570	63.151	
	Total	99154.31	1572		

NS-Not significant ** Significant at 1% level

4.3 Discussion

The descriptive analysis showed that majority of the students (65.67%) had a moderate attitude toward the new science textbook implemented under equitable education whereas 18.69 per cent of students had a lower level of attitude and 15.64 per cent of students were having higher level of attitude towards the change in the structure, style and content of the science text book under equitable education.

The differential analysis showed that there was a statistically significant difference (0.01 level) in the attitude of students of 8th and 9th class of which the 8th class students were much favourable to the new science book. The F-value obtained for the attitude scores based on the different types of schools in which these students study indicated that there was no significant difference.

5. Conclusion

The information offered by the students who participated in this study provides a basis for rethinking entrenched strategies to help reexamine the way arguments for and against the equitable education are going on among the stakeholders and the policy makers.

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