

INFUSION OF TECHNOLOGY IN INSTRUCTION AND LEARNING MOTIVATION AMONG HIGH SCHOOL STUDENTS

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Introduction

Technology in education is the buzz word in the recent scenario of education. More of innovative ideas are being implemented in the process of teaching and learning to make it an effective process. Technology plays a vital role in molding up the teaching learning process to be effective and innovative technology has assumed greater importance for achieving desired goals for universalization of education, for preparation of teachers and for upgrading curricula in all phases of education.

“The house of education, which we want to build is of course going to be different than the cottage in which we are living till this time. The paradigms for teaching technology education are changing. Technology education teachers and curriculum experts recommend a variety of differing instructional approaches such as self-paced modules, interdisciplinary methodology, and problem solving to inform students about technology and its effects on society.

It is now known that in educational ‘learning’ is more important than ‘teaching’. Learning is concerned with learnness whereas teaching is concerned with pupils and teacher. Technology consisting of various media of mass communication, suitable child learning process and modern testing and evaluation techniques are essentially required. There should be a revolution in education and technology in education with an aim not only of making education more widely available, but also of improving the quality of education which is already available.

Objectives of the Study

- To measure the attitude of high school students towards infusion of technology in instruction.
- To measure the level of learning motivation among high school students as a result of infusion of technology in instruction based on gender, age, standard of learning, type of institution, nature of institution, board of institution and locality of institution.

Hypotheses of the Study

Since the present study attempts to study three different aspects of technology in education, it has been designed to verify the following hypotheses for each aspect individually.

1. There is significant difference in the level of learning motivation developed as a result of technology infusion in instruction among high school pupils based on gender, type of institution, nature of institution and board of institution.
2. There is significant difference in the level of learning motivation developed as a result of technology infusion in instruction among high school pupils based on the standard of learning.
3. There is no significant difference in the level of learning motivation developed as a result of technology infusion in instruction based on the location of institution.

Population and Sample of the Study

The population selected for this study is the High School Students from Standard VI to IX in Madurai District, Tamilnadu. The sampling technique involved in the study was purposive sampling. 300 high school students varying from VI to IX standard from different boards were taken as the sample for the study.

S.No	Institution	Number of Samples
1	Government School	50
2	Government Aided	100
3	Matriculation Board (Private)	70
4	CBSE Board (Private)	30
5	ICSE Board (Private)	50
	Total	300

Administration of the Tool

In this research, Normative Survey Method was used to collect data from the samples. Data collection was done in groups. The tool was distributed to the teachers and students and proper instructions were given to them by the researcher. An adequate time of 30 minutes was given to the students and teachers to fill up the data sheet.

Scoring

The learning motivation tool is rated with a three point rating scale. The scoring of which has been objectified by assigning 'Three to One' scores respectively for the positive items; sequentially rated from "Strongly Agree" "Agree" and "Disagree". For negative items, the scores assigned to each of the alternatives have been reversed. They range from 'One to Three' from "Disagree", "Agree" and "Strongly Agree"

Development of the tool

The researcher after going through various studies related to technology and learning motivation, developed these tools which consisted of 50 for the students. This drafted tool was then discussed with the researcher's guide and with other educational experts and 5 experienced teachers and based on her suggestions, the number of items in the tools were modified. The modified tool consisted of 40 statements for the students. The tool has a higher degree of validity.

Reliability of the Tool

The reliability of the tool constructed for the pupils was established using split half method. And the reliability of the tool was calculated. It was found that the reliability of the tool was 0.9 which is the highest value of reliability. Hence the tool is reliable for the main study.

Data Analysis

Null Hypothesis (H₀) There is no significant difference in the level of learning motivation developed as a result of technology infusion in instruction among high school pupils based on the sex, type of institution, nature of institution and board of institution and locality of the institution.

Gender	N	Mean	SD	"t" Value	Significance
Male	148	91.64	18.35	2.177	Significant
Female	152	86.50	22.31		
Age	N	Mean	SD	"t" Value	Significance
Below 14	88	74.08	28.22	9.136	Significant
14 and Above	212	95.20	11.75		
Type of Institution	N	Mean	SD	"t" Value	Significance
Government	50	59.12	18.01	7.443	Significant
Government-Aided	100	82.23	15.99		
Government-Aided	100	82.23	15.99	12.792	Significant
Private	150	103.49	5.53		
Private	150	103.49	5.53	17.205	Significant
Government	50	59.12	18.01		
Nature of Institution	N	Mean	SD	"t" Value	Significance
Boys'	50	76.28	17.64	2.759	Significant
Girl's	50	85.66	16.34		
Co-Education	200	93.03	20.78	2.324	Significant
Girls'	50	85.66	16.34		
Co-Education	200	93.03	20.78	5.786	Significant
Boys'	50	76.28	17.64		
Board of Institution	N	Mean	SD	"t" Value	Significance
State Board	150	74.39	19.78	18.34	Significant
Matriculation Board	70	104.83	3.25		
State Board	150	74.39	19.78	15.217	Significant
CBSE Board	30	103.53	5.64		
State Board	150	74.39	19.78	14.663	Significant
ICSE Board	50	102	6.85		
Matriculation Board	70	104.83	3.25	3.298	Significant
CBSE Board	30	103.53	5.64		
Matriculation Board	70	104.83	3.25	4.119	Significant
ICSE Board	50	102	6.85		
CBSE Board	30	103.53	5.64	0.585	Not Significant
ICSE Board	50	102	6.85		
Locality of Institution	N	Mean	SD	"t" Value	Significance
Rural	50	76.64	28.665	4.882	Significant
Urban	250	91.50	17.651		

Findings

- There is significant difference in the level of learning motivation among the high school pupils based on gender.
- There is significant difference in the level of learning motivation among the high school pupils based on the type of institution.
- There is significant difference in the level of learning motivation among the high school pupils based on the nature of institution.
- There is significant difference in the level of learning motivation among the high school pupils based on the board of institution.
- There is significant difference in the level of learning motivation among the high school pupils based on the locality of institution.

Interpretations

Infusion of Technology in Instruction has a great role to play in the learning motivation of the learner. But, there is a huge difference in the level of learning motivation among the pupils. This is due to the unawareness about technology, no exposure to technology in instruction, teacher's attitude, lack of support from school and even from the locality of the school. Female pupils still stay back at home and do not get exposed to the latest technological advancements. But in the case of private institutions, all the pupils are well aware of the technological resources since they have been taught with the use of technological resources. They have a higher level of learning motivation when compared with the government and government aided pupils.

Educational Implications

- Teaching becomes more effective and learning becomes more clear and crisp and eases the learner to understand the lesson concept. The teacher can implement technological demonstrations to explain the concept to the learners.
- With technology learner develops his creativity which can be implemented for the future. Project works can be assigned to the students to cater their creativity.
- When technology is implemented in instruction, the learning process becomes simple for the learners. Hard concepts can be explained with an animated video.
- The learner is indirectly influenced through the pictures, videos and animations used in the instruction which stands for the improvement in learning motivation.
- Technologically instructed lesson concepts have a separate place in the mind of the learner as it includes pictures, audio, video etc. this eliminates the learner's boredom which keeps him away from the class.

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