

## **A STUDY ON ATTITUDE OF SECONDARY LEVEL LEARNERS TOWARDS TECHNOLOGY**

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### **Abstract**

*Advancement in technology is rapid that the communities in different arenas are in a position to adopt new technologies to assist them for their survival and success in their fields as well. Education domain is of paramount importance for this field paves way for the development of a nation. Integrating the new technologies into the educational field is the need of the hour as we are moving towards child-centred learning. To study the attitude of students of secondary level learners towards technology based on some demographic variables like gender and type of institution sounds good in the present situation. The instrument used in this study was prepared by the investigator. This study was carried out with forty-four secondary level learners in Thoothukudi. The data collected for this study were analysed using IBM SPSS 23. Research findings reveal that there is significant difference between attitudes of secondary level learners towards technology by Gender, Locality of the learners and Institutional Type.*

**Key words:** *attitude, technology, secondary level learners, career choice, Career Cravings, Knowledge about Learning Tools, Effects/Consequences of technology, Difficulty.*

### **Introduction**

As Dr. A.P.J. Abdul Kalam says change is decisive whether it is success or failure and this fetches new thoughts leading to new innovations. Born in a high-tech society era, the students are bound to adapt to the new environment and adopt new technologies in their learning. The changes they bring within would help them to be successful educationally and professionally (Oktay & Çakir, 2012). The students attain their goals through technology which is the mainspring of learning. Learning through technology is productive and entertaining (Amit, R. and Vinay, B., 2014). Technology is the quintessence of the activities of education (Neetu, D., 2018). The students' way of comprehending technology could be understood only if we outline their opinions towards technology. Hence the investigator feels it is right to analyse the attitude towards technology for secondary level learners.

Technology being a requisite to the contemporary world is taking efforts to modify the behaviour of an individual. To develop knowledge, abilities and skills of students, utilization of technology is essential (Hernández, 2017; Luan & Teo, 2009; Teo, 2008) and hence Information Technology is inclusive in educational programmes by governments. The huge amount of investment for technologies on education has given the educational institutions a thrust to integrate the IT tools into the curriculum (Lim, Chan & Churchill, 2011).

The trend being child focused, the learning of students will be maximum only when the students have the right attitude and willingness to welcome technology (Teo, 2006). Whether it being an object or event, the human tendency to give a response favourably or not is attitude, says Ajzen & Fishbein (2000). Here, the study investigates the favourable or unfavourable response towards technology. As we are in a male-dominated society, the development of the females towards computers have been unnerved (Culley, 1988). Parents have a positive influence on several aspects of attitude to technology when mothers and/or fathers have a profession related to technology (Ardieset *et al.*, 2015). Thus, we may come across certain demographic variables which would influence the attitude of secondary level learners towards technology. Based on the above cited research findings the researcher prepared a tool on Students' attitude towards Technology for secondary level learners.

### **Objectives of the Study**

This study entitled "A Study on Attitude Towards Technology for Secondary Level Learners" is mainly to explore the frame of mind of Std IX students towards technology which would help them to enhance learning and utilize technology in their career choices in near future.

**Research Questions**

The aim of the present study is to seek answers to the following research questions:

1. Is there any significant difference between attitudes of standard IX students towards technology by gender?
2. Is there any significant difference between attitudes of standard IX students towards technology by type of institution?
3. Does locality of the students show any significant difference between attitudes of standard IX students towards technology?

**Methodology**

In order to analyse the attitude towards technology for the students of standard IX in Thoothukudi, Survey method (Singleton R. A., Straits B. C., 2009) was used.

**Sample and Sampling Technique**

The investigator selected forty-four students of Standard IX from English Medium Schools in Thoothukudi by adopting random sampling technique (Ghauri, P. & Gronhaug, K. 2005). Care was taken to ensure homogeneity and reflection of the demographic variables targeted for the research by the investigator.

**Research Instrument used**

Career Cravings, Knowledge about Learning Tools, Effects/Consequences of technology, and Difficulty were the dimensions on which the tool was designed. Each statement was drafted in precise, simple format and so designed that students understand without any difficulty.

After elimination and filtering, the tool consisted of 28 items in total. It consists of more positive items and some negative items so that any possibility of constant biasing tendency in response could be avoided. The items were randomly arranged.

**Table 1: Details of the items**

S.No	Items details	Item Numbers
1	Positive items	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,21,22,23,24,26,27,28
2	Negative items	19, 20, 25

**Table 2: Scoring of Final Tool**

S.No	Item Category	Strongly Agree	Agree	Disagree	Strongly Disagree
1	Positive Items	4	3	2	1
2	Negative Items	1	2	3	4

**Table 3: Dimensions of the final draft of Attitude towards technology Scale**

S.No	Dimensions	Total no. of items
1	Career Cravings	6
2	Knowledge about Learning Tools	6
3	Effects/Consequences of technology	6
4	Difficulty	2
<b>TOTAL</b>		20

Scoring for the tool was finalized by expert consensus. All positive items carried maximum score of 4 for Strongly agree, 3 for Agree, 2 for Disagree and 1 for Strongly Disagree. The items which were negative carried a maximum score of 1 for Strongly agree, 2 for Agree, 3 for Disagree and 4 for Strongly Disagree. The maximum score for the tool is 80. The reliability co-efficient was established through **split-half method (odd verses even)** and was found to be **0.78** and the content validity was ensured by taking suggestions from various experts.

**Statistical Techniques used**

For data analysis, t-test was employed.

**Data Collection**

After getting permission from the Principal and concerned teachers, the students were asked to fill the questionnaire. The students took 13 minutes on an average to complete the tool and the data were collected.

**Analysis of Data**

The data collected for this study were analysed using IBM SPSS 23.

**Research Question No.1**

1. Is there any significant difference between attitudes of standard IX students towards technology by gender?

**Table 1: Significance of difference among male and female in Mean scores in Attitude**

S\*

	Gender	N	Mean	Std. Deviation	Mean Difference	't'	Level of Significance
Attitude	Male	22	66.4091	7.21545	10.04545	3.435	.002*
	Female	22	56.3636	11.66413			

Gender difference represents the sample population and as an indicator of learning ability. Attitude is measured using the validated Tool. Attitude towards Technology when positive, the awareness of the learning environment will enlarge and enhance. The mean score for males in attitude (66.4091) is higher than the mean score of females in attitude(56.3636). The 't' value 3.435 is significant at 0.002 level.The attitude of males towards technology is higher than the attitude of females towards technology. Various claims are available on Attitude towards Technology in general by **Ardies, Jan et. al (2014)** and particularly by **Mawson (2010)** support positively for male since they update in new ventures.

**Research Question No.2**

2. Is there any significant difference between attitudes of standard IX studentstowards technology by type of institution?

**Table 2: Significance of difference in the Mean score in terms of the locality of learners on Attitude**

S\*

	Locality	N	Mean	Std. Deviation	Mean Difference	't'	Level of Significance
Attitude	Rural	17	56.8824	13.11432	-7.33987	2.067	.05*
	Urban	27	64.2222	8.19631			

The reasons for using computers in education are listed as “reinforcing learning, helping learners form their own knowledge, motivating learners and increasing flexibility of curriculum” (Hancer&Tuzemen, 2008). As opposed to rural area, the urban subjects are frequently exposed to technology. So the integration of technology in learning may serve as a challenge based on locality of the individual.

The mean score for students of urban area in attitude towards technology (64.2222) is found higher than the students of rural area (56.8824). The standard deviation of urban area students (8.19631) is less than the standard deviation of rural area students (13.11432). The 't' value (2.067) is significant at 0.05 level. The table 2 reveals that students of urban area possess somewhat high mean as compared to the students of rural area.

According to the results, students from urban areas have more positive attitudes towards technology than students from rural areas. This finding is more in line with the findings of **Sarfo et.al (2011)**.

**Research Question No.3**

3. Does locality of the students show any significant difference between attitudes of standard IX students towards technology?

**Table 3: Significance of difference in the Mean score in terms of their Institutional Type on Attitude**

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	Institutional Type	N	Mean	Std. Deviation	Mean Difference	't'	Level of Significance
Attitude	Aided	22	56.3636	11.66413	-10.04545	3.435	.001*
	Private	22	66.4091	7.21545			

The Institution which possess the needed technicalities make the students see the bright side of achievement with ease. The infrastructure facilities, student support services and the involvement of teachers in total help the students in their attitude towards technology.

The mean score of students of Private Institution (66.4091) in attitude towards technology is found higher than the students of Aided Institutions (56.3636). The standard deviation of the students of Private Institutions (7.21545) is less than the standard deviation of students of Aided Institutions (11.66413). The 't' value (3.435) is significant at 0.05 level. It may be inferred that the availability of opportunities and conditions related to technology found in Private Institutions may be more.

#### **Recommendations**

- The findings of this study may assist the curriculum planners in their goal setting, plan designing, establishing evaluation procedures and implementing.
- Quality of teaching and learning may be improved.
- Decisions can be made wisely in improving the technological aspect.
- The administrators may use the findings of the students' attitude towards technology to identify their potential and give due recognition in their academic achievement.
- Reforms may be done by policy makers based on these findings.

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