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A Study on the Influence of Technology on Secondary School Students in Visakhapatnam District

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Abstract

The present study was conducted on Influence of Technology on Secondary School Students in Visakhapatnam District. Various Indian and foreign studies were reviewed. Descriptive Survey method has been used in this study. The sample consisted of 100 students from Secondary Schools of Visakhapatnam district using stratified random sampling method. Questionnaire was constructed for the students to find out the opinions on Influence of Technology on Secondary School Students. The data were analyzed using various statistical methods like mean, SD, t-test and ANOVA by SPSS package. The score obtained by different groups are compared across the variables viz. gender, class, medium of instruction, management, locality, parental qualification, parental occupation and parental income. The results indicated that there is a significant difference was established between the perceptions of Government and Private school students towards Influence of Technology on Secondary School Students. The results are discussed in light of previous research studied; Implications and Recommendations for further research were also suggested.

Introduction:

Technology on Educational System is the effective technological tool in learning. As a concept, it concerns an array of tools, such as media machines and networking hardware, as well as considering theoretical perspectives for their effective application. Technology on educational system is not restricted to high technology. Nonetheless, electronic technology on educational system has become an important part of society today. Modern technology on the educational system includes (and is broadly synonymous with) e-learning, instructional technology, Information And Communication Technology (ICT) in education, Ed. Tech, learning technology, multimedia learning, technology enhanced learning (TEL), Computer-Based Training (CBT), computer assisted instruction or Computer Aided Instruction (CAI), Internet Based Training (IBT), flexible learning environments, networked learning, virtual education, personal learning environments, networked learning virtual learning environments (VLE) (which are also called learning platforms), m-learning, and digital education. These labels have been variously used and understood, and conflate to the broad domain of technology on the educational system and e-learning. These alternative descriptive terms are all more restrictive than "Technology on Educational System" in that they individually emphasize a particular digitization approach, component or delivery method. For example, m-learning emphasizes mobility, but is otherwise indistinguishable in principle from technology on the educational system.

Technology for assessment is used in many countries, and an example is the organization for Economic Co-Operation and Development's Programme For International Student Assessment (PISA) test. PISA is for 15 year olds and it is held in 70 countries every three years. Th is exam will be next held in 2015, and it will include adaptive components to evaluate hard-to-measure skills such as collaborative problem solving. However, critics state the when learning is data driven it threatens the essence of schooling and turns them into factories. Technology is pushed into the learning environment as a tool for assessment but it is an initiative for-profit business. Although computers have started to assess student abilities, it is far from the skills that teachers have acquired over years of experience and have done for decades. Those who oppose the use of technology in education believe that instead of invest.

Educational technologists and psychologists apply basic educational and psychological research into an evidence-based applied science (or a technology) of learning instruction. These professions typically require a graduate degree (Master's, Doctorate, PH.D., or D.Phil.) In a field related to educational psychology, educational media, experimental psychology, cognitive psychology or, more purely, in the fields of educational, Instructional or Human Performance Technology or Instructional Systems Design. The transformation of technology on Educational System from a cottage industry to a profession is discussed by Saukville et all.

Need and Importance of the study

The study helped to determine the needs of learners and outcomes of integrating technology into classroom instruction, thereby keeping both teachers and students competitive, irrespective of their locale. Teachers and students remain enthusiastic about technology integration in the classroom and about opportunities to enhance their teaching and learning processes amidst challenges faced in their various schools. This study serves as resource material for developing countries that have yet to deploy technology solutions to schools and can lead to a paradigm shift for schools in developing countries that have been neglected or deprived of access to technology-rich education. Essentially, the information provided on what worked best, the status of technology interventions in selected schools, teachers' level of technology implementation, and students' level of achievement as a result of technology interventions, thereby leading to positive social change in the society.

Objectives of the study:

- To study the significant differences in the perceptions of the students towards Influence of Technology on Secondary School Students in Visakhapatnam District according to their demographic variables viz., gender, class, medium of instruction, management, locality, parental qualification, parental occupation and parental income.

Hypotheses of the study:

- There will be no significant differences in the perceptions of students towards Influence of Technology on Secondary School Students in Visakhapatnam District according to their demographic variables viz., gender, class, medium of instruction, management, locality, parental qualification, parental occupation and parental income.

Review of Related Literature:

Tessa Jolls (2008). The Impact of Technology on Character Education. Findings: Technology tools make integration of these foundations feasible and technology offers new ways to contribute positively to character education. Because the education system is profoundly affected by new technologies, structural changes must be made to teach process skills as well as content knowledge to address the need of the whole child.

Lora evanouski (2009), the impact of technology in education a synthesis paper on technology in education. we must consider implications of that technology on the learner and as well as the teacher what role does technology have for these two intertwined groups of people? I will show a correlation between the positive effects on both the student and teacher related to academic performance, meaningful learning, and those afflicted with learning disabilities. Furthermore, i will also show the positive effects on the applications of technologies in the classroom. Combining education and technology creates a more stimulating learning environment. In order to accomplish higher order thinking skills such as critical and independent thinking, the application of technology and improved motivation and attitudes, technology must be integrated into the everyday curriculum. This paper describes some impacts of technology on education through the experiences of teachers and students.

Waqar-un-nisa Faizi et. Al. (2013), the effects of using educational technology in private secondary schools of Karachi, Pakistan. This study shows the effects of using educational technology in private secondary school of Karachi. This study was done through survey. The population of this study was consisting on both students and teachers of private secondary school. One hundred respondents including 30 teachers and 70 students were randomly selected. The questionnaire was used consisting of 24 items as a research instruments simple percentage method and simple mean methods were used for analyzing the collected data. The survey result shows that both of students and teachers taking interest in using towards educational technology at secondary level. After the conclusion of the results it was recommended that government and private institutions should arrange seminars and workshops to aware students about the importance of educational technology and there should be some introduction courses to aware teachers about educational technology.

Charles Buabeng-Andoha, Yidana Issifub (2014). Implementation of ICT In Learning: A Study of Students in Ghanaian Secondary Schools. This study was conducted to investigate secondary school students' use of ICT and the factors that relate to their technology use. A total of 3380 students from 24 public and private schools from four regions in Ghana participated in this study. Descriptive statistics, Analysis of variance and multiple regression analysis were used to analyze the findings. The study found that majority of the students used ICT to communicate with peers more than other types of ICT application. However, the study revealed that students' pedagogical use of ICT was low. The analysis showed that students in public schools pedagogically use ICT more than students in private schools. In addition, urban school students pedagogically use ICT more than semi-urban and rural school students. Finally, the findings indicated that students' ICT competencies were the most predictor of their technology use. The findings of this study have added to the body of knowledge documenting the fact that digital divide continues to exist

Variables: Gender, Class, Medium of Instruction, Management of the school, Locality, Parental Qualification, Parental Occupation and Parental Income.

Design of the Study

The researcher followed the survey method of the descriptive research. For this investigation the questionnaire had been considered as a suitable tool for the collection of data.

Research Tool:

The present study is collected from the perceptions of students towards Influence of Technology on Secondary School Students. Questionnaire was constructed and administered to find out the Influence of Technology on Secondary School Students.

Sample:

According to the research, the survey will be conducted 100 students in secondary schools of Visakhapatnam district.

Statistical Techniques Used

The investigation has been carried out by the descriptive statistical analysis, such as calculating measures of central tendency like Mean and calculating measures of dispersion like Standard Deviation. For testing the null hypothesis, the 't' - test and Analysis of Variance have been used by the investigator.

Table 1: Mean, SD, and 'F'/'t' Values on the perceptions of students based on their Socio-Economic variables towards Influence of Technology on Secondary School Students.

Variable	Category	Mean	Std. Dev.	t/F-value	p-value
Gender	Male	83.44	11.79	1.64^{NS}	0.18
	Female	82.25	10.69		
Class	8th	86.52	5.64	1.18^{NS}	0.52
	9th	88.50	11.59		
	10th	87.76	10.69		
Management	Government	83.69	12.65	3.67**	0.00
	Private	87.20	11.08		
Locality	Rural	85.76	6.30	3.21**	0.00
	Urban	90.60	5.85		
Medium	English	85.26	9.62	3.78**	0.00
	Telugu	81.57	10.52		
Parental Education	Illiterate	84.33	10.14	2.99**	0.00
	Literate	87.91	9.21		
Parental	Poor	83.77	12.49	3.74*	0.01

Economic Status	Middle	89.15	10.35		
	High	92.34	9.78		

**Significant at 0.01, *Significant at 0.05 level and NS : Not Significant

From the above table, we observed that, the mean perception scores of male students towards Influence of Technology on Secondary School Students in Visakhapatnam district (83.44) is slightly higher than that of female students (82.25). The 't'–value is found to be 1.64 and the p-value is 0.18, which is statistically not significant at any level. This shows that there is no significant difference between the perceptions of male and female students towards Influence of Technology on Secondary School Students in Visakhapatnam district.

With regard to **class of study**, the mean perceptual scores of students for 8th class was 86.52, it was for 9th class students was 88.50, and it was for 10th class students was 87.76. The 'F'-value was 1.18 and the p-value was 0.52, which was statistically not significant at any level. This shows that, there is no significant difference among the perceptions of students based on their class and they perceived similar opinion towards Influence of Technology on Secondary School Students in Visakhapatnam district.

With regard to **Management of the school**, the mean perception scores of Private school students towards Influence of Technology on Secondary School Students in Visakhapatnam district (87.20) is higher than that of Government school students (83.69). The 't'–value is found to be 3.67 and the p-value is 0.00, which is significant at 0.01 level. This shows that there is a significant difference between the perceptions of Government and Private school students and Private school students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Government school students.

With regard to **Locality**, the mean perception scores of Urban area students towards Influence of Technology on Secondary School Students in Visakhapatnam district (90.60) is higher than that of rural area students (85.76). The 't'–value is found to be 3.21 and the p-value is 0.00, which is significant at 0.01 level. This shows that there is a significant difference between the perceptions of rural and urban area students and urban area students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of the rural area students.

With regard to **Medium of Instruction**, the mean perception scores of English medium students towards Influence of Technology on Secondary School Students in Visakhapatnam district (85.26) is higher than that of Telugu medium students (81.57). The 't'–value is found to be 3.78 and the p-value is 0.00, which is significant at 0.01 level. This shows that there is a significant difference between English and Telugu medium students and English medium students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Telugu medium students.

With regard to **Parental Education**, the mean perception scores of Literate parents of students towards Influence of Technology on Secondary School Students in Visakhapatnam district (87.91) is higher than that of Illiterate parents of students (84.33). The 't'–value is found to be 2.99 and the p-value is 0.01, which is significant at 0.01 level. This shows that there is a significant difference between the perceptions of Illiterate and Literate parents of students and Literate parents of students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Illiterate parents of students.

With regard to **Parental Economic Status**, the mean perceptual scores of students for Poor economic status of parents was 83.77, it was for Middle economic status of parents was 89.15, and it was for High economic status of parents was 92.34. The 'F'-value was 2.52 and the p-value was 3.74, which was statistically significant at 0.05 level. This shows that, there is a significant difference among the perceptions of students based on their parental economic status and high economic status of parents of students perceived high towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of the rest.

Findings and conclusions of the study:

1. There was no significant difference between the perceptions of male and female students towards Influence of Technology on Secondary School Students in Visakhapatnam district.
2. There was no significant difference among the perceptions of students based on their class and they perceived similar opinion towards Influence of Technology on Secondary School Students in Visakhapatnam district.
3. There was a significant difference between the perceptions of Government and Private school students and Private school students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Government school students.
4. There is a significant difference between the perceptions of rural and urban area students and urban area students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of the rural area students.
5. There is a significant difference between English and Telugu medium students and English medium students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Telugu medium students.
6. There is a significant difference between the perceptions of Illiterate and Literate parents of students and Literate parents of students expressed high perceptions towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of Illiterate parents of students.
7. There is a significant difference among the perceptions of students based on their parental economic status and high economic status of parents of students perceived high towards Influence of Technology on Secondary School Students in Visakhapatnam district than that of the rest.

Recommendations:

1. Sufficient training should be given to the teachers for effective teaching on Technology.
2. The students were in a technologically equipped classroom and received technological instruction that included using Web 2.0 tools.
3. On-line and Networking facilities should be established for effective implementation of Technology.
4. Innovative models should be developed in all school for effective implementing the Technology in the present context.
5. Required software facilities should be enhanced for integrating Computer Assisted Instruction in secondary schools for effective teaching.

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