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Impact of Multimedia and e-Education on the Academic Performance of School Going Children

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ABSTRACT

The advancement in multimedia and information technologies also has impact the way of giving education. This advancement has led to quick use of e-education systems and given power to greater integration of multimedia content into e-education systems. 21st century stated to be the great age of information and communication technology. Today's students have been raised in a world of instant access to the information and knowledge, a word of mechanization, remote controls, and simulation capabilities to stimulate the mind. This paper about the growing technology of "Multimedia and e-education". Therefore, the current study helps to understand how multimedia and e-education technology affects academic performance of students. The research design was adopted the survey method and using questionnaire as the instrument for data collection. Participants randomly selected from different public schools of Lucknow city. Total 300 sample by dividing the schools from ICSC board, CBSE board and UP board. The findings revealed that educational technologies beneficial tool for the academic point of view and enhances the skill and capability of students. It was concluded that, students benefited more from educational technologies rather than other teaching material and it had significant impact on students.

KEYWORDS: multimedia, e-Education, Education, Academic Performance.

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INTRODUCTION

In the Information and Communication Society (ICS), as the 21st century is also referred to, the nature of knowledge turns into a ‘multimedia-ish’, trans-disciplinary and practical oriented knowledge ¹. The revolutionary development and change in the information and communication technology (ICT) in the last fifty years and especially the digital boom in the mid/late 90s have tremendously changed certain forms of learning and education ². The remark made by the Kothari Education Commission (1964-66) “The destiny of nation is being shaped in its classrooms” throws light on the importance of educational technology in modern India ³.

It is seen that increasing the use of hardware and software in the field of education positively affected learning environment after 1980s. In this sense, it is observed that educational environments have also changed after 1980s with the increase in computer equipment and software ⁴. Information processing theories described human mind as like a computer and human learning as like how computer processes information.

Students learn best by seeing the value and importance of the information presented in the classroom. Students learn in many different ways. Some students are visual learners, while others are auditory or kinaesthetic learners. Visual learners learn visually by means of charts, graphs, and pictures. Auditory learners learn by listening to lectures and reading. Kinaesthetic learners learn by doing. Students can prefer one, two, or three learning style ⁵.

Multimedia sources made by utilizing audio, video, visual, graph, text, animation to clarify a subject is expressed as the use of various information composes to explain an idea or thoughts, an event or a subject. It is presented as a tool combining different platforms such as written, audial, numeric diagrams and animation. Precise meaning of the term electronic learning incorporates the system of learner activities and instructor activities in the instruction supported and molded by the information-communication technology ⁶.

The term e-education refers to the application of internet technology to the delivery of the learning experiences. E-education takes place in formal electronic classroom, on corporate intranets used for just in time training, audio and video teleconferencing and in a variety of other technology mediated learning spaces ⁷.

Therefore, the study helps to understand and relates to students and teachers delivered using multimedia and e-Education based methods. This study examined the impact of multimedia and e-Education on academic performance was tested on attitude and perception of students.

OBJECTIVE OF THE STUDY

To assess the impact of multimedia methods & e-education provided by the schools on the academic performance of the students.

METHODOLOGY

The nature of the study clearly based on the classroom teaching involving both the teacher and students. The survey method was most suitable for the present research. In this study, multimedia and e-education technologies used in eighth and ninth standard students in different public schools with identical educational technology infrastructure background in urban area of lucknow city and teachers from these schools was selected to participate on this study. Total 300 respondents to be originally targeted for the study sample. The sample included male and female students. The sample group by dividing the schools for using educational technology in to ICSC board, CBSE board and UP board. The schools selected in each location were chosen at random to acquire the wide-ranging overview results.

RESULTS & DISCUSSION

Data were tabulated and provided under the relevant hypothesis. Objective was to measure the relationship between 3 important dimensions (independent variables) and Multimedia and educational technologies improve quality of education (Dependent variable). To make sure none of the multiple regression analysis assumptions were violated, all the assumptions were checked and presented below the respective tables.

From the above table, it can be seen that in case of quality of education, awareness, productivity and learning process of Multimedia and educational technologies plays very important role. The regression equation above has recognized that taking all factors into account (awareness, productivity and learning process) constant at zero, academic performance will be 0.289.

Table.1. Impact of Awareness, Productivity & Learning Process on Academic Performance of Children.

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.289	0.072		3.998	0.000
Awareness	-.008	0.011	-.064	-.758	0.449
Productivity	0.148	0.020	0.763	7.430	0.000
Learning Process	0.035	0.023	0.104	1.498	0.135

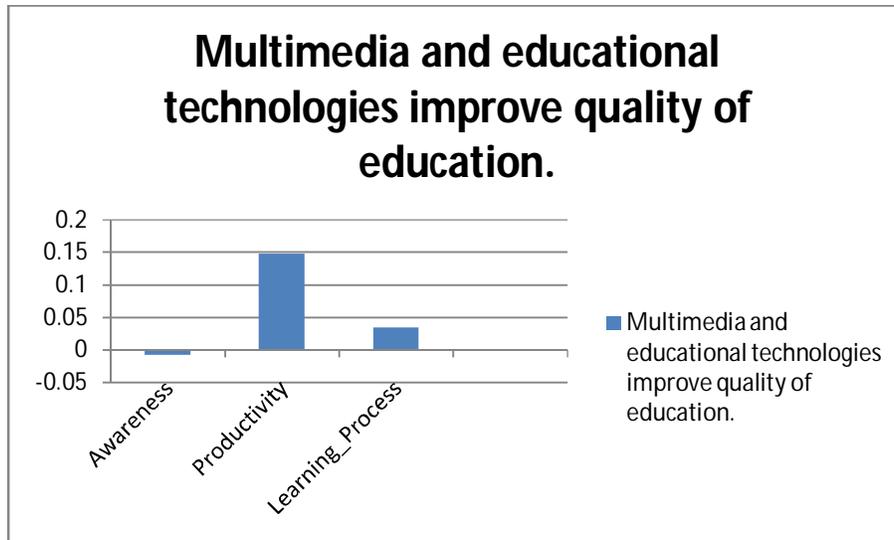


Figure1. Awareness, Productivity & Learning Process on Academic Performance of children.

The findings presented also shows that taking all other independent variables at zero, a unit increase in awareness will lead to a -0.064 increase in academic performance; a unit increase in productivity will lead to a 0.763 increase in academic performance and a unit increase in learning process will lead to a 0.104 increase in academic performance. This infers that productivity contribute most to academic performance ,then learning process ,while awareness contributed the least to academic performance of children. This result shows that use of Multimedia and e-education technologies have affected academic performance of students.

CONCLUSION

This study implies that impact of multimedia and e-education on academic performance of students. As the analysis of data gathered on total sample of three hundred students, were shown that multimedia and e-education methods have contributed to the enhancement of the performance of students. There were significant differences shows in Awareness, Productivity, and Learning process. It was concluded that, Productivity has the great positive influence on the quality of education. Productivity of the students was improved with the help of Multimedia and educational technologies. Hence, it can be concluded that, Awareness has Negative and insignificant relationship with dependent variable , Productivity has Positive and Significant relationship with dependent variable and Learning Process has Positive but insignificant relationship with dependent variable.

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