

AN EXPERIMENTAL STUDY ON THE EFFECTIVENESS OF DIGITAL CONTENT ON THE PROCESS OF COMMUNICATION

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Backdrop of the Study

The relatively recent changes from the term Information Technology (IT) to Information and Communication Technology (ICT) due to the convergence of information technology and communication technology has opened up new challenges for education. The field of education is allured by the promise and potential of technology. The new millennium has witnessed stupendous advancements in the educational field through major and effective technological innovations. To cope up with these changes in education, use of technological devices has become inevitable to enhance the quality of education.

E-content in education is a powerful tool that may be used effectively and efficiently within the classroom to create more exciting learning environment and deliver a higher level of educational expertise to students. Teacher can design their lesson plans to supplement classroom lectures with multimedia presentations either on small computer screens or on large class room screens.

Need for the Study

Education today is more than teaching and learning with great emphasis being laid on technology. Teaching and learning has progressed from classroom lectures and seminars to video discs and CDROMs, to web based training and wireless communication. The application of ICT is being heralded as a revolution for classroom teaching and has generated new hopes among teachers and students. New innovations are coming to the field of education in terms of technology which promises to change the process of teaching and learning. In the educational applications of computer, for the instructional purpose, we feel the emergence of a technique which is more powerful than any teaching aids we have been accustomed to use hitherto. For the first time we have the possibility of teaching materials which can adapt in real time to the needs of the individual student. With the increasing availability of computers, effective use of computers will be extremely necessary for the classroom teacher who has to do away with the age old tendency of lethargy, conservation and aversion of using hardware for teaching. With the introduction of the Computer Literacy And Studies in Schools (CLASS) project, the teacher need training in how to make best use of an unfamiliar tool like computer for the teaching of subjects which is considered as a thorne in the flesh by most of the students. In a time when digital revolution continues to drastically change all walks of life, the need for taping the significance and scope of the E-content and E-Learning is doubtlessly great.

Thus in-depth researches on the relevance and scope of e-content in teaching learning process, an enquiry into its limitations, and an analysis of how to adapt it for specific purposes are of course the need of the hour. The fact that it is an emerging area and that it is less trodden, enhance its scope and significance. It is quite certain that a constructive study of the possibilities of e-content in the process of teaching and learning will immensely enrich the quality of education. The first step of shifting into an ICT enhanced education is to prepare teachers in a manner that brings about necessary knowledge, attitude and skills in them. For this to happen, the teacher education needs to be ICT based. Hence the researcher feels the need of this study to develop and validate an e-content on the topic the process of communication in B.Ed curriculum. the review has helped the researcher to gain insight into the nature of the research problem and it has become clear that so far no study has been undertaken to develop and to validate an e-content on the topic the process of communication in educational technology at B-Ed level. Hence the investigator found it to be relevant to develop and validate an e-content on the topic the process of communication in educational technology at B-Ed level.

Objectives

- To design and develop e-content on the process of communication in B.Ed. Curriculum.
- To develop an achievement test for B.Ed. students on the process of communication.
- To validate the e-content on the process of communication in B.Ed. Curriculum.
- To test whether there exists significant difference in the pre test scores of achievement in process of communication between male and female student teachers.
- To test whether there exist significant difference in the pre test scores of achievement in process of communication between urban and rural student teachers
- To test whether post test scores are significantly higher than the pre test scores of achievement in process of communication
- To test whether there exists significant difference in the post test scores of achievement in process of communication between male and female student teachers.
- To test whether there exists significant difference in the post test scores of achievement in process of communication between rural and urban student teachers.

Methodology in Brief

Population and Sample

The population for the present study constitutes B.Ed. Trainees including males and females. B.Ed. students are the students studying at the graduate level of teacher education. For the present study the sample were selected a heterogeneous group of 50 B.Ed. students from Government College of Education, Orathanad.

E-Content on Process of Communication

This consisted of four modules namely 1. Introduction, 2. Elements and Processes, 3. Barriers of communication, and 4. Types of communication. The other features of the module were however, objectives, feedback, FAQs, Summary, Assignment, Quiz and Glossary.

Achievement Test on Process of Communication

It consisted of 15 multiple choice test items on the process of communication.

Major Findings of the Study

There is no significant difference between pre test scores of achievement in process of communication of male and female student teachers.

There is no significant difference between pre test scores of achievement in process of communication of rural and urban student teachers.

There is significant increase in post test scores of process of communication after the administration of e-content. The percentage increase of post test scores are over pre test scores was 28.13.

There is significant difference in post test scores of achievement in process of communication of male and female student teachers. Females have higher post test scores than male student teachers.

There is no significant difference between the post test scores of achievement in process of communication of rural and urban student teachers.

Testing of Hypotheses

In the light of the above findings, the hypotheses set for the study are revisited for their tenability.

Hypothesis 1 that “There will not be significant difference in the pre test scores of achievement in process of communication between male and female student teachers” is accepted.

Hypothesis 2 that “There will not be significant difference in the pre-test scores of achievement in process of communication between urban and rural student teachers” is accepted.

Hypothesis 3 that “The mean of post test scores of achievement in process of communication will be significantly higher than the mean of pre test scores” is accepted.

Hypothesis 4 that “There will not be significant difference in the post test scores of achievement in process of communication between male and female student teachers” is rejected.

Hypothesis 5 that “There will not be significant difference in the post test scores of achievement in process of communication between urban and rural student teachers” is accepted.

Conclusions

Twelve percentage of the sample scored 60 percent, ten percentage of the sample scored 66 percent, fourteen percentage of the sample scored approximately 73 percent, eighteen percentage of the sample scored 80 percent, sixteen percentage of the sample scored approximately 86 percent and another twelve percentage of the sample scored 94 percent of the test of achievement in process of communication. On an average student teacher scored 73.6 percent on the test of achievement in process of communication after the administration of developed e-content. This is an increase of 28.12 percent over the pre test scores, obtained before the administration of the e-content module. Hence, there is sufficient reason to believe that the developed e-content was effective for developing knowledge about process of communication among B.Ed. students. The gain of 28.12 percent per average student is commendable because the module administration required only less than 20 minutes.

Limitations of the Study

The developed e-content deals with the conceptual aspect of the process of communication and it does not cover the development of the skills of communication. The developed e-content was validated in a pre test post test single group design. The advantage of administration of developed e-content over the other methods of technology the same content was not found out.

Suggestions for Further Research

The e-content need to be developed in other curricular areas of teacher preparation. The developed e-content can be further validated using a pre test post test control group design. The e-content material may be developed to improve the skills of communication by imparting sufficient practice and feedback on different aspects of classroom communication.

Recommendations of the Present Study

Chalk and talk method of teaching of subjects should be avoided and newer instructional technologies using e-content can be introduced.

The e-content for teaching (process of communication in B.Ed curriculum) is found to be effective and so the same approach can be given for the teaching of other topics in B.Ed curriculum. E-Content can be used to enhance both the theoretical knowledge and practical knowledge. E-content is found to be more effective in teaching science subjects since experiments, dissections, phenomena etc can be presented effectively through e-content. Teachers should be trained to produce e-content at various levels. In-service training and orientation courses can be provided. Since e-content is a self instructional method it demands active participation and encourages vigilance.

In the computer-assisted instruction, (e-content), the content is simplified because it is split up into small frames. More involvement and greater variety in dissemination of content are possible when e-content is used for instruction.

In e-content, the content is presented in a structural and systematic way. The novelty of medium which is the trademark of e-content makes the instruction effective. Without any prior exposure to the computer, computer software or any other educational software, any pupil can reap the benefits of e-content.

Educational Implications of the Study

The results of the study proved that the e-content can be used effectively for the teaching of subjects at the teacher education. So immense attempts should be made to include this kind of e-content based instruction at the teacher education level.

The NCERT and SCERT and other State level authorities may take initiative for the e-content development for the betterment of the student community and different e-content material packages may be developed and supplied to all schools and teacher educational colleges.

In service training courses for the preparation of e-content may be given to the teachers and teacher educators. Because in the near future the e-content development would be the chief educational task for the teachers. The developed e-content can be provided as practice material after the formal instruction to enhance students understanding on the topic.

Conclusion

The rise of e- learning and an electronic content (e-content) is a new paradigm for education and training in the knowledge society, empowered by technological advancements which gives the modern instructional technology a new look. The development of educational content in time with the changing times has become a major responsibility of the modern teacher who has to face a new learner in a new environment. The role of qualitative e-content assumes critical necessity and value to boost and spread modern instructional technology. However, the development of e- content is not an easy task. It calls for the coming together of both the educationists and the technologists. Simply, the development of an e-content is not enough. We should keep an eye on the various stages of the e-content development to ensure whether the developed content is valid and suits to the needs of the learner. Development and validation of e-content is meant not only for the current generation but also for the posterity.

References

1. Aggarwal, YP. Research in Emerging Fields of Education Concepts, Trends and Prospects. New Delhi: Sterling, 1988.

2. Allwright, D and KM BaDey. Focus on language classroom. Cambridge: Cambridge University Press, 1991.
3. Anand, SP. RCEB, tools for secondary class students. Bhubaneswar: Shovan, 1996.
4. Ananthakrishnan, MV, Rama Mahalingam and Somasundaram M. Effective use of multimedia for teaching language to adult illiterates: a case study. International Conference on Educational Technology, 2003.
5. Anbarasan. Software localization process and issues. Bangalore: Applesoft, 2004.
6. Antony Stella and Purushothaman S. CAI for under achievers. Trichy: Indian Council for Research in Educational Media, 1994.
7. Bagley, M. ILs and the Right Software. Educational Computing and Technology, 1996.
8. Bailey, KM. Classroom centered Research on Language Teaching and Learning. Newbury: M.CelceMarcia, 1985.
9. Becker, HJ. Computer experience patterns of computer use and effectiveness. Studies in Educational Evaluation, 1993.
10. Bennet, SN. Teaching styles and pupil progress. Massachusetts: Haward University Press, 1976.
11. Best, John W. Research in Education. New Delhi: Prentice Hall, 1996.