

## ABSTRACT

Title : Effectiveness of Educational Technology for Promoting Special Education in Pakistan

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The twentieth century has witnessed accelerated changes due to exciting discoveries, particularly in science and technology. The educators being the most dynamic force to lead others to achieve human excellence may not keep themselves aloof from wonders of unimagined technologies. The new and interesting methods to achieve national aspirations, the paramount aim of education have been introduced by integrating technological changes in teaching-learning process. The technology has provided tools, materials and processes to create conducive learnable atmosphere and to device adequate teaching learning strategies for acquisition of conceived educational goals keeping in view the capabilities of learners. Thus technology has been contributing significantly to address educational needs of the learners.

The system of special education evolved from the failure of formal education system to meet the needs of children whose performance could not meet the desired level of expectations. Therefore, special education is a sub system of education organized for those individuals who are not able to continue their education like normal students due to their special need arising from impairments. It signifies education consistent with academic, social, psychological and physical requirements of children with special needs requiring special attention, environment, method or material for compensatory teaching. Special education may be arranged in segregated or integrated situation. The segregation either in a regular school's building or in a separate school according to the severity and type of impairment whereas, integration

is educating special children in regular classes alongwith their normal peers. However, the nature of special needs demand variety of educational and environmental considerations, which are better met out by using educational technology.

This research has been designed to identify the effectiveness of distinct components of educational technology for improving administrative, instructional rehabilitative, architectural and preventive practices in teaching-learning process for children having disabilities with particular reference to special education institutions in Pakistan. The population of study consisted all administrators, teachers, students of special schools and parents of school going special children. Sample comprised the administrators their parents. This sample was taken from 26 special education institutions catering for four disability areas. After the study of related literature on uses of educational technology for teaching learning of special children, ten questionnaires drafted on Likert-scale, were validated, field tested and administrated. These questionnaires include:

- a) Questionnaires for Principals/Administrator: Four questionnaires for Principals/Administrators of special education institutions each in the area of specific disability i.e., Visual Impairment, Hearing Impairment, Mental Retardation and Physical Disabilities. Each questionnaire was divided into three parts. Part A was about personal information, part B having comprised professional know how about the use and need of educational technology and part C was designed to know the effectiveness of educational technology in each area of the disability.
- b) Questionnaires for teachers of special children: Four questionnaires were developed for teachers of special education institutions each in the area of specific disability i.e., Visual Impairment, Hearing Impairment, Mental Retardation and Physical Disabilities. Each questionnaire was divided into three parts. Likewise administrators part A concerned general information, part B comprised professional know how about the effectiveness of educational technology for the teachers and part was

designed to know the effectiveness of educational technology in the instructional process for each area of the disability.

Parts A and B of all the above-mentioned questionnaires comprise the same questions, whereas Part C incorporated questions related to effectiveness of educational technology in particular disability area.

- c) Questionnaire for Parents of Special Children: A questionnaire comprises 20 items for parents of all categories of Special Children was developed. It covered all the general aspects on effectiveness of educational technology. The questionnaire was translated into Urdu for those parents who were not acquainted with English language.
- d) Questionnaire for students having disability: A questionnaire comprising 25 items for special students of all categories was developed in English and translated into Urdu. It covered almost all the general aspects of effectiveness of educational technology for education of special children. However, the Visually Impaired students were interviewed according to the questionnaire and their responses were recorded.

An open ended item was given in all the above ten questionnaires to collect the opinions/suggestions about the effectiveness of educational technology from the respondents. The data collected were arranged, processed, presented and analyzed in 407 tables in chapter 4.

Total score of each item was calculated by adding up all responses according to degree of responses after multiplying original response to their respective weightage, while mean score of each item was calculated. Moreover, average of the mean scores and averages were also calculated to draw average mean score for each item. Findings drawn from Part C of each questionnaire were presented separately as it deals with specific disability/area of specialization. On the basis of data thus analyzed, findings were drawn, conclusions and recommendations were made and presented in Chapter 5.

Significant findings included that educational technology (ET) minimizes effects of disability hindering educational, social and functional development of children having special needs (CSN). ET accelerates educational achievements by using innovative instructional approaches and tools of remedial teaching. Respondents endorsed that effective use of ET promotes professional efficiencies of users.

It emerges out of these findings that effective utilization of ET increases interests, motivations, enthusiasm attitudes and achievements of children having disability. It promotes interpersonal relationship of personnel and commitment of CSN for school.

In order to make effective use of ET for promoting special education in Pakistan it was recommended that teachers may be trained to use ET, so that they may design and redesign, their lesson plans around ET oriented resources. To achieve this ET may be made available in special schools. The level of needed maturity or awareness in use and maintenance of ET may be achieved by arranging symposiums, seminars or exhibition to publicly demonstrate successful practices.