

## **DEDICATION**

Dedicated to the Holy Prophet (PBUH) who is blessing of God for the whole universe and my beloved parents whose infinite love, prayers and encouragement have been my greatest strength and inspiration in life

## **ACKNOWLEDGEMENT**

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Alia Cheema

## **Abstract**

Purpose of the study was to explore the role of technology in accelerating the learning of student with mental retardations. The study aimed to rehabilitate children with mental retardation in learning. The investigator developed three instruments to conduct the study. (i) A curriculum based achievement test of mathematic subject was developed on the bases of curriculum selected from different special schools of Lahore city, (ii) thirty worksheets were also developed on bases of thirty items of achievement test and (iii) three data recording sheets were developed by the researcher to record the performance of the students. Millie's math house and Trudy's time and place house computer software were used as to treatment. Five students with mental retardation from Pakistan Air Force special education Institute Lahore (PAF) were selected as the sample of the study. Sample was selected by simple random sampling technique. The assistive technology was implemented by using a pre-intervention, intervention and post-intervention phases for each participant. All participants showed progress in every step of the intervention and post-intervention phases. The qualitative and quantitative research methods were used to report the results. Statistical package for social sciences (SPSS) were used to analyses the data. Paired sample t-test was applied on the data and results showed in the form of tables and line graphs by using excel. Analysis of the data showed a significant improvement in participant's learning and shortens the mathematics items achievement time and number of errors of students with mental retardation. It is recommended that after the selection of appropriate software for developing mathematics skill of students with mental retardation, it should be used in both institutional and home based settings and it should be a part of their syllabus to make them active learners.

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## List of Abbreviations

AAC	Augmentative and Alternative Communication
AAMR	American Association of Mental Retardation
ABA	ABA (single subject withdrawal design)
ALDs	Assistive Listening Devices
APA	American Psychiatric Association
Arc	Association for Retarded Citizens
AT	Assistive Technology
BD	Behavior Disorder
CCTV	Close Circuit Television
DSM IV	Diagnostic and Statistical Manual of mental disorders, 4 <sup>th</sup> Edition
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders
FAPE	Free Appropriate Public Education
FM	Frequency Modulated
GPS	Global Positioning System
ICD 10	the International Statistical Classification of Diseases and Related Health Problems
ICIDH	International Classification of Impairment, Disabilities and Handicap
IDEA	Individuals with Disabilities Education Act
IDEA	the Individuals with Disabilities Education
IEP	Individualized Education Programs
IFSP	Individualized Family Services Plan
LD	Learning disability
LRE	Least Restrictive Environment

MR	Mental Retardation
NCTM	National Council of Teachers of Mathematics
PAF	Pakistan Air Force
SPSS	Statistical Package for the Social Sciences
UA	Universal Accessibility
UDL	Universal design for Learning
WHO	World Health Organization