



USE OF TECHNOLOGY AMONG VISUALLY IMPAIRED TEACHERS

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Abstract

Today's scenario is on the basis of technology. Technology is not only meant for sighted people it is a boon to differently abled also. The visually impaired individuals mostly opt for teaching position and a number of teachers are working at school and collegiate level. The emergence of reading machines, personal computers with speech or Braille output, on-screen magnification, closed circuit televisions, improved magnifiers of various sizes for various purposes, and many other technological developments have contributed to some blind people moving into jobs that they previously could not do without sighted assistance. Today's classroom is very challenging to any teacher due to diversity of student population. Assistive computer technology and empowerment: the vocational experiences of blind and visually impaired New Zealanders, Williams, Wendy Elizabeth (2003) reported that the technologies compensate for the information access limitations of the blind and visually impaired and promise eventual empowerment. The study was conducted in Bidar and Kalaburgi districts of Karnataka with Descriptive Survey design. The sample comprised of 60 Visually Impaired teachers each 30 from school and College/University teachers. As many studies indicated that application of technology enhances the work performance of the visually impaired persons. The present study also revealed that Use of Technology by college teachers are better than school teachers and there is no difference among male and female and teachers working in Bidar and Kalaburgi districts of Karnataka .



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Introduction:

Today's scenario is on the basis of technology. Technology is not only meant for sighted people it is a boon to differently abled also. It was very many years ago that most blind people who were employed in a small group of occupations. Some examples of such jobs include piano tuning, sewing, winding brooms, and operating vending stands in Federal facilities. While a number of blind people are still successfully employed in these

occupations, the 1980s and 1990s have been a time when many blind people have sought and found employment in various other fields.

Visually impaired teachers appear in literature from both Indian and Chinese antiquity. Legal and charitable provisions existed and a few blind persons played a role in epic history, while most blind Asian probably lived quite constricted lives. National Association for the Blind Teachers (1971) listed 52 subjects handled by visually impaired teachers ranging from elementary to graduate school including languages, economics, psychology, social studies, music and so on.

The visually impaired individuals mostly opt for teaching position and a number of teachers working school and collegiate level. The emergence of reading machines, personal computers with speech or Braille output, on-screen magnification, closed circuit televisions, improved magnifiers of various sizes for various purposes, and many other technological developments have contributed to some blind people moving into jobs that they previously could not do without sighted assistance.

Today's classroom is very challenging to any teacher due to diversity of student population. This study aims to find out the use of technology among visually impaired teachers.

Statement of the Problem

The statement of the problem worded as "Use of Technology among Visually Impaired Teachers"

Review of Studies:

Assistive computer technology and empowerment: the vocational experiences of blind and visually impaired New Zealanders, Williams, Wendy Elizabeth reported that the technology revolution which has occurred in new Zealand over the past 30 years has introduced an array of assistive mainstream and specialized computer technologies (ACT) such as the internet, voice and Braille output systems. These technologies compensate for the information access limitations of the blind and visually impaired and promise eventual empowerment. Underpinned by a philosophy of empowerment, the study targets individuals who are themselves visually impaired are of working age and have come into contact with Assistive Computer Technology, along with relevant individual specialists and organizations. In methodological terms it is mainly qualitative with a pragmatic and complementary mix of focus groups, personal and specialist interviews and a survey. The study discovers that Assistive Computer Technology has indeed spawned a range of benefits for participants in their personal and social contexts. However some persistent social barriers and underlying structural factors impede the empowering potential of Assistive Computer Technology.

A Collective case study approach was used to examine factors that influence the job retention of persons with vision loss in Employment after Vision Loss: Results of a Collective Case study by Crudden(2002), Adele. Computer technology was found to be a major positive influence and print access and technology were a source of stress for most participants.

A Crudden and L.McBroom (1999) reported that A national mail survey of 176 employed persons who are blind or have low vision found that employment barriers included attitudes of employers and the general public; transportation problems; and lack of access to print, adaptive equipment, and accommodations. Strategies to overcome barriers appear to be addressed on an individual basis, rather than from a macro or policy perspective.

A thorough review of literature revealed that there was hardly and study pursued the use of technology among visually impaired teachers in Indian context and hence this attempts to explore the competence of visually impaired teachers in inclusive setup.

Method:

The area selected for the study included Bidar and Kalaburgi districts of Karanataka. The study adopted purposive sampling technique to select the sample. The sample comprised of visually impaired teachers from schools and College/University. Gender issues were considered and both male and female teachers were equally selected. There were 60 teachers, 30 from schools and the other 30 from higher education institutions. Descriptive survey design was adopted, which included selection, surveys and fact-finding enquiries of different kinds. The present state of affairs was discussed.

Variables

The Variables selected for the study are as follows.

Table-I Variables

Variables	Levels
i) Independent Variable	i) Male
a) Gender	ii) Female
b) Type of Educational Programme	i) School
ii) Dependent Variable	ii) Higher Education Programme
	i) Use of Technology

Tools

Personnel Data Sheet to collect the demographic details of the visually impaired teachers was used in this study. The investigator developed her own rating scale for measuring use of technology among visually impaired teachers.

Data Collection Procedure

The Study was conducted in three phases.

In the first phase the investigator made a survey to identify visually impaired teachers working in various schools and Colleges/University in Bidar and Kalaburgi districts of Karnataka. In Phase two the investigator administered the Rating Scale to 30 selected visually impaired teachers working in Schools In third phase the investigator administered the rating scale to 30 visually impaired teachers working in College/University to assess their Use of Technology. The investigator carried out the assessment as direct interview with the sample selected.

Data Analysis

Qualitative Analysis was used to assess the Level of Use of Technology used by the Visually Impaired Teachers.

T-Test was used to compare the use of Technology with respect to Gender, District and Type of Eduational Programme (School/Higher Education).

Results

Result 1: Level of Use of Technology

Level	No.	Percent
Low(≤ 8)	21	35.0
Moderate (9-12)	29	48.3
High(> 12)	10	16.7
Total	60	100.0

A qualitative analysis was done to find out the level of Use of Technology for Discipline in terms of low, moderate and high considering the total score of 20. The results revealed that 35% were at low level in Use of Technology, whereas 48% were at moderate level and nearly 17% at high level in Use of Technology.

Result 2: t-test of Use of Technology of Teachers of Bidar and Kalaburgi districts

Test Item	Districts	Mean	Df	SD	t-value
Use of Technology	of Bidar	112.93	29	17.08	0.642Ns
	Kalaburgi	110.20	29	15.78	

Ns: Not significant

From the table, it is evident that the t-value is 0.64 with $df=58$ which is not significant. It indicates that the Use of Technology of teachers of Bidar and Kalaburgi districts does not differ significantly. In the context of this *there is no significant difference between Use of Technology of teachers of Bidar and Kalaburgi Districts*. It means that both group of teachers to the same extent.

Result 3: t-test of Use of Technology with respect to Gender

Test Item	Districts	Mean	Df	SD	t-value
Use of Technology	of Male	10.13	29	3.62	0.52 Ns
	Female	9.70	29	2.79	

Ns: Not significant

From the table, it is evident that the t-value is 0.52 with df=58 which is not significant. It indicates that the Use of Technology of teachers of Male and Female teachers does not differ significantly. In the context of this *there is no significant difference between Male and Female teachers in Use of Technology*. Therefore it is concluded that male and female teachers use technology to the same extent.

Result 4: t-test of Use of Technology with respect type of Educational Programme

Test Item	Districts	Mean	Df	SD	t-value
Use of Technology	School	12.67	29	3.25	2.48*
	College/	14.90	29	3.71	
	University				

Ns: Not significant

From the table, it is evident that the t-value is 2.48 with df=58 with respect to Gender which is not significant at 0.05 level. It indicates that Male and Female teachers does not differ significantly in their Use of Technology. In the context of this *there is no significant difference in the mean score of School and College/University Teacher in their Use of Technology*. It is therefore concluded that university teachers showed greater use technology (M=14.9) than School teachers (M=12.67).

Discussion:

As many studies indicated that application of technology enhances the work performance of the visually impaired persons, the present study revealed that Use of Technology by College teachers are better than school teachers and there is no difference among male and female and teachers working in Bidar and Kalabugi districts of Karanataka. These findings are in line with the results of Williams, Wendy and Elizabeth (2003), who reported that Use of Technologies compensate for the information access limitations of the blind and visually impaired and promise eventual empowerment.

Competence is a crucial component that has significant implications while the instructional process is organized. There are challenges for the Visually Impaired teachers in order to execute the role effectively, but they can be overcome with the innovative and creative teaching techniques. For most of the problems, technology is the solution. Technological revolution for the print and mobility accessibility for visually impaired persons would pave avenues for the Teaching Profession, which is a promising job. Many studies state that visually impaired teachers are as competent as sighted teachers. This study stands evidence to that.

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