Nida Amin
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Biography

Nida Amin, is an Assistant Professor and Head of the Department of Optometry at Green International University, Lahore, Pakistan. She holds a postgraduate degree in Optometry from The University of Faisalabad and is currently pursuing a PhD in Optometry. With over five years of teaching experience and clinical expertise in eye care, her research focuses on retinal microvascular changes, ocular hemodynamics, diabetic retinopathy, low vision rehabilitation, and visual impairment. Dr. Amin has presented her work at national and international conferences and has published research in peer-reviewed journals. She also serves as a reviewer for international scientific journals.

Comparative study between JAWS® And NVDA® in academic performance of students with visual impairment

Abstract:

Assistive technology (AT) plays a significant role in improving academic activities of visually impaired students. Through these ATs, visually impaired students can be empowered to engage actively in academic activities. To investigate the impact of JAWS® (job access with speech) and NVDA® (nonvisual desktop access) on the academic performance of visually impaired students. This study employed a prospective analytical design. Age-matched groups of severely visually impaired students were enrolled and divided into two groups: Group A (N = 25) received NVDA® and Group B (N = 25) received JAWS®. The MNREAD acuity chart was used to measure the reading acuity, maximum reading speed, and critical print size. In addition, a self-designed questionnaire was employed to gather qualitative data on the features of the software and the students' experiences while using it. Statistical Package for Social Science (SPSS) was used for data tabulation and analysis. An independent samples t-test was conducted to analyze the differences between variables. Furthermore, a qualitative assessment was performed using Pearson's chi-square association test to determine the association between software usage and student experience. Statistical significance was set at $p < .05$. The results revealed that NVDA® exhibited better outcomes than JAWS® in terms of improved academic activity among visually impaired students. These findings contribute to the existing literature on AT and underscore the potential of NVDA® in supporting the educational experiences of visually impaired students. Use of screen reader software not only enhanced the reading and learning experience but also promoted independence in the classroom. NVDA is the superior choice for several reasons. It caters to the individual needs of students, effectively supports their learning processes, and demonstrates a high level of appreciation among the users.