Assistive Technology Research Paper:

Assistive Technology in the Workplace

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INST-968

Citation:

Gamble, M. J., Dowler, D. L., & Orslene, L. E. (2006). Assistive technology: Choosing the right tool for the right job. Journal Of Vocational Rehabilitation, 24(2), 73-80.

This research, done by the Job Accommodation Network (JAN) from West Virginia University tries to address, explain, and remedy the fact that, “about 33% of all devices provided to rehabilitation consumers are abandoned” (Gamble, Dowler, & Orslene, 2006). The three authors of the study worked with JAN as consultants to businesses or other entities looking for advice on providing appropriate accommodations for individuals with disabilities. In working with the data that was collected for cases between January 2004 and December 2004, the three authors were able to come up with several conclusions. The overarching conclusion is that the process of developing accommodations for an employee is highly individualized, and therefore very complex.

Of course, in a business environment the goal is to maximize profit, and spending money on accommodations and consultations to determine accommodations is not efficient. Gamble et al. state that in the period of the study, “JAN consultants suggested 163 specific assistive technology devices [for a total of 145 patients]. The large number of AT products indicates that accommodation is a highly individualized process” (2006). This makes the determination, assignment, and acquisition of assistive technologies move in direct opposition to the goals of the business. However, it is required by law to accommodate workers. Part of making the process easier and more cost-effective is the fact that JAN provides free consultations to vocational rehabilitation professionals to help explore and assess assistive technology for their patients. This allows for a more efficient process for the consumer because JAN is able to research and collect data on assistive technology products, laws, and regulations and pass them on to the vocational rehabilitation professionals. This eliminates the need for the rehab

professionals to know everything about assistive technology, and allows them to focus more on the needs of the consumer or patient.

JAN follows a six-step procedure when working with rehab professionals to find and implement helpful assistive technologies. The first step is to define the situation, next they identify possible resources that are available, then they explore those options. Next they do a series of assessments. Step 4 is to assess the assistive technology as it relates to the vocational goal of the consumer. Sometimes it is found in this step that assistive technology is not necessary and the process can end there. If it is found that assistive technology is necessary then step 5 is to work on assistive technology and job readiness. Gamble et al. state in the article, “that the user’s perception of the relative advantage of the technology, compatibility of the assistive technology, along with consumer involvement in the selection of the technology were predictors of adoption or discontinuance of an accommodation” (2006). Therefore step 5 is critical to train the eventual user how to use the device and assimilate them to the device before they enter the workplace. Lastly, step 6 is about the assistive technology in the employment environment. This step involves a final assessment of both the employee (consumer) and the employer regarding the effectiveness of the assistive technology. If it is not found to be effective then JAN will re-enter the process where necessary with the rehab professional to identify another solution.

In researching the problem of assistive technology in the workplace, Gamble et al. examined a number of studies and research by numerous scholars in order to come up with their findings. They also studied cases that came through JAN in order to get real world data. The authors note that in addition to working with consumers and rehab professionals, they have also been called upon by employers seeking advice on how to accommodate a new or prospective employee. Another method for their research was a survey of 646 employers who contacted JAN for advice on assistive technology. This survey revealed two very important

findings. The first, that when employers consulted JAN, about half of the cases resulted in accommodations being made. The second, that of the employers who implemented the accommodations many reported that they were very effective (Gamble et al., 2006, p. 76). These findings reveal a significantly higher adoption rate than the statistic presented earlier that suggested only 33% of assistive technology implementations were effective.

Another finding that the authors make in this article is that:

> Research on continuing education and technology awareness is needed. The benefit of expanded training for rehabilitation professionals is likely to lead to increased opportunities and employment for consumers. (p. 179)

This is an interesting finding, but one that should be relatively obvious. The authors are suggesting that rehab professionals get more training on assistive technologies and that research be done to explore the effectiveness of expanding assistive technology education to other disciplines. For example, if part of a Business School curriculum included studies on various assistive technologies, perhaps companies, and in particular managers, would be more apt to spend time working to find accommodations for employees with disabilities. A course like this would also provide an education of the possibilities that exist, and cut down on the ambiguity of the legal necessity to provide accommodations.

As a corporate worker I see enormous value in providing accommodations for anyone that needs it. For example, in my line of work (IT Product Management) there are any number of assistive technologies that could enable a person with disabilities to perform the duties at the same level as a person without disabilities. Speech-to-text software such as Dragon Naturally Speaking has evolved to enable someone with disabilities to type up reports, and enter data on a computer. Since we communicate remotely a lot, there is certainly the possibility of being able to use a chat software to communicate if the person has speech disabilities. I very much agree with the authors of this article that they key lies in education. If we can educate the business

world about how to make accommodations and effectively implement them, then that implementation rate that JAN found of 50% could be even higher. Undoubtedly the standard 33% of assistive technology implementations would be higher if managers understood how to properly implement assistive technology for workers.

A course such as INST-968 is perfect for both teachers and working professionals because it both explores the needs and purpose for assistive technology, but also spends significant time on looking at actual devices. As a result of this article's indication of poor implementation rates for assistive technologies, along with the information I have learned in this class, I feel beyond prepared to help a person with disabilities assimilate into a work environment. In addition I feel prepared to not only provide them with the tools necessary to simply perform adequately, but provide them with assistive technology that allows them to excel and perform up to their fullest potential.