Baseline Study: Online Oil, Gas and Safety Technology Education for Ohio Residents of a Community Based Corrections Facility

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ABSTRACT

Using technology education to provide community based correctional facility residents with oil, gas and safety education to reduce recidivism by producing employment ready residents was started in an Ohio facility. Four areas of study were established as a baseline for future study.

Keywords: Oil and Gas, Recidivism, Employment Skills, Online Education, Adult Education, Digital Divide, Technology Literacy.

1. INTRODUCTION

Education has one of the largest impacts on reducing recidivism. Through quality educational programs, the incarcerated have the opportunity to increase their literacy skills, increase their chances for hire upon release, raise their standard of living, and create a better future for themselves and their families. However, basic education is not enough; incorporating technology into correctional education curriculum is becoming increasingly important. It is considered a 21st century skill, necessary for employment in a variety of settings. Barreiro-Gen and Novo-Corti (2015) classify our current societal climate as the "information society;" however, it is one that excludes inmates from participation despite its critical role (pg. 1172). Lack of access to technology, before and after incarceration, has created a new aspect of the digital divide. Individuals that have not been exposed to varieties of technology, nor have regular access to it, are considered behind in terms of technological literacy. Inmates have reported experience with various forms of technology; however, with complete isolation from it, they will fall behind in their knowledge due to its rapidly changing nature. Younger generations entering the prison system have grown up in a digital age where they are accustomed to having digital resources and have different experiences with learning. It is a different age – one that requires digital proficiency. Correctional education must reflect that for successful reentry into the world beyond bars.

A common concern noted in the literature refers to the possible security breaches associated with incorporating technology in the prison system even when it comes to implementing professional development courses for teaching staff (Wade, Bohac, and Platt, 2013). Access to technology and the Internet should, of course, be limited considering the possible security violations. However, Wade et al. (2013) also provide a number of solutions to those issues, including choosing equipment with different operating frequencies to avoid interference between wireless systems, creating passwords to control access to the system, and establishing protocols for developing passwords, changing them, and carefully monitoring access. Although their research is primarily in relation to technological access as a means of professional development, it has the potential to be incorporated into a curriculum for inmates.

Tech Skills as an Essential Job Skill: It is not possible, today, to deny all access to technology if we expect inmates to be successful with reentry (Pryor & Thompkins, 2012, pg. 467). Technology is increasingly important in the workplace, with an increase in technological communication and social skills via Information Communication Technology, or (ICT) (Barreiro-Gen and Novo-Corti, 2015). Without adequate computer-based training, older inmates who may not have had exposure to computers in school will leave prison unequipped to perform the basic tasks necessary to apply for most jobs (Lim, 2001 as cited by Brown & Rios, 2014, pg. 61). Today's marketable job skills include working with technology and require an acquisition of a new kind of literacy. According to Lee, Park, and Hwang (2015), digital literacy is derived from the term, "media literacy," which is defined as "the ability to access, analyze, evaluate, and communicate messages in a wide variety of forms" (pg. 47). Correctional education must produce these marketable skills if we expect employment. One could argue that the formerly incarcerated will not be hired in these sorts of positions. However, with specific attention to technology in their education, they may have the opportunity to compete in the job market. Versatility in the workplace is of critical importance when it comes to hiring. Skills such as communication, creation, manipulation, design, and self-actualization (Lee et al., 2015) are becoming skills sought after in many work environments regardless of specialty. With regard to the online activities available, and the skills that they foster, inmates that participate in online learning may have the opportunity to engage with a community of people that they would otherwise have no contact.

2. THE DIGITAL DIVIDE

The skill-based definition of literacy, which includes application of technology, can only be incorporated if one has the ability to use it frequently and build a functioning, working knowledge of it (Lee et al., 2015). A study investigating the scope and magnitude of the digital divide between the haves

and have-nots of wired and/or broadband connections and smartphones suggested a perpetuation of this divide (Lee et al., 2015). Physical access to Internet-enabled communication technologies was a determining factor in expanding the digital divide more so than demographic differences (Lee et al., 2015). Those who cannot afford to access anywhere and anytime cannot benefit from online resources, and consequently, are marginalized in the larger society. It is not enough to simply have access to it; the length and amount of use has become increasingly important with special attention paid to the flexibility in opportunities to engage in online activity.

Inmate's Experience with Technology: The learning styles and expectations of students are important to consider. The incarcerated population is largely between the ages of 18-34 (Chappell & Shippen, 2013). This specific population, the Millennial Generation, has different expectations of learning, regardless of their incarcerated status. Younger adult students have grown up in a digital environment and research shows that they may think differently than older people who did not grow up [in one] (Kelly, McCain, & Jukes, 2009 as cited by McCulley et al., 2014). Considering the practices of high-achieving schools across the nation, a blend of technology and guide facilitation is optimal, even in a correctional facility. It has been shown to have an impact on reducing dropout rates (Varlas, 2011 as cited by McCulley et al., 2014), and may have a similar impact on reducing recidivism for this particular population.

The degrees of computer literacy and technological skill among the incarcerated vary. Some many have little to no experience, while others have been surrounded by it prior to their incarceration. Providing computer access for technologically savvy students, as well as for the less experienced, would continue build upon and improve the skills to work in today's workplace while also increasing literacy skills (McCulley et al., 2014). Computer-based instruction has produced significant learning gains, especially in low-level readers (Brown & Rios, 2014). McCulley et al., (2014) examined the effect of a computer-assisted software in a correctional facility with the intention of improving literacy (pg. 5). The text-to-speech computer software proved beneficial to students who experience difficulty with decoding or comprehending, and can be effective in improving other literacy skills, such as fluency, word recognition, and vocabulary among a variety of learners (McCulley et al., 2014). The results indicated a significant relationship between the computer software, Kurzeil, and literacy improvement with many inmates indicating satisfaction with the program. Researchers concluded that the text-to-speech computer software assisted adult learners in acquiring literacy skills necessary to compete in the global economy and create better lives for themselves and their families. And although further research is necessary, it is an avenue by which the formerly incarcerated may generate a new life once they reenter society (McCulley et al., 2014).

As a local initiative to help inmates obtain training in a field pertinent to their economy, the Jefferson County Education Service Center (JCESC), in collaboration with a community based correctional facility within Ohio, began an online pilot project to train male inmates in oil, gas, and safety. The purpose of this project was to collect initial, baseline data to be use in the future for the following: (1) To enhance the questions regarding the specific content and learning outcomes related to the individual curricular modules and/or certification areas completed by the participants throughout their time in correctional facilities. (2) To further refine the processes by which pertinent information related to the current or potential employment of program participants is collected. (3) To create future processes to collect employer satisfaction data about newly hired individuals that have completed the training modules over the course of their time in a correctional facility. (4) To establish various predictors of future employment success (as a long-term goal).

3. FUTURE STUDY

The study began and preliminary findings from 44 participants suggest significant impact on Community Based Correctional Facility (CBCF) residents. The full impact of the study will be submitted at a later date. The authors of this study seek to replicate the study in other facilities and provide further online education to adults in the areas of oil, gas and safety.

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