**Online Learning Solutions in Jails and Prisons—**

**Could a GED e-Learning Paradigm Succeed?**

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**Abstract**

In spite of the proliferation of academic articles about online learning modalities in K-12 as well as postsecondary education during the pandemic, relatively little organized research has emerged on this topic concerning jails and prisons. The United States, with only four percent of the world's population, has over 20 percent of the world's prisoners, so reducing recidivism, that is, returning to jail, would seem to be enhanced by leveraging online learning in the carceral setting. Yet incarceration rates remain at high levels. One in four persons released from jail returns in less than a year. More than half (53 percent) of all jail inmates have less than high school education, 23 percent are high school graduates, 17 percent have some college, and only seven percent have a college degree or higher.

This paper will examine what could be a very interesting paradigm for taking advantage of the potential of online learning, even in the restricted confines of carceral life—the General Education Development (GED) high school equivalency certificate. This certificate, when earned, has proven to be a successful stepping stone not only away from prison life but also toward long-term employability. Nearly every jail and prison offer some GED program, but online learning approaches for GED are rare. Despite the exceptional post-prison results by GED recipients, the number actually achieving the certification is a small percent of the prison population and has been drastically restricted during the pandemic. There has been very little innovation in teaching GED in prisons—traditional classroom and workbook approaches are still the norms. In this paper, we will examine some possible approaches by which the potential benefits of online education and its disciplines could increase GED success.

Why select the GED for special emphasis?  First, it is one of a very small number of programs available in nearly all seven thousand U.S. jails, prisons, and other carceral facilities. Online learning technology might provide a breakthrough that could have broad positive effects. Secondly, GED teaching approaches have been characterized by traditional drill and practice classroom methodologies with little indication that alternative modalities are available, in spite of the success of online learning elsewhere. Finally, online learning techniques are beginning to be introduced across the entire jail and prison population, with special emphasis on specially configured tablets so that GED could become a good focus for their greater use.

To emphasize what might be possible more broadly, we single out a specific example where educational technology is already being leveraged. The Washington DC jail—it might be a paradigm not only for advantageous use of a range of I.T. innovations but especially useful for GED instruction.

*Keywords*: GED, correctional education, online courses, e-learning, tablets

1. **Introduction –the scope of the U.S. carceral system and the challenge of correctional education**

This paper consists of five elements aimed at examining some possible solutions to the current dilemma in United States jails and prisons concerning the slow deployment of technology in teaching and learning. The focus is preparation and administration of the GED test, perhaps one of the most common certifications available in the United States, and a staple for many decades in prisons where inmates, the majority of whom do not have a high school degree, are hoping to increase their job readiness skills.

The first segment introduces the statistics of incarceration, covering the numbers of prisons, prisoners, those on probation and parole, plus a brief summary of the educational attainments of this population. The second describes some of the teaching methodologies currently employed, mostly very basic drill and practice, but including some examples of prisons and jails where some innovations have taken place. The third segment is a brief description of the GED itself, making the point that it could definitely be a metaphor in the context of improvements in learning technology. It is so common in jails and prisons, and its value is so well-established in the business community that any techniques that can increase its deployment in carceral situations could be a model for many other types of educational interventions there. With this as a background, the fourth segment will suggest three prerequisites for possible solutions to the problem, which in fact might be considered applicable in many other carceral contexts, including vocational courses. And also, we briefly describe the D.C. jail, with 1500 inmates, and its approach to not just GED but other innovative methods for educating the prisoner population. Finally, we include some caveats concerning attempts to introduce technology upgrades in the strict setting of any jail or prison.

In terms of incarcerated individuals, the United States leads all nations. With about four percent of the world's population, U.S. carceral system has over 20 percent of the world's prisoners. The scope of the prison system can be viewed from several perspectives. The most recent data from the Prison Policy Initiative provides some overall statistics. The total number of prisoners is close to 2.3 million, the largest incarcerated population in the world. They are housed in 1833 state prisons (1,291,000 inmates), 110 federal prisons (226,000), 1772 juvenile correctional facilities (44,000), 3134 local jails (631,000), 218 immigration detention facilities (60,000), and 80 Indian country jails (11,000), in addition to military prisons, civil confinement centers, and psychiatric hospitals. In local jails, three out of four prisoners have not been convicted or sentenced but are being held pending trial, frequently because they are unable to afford the stipulated bail amount. About 20 percent of all prisoners are being held on drug charges. Close to 10 percent of all prisoners are in private, contractor-managed prisons, the majority of which are in the state prison system. To this must be added 3.6 million persons currently on probation and another 840,000 on parole. [1]

The number is the only fraction of the persons affected by incarceration. In addition to the 2.3 million individuals in prisons and jails, 4.9 million are formerly incarcerated, 19 million have been convicted of a felony, 77 million have a criminal record 113 million adults have an immediate family member who has been in prison or jail. Collateral consequences can affect family members, housing, employment, and education of incarcerated people, also their reentry process after the criminal system. Each year approximately 700,000 individuals are released from prison settings into the community, so correctional education is one of a small number of effective activities to prepare them to blend into the community successfully.

With respect to education, the profile of the imprisoned population can be capsuled this way: according to the Annual Review of Criminology, more than half (53 percent) of all jail inmates have less than high school education, 23 percent are high school graduates, 17 percent have some college, and only 7 percent have a college degree or higher. [2] And what happens when they leave prison?

A report by the New America Foundation summary stated:

"Our findings reveal almost all incarcerated adults (94 percent) in U.S. federal and state prisons will be released, with over half (57 percent) anticipating release within less than two years. Yet, a larger proportion of incarcerated adults' highest level of education is less than a high school equivalence (30 percent) compared with the general public (14 percent). This puts their ability to secure stable employment and/or pursue higher education at risk, leaving them less likely to succeed in life beyond bars." [3]

1. **Educational Technology Deployment in Prisons and Jails—some research insights**

Technology deployment for education in prisons and jails is severely limited compared to the options available outside. There have always been drastic limitations on telecommunications, educational software, devices like P.C.s, tablets and cell phones, and any other modality which could possibly affect internal security. Outside prison, Wi-Fi is a common utility, but inside, its use is restricted because of the potential for abuse and insecure communication. Similarly, a personal P.C., tablet, or cell phone has the potential for being used for illegal purposes and is also prohibited. In the Colorado prison system,15,000 tablets were withdrawn from use by prisoners due to security concerns a few years ago. [4]

Most of the learning events that take place in jails and prisons are done in a traditional manner: drill and practice manuals and face-to-face instruction in a highly secure environment, far from an ideal situation for teacher and student. The Landscape of Higher Education in Prison 2018-2019 report revealed that although the distribution of prison programs varies across the country, the course delivery modes mostly offered in-person (86 percent) instructions. [5]

This is particularly challenging since study after study indicates that educational achievement in jail is highly correlated with lower recidivism rates, better job opportunities, and better life outcomes. For example, a comprehensive study and meta-analysis by the RAND Corporation found that those who participate in correctional education programs were 43 percent less likely to return to jail than those who did not participate and also that their chances of obtaining post-release employment were 13 percent higher. [6, 7] In a study involving 92,000 male prisoners in Ohio, those who earned GEDs or completed college classes were significantly less likely than others to engage in violent behavior while incarcerated. Completion of vocational training and apprenticeship programs, while not correlated with prison conduct, did coincide with lower rates of recidivism within three years after release. [8] In a 2020 study, a sample of over 13,000 prisoners found that education participation is a very important predictor for lower recidivism, even among prisoners who are lower in math and verbal performance. [9]

In spite of this, the number of prisoners actually participating in these programs is not reassuring. In federal and state prisons, only 42 percent of adults complete any additional levels of education. Just seven percent completed associate degrees at the community college level, and fewer than one percent a college degree. [10] Probably the best known and documented equipment intervention is tablet computers, configured in many different ways depending on the educational goals. One study found that as workforce dynamics change, the estimate is that by 2025, about 60 percent of all new jobs will require some level of postsecondary education, clearly indicating the increasing importance of technology integration into curricula at all levels. [11]

Nevertheless, among the thousands of jails and prisons in the United States, there have been successes in the introduction of technology in correctional education. For example, Eastern New Mexico University (ENMU) helped to provide online courses in general education and business to the state's prisons through the Blackboard site connected to a prison computer on a "lockdown browser," which prevents linking to any other site. Eligible inmates must have to have a high school diploma for reading and math grade level and a good conduct record. Tuition was paid by the state Department of Corrections, and credits were transferable at any other ENMU campus. [12] Researchers at Portland State University in Oregon have examined the efficacy of digital literacy programs for prisoners within nine months of their release. One example, among many, is the Orleans Parish prison reentry process which has been operating since 2011 and gives students an opportunity over a 10-week span to attain greater familiarity with some of the routine experiences of online life outside prison: internet searches, chat rooms, social media, etc. [13] The same type of digital literacy course also has been valuable for women ready to be released from prison, particularly in explaining the dangers of predatory messages on various Internet chat sites. Women are particularly vulnerable to these on leaving prison.[14]

Another successful and innovative example of making do in an environment that does not permit any outside internet, several inmates of San Quentin Prison's coding classes developed a simulation of an internet, called JOLT, which made it easier to access learning, reading, and research materials for a wide group of prisoners without actually going to the internet. On the prison's own servers, the JOLT developers added digitized textbooks, video lectures, and various Wikipedia entries. The resulting system was far from extensive in the context of broad internet capabilities but was sufficient to allow a broader range of prisoners to have essential experience on the internet while at the same time complying with security protocols. [15]

1. **About the GED-- a standard for high school equivalency achievement for many decades.**

The General Education Development (GED) certification, first developed in the 1940s, is a high school equivalency certification process consisting of four segments **(Mathematical Reasoning, Reasoning Through Language Arts, Social Studies, and Science).** It is an ideal focus for discussions of the long-term path toward higher levels of technology integration into jails and prisons since it is an integral part of nearly all carceral environments and is widely known and respected in the business community. It seems reasonable that GED training procedures can be a potential marker or indicator for overall success in correctional education. Although formerly a paper and pencil exam, since 2014, it is computer-based and offered at over 3000 test sites in the United States, plus many other locations, including jails and prisons where it can be administered remotely. At the GED website, the test is claimed to have been passed by over 20 million individuals, accepted at 90 percent of colleges and businesses, and responsible for an average increase of $9,000 in take-home pay over that of non-passers. [16]

In the prison environment, GED is primarily taught through drill and practice using manuals of various levels of difficulty to assist in preparing for the four exam segments. Typically, these manuals will have several dozen chapters, many hundreds of sample questions, and most important, material to help the reader understand the facts and concepts behind each topic. In addition, there are many online GED preparation courses offered by companies like Edovo, Secure Technologies, and ADPS in a prison setting, usually with the aid of some I.T. – assisted modality, like a ruggedized, secure tablet. The cost for completing the full GED test is in the range of $400, varying from state to state.

Numerous studies have been conducted on the differential effects of GED administration and deployment in prisons. Berridge and Gobel found that the process increases the sense of self-worth of the participants, although lack of cooperation among prison officials had a detrimental effect. [17] A long-term study of GED and other vocational training and apprenticeship programs in Ohio prisons found that participation during incarceration coincided with lower rates of recidivism after three years. [8]

1. **Prerequisites for a Successful Integration of e-Learning in GED**

Because of the immense challenges of integrating e-learning in correctional education, there are three elements that must simultaneously be attenuated. First, the face-to-face component, especially the teacher's role, currently the predominant method of GED teaching, must be able to leverage the technologies in prison which are routinely used outside prison. Teachers must have very high levels of digital literacy – only obtained through extensive practice and training – and must be competent in video interaction capability, like Zoom, so that they can be skillful in adapting the four GED core competency areas to the prison environment in addition to integrating tablet-based modules into the learning process as well. As mentioned previously, budgets for training in correctional education at state and federal institutions are low, clearly diminishing the possibility of any breakthroughs in elevating trainers' skills in addition to employing newer methodologies.

The second element is the type of e-learning hardware and courseware tools that are employed. During the pandemic, all educators—kindergarten through graduate school—were abruptly forced to develop competence in online teaching, with particular emphasis on combining hybrid, asynchronous and synchronous modalities. In the carceral system, pandemic restrictions made it difficult or impossible to conduct face-to-face classes for GED and most other topics, and relatively few prisons were able to take advantage of asynchronous classes due to the difficulties of adapting tablets, if available, to teaching necessities. With respect to e-learning tools, a wide variety are becoming very popular worldwide for training in basic competencies. Coursera, the largest provider of these services, has over 60 million learners, and it would seem that individual Coursera modules could be integrally allocated to tablets and jail settings, allowing the student to learn at whatever pace was appropriate. [18]

Many vendors offer competency models aimed directly at the prison environment, often including a combination of tablet technologies and interactive learning modules. Examples are TASC, HISET, Edumentum, and Ingenuity. Coursera and many other companies also produce Massive Open Online Courses (MOOCs), mostly for the development of specific competencies and for postsecondary instruction, but definitely potentially useful in the prison environment. Since the courses link to resources outside the institution, security issues would have to be managed, but internally controlled MOOCs seem to be very possible long-term with suitable adjustments or jail conditions. [19, 20]

Third, the inmate/student needs to have a high degree of familiarity with the hardware and software processes that are part of any online learning experience. As mentioned previously, digital literacy is a teachable skill and needs to be a part of the training plan. A recent study found that in postsecondary education, the less Internet-sophisticated and educated students were at a drastic disadvantage in leveraging the opportunities of learning in an online environment. [21] The digital literacy courses described earlier are a possible remedy for this. The situation is very difficult in the context of a prison, where low levels of education, relatively high levels of addiction, and severe restraints on the use of any technological intervention are the norm. Digital literacy and extensive practice with online learning methodologies are crucial in bringing the student to the point of taking full advantage of the modernized approaches.

Rather than conclude with a formulaic recitation of do's and don'ts, we offer a sample of a real-world incarceration situation where many of the positive ideas we have described are already occurring. The Washington DC jail, a correctional facility of about 1500 inmates where the length of stay ranges from a week or less to several years. Some prisoners serve very short terms for misdemeanors while others are awaiting trial for more serious offenses, and others pending sentencing can be transferred to a federal Bureau of Prisons facility. [22] In this highly varied environment, a wide array of educational programs are being offered, many facilitated by the fact that nearly all prisoners have a specially configured American Prison Data Systems tablet. In addition to GED tutorials, forms for requesting educational services, law library access, online family visits, and many other activities are embedded and available securely through the tablets. **[23]**

GED training at the D.C. Jail uses tablet-based self-paced instruction for all of the four exam segments. The GED emphasis, which is voluntary, is on prisoners who have 90 to 120 days before release. One of its unique features, in addition to the availability of dedicated courseware on each individual's tablet, is that some prisoners serve as GED peer tutors. Each GED tutor undergoes rigorous training and must also pass the Department of Corrections educational assessment test. Those selected are expected to be positive role models in addition to facilitating the GED learning process. [24]

# **Caveats and Conclusions**

There are number of caveats that have to be taken into consideration before any serious consideration of the ideas we are proposing. First, the technology deployed must be congruent with the type of learning to be presented. Some skills to be learned in prison simply do not lend themselves as well to tablets or P.C.s. Rates of high school graduation or high school equivalency can vary from 20 percent to 80 percent, depending on the region, so vocational training, like carpentry heating, ventilation, air conditioning, etc., may require a different mix of techniques than the development of critical thinking abilities like GED training. An important finding of many studies is that the act of participating in prison learning programs is itself an important predictor for reduced recidivism and improved overall outcomes after incarceration. Therefore, a one-size-fits-all model is inappropriate. What works for GED may not work for vocational training. [3]

A second caveat has to do with the level of training of in-house staff in the newer technologies for learning and testing. A detailed study by the RAND Corporation found that after 2014, when the GED testing process was shifted to an online modality, new problems were introduced for trainers as well as test-takers. To quote the report:

"The 2014 GED and the use of computer-based testing have raised serious concerns; policymakers should consider opportunities for technical assistance to educators to implement the more rigorous exam and computer-based testing. Beyond that, policymakers must assess and monitor the impact of the 2014 GED exam on students' preparedness and completion rates and on recidivism and employment outcomes." [6]

### Third, it is important to maintain constant vigilance concerning the adverse outcomes that are occasionally reported when large implementations of tablet-based systems are introduced into the prison system. [25] It is not surprising that upgrades in technology use for correctional education are not high on most legislators' agenda for increased funding. The case can very effectively be made that the more prisoners who participate in and pass certification training, the lower the rates of recidivism, and hence, the lower the overall cost of the taxpayer.

To sum up, we have suggested that the GED is a very useful metaphor for evaluating the successful introduction of educational technology in the carceral system. If all of the prerequisites are achieved, and high rates of completion of the GED exam occur, the facility is very likely to have other successes, not just in the improvement of critical thinking skills but also in various vocational training programs and many others. The three essential ingredients must all be there, however. First, the training staff must have received the proper mix of behavioral and technological training to take full advantage of the technology that is employed. Second, there must also be a thorough grounding in technology literacy skills for the prisoner. This not only facilitates the GED or other training process but also is highly valuable in returning to the outside world where basic computer skills, including appropriate use of social networks, are a normal part of life. And third, the technology environment must be sufficient to meet all of the security, privacy, and other stringent requirements needed in all jail and prison settings. The learning modules must be well tested and appropriate for the intended use. To this might also be added the reminder that the tablet device can be used in many ways, beyond simply for education.

### We have also suggested that the D.C. Jail seems to present, both for GED and many other aspects of correctional education technology deployment, a good exemplar for other correctional facilities in the United States. The *Journal of Correctional Education* recently featured an extensive summary based on evaluations of higher education programs at jails and prisons in Arizona, Arkansas, Indiana, Iowa, Louisiana, Michigan, North Dakota, and Washington, D.C.

### While the report was positive about the D.C. jail, its summary on prison education overall included these sobering words:

"Staff identified considerable challenges with respect to technology even at the most basic levels, including poorly maintained facilities with failing heat and sewage systems, and prisoners being released after long sentences without basic technological literacy, such as knowing how to use a cell phone. Although security concerns should be addressed, the use of technology in education should be expanded and become more readily available. Many educational materials are now available only in digital format, and using technology provides technological literacy that prepares inmates for employment and success in a technologically based society. " [26]

**Reference:**

1. Sawyer, W. and P. Wagner. *Mass incarceration: The whole pie 2020*. Prison Policy Initiative 2020 [cited 24; Available from: <https://www.prisonpolicy.org/reports/pie2020.html>.

2. Turney, K. and E. Conner. *Jail incarceration: A common and consequential form of criminal justice contact*. Annual Review of Criminology 2019 [cited 2; 265-290]. Available from: <https://www.annualreviews.org/doi/pdf/10.1146/annurev-criminol-011518-024601>.

3. Costelloe, A. and K. Warner. *Prison education across Europe: Policy, practice, politics*. London Review of Education 2014 [cited 12 2]; 175-183]. Available from: <https://www.semanticscholar.org/paper/Prison-education-across-Europe%3A-policy%2C-practice%2C-Costelloe-Warner/2c8b43fd8fe8e8b76b1600644dae792c92b945fc>.

4. denverpost.com. *Colorado takes back 15,000 tablets from inmates because of security concerns*. 2016; Available from: <https://www.denverpost.com/2018/08/01/colorado-inmate-tablets/>.

5. Education, U.S.D.o. *Educational Technology in Corrections 2015*. 2015; Available from: <https://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/policybriefedtech.pdf>.

6. Davis, L.M., et al. *How effective is correctional education, and where do we go from here? The results of a comprehensive evaluation*. 2014; Available from: <https://www.rand.org/pubs/research_reports/RR564.html>.

7. Bozick, R., et al. *Does providing inmates with education improve postrelease outcomes? A meta-analysis of correctional education programs in the United States*. Journal of Experimental Criminology 2018 [cited 14 3]; 389-428]. Available from: <https://link.springer.com/content/pdf/10.1007/s11292-018-9334-6.pdf>.

8. Pompoco, A., et al. *Reducing inmate misconduct and prison returns with facility education programs*. Criminology & Public Policy 2017 [cited 16 2]; 515-547]. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/1745-9133.12290>.

9. Silver, I.A., et al. *Academic Achievement and the Implications for Prison Program Effectiveness and Reentry*. Criminal Justice and Behavior 2020 [cited 47 7]; 848-866]. Available from: <https://journals.sagepub.com/doi/10.1177/0093854820919790>.

10. Ositelu, M.O. *Equipping Individuals for Life beyond Bars.[Research Brief]*. New America 2019; Available from: <https://s3.amazonaws.com/newamericadotorg/documents/Interior_Text_-_Life_Beyond_Bars_v3_VLiTdnh.pdf>.

11. Research, A.I.f. *How can we slow down prison's re-volving door?* 2019; Available from: <https://www.air.org/resource/how-can-we-slow-down-prison-s-revolving-door>.

12. Ed, I.H. *Blackboard Behind Bars*. 2019; Available from: <https://www.insidehighered.com/digital-learning/article/2019/12/10/online-education-comes-prisons>.

13. Withers, E., et al. *Corrections and Reentry: Digital Literacy Acquisition Case Study*. 2015; Available from: <https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1020&context=dla_research_briefs>.

14. SLATE, *How Prisons Can Use Tech to Slow Their Ever-Revolving Doors.* 2018.

15. WIRED. *How San Quentin Inmates Built a Search Engine for Prison*. 2018; Available from: <https://www.wired.com/story/san-quentin-inmates-jolt-the-last-mile/>.

16. GED.com. *GED*. 2021; Available from: <https://ged.com/about_us/>.

17. Berridge, G. and V. Goebel. *An In-Depth Look at a GED® Program in a US County Jail*. Journal of Research and Practice for Adult Literacy, Secondary, and Basic Education 2013 [cited 2 2]; 68-81]. Available from: <https://eric.ed.gov/?id=EJ1060033>.

18. coursera.org. *Coursera* 2021; Available from: <https://about.coursera.org/>.

19. Ruth, S. and J. Yi. *BUSINESSES ARE RAPIDLY ADOPTING MOOC’S—UNIVERSITIES AREN’T—WHAT CAN BE DONE?* ; Available from: <http://icasit.gmu.edu/wp-content/uploads/2019/02/MOOCS-8.pdf>.

20. Ruth, S. *Can MOOCs Help Reduce College Tuition? MOOCs and technology to advance learning and learning research (Ubiquity symposium)*. Ubiquity 2014 [cited 2014 July]; 1-10]. Available from: <https://ubiquity.acm.org/article.cfm?id=2591685>.

21. Ruth, S.a.S., T. *The Digital Chasm for Disadvantaged Students in Postsecondary Education—Bandwidth Is Only Part of the Problem*. 2020; Available from: <https://library.iated.org/view/RUTH2021DIG>.

22. EdSurge. *In DC, Teachers Run the Jail. It’s Turning Inmates Into Students.* 2019; Available from: <https://www.edsurge.com/news/2019-10-03-in-dc-teachers-run-the-jail-it-s-turning-inmates-into-students>.

23. Corrections, D.o. *Face to Face Visitation*. 2015; Available from: <https://doc.dc.gov/page/face-face-visitation>.

24. Corrections, D.o. *GED and Adult Basic Education Services at DOC*. Available from: <https://doc.dc.gov/page/ged-and-adult-basic-education-services-doc-support-services>.

25. Initiative, P.P. *More states are signing harmful “free prison tablet” contracts*. 2019; Available from: <https://www.prisonpolicy.org/blog/2019/03/07/free-tablets/>.

26. Dewey, S., et al. *Higher Education in Prison: A Pilot Study of Approaches and Modes of Delivery in Eight Prison Administrations*. Journal of Correctional Education 2020 [cited 71 1]; Available from: <https://www.jstor.org/stable/26915042?seq=1#metadata_info_tab_contents>.