



# INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELLING (IJEPC)

[www.ijepe.com](http://www.ijepe.com)



## BREAKING BARRIERS: CHALLENGES IN DESIGNING ONLINE COMMUNICATION MODULE FOR INMATE REINTEGRATION

Junaidah Januin<sup>1\*</sup>, Veronica Petrus Atin<sup>2</sup>, Halina Sendera Mohd Yakin<sup>3</sup>, Siti Hasnah Tanalol<sup>4</sup>, Wan Hurani Osman<sup>5</sup>, Esther Jawing<sup>6</sup>, Mohd Azri Matahir<sup>7</sup>, Abdul Halim Saimih<sup>8</sup>

<sup>1</sup> Centre for the Promotion of Knowledge and Language Learning, Universiti Malaysia Sabah, Malaysia  
Email: junaidah@ums.edu.my

<sup>2</sup> Centre for the Promotion of Knowledge and Language Learning, Universiti Malaysia Sabah, Malaysia  
Email: vpetrus@ums.edu.my

<sup>3</sup> Centre for the Promotion of Knowledge and Language Learning, Universiti Malaysia Sabah, Malaysia  
Email: sendera@ums.edu.my

<sup>4</sup> Centre for the Promotion of Knowledge and Language Learning, Universiti Malaysia Sabah, Malaysia  
Email: hasnah@ums.edu.my

<sup>5</sup> Preparatory Centre for Science and Technology, Universiti Malaysia Sabah, Malaysia  
Email: wanosman@ums.edu.my

<sup>6</sup> Centre for the Promotion of Knowledge and Language Learning, Universiti Malaysia Sabah, Malaysia  
Email: estherjawing@ums.edu.my

<sup>7</sup> Sabah and Labuan Federal Territory Prison Department, Kota Kinabalu, Sabah  
Email: mohd.azri.matahir@gmail.com

<sup>8</sup> Sabah and Labuan Federal Territory Prison Department, Kota Kinabalu, Sabah  
Email: abdulhalimsaimih@gmail.com

\* Corresponding Author

### Article Info:

#### Article history:

Received date: 30.10.2025

Revised date: 20.11.2025

Accepted date: 01.12.2025

Published date: 22.12.2025

#### To cite this document:

Januin, J., Atin, V. P., Yakin, H. S. M., Tanalol, S. H., Osman, W. H., Jawing, E., Matahir, M. A., & Saimih, A. H. (2025). Breaking Barriers: Challenges

### Abstract:

This paper explores the complex challenges encountered during the development and implementation of online communication modules within correctional facilities. Drawing upon insights from three module writers comprising lecturers at a public university and a prison officer in Sabah, Malaysia, the study meticulously examines the amalgamation of obstacles encountered in crafting effective online communication modules. Drawing upon insights from three module writers—two lecturers from a public university and a prison officer in Sabah, Malaysia—the study meticulously examines the amalgamation of obstacles involved in crafting effective online communication modules. Based on in-depth interviews and thematic analysis, three overarching themes emerge: Navigating the Labyrinth of Resource and Infrastructure Barriers, Training and Support, and Technical and Logistical Issues. By confronting these challenges and advocating for innovative, tailored

In Designing Online Communication Module for Inmate Reintegration. *International Journal of Education, Psychology and Counseling*, 10 (61), 1107-1123.

DOI: 10.35631/IJEPC.1061075

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)



solutions that are attuned to the unique demands of prison environments, correctional institutions can create meaningful educational opportunities that are pivotal for inmate rehabilitation and successful societal reintegration. The paper underscores the imperative for policymakers, educators, and practitioners to address these challenges with utmost attention, thereby prioritising education within correctional settings and empowering inmates through accessible and impactful online communication modules.

#### Keywords:

Online Communication Module, Reintegration, Correctional Facilities, Inmates, Challenges

## Introduction

Universities and prisons may seem vastly different, but both aim to transform lives for the betterment of society. Despite incarceration, inmates remain committed to pursuing education, even though prisons are unconventional educational settings (Egbert, 1989). Inmates deserve a second chance to reclaim their lives upon release. However, recent literature indicates that pursuing education in prison is fraught with challenges, including a lack of reading materials, content, learning tools, and suitable language learning modules (Coates, 2016). Despite these obstacles, many inmates show a strong interest in furthering their education while serving their sentences. Studies also highlight that educational activities in correctional facilities are crucial for enhancing inmates' employability and aiding their reintegration into society after their release (Mertanen & Brunila, 2018; Vandala, 2019).

Correctional facilities in Malaysia are actively involved in providing education to inmates. There is a consensus among the Malaysian public, correctional/prison officials, educators, and students that education has a significant impact on prisoners' reintegration into society upon their release. In support of this belief, educational programs have become an integral part of most prisons in Malaysia. This paper aims to document the development of an online communication module designed to expand current educational opportunities, thereby empowering inmates through enhanced learning resources.

## Problem Statement

The integration of online communication knowledge among prisoners is an essential, yet often overlooked, component of their rehabilitation and reintegration into society. In an increasingly digital world, the ability to effectively use online communication tools is critical for accessing educational resources, securing employment, and maintaining social connections. Despite its importance, many correctional facilities lack comprehensive programs to equip inmates with these necessary skills (Addae, 2020; Sisinyize, Tubaundule, Kaunozondunge, & Kambimbi, 2023). Incarcerated individuals or inmates are frequently relegated to the "wrong side of the digital divide," a disadvantage that significantly hinders their prospects for successful reintegration (Arguelles & Ortiz-Luis, 2021; Zivanai & Mahlangu, 2022). Living without freedom in today's "Information Society" often results in almost complete isolation from technological advancements, primarily due to ongoing security concerns (Barreiro-Gen & Novo-Corti, 2015).

This situation demonstrates the urgent necessity for implementing online communication modules to bridge the gap and support rehabilitation. This gap in education not only hinders their personal development but also diminishes their chances of successful reintegration upon release (Eberth, Diaconu & Koob, 2022). Therefore, it is crucial to develop and implement online communication modules within prison education systems to ensure that inmates are better equipped to navigate the digital landscape, thereby enhancing their employability and prospects for social reintegration. This paper examines the reflections of module writers and correctional officers as they developed the online communication module.

### Research Objective

This study aims to investigate the perspectives and experiences of both module writers and correctional officers during the development process of the online communication module within correctional facilities.

### Literature Review

The Malaysia Prison Department (MPD) functions as a correctional institution in Malaysia, entrusted with the task of providing a secure environment for the detention and rehabilitation of inmates (Omar, 2014). Within MPD, various rehabilitation programs are implemented with the overarching goals of fostering positive attitudes among inmates, facilitating their reintegration into society, and equipping them with vocational and interpersonal skills. Among these programs is the Human Development Program (HDP), also known as Program Pembangunan Insan (Amos & Khairani, 2019). Operating on a holistic approach, HDP aims to address the rehabilitation needs of inmates through a range of modules. These modules include the Education and Guidance module, the Therapeutic Community module, the Academic module, and the Halaqah module (a religious gathering for the study of Islam and the Quran). Inmates are mandated to engage in the HDP, which is structured into four distinct phases, as outlined in Table 1.

**Table 1: Human Development Programme (HDP)**

Four Phases in HDP		Programme Details
1	Orientation	It is a two-month physical training program led by prisoner discipline officers that aims to establish a balance between mental and physical activities, instil positive attitudes, build confidence, and cultivate a strong personality among the inmates.
2	Reinforcement	It focuses on the aspects of identity formation and changes in inmates' behaviour through a therapeutic community, a religious gathering or meeting for the study of Islam and the Quran (halaqah), academic guidance and education
3	Skills Development	It caters for inmates with at least a two-year sentence. It educates inmates with vocational skills and involves several agencies. At the end of this phase, inmates will be awarded vocational certificates, such as SLDN (National Dual Training System) and SKK (Skill Competency Certificate).
4	Pre-Release	It caters to inmates with sentences of not more than one year and those who have completed the Orientation,

		Reinforcement, and Skills phases of the HDB program. It helps inmates overcome social stigma and encourages them to reintegrate into society through programs like We Care and Community Care.
--	--	--

Source: Omar (2014)

HDP offers vocational training opportunities to inmates, as outlined in Phase 3 of the program (see Table 1). These training sessions cover a range of skills, including carpentry, tailoring, metalwork, laundry services, handicrafts, rattan work, printing, engine repair, and others (Omar, n.d.). Notably, these vocational programs primarily address industrial demands, focusing predominantly on machinery operation and technical expertise (Aripin et al., 2014; Omar, n.d.). Our initial investigations into the existing HDP curriculum, conversations with prison staff, a site visit to a correctional facility, and existing literature gaps collectively highlight the need for incorporating essential communication skills into the current syllabus. These skills are vital for inmates' social interactions and employment prospects upon release on parole, enabling them to secure employment opportunities post-release (Contreras, 2018; Tang, 2010; Zakaria et al., 2018).

In addition to vocational and religious education, as well as discipline training, inmates must gain exposure to knowledge that will facilitate their reintegration into a knowledge-based society. A study by Januin, Atin, Osman, Ibrahim, Mohd Yakin, Abd Rahim and Abd Rahman (2023) sought to identify the communication needs of adult inmates in a local prison in East Malaysia. Utilising a textography research approach, which integrates textual analysis and ethnographic methods (including interviews), the study examined the contexts, texts, and practices within the prison environment. One of the key findings revealed that inmates expressed a strong desire to learn new communication technologies. They were concerned about their limited knowledge in this area, feeling marginalised and unaware of the communication technologies that are commonplace outside the prison walls. This study is crucial for offering valuable insights into the development of effective teaching and learning modules tailored to prison education programs.

In the contemporary landscape, mastering online communication skills is essential due to the omnipresence of digital technologies. In an era defined by widespread internet connectivity and rapid technological advancements, proficiency in online communication is essential across personal, educational, and professional contexts. Leveraging digital platforms effectively facilitates not only interpersonal connections but also access to educational resources and participation in commercial endeavours. Moreover, in the context of a globalised economy, individuals who are adept in online communication safeguard a competitive advantage, utilising virtual collaboration tools to enhance productivity, expand professional networks, and propel career advancement. Additionally, digital literacy enhances employability, underscoring the significance of internet proficiency in today's job market (Lucubrate Magazine, 2021). Consequently, lacking digital skills and internet access presents a notable disadvantage in contemporary society.

In the light of numerous studies emphasising the benefits of integrating online communication technologies within correctional facilities (see Hopkins & Farley, 2014; Knight & Van de Steene, 2017; McDougall et al., 2017), the notion that prison walls serve as impenetrable "firewalls" in cyberspace, designed to isolate inmates from digital communications (Smith,

2012), is outdated. Given the rapid evolution of digital technology and communication, a pressing need arises for programs that promote digital literacy among incarcerated individuals.

In response to this global demand, the Malaysian Prison Department has partnered with Microsoft Malaysia to implement a three-year digital literacy initiative for juvenile inmates (New Straits Times, 2016). This initiative encompasses digital inclusion, entrepreneurship, and capacity building, equipping juvenile inmates with the knowledge and skills essential for future employability and educational pursuits (New Straits Times, 2016).

Similarly, in 2020, Singapore introduced a Digital Literacy Masterplan in its prisons, aimed at enhancing employability and reducing recidivism rates among released inmates (The Straits Times, 2022). Through exposure to basic digital skills vital for the workplace, such programs are instrumental in preparing inmates for social and professional functioning upon their release.

Moreover, initiatives promoting digital literacy among inmates have shown promising results in other jurisdictions as well. For instance, research conducted in European prisons has demonstrated that access to digital communications and training in digital literacy contribute to improved post-release outcomes, including increased employability and reduced rates of recidivism (Smith, 2013).

Apart from increasing employability and reducing the rate of recidivism, research demonstrates that digitisation plays a vital role in enhancing the social skills, self-esteem, rehabilitation, and successful reintegration of incarcerated individuals into society (Zivanai & Mahlangu, 2022). Educational programs centred on digital competencies—such as web design—have been shown to significantly improve self-efficacy among incarcerated populations, a construct widely recognised as a critical predictor of success in contemporary labour markets (Nisser et al., 2024). For instance, the Digital Literacy Acquisition program at Orleans Parish Prison offers a robust, self-paced curriculum with tutor facilitation and peer mentorship, enabling participants to overcome technological apprehensions and build essential digital competencies, thereby fostering self-efficacy and empowerment (Castek & Withers, 2015). Complementing this, a 12-week college-accredited virtual web design program implemented across multiple U.S. correctional facilities demonstrated significant gains in the digital literacy and self-confidence of incarcerated learners, skills that are strongly correlated with employability in today's technology-driven labour market (Nisser et al., 2024). Such programs exemplify effective interventions that address the digital divide faced by incarcerated populations and support their social and professional reintegration.

Additionally, the COVID-19 pandemic has underscored the importance of digital literacy in correctional settings (Foster, Hudson, & Tolbert, 2022). With restrictions on in-person visitation and educational programs, access to online communication tools has become essential for maintaining connections with loved ones and accessing educational resources. Therefore, investing in digital literacy programs within correctional facilities not only facilitates successful reintegration into society but also enhances inmates' resilience and adaptability in times of crisis.

In summary, the literature highlights the importance of integrating digital literacy and online communication skills into correctional rehabilitation programs. While Malaysia's Human Development Program already offers a multifaceted approach addressing vocational,



educational, and spiritual needs, gaps remain in equipping inmates with essential communication competencies to navigate a digitally connected society. Studies from various jurisdictions further highlight the benefits of digital inclusion in prisons, linking digital skills development to improved social reintegration, employment prospects, and reduced recidivism. These insights underscore the pressing need to integrate tailored digital communication modules into existing curricula, thereby aligning rehabilitation efforts with contemporary societal and labour market demands.

The Malaysia Prison Department (MPD) functions as a correctional institution in Malaysia, entrusted with the task of providing a secure environment for the detention and rehabilitation of inmates (Omar, 2014). Within MPD, various rehabilitation programs are implemented with the overarching goals of fostering positive attitudes among inmates, facilitating their reintegration into society, and equipping them with vocational and interpersonal skills. Among these programs is the Human Development Program (HDP), also known as Program Pembangunan Insan (Amos & Khairani, 2019). Operating on a holistic approach, HDP aims to address the rehabilitation needs of inmates through a range of modules. These modules include the Education and Guidance module, the Therapeutic Community module, the Academic module, and the Halaqah module (a religious gathering for the study of Islam and the Quran). Inmates are mandated to engage in the HDP, which is structured into four distinct phases, as outlined in Table 1.

HDP offers vocational training opportunities to inmates, as outlined in Phase 3 of the program (see Table 1). These training sessions cover a range of skills, including carpentry, tailoring, metalwork, laundry services, handicrafts, rattan work, printing, engine repair, and others (Omar, n.d.). Notably, these vocational programs primarily address industrial demands, focusing predominantly on machinery operation and technical expertise (Aripin et al., 2014; Omar, n.d.). Our initial investigations into the existing HDP curriculum, conversations with prison staff, a site visit to a correctional facility, and existing literature gaps collectively highlight the need for incorporating essential communication skills into the current syllabus. These skills are vital for inmates' social interactions and employment prospects upon release on parole, enabling them to secure employment opportunities post-release (Tang, 2010; Zakaria et al., 2018).

In addition to vocational and religious education, as well as discipline training, inmates must gain exposure to knowledge that will facilitate their reintegration into a knowledge-based society. A study by Januin, Atin, Osman, Ibrahim, Mohd Yakin, Abd Rahim and Abd Rahman (2023) sought to identify the communication needs of adult inmates in a local prison in East Malaysia. Utilising a textography research approach, which integrates textual analysis and ethnographic methods (including interviews), the study examined the contexts, texts, and practices within the prison environment. One of the key findings revealed that inmates expressed a strong desire to learn new communication technologies. They were concerned about their limited knowledge in this area, feeling marginalised and unaware of the communication technologies that are commonplace outside the prison walls. This study is crucial for offering valuable insights into the development of effective teaching and learning modules tailored to prison education programs.

In the contemporary landscape, mastering online communication skills is essential due to the omnipresence of digital technologies. In an era defined by widespread internet connectivity and rapid technological advancements, proficiency in online communication is essential across personal, educational, and professional contexts. Leveraging digital platforms effectively facilitates not only interpersonal connections but also access to educational resources and participation in commercial endeavours. Moreover, in the context of a globalised economy, individuals who are adept in online communication safeguard a competitive advantage, utilising virtual collaboration tools to enhance productivity, expand professional networks, and propel career advancement. Additionally, digital literacy enhances employability, underscoring the significance of internet proficiency in today's job market (Lucubrate Magazine, 2021). Consequently, lacking digital skills and internet access presents a notable disadvantage in contemporary society.

In the light of numerous studies emphasising the benefits of integrating online communication technologies within correctional facilities (see Hopkins & Farley, 2014; Knight & Van de Steene, 2017; McDougall et al., 2017), the notion that prison walls serve as impenetrable "firewalls" in cyberspace, designed to isolate inmates from digital communications (Smith, 2012), is outdated. Given the rapid evolution of digital technology and communication, a pressing need arises for programs that promote digital literacy among incarcerated individuals.

In response to this global demand, the Malaysian Prison Department has partnered with Microsoft Malaysia to implement a three-year digital literacy initiative for juvenile inmates (New Straits Times, 2016). This initiative encompasses digital inclusion, entrepreneurship, and capacity building, equipping juvenile inmates with the knowledge and skills essential for future employability and educational pursuits (New Straits Times, 2016).

Similarly, in 2020, Singapore introduced a Digital Literacy Masterplan in its prisons, aimed at enhancing employability and reducing recidivism rates among released inmates (The Straits Times, 2022). Through exposure to basic digital skills vital for the workplace, such programs are instrumental in preparing inmates for social and professional functioning upon their release.

Moreover, initiatives promoting digital literacy among inmates have shown promising results in other jurisdictions as well. For instance, research conducted in European prisons has demonstrated that access to digital communications and training in digital literacy contribute to improved post-release outcomes, including increased employability and reduced rates of recidivism (Smith, 2013).

Apart from increasing employability and reducing the rate of recidivism, research demonstrates that digitisation plays a vital role in enhancing the social skills, self-esteem, rehabilitation, and successful reintegration of incarcerated individuals into society (Zivanai & Mahlangu, 2022). Educational programs centred on digital competencies—such as web design—have been shown to significantly improve self-efficacy among incarcerated populations, a construct widely recognised as a critical predictor of success in contemporary labour markets (Nisser et al., 2024). For instance, the Digital Literacy Acquisition program at Orleans Parish Prison offers a robust, self-paced curriculum with tutor facilitation and peer mentorship, enabling participants to overcome technological apprehensions and build essential digital competencies, thereby fostering self-efficacy and empowerment (Castek & Withers, 2015). Complementing this, a 12-week college-accredited virtual web design program implemented across multiple

U.S. correctional facilities demonstrated significant gains in the digital literacy and self-confidence of incarcerated learners, skills that are strongly correlated with employability in today's technology-driven labour market (Nisser et al., 2024). Such programs exemplify effective interventions that address the digital divide faced by incarcerated populations and support their social and professional reintegration.

Additionally, the COVID-19 pandemic has underscored the importance of digital literacy in correctional settings (Foster, Hudson, & Tolbert, 2022). With restrictions on in-person visitation and educational programs, access to online communication tools has become essential for maintaining connections with loved ones and accessing educational resources. Therefore, investing in digital literacy programs within correctional facilities not only facilitates successful reintegration into society but also enhances inmates' resilience and adaptability in times of crisis.

## **Research Methodology**

### ***Research Design***

This study employs a qualitative research design to explore the challenges faced by lecturers and a prison officer in developing an online communication module. Qualitative methods are particularly well-suited for this research, as they enable an in-depth understanding of participants' experiences and perspectives.

### ***Participants***

The research includes four informants: three lecturers and two prison officers. All informants have been research members in the Prison Learning Project (The Enrichment) and Prison Living Lab from 2020 to 2025. Two lecturers have participated directly in co-teaching adult inmates in Kota Kinabalu Central Prison as part of The Enrichment Programme (Prison Learning Project), while one lecturer participated in module development only. The participating lecturers' fields of study vary, as tabulated below. Despite the various fields, these fields are closely related to the module's content. While the lecturer participants can be described based on their field of study, the prison officer participants are described based on the unit to which they are assigned; in this study, both prison officers are assigned to the corrective unit. The unit's primary function is to rehabilitate and reform inmates, rather than simply detain them. In the study, the prison officer participants were responsible for assisting the lecturer-researchers in coordinating the selection of inmates and running classes. These participants were selected through purposive sampling to ensure that they have direct experience with the development of the online communication module. The diverse backgrounds of the informants provide a comprehensive understanding of the challenges faced in different contexts within the educational and correctional environments, and the information is tabulated as follows:



**Table 2: Participant Demographics**

Participant	Age	Gender	Years of Teaching/ Working	Field of Specialisation at University/Prison	Participated as co-tutor in Prison Learning Project	Participated as module writer/researcher in Prison Learning Project
Lecturer 1 (LR1)	51	Female	23 years	Intercultural Communication	No	Yes
Lecturer 2 (LR2)	48	Female	20 years	Information Technology &	Yes	No
Lecturer 3 (LR3)	53	Female	25 years	Teaching English as a Second Language (TESL)	Yes	Yes
Prison Officer 1 (PRO1)	38	Male	14 years	Corrective Unit	Yes	No
Prison Officer 2 (PRO2)	35	Male	11 years	Corrective Unit	Yes	Yes

**Data Collection**

Data were collected through semi-structured interviews, which allowed for flexibility in exploring the participants' experiences while ensuring that the key topics related to the research aim were covered. The informants were given the choice to be interviewed face-to-face or share their points of view and experiences through WhatsApp messages and voice notes. There were three face-to-face interviews, and each lasted approximately 30-45 minutes. Another two informants shared their experiences, opinions, and views on the online communication module via WhatsApp. They were provided with written questions (via WhatsApp messages) and audio questions (via WhatsApp voice notes). Mostly, they responded to the questions verbally, and their answers were captured in WhatsApp voice notes. They were encouraged to ask for clarification and provide elaboration on their responses.

The interview questions were designed to elicit detailed accounts of the challenges encountered during the development of the online communication module. Topics included technological difficulties, content creation issues, concerns about student engagement, and institutional support. All interviews were recorded and transcribed to facilitate accurate analysis.

**Data Analysis**

The data were analysed using thematic analysis, a method well-suited for identifying, analysing, and reporting patterns (themes) within qualitative data. Thematic analysis involves several steps, as outlined by Braun and Clarke (2012):

***Familiarisation with the Data:***

The first step involved reading and re-reading the interview transcripts to become deeply familiar with the content. Initial notes and observations were made during this process. Some example notes are as follows:

- Significant technological barriers, including unreliable internet connectivity and a lack of technical support.

- Difficulties in engaging inmates who are unfamiliar with digital learning tools.
- Need for enhanced institutional support and resources.
- KK Central Prison may face limitations in infrastructure, such as inadequate internet connectivity or a lack of necessary hardware (e.g., computers) for inmates, hindering the implementation of online communication modules.
- Logistical issues such as coordinating inmate schedules and ensuring compliance with prison regulations while facilitating online classes.

#### ***Generating Initial Codes:***

The data were systematically coded using manual coding. Each segment of the text relevant to the research aim was labelled with a code, which represented a potential theme or sub-theme. The examples of initial codes are as follows: "internet issues," "technical support," "cultural and linguistic diversity", "engagement strategies," "content adaptation," "institutional support," "digital literacy," "security concerns", and "logistical coordination."

#### ***Searching for Themes:***

Codes were then collated into potential themes. This involved organising codes into broader categories that captured significant patterns in the data. For example, codes related to "technical difficulties" and "lack of training" were grouped under the theme "Resource Constraints."

#### ***Reviewing Themes***

The potential themes were reviewed and refined to ensure they accurately reflected the data. This step involved checking that themes were coherent and evident and that they adequately captured the key issues discussed by the informants.

#### ***Defining and Naming Themes***

Once the themes were finalised, they were defined and named to encapsulate their essence. Descriptions of each theme were developed to provide clear insights into the specific challenges faced by the participants. In this phase, three themes were finalised, and they are as follows:

- Resource Constraints
- Training and Support
- Technical and Logistical Issues

#### ***Producing the Report:***

The final step involved compiling the findings into a coherent narrative, illustrated with quotes from the interviews to provide a rich, detailed account of the challenges. This narrative forms the basis of the results section of the research report.

#### ***Ethical Considerations***

Informed consent was obtained from all participants, who were assured of the confidentiality and anonymity of their responses. Participants were informed of their right to withdraw from the study at any point without any repercussions.

## Findings

The objective of this research is to investigate the challenges associated with developing an online communication module for inmates, drawing on the experiences, opinions, and perspectives of the informants. A thematic analysis of five semi-structured interviews revealed the following three key themes:

### *Navigating The Labyrinth of Resource and Infrastructure Barriers*

The development of effective digital communication modules for incarcerated individuals is a complex endeavour, aptly characterised as navigating the labyrinth of resource and infrastructure barriers. This overarching theme is delineated into four distinct subthemes, each elucidating specific impediments encountered. Firstly, 'resource constraints' significantly impede development, manifesting as limitations in material and technological availability. Secondly, 'infrastructure limitations', such as obsolescent facilities, exacerbate these challenges. Thirdly, 'communication facility constraints', encompassing restricted access to technological resources, further hinder the implementation of viable solutions. Finally, 'temporal and budgetary constraints' appear to add an additional layer of complexity, necessitating strategic decision-making within circumscribed parameters. The subsequent sections will present empirical data extracts and detailed analyses of each subtheme, providing a comprehensive examination of these challenges.

The subtheme of *resource constraints* (RC) emerged as the most significant challenge in developing an online communication module for inmates. An informant vividly illustrated this struggle: "We're working with such limited resources here. Sometimes, it feels like we're trying to build a castle with sand. But we're determined to make the most of what we have, even if it feels impossible at times." (LR2, 23/5/24)

Another challenge here is *infrastructure limitations* (IL), which further exacerbate these challenges. An informant described the situation: "Our prison's infrastructure has its limitations. Implementing technological solutions is tough when the basics aren't fully in place. It's a challenge, but we're trying to work around it." (POR2, 25/5/24)

*Communication facility constraints* (CFC) are another significant hurdle. One informant shared a compelling account: "Inmates have restricted access to phones and computers, which makes online communication incredibly difficult or impossible. It's like trying to have a conversation with one hand tied behind your back. We need better solutions, but the restrictions make it so hard." (POR1, 25/5/24). Another informant shared her account about virtual or synchronous online communication being impossible: "In the context of prisons, facilities related to virtual communication cannot be used by prisoners, making it difficult for module writers to create modules. For example, internet access and computer usage. Inmates are not allowed to use these items due to security and safety reasons." (LR2, 23/5/24).

*Temporal and Budgetary Constraints* (TBC) were also frequently cited as major barriers. An informant conveyed this challenge with a combination of hope and frustration: "We're all passionate about this program, but the reality is, our budget is tight, and time is always against us. Despite the challenges, we're committed to making this module a reality. We see the potential it has to change lives, and that's what keeps us going. The inmates deserve our best effort, and we won't stop until we've given them everything we can." (LR1, 26/5/2)

In summary, the theme 'Navigating the labyrinth of resource and infrastructure barriers' is divided into four subthemes addressing key challenges in developing digital communication modules for incarcerated individuals. First, resource limitations significantly hinder progress, as one participant described it as "building a castle with sand," yet there remains a strong commitment to making the best use of available resources. Second, the existing prison infrastructure presents challenges for integrating new technologies. Third, restricted access to communication devices and internet services—largely due to security protocols—severely impedes inmates' ability to engage in online communication. Finally, limited budgets and tight timelines place additional constraints on development efforts. Despite these barriers, stakeholders remain committed to developing solutions that enhance communication opportunities for incarcerated populations.

### ***Training and Support***

The theme of *Training and Support* emerged as a crucial aspect in the development and implementation of an effective online communication module within the prison context. Staff Training (ST) emerged as a prominent concern, with one interviewee emphasising:

"Teaching an online communication module isn't just about sharing information; it's about teaching meaningful connections and empowering inmates to communicate effectively in the digital age. It is also about teaching what kind of online applications can help them survive in the technological world out there. Sometimes we also lack the knowledge of some apps, and to teach our inmates effectively, we need the right training. I would say continuous training. We need to understand not only the technical aspects but also the unique challenges our inmates face in navigating online platforms and tools." (POR1, 25/5/24).

This highlights the importance of providing prison staff with comprehensive training that goes beyond traditional security protocols to include understanding the educational and technological needs of inmates in online communication.

*Cultural and Linguistic Diversity (CLD)* also emerged as a significant consideration. An informant underscored this point, stating, "Diversity isn't just a buzzword here; it's our reality. We have inmates from all walks of life, speaking dozens of languages. To effectively teach online communication, we have to embrace diversity and tailor our approach, accordingly, ensuring that language barriers and cultural differences are addressed to facilitate inclusive and accessible learning experiences for all inmates. For your information, we are also dealing with inmates who do not know *3M* (*Membaca* [Read], *Menulis* [Write], *Mengira* [Count]). Now you see how challenging it is for us to adjust the language level in our module. We have a tough time thinking of suitable words, terms and sentences to be used in our module." (LR3, 26/5/24).

*Pedagogical Approach Selection (PAS)* was identified as another critical aspect. As one informant remarked, "Teaching online communication requires a dynamic and adaptive approach. There's no one-size-fits-all method, especially in a prison setting. We must be flexible and open-minded, willing to experiment with various teaching strategies and adapt our methods to meet the unique learning needs and preferences of our inmates. This ensures that they can effectively engage with the material and apply their newfound skills in real-world scenarios. These are among the real challenges in writing the module. We always resorted to

using pictures, signs and icons in our module and reduced the textual components so that the inmates would find the module interesting and engaging." (LR1, 25/5/24).

Module Development Model Selection (MDMS) was also highlighted as a foundational consideration. One interviewee likened it to laying the groundwork for a successful online communication module, stating, "Choosing the right development model is like building the framework for a robust online learning environment. There are many approaches to module development, e.g. ADDIE, Sidek, ASSURE, etc. Get it right, and inmates will have access to engaging and interactive content that fosters meaningful communication skills. Get it wrong, and you're setting yourself up for failure." (LR1, 25/5/24). This emphasises the significance of selecting appropriate module development models that align with the unique needs and goals of teaching online communication within the prison education program.

### ***Technical and Logistical Issues***

The theme of *Technical and Logistical Issues* emerged as a significant factor impacting the development and implementation of online communication modules within the prison setting. One of the primary challenges identified was *Digital Literacy Challenges (DLC)*. An informant described the situation poignantly: "For many inmates, the digital world is a foreign concept. We're starting from scratch here, teaching them the types of mobile online applications through videos that we saved from YouTube. Since the inmates do not have access to the internet, we brainstormed ways to help them visualise and understand the applications. We found out that many do not know how to use computers, but we are glad that, despite this, some are familiar with smartphones. However, we feel sad for those who have zero knowledge of online applications. These are the issues that we keep thinking about while writing our module." (LR1, 26/5/24). This highlights the fundamental need for foundational digital skills training before inmates can fully engage with online educational content.

*Logistical Challenges (LC)* were also a major concern. Coordinating schedules and managing the logistics of running educational programs within the prison environment posed considerable difficulties. As one informant shared, "Coordinating schedules and managing logistics in a prison is challenging, especially when new modules come in. Many things can go wrong if we don't plan our schedule and activities carefully. Prisons have strict schedules and regulations that can limit the time and flexibility of educational programs. Modules need to be adaptable to these constraints. But somehow, we make it work." (PRO1, 25/5/24). This aspect highlights the complex and often unpredictable nature of prison environments, where flexibility and perseverance are essential. These characteristics must be taken into consideration when developing modules.

*Evaluation and Monitoring Challenges (EMC)* further complicated the implementation process. One staff member explained, "Measuring the success of our module isn't as simple as looking at test scores. We have to consider the bigger picture: Are inmates engaging with the material? Are they applying what they've learned to their daily lives? Will the module help them to secure jobs and function appropriately while reintegrating with society?" (LR2, 26/5/24). This facet underscores the importance of adopting a holistic approach to assessment, focusing on both immediate learning outcomes and long-term behavioural changes.



*Workforce Challenges (WC)* were another significant issue. The limited availability of trained personnel often stretched the team thin, affecting their ability to deliver high-quality educational experiences. As an interviewee noted, "We're a small team, stretched thin and pulled in a million different directions. It is indeed difficult because it is hard for us to gather the workforce to sit together to build and teach the modules. Unless "building and teaching the modules" is made one of the genuine tasks of prison officers. Otherwise, it's like there's no time to do these two. Despite the challenges, we're passionate about what we do. We believe education can change lives, even in the toughest places." (PRO2, 25/5/24). This statement reflects the dedication and commitment of the prison staff and module writers; despite the numerous obstacles they face.

## Discussion

This study examines the challenges associated with implementing online communication modules in correctional facilities. It reveals the complex interactions among inmates, prison staff, module writers, and institutional policies that influence the accessibility and effectiveness of digital learning programs. The discussion is structured around three main themes: overcoming resource and infrastructure barriers, providing training and support, and addressing technical and logistical challenges. These themes highlight critical considerations and potential strategies to enhance digital education and support inmates' rehabilitation and reintegration.

### *Navigating the Labyrinth of Resource and Infrastructure Barriers*

The theme of resource constraints appears to highlight some of the practical hurdles likely encountered in implementing an online communication module within prison settings. While budgets may be strained and infrastructure often outdated, stakeholders appear to demonstrate considerable resolve in addressing these challenges. Strategies such as providing no-cost access to technology and training may help bridge the equity gap and better prepare incarcerated students for life post-release (Sherry & Mitchell, 2025). This could include supplying necessary equipment, such as laptops, headphones, and software (Sherry & Mitchell, 2025). However, a pervasive "security mindset" in correctional facilities might impose restrictions that are potentially detrimental to educational efforts. Addressing such entrenched practices through policy reforms that prioritise human rights and communicative ethical frameworks may lead to improved rehabilitation outcomes (Mitchell, 2024). These findings potentially reflect systemic deficiencies within correctional systems that call for reforms emphasising education and rehabilitation. Despite these challenges, there appears to be an evident spirit of resilience and collaborative endeavour driving efforts to devise innovative solutions that support inmates' educational journeys and social reintegration. These observations seem consistent with studies by Hopkins and Farley (2015) and Pulido (2023), which suggest balancing digital inclusion with institutional security priorities is a delicate but necessary task.

### *Training and Support*

Comprehensive training and ongoing support for prison staff seem essential to creating an environment conducive to teaching and learning online communication within correctional facilities. Research indicates such training may encompass both technical skills and an understanding of inmates' specific educational and technological needs (Barros et al., 2023). Moreover, recognising and addressing cultural and linguistic diversity, alongside adopting flexible pedagogical approaches and suitable module development models, could be critical for fostering inclusive digital learning environments (Barros et al., 2023). By attending to these

factors, correctional institutions might better support inmates' educational needs and thereby contribute to their rehabilitation and reintegration in a digitally evolving society.

### ***Technical and Logistical Issues***

Technical and logistical challenges appear to present significant obstacles to the successful implementation of online communication modules in prisons. Enhancing digital literacy, restructuring logistical frameworks, implementing effective evaluation strategies, and supporting the workforce are likely important components for success. It has been suggested that returning citizens require access to technology at various stages of the re-entry process; however, barriers such as cost, staffing, scalability, and inter-agency information sharing may complicate this provision (Russo et al., 2022). Innovative digital literacy programs arguably represent promising solutions that could benefit inmates, prison staff, and taxpayers alike. For example, European initiatives such as Code4000 and Coding OUT offer models for teaching marketable programming skills within restricted-access environments, demonstrating potential pathways around logistical constraints (Arguelles & Ortiz-Luis, 2021; Díaz-León et al., 2023). Staff dedication and institutional support are likely vital in overcoming obstacles and fostering educational environments that enable inmates to thrive. These considerations align with prior research emphasising the importance of technical and logistical problem-solving combined with staff empowerment to enhance rehabilitation outcomes (Barros et al., 2021; Pulido, 2023; Sisinyize et al., 2023).

### **Conclusion**

In conclusion, the challenges outlined underscore the critical importance of prioritising education within correctional facilities. Addressing resource constraints, technical and logistical hurdles, enhancing digital literacy, and providing comprehensive training and support for staff are crucial steps in developing online communication modules in prisons. By overcoming these obstacles and offering meaningful educational opportunities, inmates can acquire vital skills and knowledge necessary for their personal growth and successful reintegration into society upon release. The dedication and perseverance of prison staff are pivotal in navigating these challenges and fostering an environment where education thrives. Through concerted efforts to address resource constraints and provide training and support, we can ensure that module writing reflects the unique needs and circumstances of the prison environment, ultimately empowering inmates to build brighter futures beyond the confines of incarceration.

### **Acknowledgements**

The authors would like to acknowledge and extend special gratitude to Universiti Malaysia Sabah, which provided the funding for this project through the following Research Grant Schemes: Dana Kluster Penyelidikan DKP0028, Skim Dana Khas SDK0316-2020, and Living Lab Fund DLV2307.

### **References**

- Addae, D. (2020). Learning behind bars: Motivations and challenges of learners in a correctional facility in Ghana. *International Journal of Educational Research*, 104, 101650.
- Amos, F. V., & Khairani, M. Z. (2019). Seni sebagai terapi banduan melalui program kreatif seni di penjara malaysia. *KUPAS SENI*, 7, 105–113.

- Aripin, M. A., Ismail, S. & Hamzah, R. (2014). Malaysian correctional education system in prison: A hope for betterment. *International Seminar on Technical and Vocational Education 2014 (TVEIS 2014)* (pp. 563–568). Faculty of Education, UTM, Johor.
- Arguelles, Paolo and Arguelles, Paolo and Ortiz-Luis, Isabelle, Bars Behind Bars: Digital Technology in the Prison System (May 2021). Available at SSRN: <https://ssrn.com/abstract=3812046> or <http://dx.doi.org/10.2139/ssrn.3812046>
- Barros, R. M., Monteiro, A., & Leite, C. (2021). An overall picture of academic literature focused on online learning in prison. *Revista Conhecimento Online*, 1, 127–152. <https://doi.org/10.25112/rco.v1i0.2392>
- Barreiro-Gen, M., & Novo-Corti, I. (2015). Collaborative learning in environments with restricted access to the internet: Policies to bridge the digital divide and exclusion in prisons through the development of the skills of inmates. *Computers in Human Behaviour*, 51, 1172-1176.
- Braun, V., & Clarke, V. (2012). *Thematic analysis*: American Psychological Association.
- Castek, J., & Withers, E. (2015). Corrections and re-entry: Digital literacy acquisition case study. LINC. Retrieved November 6, 2025, from <https://lincs.ed.gov/professional-development/resource-collections/profile-984>
- Coates, S. (2016). Unlocking potential: A review of education in prison. Ministry of Justice: United Kingdom.
- Díaz-León, E., et al. (2023). Successful coding programs in European prisons: Case studies of Code4000 and Coding OUT. *European Journal of Correctional Education*, 8(3), 210–229.
- Eberth, S. D., Diaconu, M., & Koob, C. (2022). A Cautionary Tale of a Prisoner Re-entry Initiative: Lessons Learned. *The International Journal of Interdisciplinary Social and Community Studies*, 17(2), 167.
- Egbert, J. L. (1989). Prison ESL: Building a foundation for teaching English in unconventional settings. *English for Specific Purposes*, 8(1), 51-64.
- Foster, L. R., Hudson, J., & Tolbert, M. (2022). Expanding technology use in correctional education in response to the Covid-19 pandemic. *COABE Journal*, 11(2), 166-174.
- Hopkins, S., & Farley, H. (2014). A prisoners' island: teaching Australian incarcerated students in the digital age. *Journal of Prison Education and Reentry*, 1(1), 42-51.
- Hopkins, S., & Farley, H. (2015). e-learning incarcerated: Prison education and digital inclusion. *The International Journal of Humanities Education*, 13(2), 37-45.
- Hopkins, J., & Farley, H. (2015). Digital inclusion for incarcerated learners: Balancing security and access. *Journal of Correctional Education Research*, 12(4), 56–70.
- Januin, J., Atin, V. P., Osman, W. H., Ibrahim, M. A., Yakin, H. S. M., Hafidz, M. A., ... & Abd Rahman, N. D. (2023). Empowering Adult Inmates with Communication Needs in an East Malaysia Prison. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 8(3), e002173-e002173.
- Knight, V., & Van de Steene, S. (2017). The capacity and capability of digital innovation in prisons: Towards smart prisons. *Advancing Corrections Journal*, 4(90-103).
- Lucubrate Magazine (2021, November 7). *Do we need digital literacies in TVET?*. Lucubrate Magazine. <https://magazine.lucubrates.com/do-we-needdigital-literacy-in-tvet/>
- McDougall, C., Pearson, D. A. S., Torgerson, D. J., & Garcia-Reyes, M. (2017). The effect of digital technology on prisoner behaviour and reoffending a natural stepped-wedge design. *Journal of Experimental Criminology*, 13, 455–482. <https://psycnet.apa.org/doi/10.1007/s11292-017-9303-5>

- Mertanen, K. & Brunila, K. (2018). Prison Break. Education of young adults in closed prisons—building a bridge from prison to civil society? *Education Inquiry*, 9(2), 155–171. <https://doi.org/10.1080/20004508.2017.1380478>
- Mitchell, R. (2024). Security mindset and its impact on correctional education: Ethical considerations and policy reform. *Corrections Policy Review*, 9(2), 102–118.
- New Straits Times. (2016, July 25). Education behind bars. *New Straits Times*. <https://www.nst.com.my/news/2016/07/160570/education-behind-bars>
- New Straits Times (2022, January 16). English proficiency vital for employment. *New Straits Times*. <https://www.nst.com.my/opinion/letters/2022/06/805383/english-proficiencyvital-employment>
- Nisser, M., Gaetz, M., Fishberg, A., Soicher, R. N., Faruqi, F., & Long, J. (2024). From prisons to programming: Fostering self-efficacy via virtual web design curricula in prisons and jails. In Proceedings of the CHI Conference on Human Factors in Computing Systems (pp. 1-13). ACM. <https://doi.org/10.1145/3613904.3642717>
- Omar, Z. (2014). The role of the prison department: an overview. *Journal of Public Security and Safety*, 1(1). 13-32.
- Omar, Z. (n.d.). Current issues in correctional treatment and effective countermeasures. *115th International Training Course Participants' Papers*. [https://unafei.or.jp/publications/pdf/RS\\_No57/No57\\_29PA\\_Omar.pdf](https://unafei.or.jp/publications/pdf/RS_No57/No57_29PA_Omar.pdf)
- Pulido, M. L. (2023). Challenges to the educational “digital divide” in Spanish prisons. *European Journal on Criminal Policy and Research*, 29(2), 263-281.
- Russo, J., Smith, A., & Lee, Y. (2022). Technology access and reentry: Barriers and solutions. *Journal of Reentry and Rehabilitation*, 5(3), 100–115.
- Sherry, L., & Mitchell, R. (2025). Bridging the equity gap: Providing no-cost access to technology and training for incarcerated learners. *Educational Equity Journal*, 14(2), 88–105.
- Sisinyize, N., Tubaundule, G., Kaunozondunge, M., & Kambimbi, A. (2023). Enhancing access to learning aids and resources at Windhoek Correctional Facility. *Journal of Education for Sustainable Innovation*, 1(2), 106-112.
- Smith, P. (2013). Imprisonment and internet-access: Human rights, the principle of normalization and the question of prisoners' access to digital communications technology. *Nordic Journal of Human Rights*, 30, 454-482. doi:10.1080/18918131.2012.10749861
- Tang, S. (2010). Effective rehabilitation and reintegration of offenders. *Resource material series*, 82, 41-51.
- Vandala, N. G. (2019). The transformative effect of correctional education: A global perspective. *Cogent Social Sciences*, 5(1). <https://doi.org/10.1080/23311886.2019.1677122>
- Zakaria, S. M., Jaafar, J. R., & Lazim, N. H. M. (2018). Employment issues among ex-offenders: Difficulties in securing employment and barriers to employment. *International Journal for Studies on Children, Women, Elderly and Disabled*, 5, 298.
- Zivanai, E., & Mahlangu, G. (2022). Digital prison rehabilitation and successful re-entry into a digital society: A systematic literature review on the new reality on prison rehabilitation. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2022.2116809>