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Prison education in the resocialization of incarcerated individuals

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Introduction: Penitentiary education has been widely recognized as an essential tool for the rehabilitation and resocialization of incarcerated individuals, providing vital skills that facilitate their reintegration into society. In this context, the aim of the study was to analyze the perceptions of penitentiary education in the resocialization of incarcerated individuals among students at the National University of Moquegua.

Methodologically: A quantitative descriptive-correlational approach was adopted, using a cross-sectional design to collect data at a single point in time. The sample included 100 students selected through stratified random sampling by academic course, ensuring representativeness. Surveys were applied to assess various dimensions of prison education and its perceived effectiveness.

Results: The results indicated a positive valuation of prison education in terms of social skills and social reintegration, although deficiencies in resources and programmatic structure were noted. The significant influence of design and institutional support on the perceived effectiveness of these programs was confirmed.

Conclusion: It is concluded that there is a need to strengthen educational programs in penitentiary settings, improving their structure and resources to optimize their contribution to effective resocialization. Future research should be expanded to explore the persistence of educational effects and their adaptability to various penitentiary conditions.

KEYWORDS

adult education, rehabilitation, human rights, educational policy, program evaluation

1 Introduction

The relevance of prison education as a resocialization mechanism has been widely recognized in various studies and international legal frameworks. According to Li (2022), educational programs in prisons not only provide inmates with academic and occupational skills but also foster personal and social development, critical elements for successful reintegration into society. Spolverato (2021) complements this perspective by highlighting that

education within penitentiary environments can significantly reduce criminal recidivism by equipping inmates with the tools needed for a stable and productive post-release life.

In addition to these contributions, the United Nations Convention against Transnational Organized Crime and its protocols emphasize the importance of implementing rehabilitation measures, including education, as part of broader efforts to prevent crime and facilitate the social reintegration of offenders (Shaw, 2024). This global framework underscores the crucial role of education as a fundamental right and an essential pillar for human and social development, even within the penitentiary system (Chaima Kajawo and Johnson, 2023; Zeus, 2011).

The Peruvian prison system continues to face persistent structural challenges that limit equitable access to education within correctional facilities. According to official data from the National Penitentiary Institute of Peru (INPE), as of August 2024, the incarcerated population totaled 99,682 individuals, of whom 1,902 were women and 97,780 were men, distributed across 68 penitentiary institutions nationwide. This figure reflects an overpopulation rate of 120.6%, with the highest concentration in facilities located along the coastal regions [Instituto Nacional Penitenciario (INPE), 2024].

With regard to educational access, records from December 2023 indicate that only 22.7% of the prison population participated in some form of educational activity, whether basic, technical, or higher education. This educational coverage exhibits significant territorial and operational disparities, as many institutions lack minimum infrastructure, pedagogical materials, and qualified instructors [Instituto Nacional Penitenciario (INPE), 2023]. Despite these limitations, the country has made gradual normative progress. The Penal Execution Code affirms that education is a cross-cutting component of the rehabilitation process, promoting the inclusion of academic and vocational training as part of resocialization strategies. Historically, educational policies in Peruvian prisons have evolved from isolated literacy campaigns to more structured programs implemented in coordination with the Ministry of Education. However, persistent weaknesses in intersectoral collaboration, as well as limited continuity and follow-up post-release, continue to undermine the long-term impact of these initiatives [Instituto Nacional Penitenciario (INPE), 2024].

Despite normative efforts and the implementation of educational programs, significant challenges hinder the effectiveness of these initiatives (Deville et al., 2005; Mahlangu, 2024). Prison overcrowding, insufficient resources, inadequate infrastructure, and a limited educational offer are among the main obstacles preventing equitable access to education (Rangel Torrijó, 2019), ultimately affecting the quality and reach of the resocialization process. Furthermore, many educational initiatives within the prison context lack continuity and follow-up after release, jeopardizing the sustainability of the benefits obtained (Negash et al., 2022; Stopka et al., 2022).

From an academic perspective, the positive contribution of education in penitentiary contexts is widely acknowledged (Rangel Torrijó and De Maeyer, 2019). However, significant gaps persist in the specialized literature, particularly concerning the social and personal transformation of inmates. The integration of prison education policies with resocialization strategies remains underexplored, and studies evaluating the long-term effects of these programs are scarce, particularly across different geographical and socio-economic contexts (Gielen, 2018; Moles-López and Añaños, 2021). The relevance of this research lies in its potential to influence the design

and implementation of public policies aimed at strengthening educational processes in penitentiary centers and promoting genuine social reintegration.

The selection of law students as the unit of analysis in this research is based on the close relationship between their academic training and the legal frameworks that regulate prison education and resocialization processes. Their academic trajectory includes specific content on criminal law, human rights, procedural guarantees, and the penitentiary system, which provides them with a theoretical and normative understanding of the criminal justice system and the principles guiding the treatment of incarcerated individuals.

From an academic standpoint, it is relevant to explore how these future legal professionals conceptualize education in custodial settings, as their perceptions reflect not only their level of knowledge on the subject but also their ethical stances and evaluations regarding the rehabilitative function of the prison system. These social representations may influence the design, implementation, and advocacy of public policies aimed at effectively ensuring the right to education in penitentiary institutions, particularly in contexts like Peru, where structural deficits in rehabilitation persist. Furthermore, identifying the conceptions held by law students about the relationship between prison education and social reintegration provides insights for strengthening law school curricula, promoting a rights-based and interdisciplinary approach. In this regard, the present study is justified by its contribution to the critical analysis of legal knowledge in formation, in light of its potential to influence the progressive transformation of the penal system and the promotion of legal practices oriented toward restorative justice and the social inclusion of incarcerated individuals.

The research question guiding this study is: How do law students at the National University of Moquegua perceive prison education in relation to the resocialization of incarcerated individuals? To address this question, the study aims to analyze the perceptions of law students at the National University of Moquegua regarding prison education and its role in the resocialization of individuals deprived of liberty.

2 Materials and methods

The study adopted a quantitative descriptive-correlational approach, designed to assess perceptions regarding the impact of prison education on resocialization. Using a cross-sectional design, data were collected at a single point in time, facilitating comparison and correlational analysis between different variables. This was an applied research study, as it aimed to generate practical knowledge directly applicable to improving policies and educational programs in penitentiary contexts. The study was descriptive and correlational, as it described the current situation while exploring the relationships between perceptions of prison education and the resocialization of individuals deprived of liberty (Table 1).

The study design focused on assessing the perceptions of law students at the National University of Moquegua regarding prison education and inmate resocialization. The sample selection was carried out using a stratified random sampling method by academic year, with a total of 100 participants, ensuring equitable representation of each academic level. The inclusion criteria specified the participation of actively enrolled students who had completed at least

TABLE 1 Distribution of educational variables in the student sample.

Educational variables	Category	Frequency	Percentage
Sex	Male	30	30
	Female	70	70
Semester	Semester 1 and 2	69	69
	Semester 3, 4, and 5	12	12
	Semester 6, 7, and 8	19	19
Age	18 to 20 years	53	53
	18 to 20 years	10	10
	24 to 26 years	5	5
	27 or more years	32	32

Sample ($n = 100$ students).

one semester of studies. Exclusion criteria applied to students who lacked familiarity with the penitentiary context or had not taken courses related to criminal law.

The present study focused on analyzing the perceptions of law students at the National University of Moquegua regarding prison education and the resocialization of incarcerated individuals. The decision to limit the sample to this academic group was based on theoretical, formative, and contextual criteria that support the relevance and depth of the analysis. From a disciplinary standpoint, law students constitute a strategic group, given that their training is directly linked to the understanding of the penal system, human rights approaches, and the future exercise of roles within the judicial, penitentiary, or legal advisory fields. This academic specificity provides them with a more technical and normative perspective on the phenomenon under study, in contrast to other student profiles whose approaches may focus on psychosocial, pedagogical, or assistance-oriented frameworks.

Moreover, the inclusion of students who had completed courses related to criminal law or similar fields ensured that participants possessed the preliminary knowledge required to offer informed judgments about the penitentiary context. This condition was established as an inclusion criterion to prevent uninformed responses or those lacking legal context. Although it is acknowledged that restricting the sample to a single degree program and university may limit the generalizability of the findings, such a decision was justified by the aim of obtaining a focused perspective from a disciplinary group whose training has direct implications for policymaking, justice implementation, and the defense of constitutional guarantees in contexts of deprivation of liberty.

It is worth noting that, as a projection for future research, the incorporation of perspectives from students in disciplines such as Psychology, Education, or Social Work is proposed. These approaches would enrich the analysis through an interdisciplinary understanding of the resocialization process, integrating psychoeducational, emotional, and community intervention dimensions. Nonetheless, for the purposes of this study, the focus on law students was justified due to its formative relevance and the need to explore a legal perspective in depth on education within penitentiary contexts (Table 2).

The instrument used in this study was specifically constructed to assess students' perceptions of prison education and its relationship to the social reintegration of incarcerated individuals. The development of the questionnaire was grounded in a theoretical and regulatory review of educational programs in confinement settings, principles of

resocialization, and guidelines from the penitentiary system, which enabled the identification of key dimensions to be addressed. Consequently, a total of 20 items were designed and distributed across four analytical dimensions: effectiveness of prison education, design and implementation of educational programs, impact on resocialization, and the role of the penitentiary and legal system.

Each item was formulated using a five-point Likert scale ranging from "strongly disagree" to "strongly agree," facilitating the collection of quantitative data on the participants' assessments. To ensure content validity, the instrument was submitted for expert review by specialists in criminal law, public rehabilitation policies, and education in penitentiary contexts. These experts evaluated the coherence, clarity, and relevance of the items, and their suggestions were incorporated into the final version of the instrument.

Additionally, a pilot test was conducted with a small group of students, distinct from the main sample, to verify item comprehension and the overall functionality of the instrument. The internal reliability of the questionnaire was determined using Cronbach's alpha coefficient, which yielded a value of 0.924, indicating a high level of internal consistency among the items across the evaluated dimensions. The instrument was administered through an online form (Google Forms), which included an introductory section containing the informed consent statement, ensuring voluntary, anonymous, and ethical participation of all respondents. Data processing was conducted using SPSS statistical software, applying descriptive analyses to obtain measures of central tendency and dispersion, as well as inferential analyses including Pearson's bivariate correlations to identify significant relationships among the evaluated conceptual dimensions.

3 Results and discussion

This section focuses on several key aspects: contribution to social reintegration, reduction of criminal recidivism, improvement of social skills, perceived usefulness of the education received, and the promotion of ethical values, among others. The reliability of the instrument was confirmed through a Cronbach's Alpha average of 0.924, indicating an adequate internal consistency for this type of evaluation.

Table 3 provides a quantitative descriptive analysis and reliability assessment of the questionnaire on prison education. The results indicate that perceptions regarding the significant contribution of

TABLE 2 Evaluation instrument for educational programs in penitentiary centers.

N°	Question	Dimension
1	Prison education significantly contributes to the social reintegration of incarcerated individuals.	Effectiveness of Prison Education
2	Educational programs in penitentiary centers reduce criminal recidivism.	
3	Prison education enhances inmates' social skills to adapt to life in society	
4	Incarcerated individuals find the education received in prison useful for their future.	
5	Prison education fosters ethical values that positively impact inmates' behavior.	
6	Educational programs in penitentiary centers are well-structured and address inmates' needs.	Design and Implementation of Educational Programs
7	The educational offerings in prisons are adequate for the cultural and social diversity of inmates.	
8	Prison educational programs include training in relevant job skills for reintegration.	
9	Educational activities in prisons have sufficient qualified personnel.	
10	Educational resources in penitentiary centers are sufficient to meet inmates' needs.	Impacto en la resocialización
11	Education in prison helps inmates acquire the necessary job skills for reintegration.	
12	Inmates who participate in educational programs have a higher chance of avoiding recidivism.	
13	Education in penitentiary centers improves inmates' self-esteem and motivation.	
14	Educational programs help strengthen the family relationships of incarcerated individuals.	
15	Educational training in prisons contributes to reducing social stigma against inmates.	Role of the Penitentiary and Legal System
16	The penitentiary system adequately facilitates inmates' access to educational programs.	
17	Prison education policies comply with the principles of resocialization established in legal regulations.	
18	The educational rights of incarcerated individuals are protected within the penitentiary system.	
19	Educational initiatives in prison align with Criminal Law objectives of promoting resocialization.	
20	The State prioritizes prison education as a key tool for the social reintegration of inmates.	

TABLE 3 Reliability of the prison education questionnaire.

No.	Questions	M	SD	Cronbach's alpha	Threshold
1	Prison education significantly contributes to the social reintegration of incarcerated individuals.	3.75	1.00	0.926	Agree
2	Educational programs in penitentiary centers reduce criminal recidivism.	3.45	0.98	0.925	Neutral
3	Prison education improves inmates' social skills to adapt to life in society.	3.79	0.96	0.922	Agree
4	Incarcerated individuals consider the education received in prison useful for their future.	3.64	0.96	0.926	Agree
5	Prison education fosters ethical values that positively impact inmates' behavior.	3.65	1.01	0.922	Agree
6	Educational programs in penitentiary centers are well-structured and meet inmates' needs.	3.23	0.99	0.922	Neutral
7	The educational offerings in prisons are adequate for the cultural and social diversity of inmates.	3.36	0.97	0.923	Neutral
8	Prison educational programs include training in relevant job skills for reintegration.	3.56	1.03	0.921	Agree
9	Educational activities in prisons have sufficient qualified personnel.	2.95	0.97	0.926	Neutral
10	Educational resources in penitentiary centers are sufficient to meet inmates' needs.	2.76	1.06	0.925	Neutral
11	Education in prison helps inmates acquire the necessary job skills for reintegration.	3.59	0.96	0.925	Agree
12	Inmates who participate in educational programs have a higher chance of avoiding recidivism.	3.72	0.82	0.929	Agree
13	Education in penitentiary centers improves inmates' self-esteem and motivation.	3.84	0.85	0.924	Agree
14	Educational programs help strengthen the family relationships of incarcerated individuals.	3.86	0.75	0.924	Agree
15	Educational training in prisons contributes to reducing social stigma against inmates.	3.61	0.93	0.922	Agree
16	The penitentiary system adequately facilitates inmates' access to educational programs.	3.27	0.98	0.922	Neutral
17	Prison education policies comply with the principles of resocialization established in legal regulations.	3.36	0.93	0.923	Neutral
18	The educational rights of incarcerated individuals are protected within the penitentiary system.	3.32	1.08	0.926	Neutral
19	Educational initiatives in prison align with Criminal Law objectives of promoting resocialization.	3.60	0.98	0.921	Agree
20	The State prioritizes prison education as a key tool for the social reintegration of inmates.	3.26	1.19	0.923	Neutral
Average		3.48	0.97	0.924	Agree

Note: M = Mean; SD = Standard Deviation.

prison education to social reintegration and the improvement of social skills are generally positive, with mean scores exceeding 3.75. This finding is consistent with existing literature suggesting that education in prisons can serve as a crucial vehicle for improving inmates' reintegration prospects (Hughes, 2016; Reuss, 1999; Salaam, 2013).

However, aspects such as the structuring of educational programs and the sufficiency of resources and trained personnel received less favorable evaluations, with mean scores around 3.23 and 2.95, respectively. This highlights a considerable area of need and aligns with previous studies indicating limitations in the implementation of prison educational programs due to resource constraints and insufficient staff training (Komalasari et al., 2021; Mafilika and Marongwe, 2024).

The neutral responses regarding the adequacy of the educational offerings for cultural diversity and the structure of educational programs (items 6 and 7) suggest a mixed perception, which may indicate variability in the quality or relevance of the programs offered. The literature suggests that the effectiveness of these programs significantly depends on their ability to adapt to inmates' needs and cultural contexts (Hodkinson et al., 2008; Kakupa and Mulenga, 2021).

Interestingly, items related to the impact of education on inmates' self-esteem and motivation (item 13) and the strengthening of family relationships (item 14) received the highest ratings, underscoring the importance of emotional and relational components within educational programs in confinement settings. These results support theories emphasizing the role of self-efficacy and social support as critical mediators in inmate resocialization (Centeno Cardona et al., 2022; Malizia, 2021).

The following section presents the results of convergent validity and reliability of the key components of prison education programs, highlighting their effectiveness, design, impact on resocialization, and the role of the penitentiary and legal system. Using reliability statistics, such as McDonald's Omega and Composite Reliability (CR), along with the Average Variance Extracted (AVE), a meticulous assessment of the internal consistency and construct validity of the evaluated factors is provided.

The values obtained in Table 4 indicate that all factors exhibit McDonald's Omega and Composite Reliability (CR) above 0.8, denoting high internal reliability. The effectiveness of prison education factor shows an AVE of 0.501, indicating that a significant proportion of variance in responses is explained by the factor, reinforcing its relevance. These findings align with existing literature, which considers the perceived effectiveness as a determining component in the overall evaluation of educational programs within penitentiary environments (Bouffard et al., 2000; Bozick et al., 2018).

Regarding the design and implementation of educational programs, slightly higher consistency and validity are observed, with an AVE of 0.532. This underscores the importance of adequate planning and execution, supporting theories that emphasize the need for a structured and effective curriculum design in non-traditional educational settings (O'Connor, 2021).

The index related to the impact of prison education on inmate resocialization demonstrates notable robustness in terms of reliability and validity, reflecting internal consistency and methodological structuring that support its interpretative efficacy. This methodological robustness aligns with previous studies, such as those by Linden and Perry (1983), which highlight educational programs in prison settings as effective means for inmate social reintegration. The significant

TABLE 4 Convergent validity and reliability of factors in prison education.

Factors	Questions	McDonald's omega	Composite reliability (CR)	Average variance extracted (AVE)
Effectiveness of prison education	P1	0.829	0.828	0.501
	P2			
	P3			
	P4			
	P5			
Design and implementation of educational programs	P6	0.854	0.850	0.532
	P7			
	P8			
	P9			
	P10			
Impact on resocialization	P11	0.836	0.843	0.525
	P12			
	P13			
	P14			
	P15			
Role of the penitentiary and legal system	P16	0.869	0.866	0.566
	P17			
	P18			
	P19			
	P20			

McDonald's Omega = 0.930.

TABLE 5 Standardized and unstandardized coefficients (β) for the prison education questionnaire on the resocialization of incarcerated individuals.

Item combination			Coefficients	Unstandardized coefficients (Beta)			
Items	Connector	Items	Beta (β)	Estimate	S. E.	C. R.	p
P1	←	F1	0.677	1			
P2	←	F1	0.721	1,042	0.161	6,467	***
P3	←	F1	0.825	1,167	0.161	7,269	***
P4	←	F1	0.461	0.654	0.153	4,274	***
P5	←	F1	0.790	1,178	0.168	7,005	***
P6	←	F2	0.760	1			
P7	←	F2	0.724	0.929	0.127	7,325	***
P8	←	F2	0.786	1,070	0.133	8,040	***
P9	←	F2	0.649	0.831	0.128	6,483	***
P10	←	F2	0.722	1,017	0.139	7,300	***
P11	←	F3	0.705	1			
P12	←	F3	0.493	0.593	0.128	4,636	***
P13	←	F3	0.783	0.978	0.135	7,264	***
P14	←	F3	0.818	0.905	0.120	7,565	***
P15	←	F3	0.776	1,063	0.147	7,210	***
P16	←	F4	0.802	1			
P17	←	F4	0.742	0.873	0.109	8,018	***
P18	←	F4	0.655	0.898	0.131	6,857	***
P19	←	F4	0.772	0.964	0.114	8,428	***
P20	←	F4	0.781	1,183	0.138	8,561	***

β (Beta), Standardized coefficient; Estimate, Unstandardized coefficient value; S. E., Standard Error; C. R., Critical Ratio; obtained by dividing the estimate by the standard error, P, Statistical significance level (*** indicates $p < 0.001$).

correlation between the evaluated dimensions and the observed improvements underscores that a rigorously structured and implemented education positively influences resocialization, providing inmates with essential tools for a successful transition to community life.

Finally, the role of the penitentiary and legal system records the highest reliability values (McDonald's Omega = 0.869, CR = 0.866, and AVE = 0.566), emphasizing the critical need for a regulatory framework that effectively supports the implementation of educational initiatives aligned with the rights and dignity of incarcerated individuals.

The following section presents an analysis of the influence of different factors (F1, F2, F3, F4) on the resocialization of incarcerated individuals through prison education. To achieve this, standardized and unstandardized coefficients have been estimated in a structural equation model, examining the relationship between these factors and the responses to the questionnaire specifically designed for this purpose (Table 5).

The results demonstrate that the standardized coefficients obtained for the four identified factors educational effectiveness (F1), program implementation (F2), resocialization outcomes (F3), and the institutional-legal framework (F4) reflect internal consistency and theoretical alignment. In the case of F1, the high standardized coefficients observed ($\beta = 0.461$ to 0.825) suggest that inmates' perceptions of the effectiveness of educational programs are significantly shaped by their structure and pedagogical orientation. These findings are consistent with correctional education models in Norway, where education is constitutionally regarded as a human right and integrated into individualized rehabilitation pathways. Studies such as those by

Tønseth et al. (2019) emphasize that prison education in the Nordic region prioritizes dignity, autonomy, and social reintegration, contrasting with more punitive approaches elsewhere (Ugelvik, 2012). These educational strategies focus on lifelong learning, critical thinking, and employability, and are delivered in close coordination with community services, enhancing post-release outcomes.

Factor 2 (F2), associated with program implementation and structure, also revealed strong influence, particularly in items related to vocational relevance and resource availability. These finding parallels evidence from the US Bureau of Justice Assistance, which highlights that the efficacy of educational interventions in correctional settings depends not only on curriculum quality but also on sustained institutional support, trained instructors, and consistent monitoring (Davis et al., 2013). Moreover, Nur and Nguyen (2023) emphasize that in Southeast Asia, the gap between policy and implementation undermines the impact of otherwise promising programs, indicating that implementation fidelity is a global concern.

Regarding F3, which captures the impact of prison education on resocialization, items such as P13 and P14 obtained high coefficients, reaffirming the pivotal role of education in reshaping inmates' self-perception, motivation, and social connectedness. In line with Tønseth et al. (2019), who analyzed prison education in the Nordic context, the acquisition of skills and the reinforcement of prosocial identity are core mechanisms for fostering desistance. These insights converge with the theoretical contributions of the Good Lives Model, which underlines the importance of building internal capacities to support meaningful, law-abiding lives post-release (Laurie and Maglione, 2020).

In Factor 4 (F4), the strong associations observed in items related to legal guarantees and institutional facilitation (e.g., P19 and P20) underscore the central role of systemic and regulatory conditions in enabling effective prison education. International frameworks, such as the United Nations Standard Minimum Rules for the Treatment of Prisoners (the Mandela Rules), emphasize that education should be an integral part of the rehabilitative function of prisons and must be supported by institutional policies, adequate infrastructure, and inter-institutional coordination (Mandela Rules, 2015). This perspective is further supported by empirical experiences in countries such as the United Kingdom and Norway, where correctional education is embedded within a rights-based approach, coordinated through partnerships between the justice, education, and social welfare sectors to ensure pedagogical continuity and post-release reintegration opportunities (Tønseth et al., 2019). These contrasts highlight the need to strengthen intersectoral collaboration in contexts like Peru, where fragmented governance and limited institutional articulation continue to constrain the long-term impact of educational interventions in correctional settings.

In contrast, the Peruvian penitentiary and legal system presents unique challenges that may shape these outcomes. Structural issues such as overcrowding, limited funding, and institutional instability constrain the scalability and continuity of educational programs [Instituto Nacional Penitenciario (INPE), 2024]. Additionally, the absence of intersectoral coordination and limited post-release follow-up reduce the long-term impact of prison education.

The next section explores the discriminant validity of the factors related to prison education in the resocialization of incarcerated individuals, an essential component for evaluating the clarity and distinction between the various study dimensions. By applying statistical metrics such as the Maximum Shared Variance (MSV) and the Square Root of the Maximum Shared R-Squared (MaxR(H)), this analysis seeks to determine whether the constructs are sufficiently distinct from one another, which is crucial for confirming the validity of the study's conclusions.

Table 6 presents the MSV and MaxR(H) values, as well as the correlations among factors F1, F2, F3, and F4, which encompass various aspects of prison education and its impact on inmate resocialization. The diagonal values, representing the square root of the Average Variance Extracted (AVE), exceed the inter-construct correlations (values outside the diagonal), thus meeting the discriminant validity criteria established by Patraia (2015). This confirms that, although related, the constructs maintain sufficient distinction from one another to represent unique and relevant dimensions within the study. The AVE value for F1 is 0.706,

which is higher than the correlations of this factor with F2 (0.608), F3 (0.938), and F4 (0.600). However, the high correlation between F1 and F3 is notably strong, approaching the upper threshold allowed for discriminant validity. This strong relationship may indicate significant interdependence or potential overlap in the aspects measured by both factors, warranting further analysis or a review of construct definitions to ensure conceptual clarity.

The clear differentiation among the components of educational programs serves as a key pillar for the effectiveness of penitentiary interventions, as highlighted in previous studies by Copello et al. (2005), who emphasize the importance of precisely identifying the factors influencing behavioral change processes such as resocialization. This precision is essential for designing educational interventions tailored to the specific needs of individuals. In the penitentiary context, it is critical to distinguish between program design (Factor 2) and the impact of the prison environment (Factor 4). Understanding how these elements interact and influence each other is crucial for implementing effective administrative and structural adjustments that enhance the efficacy of educational programs for inmates (Bondeson, 2017; Craig, 2004). Moreover, this detailed approach to construct differentiation and validation aligns this study with previous research that has emphasized the need for clear and operational specification of factors in intervention and behavioral change studies (Atkins et al., 2017; Franco et al., 2021).

The following section presents the results of the relationships between different factors associated with prison education and their influence on the resocialization of incarcerated individuals. Standardized and unstandardized coefficients (β) have been used to evaluate the hypotheses related to the interaction among these factors. This structural analysis provides valuable insights into how different components of prison education interact and contribute to the resocialization process.

The structural equation model developed in this study reveals statistically significant associations among the latent variables educational content (F1), program implementation (F2), resocialization outcomes (F3), and institutional-legal support (F4) as shown in Table 7. All proposed hypotheses were confirmed, underscoring the relevance of interdependent relationships within prison education systems. These results align with existing theoretical frameworks that emphasize the multifactorial nature of rehabilitation and the centrality of coordinated interventions for reducing recidivism and promoting social reintegration (Wade, 2020; Ward and Brown, 2004).

Nevertheless, it is recognized that two fit indices Comparative Fit Index (CFI = 0.65) and Root Mean Square Error of Approximation (RMSEA = 0.098) fall below the conventional thresholds suggested by Hu and Bentler (1999), who recommend $CFI \geq 0.90$ and $RMSEA \leq 0.08$ for acceptable model fit. Despite these limitations, other indicators support the adequacy of the model, such as the Tucker-Lewis Index (TLI = 0.844), the Parsimonious Fit Index (PFI = 0.868), and the chi-square ratio ($\chi^2/df = 1.954$), which indicate a moderately acceptable fit given the model's complexity and the sample constraints. According to Rohrer et al. (2022), models in applied social research may still be retained when theoretical justification and significant path coefficients support their relevance, even if some global fit indices are suboptimal.

These discrepancies may be attributed to several methodological factors. First, the multidimensional nature of prison education and resocialization entails complex latent constructs that are difficult to capture fully in a single modeling framework (Galouzis et al., 2023). Second, the limited sample size and context-specific variables may

TABLE 6 Discriminant validity of prison education in the resocialization of incarcerated individuals.

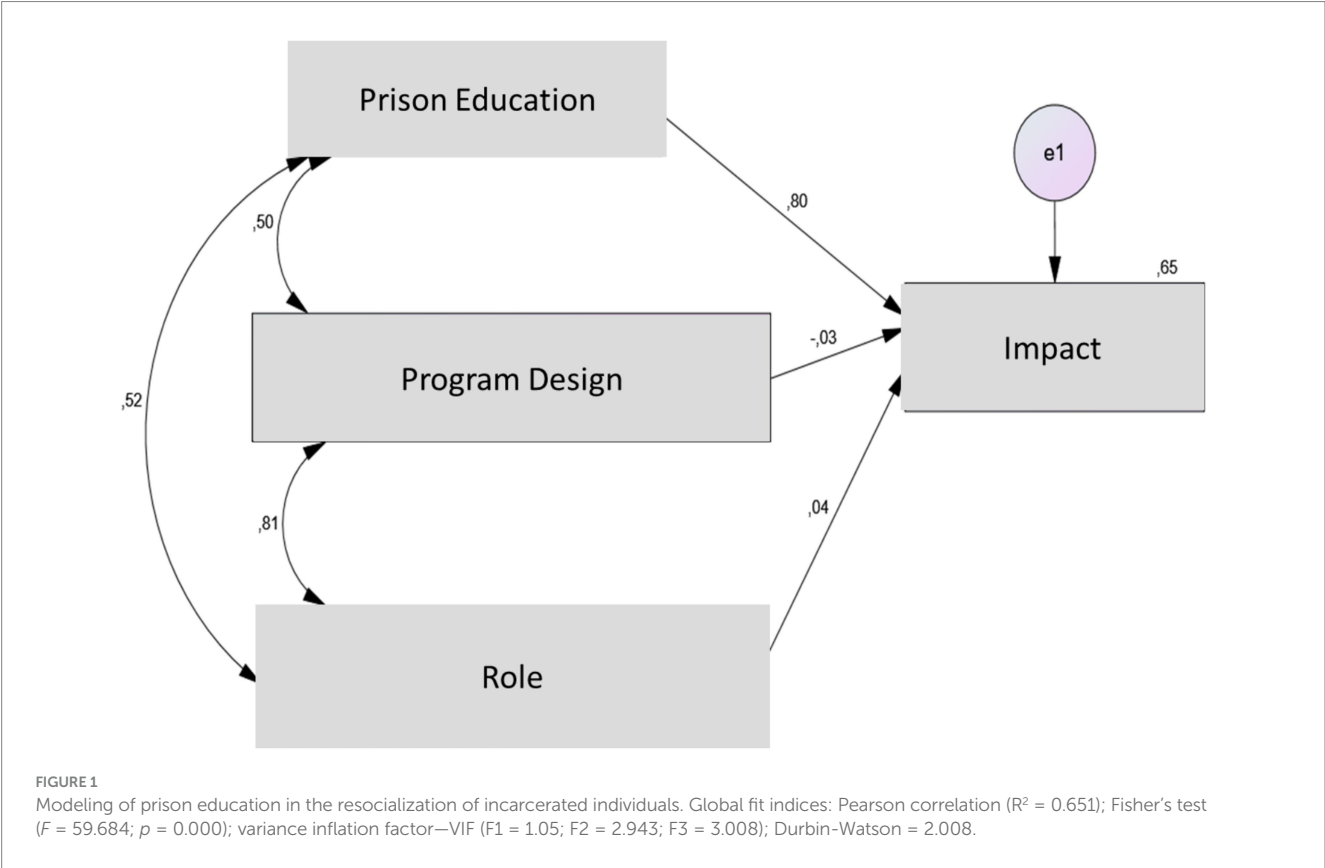
MSV	MáxR(H)	F1	F2	F3	F4
0.880	0.857	0.706			
0.922	0.855	0.608***	0.729		
0.880	0.865	0.938***	0.524***	0.724	
0.922	0.872	0.600***	0.960***	0.555***	0.752

MSV, Maximum Shared Variance; MáxR(H), Maximum R-Squared Shared Root; AVE, Average Variance Extracted; Diagonal values: Represent the square root of AVE, which should be higher than inter-construct correlations to confirm discriminant validity, Values outside the diagonal: Represent inter-construct correlations, Significance levels: ***($p < 0.001$).

TABLE 7 Standardized and unstandardized coefficients of prison education in the resocialization of incarcerated individuals.

Factor combinations			Coefficients	Unstandardized coefficients (Beta)			Hypothesis	
Factors	Connector	Factors	Beta (β)	Estimate	S. E.	C. R.	p	H1
F1	↔	F2	0.608	0.308	0.079	3,913	***	Accepted
F1	↔	F3	0.938	0.427	0.093	4,616	***	Accepted
F4	↔	F1	0.600	0.317	0.080	3,957	***	Accepted
F2	↔	F3	0.524	0.266	0.073	3,625	***	Accepted
F4	↔	F2	0.960	0.566	0.107	5,281	***	Accepted
F4	↔	F3	0.555	0.295	0.077	3,834	***	Accepted

Goodness-of-fit indices: χ^2 (gl) = 320,393 (164), χ^2/g = 1,954; PFI = 0.868, TLI = 0.844, CFI = 0.65, RMSEA = 0.098; AIC = 452,393; BIC = 487,931.



have constrained the model’s capacity to achieve ideal statistical adjustment, particularly in confirmatory settings (Abd-El-Fattah, 2010). Third, possible specification errors in the measurement model such as residual covariances or item cross-loadings could have influenced the RMSEA and CFI values.

Despite these issues, the theoretical validity of the model remains strong. The high standardized path coefficients particularly between institutional/legal support (F4) and program implementation (F2; $\beta = 0.960$), and between program design (F1) and resocialization (F3; $\beta = 0.938$) are consistent with prior empirical findings, which highlight the importance of institutional backing and pedagogical relevance in achieving successful rehabilitation (Mahlangu and Zivanai, 2023; Sachitra and Wijewardhana, 2020; Ellison et al., 2017).

Finally, the structural analysis presented in Figure 1 evaluates how different aspects of prison education contribute to the resocialization of incarcerated individuals.

The structural model presented in Figure 1 illustrates the interaction between prison education, program design, and the institutional role, and their collective influence on the resocialization of incarcerated individuals. The standardized path coefficients reveal meaningful relationships, such as the strong influence of program design on the institutional role ($\beta = 0.81$) and on prison education ($\beta = 0.50$), reaffirming the critical importance of structured pedagogical frameworks and coherent policy environments in the implementation of prison education programs (Gumport, 2000; Latessa et al., 2020).

However, a particularly notable and unexpected finding emerges in the path from program design to resocialization impact, which presents a marginally negative standardized coefficient ($\beta = -0.03$). From a theoretical standpoint, this result contrasts with existing literature, which commonly posits that well-conceived educational programs enhance social reintegration outcomes (Ellison et al., 2017;

Di Blasio, 2024). This discrepancy may be interpreted from multiple perspectives. First, it is possible that the conceptualization of “program design” within the instrument, although focused on structural and curricular elements, may not have adequately captured dynamic components such as pedagogical adaptability, motivational strategies, or cultural responsiveness, which are often decisive in influencing inmate outcomes (Hopkin et al., 2018).

Second, the negative coefficient could indicate the presence of a suppression effect or a bias from omitted variables. Factors such as post-release support networks, psychosocial rehabilitation, employment opportunities, or inmates’ prior educational background may mediate or moderate the effect of educational program design, but were not included in the current model. As suggested by Masson and Booth (2022), resocialization is a multidimensional process, heavily influenced by social, economic, and institutional contexts beyond prison walls.

Third, the possibility of measurement error should also be considered. If items associated with the Program Design dimension lack sufficient discriminant validity or were interpreted heterogeneously by participants, this could attenuate the expected effect and yield anomalous coefficients. This reinforces the need for future refinement of the measurement instrument, including cognitive testing and factorial validation across different institutional contexts (Abd-El-Fattah, 2010). Despite this anomaly, the overall model fit is acceptable. The Durbin-Watson statistic (2.008) and the R^2 value of 0.651 indicate low autocorrelation and substantial explanatory power. Furthermore, the statistically significant F -value ($F = 59.684, p < 0.001$) confirms the model’s robustness in explaining variance in resocialization outcomes.

4 Conclusion

The relevance of prison education as a resocialization mechanism has been widely recognized in various studies and international legal frameworks, highlighting its potential to provide academic and occupational skills that foster the social reintegration of incarcerated individuals. In this context, the present study focused on evaluating the perceptions of law students at the National University of Moquegua regarding prison education in the resocialization of inmates.

The results confirmed that educational programs are positively perceived by students in terms of their contribution to the social reintegration of prisoners. A high appreciation of the effectiveness of these programs in improving social skills and facilitating inmates’ reintegration into society was evident. However, structural and resource deficiencies were identified as factors negatively affecting the perceived efficacy of educational programs. Specifically, insufficient resources and the structural adequacy of the programs were highlighted as aspects requiring improvement.

Furthermore, the study revealed the critical importance of the prison environment and policies in supporting the effective implementation of educational programs. Student perceptions suggest that a supportive environment and well-defined policies are essential for the effective rehabilitation of inmates. However, the study faced limitations, including geographical constraints and the potential lack of student exposure to a broader penitentiary context, which might have influenced their perceptions.

For future research, it is recommended to expand the sample to different faculties and regions to obtain a more representative perspective on prison education. Additionally, it would be beneficial to explore the effectiveness of these programs in various types of penitentiary institutions and assess their long-term impact on recidivism. Investigating the continuity and follow-up of post-release education could provide further insights into the sustainability of the benefits of these programs.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

Prior to its application, informed consent was obtained from the participants through a Google Forms survey, ensuring their voluntary participation and understanding of the study.

Author contributions

RR-C: Conceptualization, Formal analysis, Investigation, Methodology, Software, Supervision, Writing – original draft, Writing – review & editing. FC-D: Conceptualization, Formal analysis, Methodology, Supervision, Writing – original draft, Writing – review & editing. RE-C: Conceptualization, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. DB-M: Conceptualization, Data curation, Formal analysis, Methodology, Writing – original draft, Writing – review & editing. WM-G: Conceptualization, Investigation, Writing – original draft, Writing – review & editing. RR-A: Data curation, Investigation, Visualization, Writing – original draft, Writing – review & editing. LQ-O: Formal analysis, Investigation, Supervision, Writing – original draft, Writing – review & editing.

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The author(s) declare that no Gen AI was used in the creation of this manuscript.

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