

DEVELOPING A NEURO-LINGUISTIC (NLP) PROGRAMMING-BASED COMMUNICATION MODULE FOR SELF-ESTEEM ENHANCEMENT: CASES OF JUVENILE OFFENDERS IN REHABILITATION SETTINGS

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Abstract: *This study focuses on the development of a Neuro-Linguistic Programming (NLP)-based communication module designed to foster self-esteem among juvenile offenders in rehabilitation settings. The objective was twofold: to construct a structured NLP-based communication module and to evaluate its content validity and reliability. The module was developed following established module development frameworks by Jamaluddin and Russell, incorporating key components such as goals, theoretical foundations, rationale, target groups, identified needs, and learning objectives. Guided by Russell's eight-step model, the design was integrated into qualitative methods. A pilot test involving a single juvenile subject was conducted, where the participant engaged in the full module and participated in follow-up interviews. Reliability was assessed using the cross-check and repeated interview techniques with interview questions aligned to module objectives. To determine content validity, expert review was employed through the external critic method, resulting in a high validity score of 93%. The findings indicated that the NLP-based communication module is valid and reliable, suggesting its potential as an effective rehabilitative communication tool for improving self-esteem among juvenile offenders.*

Keywords: *Keywords Neuro-Linguistic Programming (NLP), Communication Module, Self-Esteem Enhancement, Juvenile Offenders, Rehabilitation Settings*

Introduction

Self-esteem remains a critical focus within social psychology, particularly related to the adolescents' psychological and social development. High levels of self-esteem are consistently linked to a good well-being, academic performance, and interpersonal relationships (Gonzalez-Valero et al., 2020). While among the juvenile offenders, low self-esteem is usually reported and is often compounded by histories of trauma and neglect, making rehabilitation efforts more challenging (Syifanita & Soetikno, 2023). These psychological deficits can influence future behaviour, social functioning, and overall reintegration into society (Ruslan et al., 2020). Current studies have emphasised the importance of early intervention to address self-esteem issues among adolescents especially those in juvenile rehabilitation centre. Research shows that self-esteem enhancement strategies significantly reduce the likelihood of recidivism and promote resilience (Hodgkinson et al., 2021). Low self-esteem has been associated or linked with depression, anxiety, and an increased risk of engaging in antisocial or delinquent behaviour (Gonzalez-Valero et al., 2020). This creates a reciprocal relationship where low self-esteem can lead to delinquency, and repeated delinquent acts can further erode self-worth (Syifanita & Soetikno, 2023). Therefore, researchers suggested for structured therapeutic interventions that aim to foster self-esteem and positive identity in these youth. One such approach is through communication-based therapies, such as NLP, which focus on language, behaviour, and thought patterns to influence internal dialogue and behavioural change (Hodgkinson et al., 2021). In this study, an NLP-based communication module is developed specifically for juvenile offenders in the rehabilitation centre. The module aims to serve as an intervention to foster self-esteem and self-esteem through guided activities that is related to NLP. This effort is not only to support the juveniles psychologically but also to prepare them for reintegration into society as resilient and communicatively competent individuals.

This study aims to answer the following research questions:

1. What can be done to enhance the self-esteem for juvenile offenders in juvenile rehabilitation centre?
2. How effective is the NLP module in enhancing the self-esteem of juvenile offenders in juvenile rehabilitation centre?

Literature Review

Juvenile Offenders and Their Self-Esteem

According to Maslow's hierarchy of needs, self-esteem is ranked as the fourth level essential need in the process of self-actualisation (Maslow, 1943). Numerous psychological studies have indicated a strong correlation between self-esteem and behavioural outcomes, suggesting that an individual's level of self-esteem can significantly influence their actions and emotional well-being. For example, individuals with high self-esteem tend to develop greater emotional stability and better mental health.

A research study conducted in New Zealand involving participants aged 20 and above revealed that adolescents with low self-esteem usually experience challenges related to both physical and psychological health. These difficulties can negatively impact their social lives and limiting their ability to contribute positively to society and increasing the likelihood of engaging in criminal behaviour.

Gecas (1982) and Rosenberg (1976) defined self-esteem as an individual's overall positive and good evaluation of themselves. Furthermore, research by Leary et al. (2007) proved that individuals who engaged in programmes aimed at enhancing self-esteem are less likely to be negatively affected by external factors and have greater responsibility for their actions. Enhancing self-esteem has also been shown to enhance self-empathy, which may lead offenders to develop a deeper understanding of others and reduce their likelihood of causing harm. This enhanced empathy can play a crucial role in rehabilitation, helping offenders become more accountable and responsible for their behaviour.

While juvenile delinquency remains a pressing concern, it is very important to consider the perspectives of victims and offenders. Society and authorities should not solely only focus on punitive measures but also prioritise rehabilitation and intervention efforts aimed at supporting the reintegration and emotional development of juvenile offenders.

Neuro-Linguistic Programming (NLP)

NLP was co-founded by Richard Bandler and John Grinder, who worked with Gregory Bateson, a prominent cyberneticist as well as a team of linguists, anthropologists, and social scientists. The foundation of NLP was laid during the late 1960s and early 1970s with the aim of identifying and modelling the behaviour and communication patterns of highly effective psychotherapists. The main concept of NLP revolves around the process of "modelling," which involves observing and replicating the mental strategies and behaviours of successful individuals to achieve similar positive outcomes. Bandler and Grinder believed that by understanding how exceptional people think and behave, these techniques could be taught to others to bring about behavioural change and personal improvement.

The term Neuro-Linguistic Programming can be broken down into three components:

- **Neuro:** Refers to the neurological processes and how the brain interprets experiences.
- **Linguistic:** Pertains to the language and communication used to express thoughts.
- **Programming:** Involves the patterns and strategies that individuals adopt to organise their behaviour and achieve desired goals.

Together, these elements form a framework to understand human behaviour and promote positive change, making NLP a potentially valuable tool in therapeutic and rehabilitation settings, particularly for individuals struggling with emotional and behavioural challenges.

Therapeutic Interventions and the Role of NLP in Enhancing Self-Esteem among Juvenile Offenders

Numerous studies have explored the importance of therapeutic and communication-based interventions in addressing low self-esteem, especially among adolescents and at-risk youth such as juvenile offenders. Cognitive Behavioural Therapy (CBT) has been widely applied in psychological rehabilitation, with reported improvements in behaviour and emotional regulation (Hodgkinson et al., 2021). However, alternative approaches such as NLP have gained attention for their emphasis on language, internal dialogue, and behavioural modelling (Leary et al., 2007). NLP differs from traditional psychotherapy by focusing on observable patterns of communication and thought, making it especially suitable for interventions in structured settings like juvenile rehabilitation centres. A lot of existing research supports the

application of NLP to address various psychological issues such as anxiety, trauma, and self-concept distortion (Syifanita & Soetikno, 2023).

NLP techniques such as reframing, anchoring, and meta-modelling offer high-speed and practical tools to shift limiting beliefs and behaviours. These tools align with the goals of rehabilitative education, which aim to promote emotional resilience, self-control, and pro-social behaviours among juvenile delinquents. Moreover, studies have identified that low self-esteem in juvenile offenders is usually linked with a history of neglect, emotional abuse, and lack of affirmation (Ruslan et al., 2020). This makes it critical to implement interventions that not only address behaviour but also restore a sense of self-worth. A module that is structured and validated, such as the one proposed in this study, may offer a sustainable approach to rehabilitation through emotional literacy and structured communication techniques.

Module Development

Sharifah Alwiah Alsagoff (1986) explains modules as distinct yet complete components that are closely interrelated. Creager and Murray (1985) stated a module as a self-contained unit of material, with a focus on achieving specific objectives. Russell (1974) asserts that modules can enhance user performance and are applicable for self-improvement, hobbies, recreational activities, and adventures. He further added that modules can be used in many scales such as individually or in small groups (4 to 6 participants), or in larger groups (up to 30 people). Russell's point is supported by Sharifah Alwiah Alsagoff (1985), who mentioned that modules can be implemented either individually or in groups settings.

Husen and Postlethwaite (1985) stated that the module's adaptability has proven effective in promoting student learning and motivation. One of the key reasons for the widespread use of modules is their ability to enhance motivation, help users achieve their life goals, and provide high-speed feedback. Ultimately, the module approach simplifies the process of motivating users. A module is essentially a unit of learning that addresses a specific topic in a systematic and organised manner. According to Sidek & Jamaluddin (2005), in the context of motivation, a module is a resource or tool that includes a series of planned activities designed to help students achieve set objectives.

Modules involve of analysing course content, dividing it into sections, and preparing individual modules for each section. A module usually includes a user manual that introduces the unit, outlines objectives, suggested a plan of action, and provides questions to help users assess their understanding. These elements guide users in their learning process and help them to reach their goals. Sharifah Alawiah Alsagoff contended that a module is a complete package composed of various interconnected parts that guide users in self-learning. Modules can be presented in a variety formats and media, and they may include various activities based on the objectives (Suppiah Nachiappan et al., 2009). Meyer (1988) convinced that lessons delivered through modules are effective because they are carefully designed with basic features that align with learning theory.

Module Reliability and Validity

Validity refers to the degree to which a test accurately measures what it should measure (Anastasi, 1990). Abd Rashid (1980) defined validity as the extent to which a test measures what it aims to measure. To ensure that measuring instruments meet the necessary standards,

all modules should go through a validation process. A good module should also possess high reliability. Mohamad (2002) explained that reliability in testing is associated with the ability to produce consistent and accurate measurements, information, data, or values related to the subject being measured. Tuckman (1975) emphasised that reliability test refers to the consistency of results when the same test is applied repeatedly to the same subject. In this study, the reliability of the module is important to ensure that it can be effectively used by its intended users.

Methodology

Research Purpose

The primary objective of this study is to develop NLP module to foster self-esteem among juvenile offenders in the rehabilitation centre. Additionally, the study seeks to assess the module's validity and reliability. Ensuring that research instruments are reliable and valid is crucial, as it guarantees that the tools accurately measure the constructs and produce consistent results. This rigour in instrument evaluation is importance to the credibility and applicability of the research findings (Karnia, 2024).

Research Design

This study employs two distinct research designs. First, a survey design was utilised to evaluate the content validity of the module. A questionnaire was administered to a panel of experts to assess the relevance and clarity of the module components. According to Sidek and Mohd Noah (2005), survey designs involving expert panels are usually used to provide an accurate and systematic description of characteristics and facts related to the research field.

The second design used is qualitative in nature, conducted through a pilot study involving a selected juvenile offender. Qualitative data was collected through interviews related to the objectives of the module, aiming to explore participants' perceptions and responses to the intervention.

Research Sampling

This research study used purposive sampling, a non-probability sampling technique whereby the participants are subject to specific characteristics, such as their knowledge, experience, or position one holds (Nyimbili & Nyimbili, 2024). The careful selection process is crucial to ensure the validity and reliability of the answers provided by the informants support the research objectives. In this context, to assess the reliability of the module, one juvenile offender from a female juvenile rehabilitation centre was selected as the subject for the pilot test. For content validation, five experts were invited to serve as the evaluation panel. These experts were selected based on their backgrounds and relevance to the field. Three of them are experienced researchers in module development and publication, while the other two are the NLP specialists, who are actively engaged in the education sector. Research suggests that a panel of three to nine experts is sufficient for validating a module (Jamaluddin Ahmad, 2002; 2008; Mohammad Aziz Shah, 2018). The selection of these individuals aligns with the criteria outlined by Russell (1974), who defined an expert as someone with significant knowledge and experience in the relevant domain.

Development of An NLP Module As A Tool To Foster Self-Esteem Among Juvenile Offenders In Juvenile Rehabilitation

The development of this module follows the construction model by Rusell and Jamaluddin Ahmad, as their approach consists of well-detailed stages. The construction process of the module based on their model is outlined below.

Defining the Module Objectives

The first step in constructing the module was to clearly define its objectives. The researcher identified three primary objectives, each aligned with one of the key components of self-esteem: self-mastery, self-efficacy, and self-liking/competence. The main objectives are as follows:

1. To assist clients in problem-solving and decision-making without being influenced by emotions (Self-mastery).
2. To help clients build confidence and recognise their abilities and potential (Self-efficacy).
3. To encourage clients to love and appreciate themselves and others, while becoming aware of their strengths and moving toward their goals and success (Self-liking and competence).

Developing the Question/Scale Item

The next step involved developing the question or item scales. The researcher utilised existing scales to measure self-mastery, self-efficacy, and self-liking/competence. The following instruments were used:

- To assess self-mastery: Pearlin's Mastery Scale
- To assess self-efficacy: General Self-Efficacy Scale
- To assess self-liking and competence: Self-Liking Competency Scale

Analysing and Defining Student Achievement

In this step, the researchers administered the three self-esteem instruments to a group of juvenile offenders to assess their self-esteem levels. Afterwards, the researchers identified one juvenile offender with the lowest self-esteem score and conducted an interview with them to validate the instrument's effectiveness. The purpose of the interview was to evaluate if the instruments were understandable and usable.

Organising the Module Based on Steps

This stage involves organising the data and information collected from the interviews with five experts, which helped determine which NLP techniques would be most suitable for inclusion in the module. The module was then divided into three parts: one to develop self-mastery, to build self-efficacy, and to enhance self-liking and competence. Each part was further divided into two phases: one to foster and one to strengthen each component.

Pilot Study and Reliability Process

A pilot test was conducted with a single subject, where the entire module was run. The reliability of the module was evaluated based on the subject's feedback regarding the learning objectives. A reliability questionnaire was created by the researcher, drawing on the methods outlined by Rusell (1974) and Sidek & Jamaluddin (2005). The pilot study aimed to determine whether the module was understandable and could be followed by juvenile offenders. The

reliability of the module was checked through cross-checking and repetition of the interview method (test and retest reliability).

Module Validity Process

The module was validated by five external experts through validity survey and assessment. Experts were asked to rate the items on a scale from 1 to 5, ranging from very unsatisfactory to very satisfactory. The validity coefficient was calculated by dividing the total expert score (x) by the total actual score (y) and multiplying by 100. If the validity coefficient was 0.70 or higher (70% or above), the module was considered valid. The results of this process were presented in percentage form (Sidek Noah & Jamaluddin Ahmad, 2005; Jamaluddin Ahmad, 2002; Tuckman & Waheed, 1981).

$$\frac{\text{Total Expert Score (x)}}{\text{Total Maximum Score (y)}} \times 100 = \text{Content Validity Level}$$

Figure 1: Content Validity Formula By Sidek & Jamaludin (2005)

All instruments used in this research including interview questions, observation criteria, and documents were subjected to validation by a panel of experts (Yoder et al., 2018). This approach aligns with current best practices for establishing content validity, which involves expert evaluation of the instrument's content and format (Polit & Beck, 2006). Content validity can be assessed by having multiple experts review the instruments to ensure they accurately represent the intended constructs and are suitable for the target population (Sangoseni et al., 2013). The number of experts involved should be sufficient to provide reliable judgments, with some guidelines suggesting a minimum of three evaluators to ensure a comprehensive assessment (Lynn, 1986).

In this study, a panel of five experts with diverse expertise was assembled to evaluate the content validity of the research instruments. The panels consisted of three university lecturers who specialised in counselling and therapy, one expert in Neuro-Linguistic Programming (NLP) therapy, and one Malay language teachers. The instruments, including the self-esteem enhancement module, interview protocols, and observation protocols, were provided in the Malay language to ensure clarity and comprehension, as all participants were proficient in Malay (Polit & Beck, 2006).

The content validity assessment focused on several aspects: relevance, clarity, and comprehensiveness. The relevance of the items was determined by assessing whether they accurately represent the construct of self-esteem and were appropriate for juvenile offenders in rehabilitation settings (Yoder et al., 2018). The clarity of the instruments was checked to ensure that the language used was clear and understandable for the target population (Sangoseni et al., 2013). Finally, comprehensiveness was verified by confirming that the instruments covered all necessary aspects of self-esteem enhancement without omitting critical components (Lynn, 1986).

Feedback from the expert panel was used to refine the instruments, making necessary adjustments to enhance their validity. This iterative process is crucial in developing reliable and effective tools for research and intervention (Polit & Beck, 2006).

Table 1: Criteria of The Expert Panel

Expert Panel	Expert Panel Selection Criteria
A. University lecturer	• A professor in the counselling field • Actively involved in professional bodies at the national and international levels. • Programme evaluator in the field of Psychology and Counselling. Actively involved in research and publication with the local and international universities as well as government departments.
B. University lecturer	• Actively involved in the research field • A local university lecturer with more than 10 years of working experience • An expert in the qualitative research
C. University lecturer	• Actively involved in the NLP module and therapy
D. NLP expert	• Actively involved in the NLP module and therapy
E. Malay language teacher	• A Malay language teacher with more than 30 years of working experience

The expert panels A, B, C, and D were consulted to improve the validity of research instrument of the interview and observation protocols, while expert panels E were assigned to ensure the accuracy of language use. At this stage, the researcher must also ensure that the research questions were comprehensible by the informants, hence all research instruments were sent to the expert panels for feedback on the suitability of each item. The researcher used two rating scales to assess content validity: (1) suitable, and (2) not suitable. Overall, the expert panels agreed with the items used in the interview and observation protocols, though some language errors were identified and subsequently corrected. The expert panels also suggested for some items to be rephrased into shorter questions. The amendments were made based on the expert panels' feedback and suggestions (Gupta & Tewari, 2021).

Findings And Discussions

Findings

Reliability of The Module

To assess reliability, in-depth interviews were conducted with a pilot subject across two different time points, using the same interview protocol after each therapy session.

1. Rapport-Building and Information-Gathering Session

The subject reported that the therapist effectively built rapport and earned her trust respectfully. This response remained consistent in both interview sessions, indicating that the rapport-building content of the module was reliable. Similarly, the subject confirmed that the therapist gathered the necessary information while respecting her emotions. She acknowledged recognizing her problems and expressed a positive view of the therapy experience, with her responses showing consistency across both interviews

2. Therapy Intervention Sessions (Sessions 3–9)

The subject provided feedback on four areas:

- o Understanding of self-mastery, self-efficacy, and self-liking
- o Ability to follow the module
- o Usefulness of the therapy techniques
- o Gaining clarity about her future

In both interviews, the subject was able to explain the psychological concepts in her own words, follow the module's flow, and express that the therapy sessions helped her communicate better and gain clarity. These responses confirmed the reliability of the module in producing consistent therapeutic outcomes.

3. Final Sessions: Recall and Application of Techniques

The subject successfully recalled the therapeutic techniques, even if not by name, and confirmed that she was able to apply them when confronted with recurring issues. These findings indicate that the techniques had lasting impacts and could maintain behavioural changes.

Validity of The Module

To assess validity, the study employed expert reviews using a scoring method based on five key aspects of the module. Table 1 below presents the scores from five experts:

Table 2: Expert Score for the Validity of the Content of the Self-Esteem Module (NLP Therapy for Juvenile Offenders)

No.	Aspect	Expert A	Expert B	Expert C	Expert D	Expert E
1	The content of this module meets its target population.	5	5	5	4	4
2	The contents of this module can be perfectly implemented.	5	5	4	4	5
3	The contents of this module correspond to the time allocated.	5	5	5	4	4
4	The content of this module can enhance self-esteem among juvenile school offenders.	5	5	4	5	5
5	The content of this module can change the attitude of juvenile school students for the better.	5	5	5	5	4
Total		25	25	23	22	22

The cumulative score was 117 out of 125, which translates to 93% validity. This exceeds the content validity threshold of 0.70 as recommended by Polit and Beck (2006) and Polit et al. (2007).

Discussion

The findings from both the reliability and validity assessments highlight the strength and effectiveness of the NLP-based communication module in the rehabilitation context for juvenile offenders.

Reliability Discussion

The consistency in the subject's responses across two time points suggests strong internal reliability of the module's structure and delivery. The effectiveness of rapport-building and information-gathering sessions affirms the foundation of therapeutic engagement. Furthermore, the subject's ability to articulate key psychological concepts (self-mastery, self-efficacy, and self-liking) and apply these therapy techniques in real-life situations, indicates that the content is not only understandable but also impactful. These findings align with Crawford et al. (2020), who emphasize the importance of technique retention in therapy for long-term behavioural change.

Validity Discussion

The expert panel's high scores further validate the relevance and appropriateness of the module's content for the intended target group. With an average score of 93%, the module demonstrated strong alignment with therapeutic goals such as enhancing self-esteem and facilitating behavioural transformation. Importantly, experts recognized the module's potential for integration into Malaysia's rehabilitation school system, highlighting its broader applicability. This findings align with Creswell and Poth's (2018) emphasis on using triangulated method such as expert panels and participant feedback to strengthen research trustworthiness.

The constructive feedback offered by the experts has been incorporated into the revised module, ensuring that it continues to evolve to meet both professional standards and the needs of its target audience.

Conclusion

This study has demonstrated that the NLP-based communication module for self-esteem enhancement among juvenile offenders in rehabilitation centre possesses high validity and reliability. The validation process, grounded in established frameworks by Russell (1974) and Sidek and Jamaluddin (2005), confirms the module's strong content structure, while the reliability analysis supports the consistency and effectiveness of its nine sub-modules in achieving the intended outcomes.

The findings provide meaningful contribution to the underexplored area of NLP module development and evaluation, especially within therapeutic and rehabilitative field. Given its promising results, the module is recommended for broader application in other juvenile rehabilitation centres and educational settings, especially for individuals who struggling with low self-esteem.

Nonetheless, the study acknowledges its limitations, particularly in the scope of reliability assessment. Future research should incorporate multi-stage reliability evaluations to provide deeper insight into the module's performance across different implementation stages.

In a nutshell, this NLP module holds substantial potential to support positive behavioural and moral change among adolescents, offering valuable benefits to practitioners, educators, and researchers in the fields of counselling and rehabilitation.

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