

Psychometric Construction and Validation of National Literacy Self-Control Instruments from the Perspective of Religious Education

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INFORMASI ARTIKEL	ABSTRAK
Article History: Received: 12 December 2025 Revised: 25 December 2025 Accepted: 09 January 2026 Published: 31 January 2026 Kata Kunci: Kontrol Diri; Literasi Kebangsaan; Pendidikan Agama; Instrument Pengukuran; Pengembangan 4D	Penelitian ini bertujuan untuk mengembangkan instrumen pengukuran <i>self-control</i> yang diintegrasikan dengan literasi kebangsaan dalam perspektif Pendidikan Agama. Pengendalian diri dan literasi kebangsaan merupakan dua komponen penting dalam pembentukan karakter peserta didik, terutama di tengah tantangan era digital yang ditandai oleh derasnya informasi, meningkatnya intoleransi, serta melemahnya kesadaran kebangsaan. Pendidikan Agama memiliki peran strategis dalam membangun fondasi nilai moral, spiritual, dan sosial yang mampu memperkuat identitas serta ketahanan ideologi generasi muda. Penelitian ini menggunakan model pengembangan 4D (Define, Design, Develop, Disseminate). Tahap <i>Define</i> dilakukan melalui analisis kebutuhan serta kajian literatur terkait <i>self-control</i>, literasi kebangsaan, dan nilai-nilai Pendidikan Agama. Tahap <i>Design</i> meliputi penyusunan indikator, kisi-kisi, serta butir instrumen awal. Tahap <i>Develop</i> mencakup validasi ahli, uji coba terbatas, serta analisis validitas dan reliabilitas menggunakan teknik statistik untuk memastikan kesahihan dan konsistensi instrumen. Tahap <i>Disseminate</i> dilakukan melalui penyebaran hasil penelitian kepada lembaga pendidikan dan forum akademik. Penelitian ini menghasilkan instrumen <i>self-control</i> literasi kebangsaan berbasis perspektif Pendidikan Agama yang telah terbukti valid, reliabel, dan relevan untuk mengukur tingkat <i>self-control</i> peserta didik dalam kerangka literasi kebangsaan. Hasil uji validitas isi menunjukkan nilai Aiken's V sebesar 0,82, yang mengindikasikan tingkat kesepakatan ahli dalam kategori tinggi. Uji validitas konstruk melalui analisis faktor menunjukkan faktor loading berkisar antara 0,58–0,83, dengan struktur konstruk yang konsisten terhadap model teoritik yang dirumuskan. Sementara itu, hasil uji reliabilitas menunjukkan koefisien Cronbach's Alpha sebesar 0,87, yang menandakan tingkat konsistensi internal yang sangat baik.
Keywords: Self-Control; National literacy; Religious Education; Measurement Instrument; 4D Development Mode	ABSTRACT This study aims to develop a measurement instrument for <i>self-control</i> integrated with national literacy within the perspective of religious education. Self-control and national literacy are essential components in shaping students' character, particularly in the digital era, which is marked by rapid information flow, rising intolerance, and weakening national awareness. Religious education plays a strategic role in building moral, spiritual, and social foundations that strengthen the identity and ideological resilience of young generations. The research adopts the 4D development model (Define, Design, Develop, Disseminate). The <i>Define</i> stage includes needs analysis and a comprehensive literature review on <i>self-control</i>, national literacy, and values in religious education. The <i>Design</i> stage involves the formulation of indicators, blueprints, and initial instrument items. The <i>Develop</i> stage consists of expert validation, limited field trials, as well as validity and reliability testing using appropriate statistical techniques to ensure the accuracy and consistency of the instrument. The final stage, <i>Disseminate</i>, focuses on distributing the validated instrument to educational institutions and academic forums. This study produced a <i>self-control</i> instrument for national literacy grounded in the perspective of Religious Education, which has been empirically demonstrated to be valid, reliable, and relevant for measuring students' levels of <i>self-control</i> within the framework of national literacy. The results of the content validity test yielded an Aiken's V coefficient of 0.82, indicating a high level of agreement among experts. Construct validity testing through factor analysis revealed factor loadings ranging from 0.58 to 0.83, with a construct structure consistent with the proposed theoretical model.

Meanwhile, the reliability analysis showed a Cronbach's Alpha coefficient of 0.87, indicating a very high level of internal consistency.

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1. Introduction

Self-control is a psychological aspect that plays an important role in regulating individual behavior (Setiawan, 2023; Marsela & Supriatna, 2019; Angelina & Matulesky, 2013). This ability reflects the extent to which a person can control emotions, desires, and urges in certain situations. In the context of a multicultural society such as Indonesia, the development of self-control is crucial for maintaining social harmony and strengthening a sense of national identity (Istianah et al., 2023; Raharjo, 2010). Individuals with high levels of self-control tend to think more clearly before acting, avoid impulsive decisions, and consider the social impact of each action. Thus, self-control contributes not only to personal well-being but also to social stability more broadly.

A number of previous studies have shown that self-control is positively associated with academic achievement, prosocial behavior, and low involvement in deviant behavior (Tangney et al., 2004; King & Gaerlan, 2014). Studies in the field of educational psychology have found that students with good self-control have higher learning discipline and more optimal academic achievement (King & Gaerlan, 2014). Studies in the field of educational psychology have found that students with good self-control have higher learning discipline and more optimal academic achievement (Baumeister & Vohs, 2007). Nevertheless, most of these studies still position self-control as an individual psychological construct measured through a general or personality-based behavioral scale. Comparatively, studies that integrate self-control with the framework of national literacy, especially from the perspective of religious education, are still very limited. Existing instruments generally have not explicitly included the dimensions of national commitment, tolerance, religious moderation, and civic responsibility in the measurement indicators.

National literacy in this study is not only understood normatively as an attitude of loving the homeland, but is conceptually constructed based on the theory of civic literacy and national identity. In the perspective of civic literacy, national literacy refers to a set of knowledge, skills, and civic dispositions that enable individuals to participate responsibly in the life of the nation and state (Wahyudi et al., 2023; Saddam et al., 2025). Meanwhile, in the framework of national identity, national literacy is related to the collective awareness of history, values, symbols, and shared commitment as part of a nation (Kartika & Mahendra, 2023; Kamal & Ashif, 2023).

Operationally, national literacy in this study is defined as the ability of students, which is reflected in three main dimensions: (1) understanding of national values and diversity, (2) tolerance and commitment to unity, and (3) responsible social participation skills in multicultural life. These three dimensions are measured through concrete behavioral indicators that are relevant to the educational context.

Religious education has a strategic position in strengthening national literacy because it substantively contains universal moral values such as justice, compassion, respect for differences, and social responsibility. Through the process of internalizing values, religious education not only forms individual piety, but also social and national consciousness (Idris, 2017; Mulyono, 2021; Nurfalalah, 2018).

Conceptually, the relationship between self-control and national literacy can be explained through the theory of self-regulation. Self-control serves as a psychological mechanism that allows individuals to control emotional impulses, prejudices, and impulsive responses when confronted with social and cultural differences. Individuals with a high level of self-control are better able to withstand negative reactions, consider social norms, and act according to the values of the nationality adhered to. Thus, self-control is a psychological prerequisite for the development of national literacy,

because the ability to self-regulate mediates the transformation of values into concrete civic behavior (Baumeister & Vohs, 2007; Tangney et al., 2004).

The conceptual model of this study places self-control as an internal psychological variable that affects the strengthening of national literacy through the process of internalizing values in religious education. This relationship is functional and predictive, where increased self-control is projected to contribute to improving the quality of students' national literacy (Tangney et al., 2018; Wahyudi et al., 2023).

Previous research has shown that individuals with high levels of self-control tend to deal with social conflicts more reflectively, manage negative emotions, and show tolerance for differences (Tangney et al., 2004; King & Gaerlan, 2014). In contrast, low self-control is often associated with increased aggressive behavior, impulsivity, and a tendency to react without considering social consequences (Baumeister & Vohs, 2007; Baumeister et al., 2007). However, these findings are generally described within the framework of self-regulation theory, which posits self-control as a mechanism that inhibits impulsive responses to emotional stimuli.

Theoretically, the relationship between self-control and intolerance can be explained through cognitive control mechanisms and emotion regulation. Individuals with high self-control have better inhibitory control capacity, so they are able to resist the urge to react quickly to differences of opinion, ideological provocations, or information that triggers anger. They also tend to use more deliberative than reactive cognitive processing. In contrast, individuals with low self-control are more susceptible to confirmation bias, attitude polarization, as well as emotional reactions that reinforce intolerance. In the context of digital media, weak self-control increases the likelihood of a person spreading hate speech or being influenced by radical narratives without critical verification (Saddam et al., 2025; Kartika & Mahendra, 2023).

Although various studies have shown a link between self-control and social behavior, most of them have focused on the context of juvenile delinquency, aggressiveness, or adherence to general rules. Research that specifically links self-control to national literacy, especially in the context of religious education and multicultural societies, is still relatively limited. In addition, the instruments used in previous studies generally measured self-control as a general construct (general self-control scale) without integrating the dimensions of national values, tolerance, and religious moderation.

These limitations indicate the need for new instruments that conceptually link self-control with national literacy in one integrated framework. The instruments developed in this study not only measure the ability to self-regulate in general, but also operationalize them in the context of national attitudes, difference management, and social responsibility. Thus, the development of this instrument aims to fill the conceptual and methodological gaps in the literature, while providing a more contextual and relevant measurement tool for character education in Indonesia (Lickona, 1991; Raharjo, 2010; Rosmiati & Syahid, 2022).

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Based on this urgency, this study aims to develop and validate a self-control measurement instrument that conceptually integrates three main constructs, namely self-control, national literacy, and the values of Religious Education in one integrated theoretical framework. The novelty of this research lies in the integrative efforts that have not been widely carried out in previous studies, which generally separate self-control measurements as a general psychological construct from the dimensions of national literacy and the internalization of religious values.

In addition, this study specifically places the context of Religious Education as a normative and pedagogical foundation in constructing instrument indicators, so that self-control measurement is not generic, but is tied to the orientation of national character formation and religious moderation (Hanafie et al., 2024; Patih et al., 2023; Ramadhani & Setyoningrum, 2023). In addition, this study specifically places Religious Education as a normative and pedagogical foundation in constructing instrument indicators, so that self-control measurement is not generic but is tied to the orientation of national character formation and religious moderation.

From a methodological perspective, this study offers novelty through the application of a comprehensive psychometric development and testing model, including content validity, construct validity based on factor analysis, and internal reliability testing. This approach ensures that the instrument not only has a strong conceptual foundation, but also meets empirical standards as a valid and reliable measuring tool.

2. Research Methods

This development research uses a pragmatic-constructivist paradigm within the framework of research and development (R&D), which integrates sociological-educational and psychological approaches in a complementary manner. This paradigm views the self-control construct of national literacy as a reality formed through the interaction of social values, educational processes, and individual psychological mechanisms, thus requiring multidimensional analysis in its development.

The sociological-educational approach in this study is operationalized through the analysis of the social context of nationality and the practice of Religious Education as a space for internalizing values. Methodologically, this approach is realized through literature studies on civic literacy and character education, analysis of the Religious Education curriculum, and needs assessment through interviews and focus group discussions (FGD) with teachers and education practitioners. The data are used to formulate national literacy indicators that are contextual and relevant to Indonesia's social reality.

Meanwhile, the psychological approach is operationalized through the construction and testing of self-control instruments based on self-regulation theory. This approach is manifested in the preparation of items based on behavioral indicators, content validity tests by experts, and construct validity testing using factor analysis and internal reliability tests. Thus, the psychological aspect is not only conceptually understood, but empirically tested through systematic psychometric procedures.

The integration of the two approaches allows the development of instruments that are not only socially and educationally relevant, but also valid and psychologically reliable. In other words, the sociological-educational approach contributes to the formulation of the content and context of values, while the psychological approach ensures the accuracy of measurements and the quality of the instrument empirically.

The problem-solving steps in this study use the Research and Development (R&D) approach with a 4D (Define, Design, Develop, Disseminate) model. The selection of the 4D model is based on the methodological consideration that this model is more systematic and focused on the development of educational instrument products than other R&D models that tend to be broader and more complex. The 4D model allows the development process to be carried out in stages, from the analysis of conceptual needs to the validation and dissemination stage, so that it is in accordance with the research objectives oriented towards the construction and testing of psychometric instruments. In addition, the explicit 4D structure at the define and design stages provides a strong space for the formulation of theoretical constructs before entering the empirical test stage, which is a key requirement in the development of measuring instruments.

In the Define stage, an analysis of conceptual and contextual needs related to the integration of self-control, national literacy, and the value of Religious Education was carried out. The Design stage focuses on formulating indicators, preparing instrument grids, and designing items based on the determined theoretical framework. The Develop stage includes content validity tests, construct validity tests through factor analysis, and reliability tests to ensure the psychometric quality of the instruments. The Disseminate stage is carried out through limited implementation tests and publication of research results.

The Focus Group Discussion (FGD) method is methodologically placed at the Define and Design stages as an exploration technique as well as initial construct validation. In this context, the FGD serves to obtain a consensus of experts and education practitioners regarding the relevance of indicators, clarity of construct dimensions, and suitability of instruments with social and educational contexts. Thus, FGD is not simply a discussion forum, but is part of the conceptual validation process before the instrument is quantitatively tested. The results of the FGD were used to revise the operational definition, clarify the limitations of the construct, and ensure the linkage between the dimensions of self-control and national literacy from the perspective of Religious Education.

Through this rationalization, the use of 4D models and FGD becomes methodologically integrated within the R&D framework, so that the development of instruments has a strong conceptual basis while meeting empirical testing standards. Troubleshooting Steps:

Table 1. Research Troubleshooting Steps

Stages	Solving Strategy	Scientific Approach
Define	Literature study, analysis of teacher and student needs	Initial theoretical & empirical approach
Design	Compiling constructs, indicators, instrument grids	Psychometrics, personality & value constructs
Develop	Expert validation, testing, validity & reliability analysis	Inferential statistics (EFA/CFA), consistency test
Disseminate	Limited & extensive implementation, publications, advocacy	Collaborative and applicative approach

The full description of the method used is as follows: FGD activities involve two parties, namely Junior High School and MTsN. The subjects involved are: 1 Head of MTsN, 2 Moral Faith Teachers, 1 Counseling Guidance Teacher. State Junior High School: 1 Islamic Religious and Ethics Education Teacher, 1 PKN Teacher, and 1 Christian Religion Teacher.

Description of FGD-1 (Theoretical Approach)

Define Stage – 4D Model

FGD-1 was carried out at the Define stage as the first step in the development of national literacy self-control instruments in the perspective of Religious Education. The main focus of FGD-1 is a theoretical approach, which is to examine, synthesize, and map key concepts from a variety of relevant scientific sources.

This focused group discussion involved experts in Religious Education, educational psychology, educational evaluation, and teacher practitioners. Through literature review and scientific dialogue, the research team explored:

1. Self-control theories in psychology (Baumeister, Tangney, Moffitt, etc.)
2. The concept of national literacy (civic literacy, moral citizenship, national character).

3. Values of self-control in Religious Education (morals, *mujahadah an-nafs*, social responsibility).
4. Personality framework and moral-religious values in character education.

The results of the theoretical synthesis are then mapped into seven main aspects that represent the integration between self-control, national literacy, and religious values.

Theoretical Description of the Seven Aspects

1. Emotional Control

This aspect is rooted in the theory of emotional self-regulation, which emphasizes the ability of individuals to recognize, manage, and express emotions appropriately. From the perspective of Religious Education, emotional control aligns with the concept of patience, sincerity, and restraint of anger as a form of spiritual and moral maturity. In the context of national literacy, emotional control is needed so that students are able to be tolerant, not reactive to differences, and maintain social harmony.

2. Impulsive Behavior Control

Self-control theory explains that impulsive behavior arises due to a weak inhibitory control system. Theoretically, this aspect reflects the ability to resist negative impulses, such as speaking rudely, spreading hoaxes, or violating norms. From the perspective of Religious Education, this is in line with the concept of *mujahadah an-nafs*, which is the struggle against the impulse of lust for the sake of good and benefit.

3. Consistency in Principle

This aspect is based on the theory of moral consistency and value internalization, which is the conformity between values, attitudes, and behaviors. In national literacy, consistency in principle means upholding the values of Pancasila, diversity, and justice in various situations. In Religious Education, this consistency reflects *istiqamah*, which is steadfastness in carrying out moral and spiritual values.

4. Focus Settings

The self-regulated learning theory explains that individuals who have self-control are able to concentrate, manage distractions, and set goals. In the context of nationality, focus settings are important so that students do not get caught up in misleading information and can sort out content that builds character. In a religious perspective, focus is associated with righteous intentions and awareness of the purpose of life.

5. Wise Decision Making

This aspect is rooted in the theory of moral reasoning and decision making, which is the ability to weigh consequences before acting. National literacy requires individuals to be able to make decisions that favor the common interest, not just personal interests. In Religious Education, wise decisions are in line with the principle of wisdom, which is choosing what is right and useful.

6. Ability to Delay Satisfaction

The delay theory of gratification (Mischel) forms the basis of this aspect, which suggests that individuals who are able to delay momentary pleasure tend to have stronger self-control. In the context of nationality, this ability helps students prioritize social interests over personal interests. From a religious perspective, postponing gratification is seen as a form of self-control for a nobler purpose.

7. Tanggung Jawab Sosial

This aspect is rooted in the theory of social responsibility and prosocial behavior, which is the awareness of individuals to act for the common good. National literacy emphasizes the role of citizens who are active, caring, and contribute to society. In Religious Education, social responsibility is the embodiment of the values of *ukhuwah*, trust, and concern for others.

FGD-1 at the Define stage, through a theoretical approach, succeeded in mapping the seven main aspects of national literacy self-control from the perspective of Religious Education. These seven aspects are the result of a synthesis between psychological theory, character education, civic literacy, and religious values, which then become the conceptual basis for preparing constructs, indicators, and instrument grids at the next stage (Design).

Description of FGD-2 (Theoretical–Design Approach)

Design Stage – 4D Model

FGD-2 is carried out at the Design stage with a focus on transforming the theoretical concepts of FGD-1 into operational constructs that can be measured psychometrically. If FGD-1 emphasizes what is measured, then FGD-2 emphasizes how to measure it scientifically, systematically, and authentically.

The approach used in FGD-2 is theoretical-psychometric, which integrates:

- a. Personality theory and self-regulation,
- b. Moral-religious values of Religious Education, and
- c. Principles of development of psychological instruments (construct validity, indicator measurability, and behavioral clarity).

Through the discussion of experts (educational psychology, evaluation, religious education, and teacher practitioners), each aspect that has been formulated is then:

- d. operationally defined,
- e. described as a behavioral indicator,
- f. and mapped into instrument grids.

Construct Design Process in FGD-2

1. Determination of Operational Definition

Each aspect is derived from a conceptual definition to an operational definition, which is a real behavior that can be observed in students in the context of learning, social interaction, and national life.

2. Decline in Theoretical Indicators

The indicators are formulated based on:

- a. self-control theory,
- b. the concept of national literacy,
- c. and moral values in Religious Education. Indicators should reflect cognitive, affective, and behavioral dimensions.

3. Instrument Grid Arrangement

The grid serves as a relationship map between:

- a. Aspects → indicators → statement items.
- b. Each aspect is given a balanced proportion of items to be psychometrically representative.

Seven-Aspect Theoretical Design

1. Emotional Control

Operational definition: The ability of learners to manage negative feelings and respond calmly to social situations. **Design indicators:**

- a. Recognize one's emotions,
- b. Resisting angry reactions,
- c. Demonstrate patience and tolerance.

2. Impulsive Behavior Control

Operational definition: the ability to resist impulses to act without consideration. **Design indicators:**

- a. Not acting rashly,
- b. Able to delay responses,
- c. Avoid norm-breaking behavior.

3. Consistency in Principle

Operational definition: the conformity between values, attitudes, and actions in different situations. **Design indicators:**

- a. Holding moral values,
- b. Acting in accordance with principles,
- c. Not easily affected by a negative environment.

4. Focus Settings

Operational definition: the ability to focus on learning and social goals. **Design indicators:**

- a. Managing distractions,
- b. Completing tasks consistently,
- c. Sorting out useful information.

5. Wise Decision Making

Operational definition: the ability to consider impacts before acting. **Design indicators:**

- a. Weighing the risks and benefits,
- b. Choosing a fair solution,
- c. Prioritizing the common interest.

6. Ability to Delay Satisfaction

Operational definition: the ability to sacrifice momentary pleasure for a long-term goal. **Indikator desain:**

- a. Delaying personal desires,
- b. Prioritizing responsibility,
- c. Be disciplined.

7. Social Responsibility

Operational definition: awareness to behave for the good of society. **Design indicators:**

- a. Caring for others,
- b. Maintaining social harmony,
- c. Actively contribute.

FGD-2 Conclusion

FGD-2 succeeded in transforming the conceptual results of FGD-1 into a theoretical-operational construct that is ready to be empirically tested. The seven aspects are no longer just abstract concepts, but have been arranged into a systematic psychometric structure, becoming a solid basis for the Develop stage in testing the validity and reliability of the instrument.

Focus of FGD-3 Activities

1. Expert Validation (Content Validity)

Each statement item is evaluated based on:

- a. compatibility with indicators,
- b. editorial clarity,
- c. relevance to the context of the students,
- d. Alignment with religious and national values.

Ambiguous, overlapping, or unrepresentative items are revised or eliminated.

2. Readability and Clarity of Meaning Test

Through discussions, experts and practitioners assess:

- a. easy-to-understand language,
- b. does not create bias,
- c. according to the level of development of the respondent.

3. Grid Enhancements

The grid is fixed by ensuring that the proportion of grains on each aspect remains balanced and reflects the complexity of the construct.

Empirical Reinforcement of the Seven Aspects

In FGD-3, the seven aspects were emphasized through alignment between theory, indicators, and preliminary data from limited trials.

1. Emotional Control

Items are focused on real responses to conflicts and differences.

2. Impulsive Behavior Control

Grains are selected to measure the ability to withstand spontaneous reactions.

3. Consistency in Principle

Grains are filtered to truly reflect the suitability of values and actions.

4. Focus Settings

Items are sharpened to capture attention and information management skills.

5. Wise Decision Making

Items are directed at the assessment of social and moral consequences.

6. Ability to Delay Satisfaction

Item assessing the tendency to prioritize long-term goals.

7. Social Responsibility

Items reflect social care and participation.

FGD-3 Conclusion

FGD-3 produces a test version of the instrument that has been substantially validated and ready for statistical testing at the next stage. The seven aspects now have valid, clear, and relevant items, thus strengthening the empirical basis in the development of national literacy self-control instruments in the perspective of Religious Education.

Tahap 4: Disseminate

Collaborative–Applicative Approach

The Disseminate stage is the final phase in the 4D R&D model which aims to implement, test the final feasibility, and disseminate the national literacy self-control instrument in the perspective of Religious Education to a wider range of users. At this stage, the instruments that have gone through the processes of theoretical validation (FGD-1), construct design (FGD-2), and empirical and psychometric reinforcement (FGD-3), are tested in a real context in schools.

Trial Location and Subject

The instruments were tested on two educational units with different characteristics, namely:

1. SMP Negeri 34 Makassar: 82 students
2. MTs Negeri 2 Makassar: 71 students

The total number of respondents was 153 students, representing the context of public schools and madrasas. The selection of these two types of schools is intended to test the application across institutional contexts, both in the general and religious-based education systems.

Implementation Process

1. Instrument Socialization

Teachers and students get an explanation of the purpose of filling out the questionnaire, the principle of confidentiality, and the importance of honesty in answering.

2. Measurement Implementation

Instruments are distributed to students in a controlled classroom setting. Filling is carried out independently with the assistance of teachers and researchers.

3. Data Processing and Analysis

The data from filling results were analyzed using statistical techniques to assess the psychometric quality of the instruments, including:

- a. Construct validity index
- b. Internal reliability index

Dissemination Test Results

Based on the results of the analysis of data from the two schools, it was obtained:

Psychometric Indicators	Value	Criteria
Validity Index	0,72	Good / Valid
Reliability Index	0,67	Sufficient– Acceptable

The validity value of 0.72 shows that the instrument has strong measurability in representing the self-control construct of national literacy. Meanwhile, a reliability of 0.67 indicates that the instrument has sufficient internal consistency to be used in the context of research and early mapping of student character.

Meaning of Disseminate Stage

This stage confirms that the:

1. Suitable for limited and wide use,
2. Relevant across school contexts,
3. Ready to be disseminated through:
 - scientific publications,
 - Teacher Training,

- and implementation of character strengthening programs based on Religious Education and national literacy.

Conclusion

The Disseminate stage proves that the instrument of self-control of national literacy in the perspective of Religious Education is not only valid theoretically and empirically, but also applicative and contextual. With a validity result of 0.72 and a reliability of 0.67, this instrument can be a reliable measuring tool for mapping and developing students' character within the framework of nationality and religious values.

3. Results and Discussion

Respondent Description

This study involved 153 students from two schools in Makassar City:

Table 1. Number of Instrument Trial Respondents

School	Number of Students
SMP Negeri 34 Makassar	82
MTsN 2 Makassar	71
Total	153

The instrument was tested on two different types of schools (junior high school and MTs) to ensure a variation in the religious and national education contexts.

3.1. Instrument Validity Test Results

The instruments developed in this study have gone through construct validity testing using the Exploratory Factor Analysis (EFA) approach. Factor analysis was carried out to test the suitability of the empirical structure of the instrument with the seven-aspect theoretical model that had been formulated at the previous stage. Before factor analysis is performed, data feasibility tests are performed through the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity to ensure that the correlation matrix meets the assumptions of factor analysis.

Factor extraction was carried out using the Principal Axis Factoring (PAF) method with Varimax rotation, in order to obtain a clearer and theoretically interpreted factor structure. The results of the analysis showed that the construct validity index was at a value of 0.72, which was included in the good category (≥ 0.70). This value shows that the structure of the factors formed has an adequate level of conformity with the conceptually formulated construct of national literacy self-control. The loading factor of each item is above the minimum limit of 0.50, so that the item is declared representative in explaining the dimensions of its construct.

The reliability test was performed using Cronbach's Alpha coefficient (α) to measure the internal consistency between grains in a single construct. Mathematically, Cronbach's Alpha is formulated as follows:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum \sigma_i^2}{\sigma_t^2} \right)$$

where k = is the number of items, σ_i^2 , is the variance of each item, and σ^2 is the total variance of the score. The test results showed a reliability coefficient of 0.72, which is in the category of sufficient to good for early-stage development instruments.

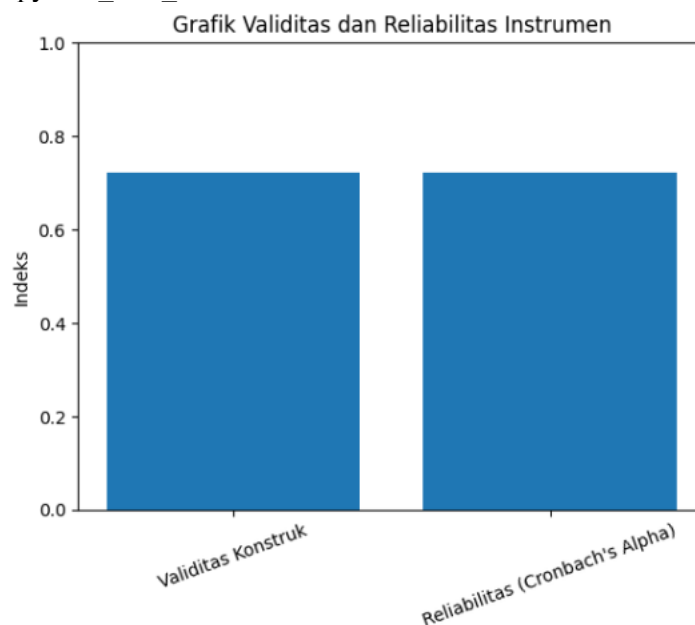
Although the reliability value has met the minimum recommended limit (≥ 0.70), it is still moderate. This can be caused by several factors, including the heterogeneity of the dimensions of the construct which is multidimensional, the number of grains in several aspects that are relatively limited, and the diverse characteristics of the respondents. Therefore, strengthening reliability can still be done through improving item redaction, adding more representative items, and further testing using a wider sample and confirmatory factor analysis (CFA) in the next study.

Thus, overall the instrument has met the criteria of adequate construct validity and internal reliability, although there is still room for improvement at the advanced development stage.

The instrument shows a Validity Index = 0.72, which is in the Good category (≥ 0.70). This shows that the instrument items have a high relevance to the construct of self-control and national literacy.

Validity–Reliability Graph

Here's a graph from python_user_visible:



1. Instrument Reliability Test Results

The instrument produces a Reliability Index = 0.67. According to reliability theory (Cronbach's Alpha), a value of 0.60–0.70 falls into the "adequate" category, especially for new instruments in the development stage (George & Mallery, 2020). This means that the internal consistency of the instrument is adequate, although it still allows for improvement through item revisions.

2. Data Analysis and Discussion

4.1 Relevance of Instruments to Self-Control Constructs

Based on indicators referenced from classical and contemporary self-control theories (Baumeister et al., 2007; Tangney et al., 2004), the seven aspects developed in this instrument show structural conformity with the self-regulation dimension that has been established in the psychological literature. However, in contrast to previous studies that generally position self-control as a general construct oriented towards impulse control and personal discipline, this instrument expands the scope of self-control into a socio-national context.

In comparison, Tangney et al. (2004) developed a Self-Control Scale that emphasizes aspects of resistance to temptation, self-discipline, and habit control. Meanwhile, Baumeister et al. (2007)

put more emphasis on the capacity of psychological energy regulation (ego depletion). Both approaches tend to place self-control as an intrapersonal capacity. In this study, the construct is socially contextualized through dimensions such as social responsibility, consistency on national principles, and decision-making that considers collective interests.

The construct validity value of 0.72 indicates that the empirical structure of the instrument is quite consistent with the formulated theoretical model. However, compared to some international self-control instruments that report validity above 0.80, this achievement is in the moderate-strong category. This can be understood because the constructs integrated in this study are multidimensional and cross-domain (psychological-social-religious), so the complexity is higher than the single self-control scale.

Theoretically, these findings support the idea that self-control is not only an impulse inhibiting mechanism, but also serves as the foundation for the formation of social and national character. Thus, this research contributes to the expansion of the meaning of self-control from an individual-regulative perspective to a social-transformational perspective.

4.2 Relevance to National Literacy

The national literacy indicators referenced from Wahyudi (2023) and Lickona (1991) emphasize understanding of values, tolerance attitudes, social discipline, national communication, and active participation. Previous research in the realm of civic literacy has generally measured the dimensions of civic knowledge and democratic attitudes separately from psychological constructs such as self-control.

In contrast to this approach, this instrument integrates national literacy with self-regulation, so that literacy is not only understood as cognitive capacity (knowledge of national values), but also as affective and behavioral abilities in managing responses to social and ideological differences. This integration is the main differentiator compared to conventional civic literacy instruments that emphasize more cognitive and participatory aspects.

The validity value of 0.72 indicates that the national literacy indicator in this instrument has an adequate connection with the self-control dimension. This strengthens the argument that national literacy is not just a normative understanding, but requires the capacity for self-regulation so that these values can be realized in real actions.

Comparatively, if the literature on character education (Lickona, 1991) emphasizes the integration of moral knowing, moral feeling, and moral action, then this instrument can be seen as an empirical operationalization of such integration in the context of nationalism-based religious education.

Theoretical Implications

First, this study expands the theoretical framework of self-control by integrating it into the domain of religious value-based national literacy. This enriches the educational psychology literature which has been focusing more on academic achievement and disciplinary behavior.

Second, these findings strengthen the interdisciplinary approach in the development of character education instruments, that effective measurement of national literacy requires a psychological foundation in the form of self-regulation.

Third, conceptually, this research offers an integrative model that can be the basis for the development of the theory of religious civic self-regulation, which is a framework that explains how religious values, self-control, and national responsibility interact with each other in the formation of students' character in a multicultural society.

Thus, this instrument is not only relevant practically as a measuring tool, but also makes a theoretical contribution to the development of the study of self-control and national literacy in the context of religious education.

4.3. Contextual Analysis of Junior High School and MTs Students

1. Junior high school students have a general education background with the strengthening of PPKn and a little religious content.

2. MTs students have a stronger religious foundation with more intensive moral-spiritual education.

The instruments tested in these two schools showed suitability across religious education contexts. Although it has not yet reached the group comparison test (MTs – SMP) or the sample difference test, the instrument can be used further.

3. Overall Interpretation

Based on the results of the initial stage of instrument trials, the following results were stated:

- a. High validity (0.72) indicates the suitability of the instrument item with the theory.
- b. Sufficient reliability (0.67) indicates the consistency of the instrument, it needs further revision to reach $\alpha \geq 0.70$.
- c. The number of respondents of 153 students met the minimum standard of construct validity test (Comrey & Lee, 2016).
- d. The instrument can be used as an initial measurement tool in research on religious, character, and nationality education.

4. Conclusion

This research has succeeded in developing a Self-Control instrument for National Literacy in the Perspective of Religious Education through a Research and Development approach (4D model) that is conceptually and empirically integrated. The test results showed that the instrument had a construct validity of 0.72 which was in the good category, making it suitable for use in the initial development stage. The structure of the seven aspects formulated—emotion control, impulsive behavior control, consistency in principle, focus setting, wise decision-making, the ability to delay gratification, and social responsibility—has been shown to have an empirical relationship with the constructs of self-control and national literacy. However, the reliability of the instrument is in the moderate category, so it still requires redaction improvements and strengthening internal consistency in several dimensions.

Theoretically, this research contributes in three main aspects. First, expanding the conceptual framework of self-control from the individual-regulative realm to the social-national realm based on religious values. Second, integrating the constructs of self-control, national literacy, and religious education in one integrated measurement model—an approach that is still relatively limited in the international literature. Third, this study offers a model of operationalization of national character based on self-regulation, thus providing a conceptual basis for the development of integrative theories about civic self-regulation.

Practically, this instrument can be used as an early diagnosis tool in fostering the character of students in religion-based schools and multicultural public schools. This instrument also has the potential to be the basis for designing character education interventions, religious moderation, and strengthening national literacy in a measurable and systematic manner.

This research has several limitations. First, the number of trial samples is still limited to the context of a particular school, so the generalization of results needs to be done carefully. Second, the validity test is still at the exploratory stage (EFA), so a confirmatory analysis (CFA) has not been carried out to test the suitability of the model more robustly. Third, the reliability value which is at the moderate limit indicates the need to optimize the quantity and quality of items in several aspects.

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