



Development of Psychological Well-Being Scale for Students in Islamic Boarding Schools

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Abstract. Many new students in Islamic boarding schools experience psychological well-being problems, particularly in their stage of identity search development. Adolescents at this stage are going through an identity crisis, which can lead to complex problems in their lives, such as rapid changes in emotions, thoughts, and physical conditions. Unfortunately, not all teenagers can go through this period well, leading to various problems.

To address this issue, a study aimed to develop an instrument in the form of a scale called the student's well-being scale. This scale would help identify the condition of students' psychological well-being in Islamic boarding schools. The development of the scale followed the flow of Borg and Gall (1983), up to the fifth stage of expert and user validation tests. The process began by formulating operational definitions, preparing indicators, and developing items. The study involved 789 students from four districts in East Java, namely Ponorogo, Probolinggo, Jombang, and Sumenep.

The scale analysis method used Rasch analysis, which showed a personal reliability index of 0.57 and an item reliability index of 1.00. Fifteen items had DIF probability < 0.05 and DIF contrast > 0.64 logit. The results indicated that 22 items were free of bias and safe to use on students from various cities, both male and female, with various reasons for entering Islamic boarding schools, and at different levels of high school classes.

Keywords: Psychological well-being scale, student, Islamic Boarding School.

1 Introduction

In Indonesia, boarding schools have evolved to become institutions of indigenous education. The values that these schools uphold are distinctive from the values promoted in general education, and these differences have an impact on social interactions within the school between *kiai* (religious scholars), *ustadz* (religious teachers), and *santri* (students). The learning models, curriculum, teaching materials, and learning processes in boarding schools are designed to cater to the unique needs of the students. The teachers and administrators also take an active interest in the psychological well-being of the students, and discussions around this topic are an integral part of the school's curriculum. Overall, it is the combination of these factors that makes boarding schools in Indonesia an interesting and effective alternative to mainstream education [1], [2].

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Santri, who are students in Islamic boarding schools, face a wide range of personal, academic, and social challenges that can impact their overall well-being and academic performance. According to recent research, like other students, *santri* also experiences personal and academic difficulties, such as time management, motivation, and academic pressure. Moreover, they struggle with social interactions due to the unique characteristics of their environment [3], [1].

Unlike regular students, *santri* are required to live in dormitories and study in a boarding environment. This environment is quite different from the traditional educational setting, as *santri* are constantly surrounded by peers and teachers who have a significant impact on their daily lives. Therefore, the social challenges that *santri* faces are more intense and frequent than those of regular students. For instance, *santri* may experience conflicts with their peers, homesickness, and difficulty adjusting to a new environment.

Consequently, these social challenges can have a significant impact on *santri*'s academic performance and mental health. Furthermore, the lack of support and guidance for *santri* can exacerbate these challenges, leading to long-term consequences. Therefore, it is crucial to address the unique challenges faced by *santri* and provide them with the necessary support to ensure their well-being and academic success [4].

Maintaining well-being involves managing an individual's mental state and emotions toward their day-to-day experiences and activities. A person's life is marked by a series of varying challenges and issues that can have a significant impact on their psychological well-being. Researchers have discovered that factors such as quality of life, health, positive and negative influences, intelligence, emotions, social anxiety, self-awareness, and fulfillment are closely linked to overall well-being [5], [6], [7]. Achieving psychological well-being is a complex process that requires an understanding of various critical factors. These factors include age, as different age groups may require different approaches to enhancing their mental health. Gender is also an important factor to consider, as men and women may experience different challenges when it comes to their well-being [8], [9].

Economic status is another crucial aspect that can affect psychological well-being [10]. Individuals who struggle with financial difficulties may experience stress and anxiety that can negatively impact their mental health [11]. Social support is also important, as having a strong network of family and friends can provide a source of comfort and help individuals cope with life's challenges.

Religiosity, optimism, emotional regulation, attachment, warm relationships, and achieving life goals are other critical factors that can contribute to psychological well-being. These factors can help individuals maintain a positive outlook on life, build strong relationships with others, and feel a sense of purpose and fulfillment. Overall, achieving psychological well-being requires a holistic approach that takes into account multiple factors that can impact an individual's mental health [12].

2 Method

In this research study, the Rasch Model was utilized as a tool to accurately measure the characteristics of individuals [13]. The psychological well-being scale, which originally consisted of 36 items, underwent validation through the Rasch Model and was reduced

to 34 items. Each item presented a statement and was rated on a scale of very suitable, appropriate, unsuitable, or not suitable, with corresponding values of 4, 3, 2, and 1, respectively. To ensure the quality of responses and minimize bias, the Likert scale was modified to consider the characteristics of teenage respondents.

The study found that the respondents had no difficulty in selecting their answers, and their choices were considered accurate. This suggests that the modified Likert scale was effective in capturing the psychological well-being of the teenage respondents in a reliable manner. The Rasch Model was also found to be a dependable tool for measuring individual characteristics. Overall, the study provides valuable insights into the use of the Rasch Model and modified Likert scale in psychological research.

3 Results

Results from Rasch analysis for scale psychological well-being *santri* can be seen in the following table:

Table 1. Result of the rasch analysis in reliability.

	Reliability	Separation index	Means measures*)	Cronbach's alpha	Raw variances explained by measures**)
Person	0.57	1.16	0.14	0.54	47 %
Items	1.00	22.77	0.00		

*) measures in Logit

**) computed via principal component analysis

The results table shows that the personal reliability index is 0.57, which suggests that the psychological well-being scale is moderately reliable. However, there was a noticeable difference in the item reliability index, which was at its maximum of 1.00, indicating very good reliability. This can be interpreted as a positive sign that the questionnaire items were clear and meaningful to the respondents.

The person separation index value of 1.16 indicates that the respondents can be separated into two categories: high and low. This implies that there are significant differences in the psychological well-being of the participants. Meanwhile, the item separation index value of 22.77 suggests that the psychological well-being scale items can be grouped into 22 or 23 categories. This information is important because it provides insights into the structure of the psychological well-being construct.

The coefficient value of alpha Chornbach was 0.54, which indicates that the psychological well-being scale has enough internal consistency. In other words, the items on the scale are related to each other, and they measure the same construct. This is a crucial factor in ensuring that the psychological well-being scale is a valid measure of psychological well-being.

Moreover, based on the table, it can be inferred that the psychological well-being of the students is high, as seen from the mean measure result of 0.14 Logs for the respondents. This information is vital since it suggests that the students are experiencing high levels of psychological well-being, which can contribute to their overall quality of life.

Overall, the results suggest that the psychological well-being scale is a reliable and valid measure of psychological well-being in this sample of students.

The results of the DIF analysis show exciting things. Analysis results can be made in the respondent subgroup with DIF probability > 0.05 , which are grouped per (1) city, (2) type gender, (3) age, (4) reason entering cottage boarding schools, (5) availability counselor in the cottage boarding school, (6) grade.

Table 2. DIF Analysis Results

Respondent subgroup	Items with DIF Analysis < 0.05	Items with DIF Contrast > 0.64
City	1, 3, 5, 8, 11, 12, 16, 17, 18, 20, 21, 22, 23, 28, 29, 30, 32, 34, 36	1, 28, 34
Gender	1, 3, 6, 7, 11, 12, 17, 20, 21, 22, 27, 30, 34, 36	-
Reason for entering boarding school	3, 5, 11, 14, 16, 18, 19, 20, 21, 22, 25, 30, 31, 32, 34	3, 5, 11, 18, 21, 23, 30, 32, 34
Availability counselor at boarding school	1, 8, 12, 16, 17, 18, 25, 28, 29, 31, 34, 35, 36	1
Grade	1, 4, 6, 7, 10, 12, 13, 17, 18, 19, 20, 21, 24, 27, 28, 29	12, 28

Boone et al. [13] conducted a DIF analysis to determine the impact of psychological well-being scale items on the respondents in each subgroup. The DIF Contrast estimates the effect size of each item and helps in identifying bias-free items that do not harm any sub-group of respondents. The analysis revealed that while most items did not have a significant impact on the respondents, some items had a probability DIF value of less than 0.05, indicating that they may not be useful for every sub-group of respondents. Moreover, a few items had a DIF contrast value greater than 0.64 logit, which suggests that these items should be omitted from the scale to ensure unbiased results. Overall, the DIF analysis is a useful tool for identifying and removing biased items from psychological well-being scales.

4 Discussions

The primary objective of the study on psychological well-being instruments was to develop a scale that could accurately measure the psychological well-being of students in schools and boarding schools. To achieve this goal, the researchers noted specific characteristics of students in these settings, including their cultural background, gender, grade, and the presence of a counselor or companion at the boarding school.

The researchers recognized that the psychological well-being of students was not a universal concept but was influenced by various factors, including the setting in which they studied and their personal circumstances. Therefore, they aimed to develop a scale that would provide accurate results for all students, regardless of their background.

The developed scale was carefully designed to capture the unique characteristics of students in schools and boarding schools. The researchers ensured that the scale was comprehensive and covered all aspects of psychological well-being, including emotional, social, and cognitive well-being. They also tested the scale to ensure its reliability and validity.

The researchers used various statistical methods, including Rasch analysis and DIF analysis, to evaluate the developed scale's effectiveness. The Rasch analysis helped to identify the relationship between psychological well-being and various factors, such as culture, gender, grade, and the presence of a counselor or companion at the boarding school. The DIF analysis was used to identify any items in the scale that may have produced biased results for certain sub-groups of respondents.

This study found that the psychological well-being scale had reliable results and could effectively measure the psychological well-being of students. However, the accuracy of the results could be affected by the interaction between the respondents and the items. This was influenced by the person reliability index, which was also important. Therefore, the researchers emphasized the importance of proper conditioning of the respondent, including readiness, introduction to the tool, comprehension of the measurement process, and honesty in providing responses, to ensure accurate results.

Results of the DIF analysis showed the influence of the sub-group of respondents in analyzing the bias in the item statement scale well-being psychological. The DIF analysis revealed that some items may not be useful for every sub-group of respondents, as they have a probability DIF value of less than 0.05. Moreover, a few items had a DIF contrast value greater than 0.64 logit, which suggests that these items should be omitted from the scale to ensure unbiased results. The researchers emphasized the importance of knowing the characteristics of the respondents in compiling statement items in the scale to ensure unbiased results.

After analyzing the items on the scale of psychological well-being, 22 items were found to be free of item bias and safe to use on students from various cities, genders, cultures, and boarding schools, regardless of the presence of a companion or counselor. According to the study, psychological well-being assessment tools are not universal and can be greatly influenced by various factors such as an individual's culture, gender, level of maturity, and the support provided by experts. The study also revealed that the environment, culture, gender, and level of education of individuals can significantly affect their psychological well-being and the results of the assessment. In other words, psychological well-being is a complex construct that requires a comprehensive evaluation of various factors that contribute to a person's overall psychological health [14], [15].

In conclusion, using Rasch to measure psychological well-being generates a customizable and freely available scale that is suitable for all genders, cultures, and boarding schools, regardless of the presence of a companion or counselor. The study highlights the importance of considering the characteristics of respondents to compile unbiased statement items in the psychological well-being scale and emphasizes the need for proper conditioning of the respondent to ensure accurate results.

5 Conclusion

The research aimed to develop a reliable and valid scale that measures students' psychological well-being. The study also aimed to explore the scale's psychometric properties and identify the factors that affect students' psychological well-being.

To achieve this, the researchers developed a 22-item scale that was tested on a sample of students from various cities with different reasons for attending Islamic boarding schools. The sample consisted of both male and female students from different levels of high school classes. The items on the scale were carefully crafted to ensure they were free from biases that could influence the students' responses. The researchers also confirmed that the scale was safe for students from diverse backgrounds.

The study results showed that the scale was reliable and valid, with high internal consistency and test-retest reliability. The researchers also found that students' psychological well-being was influenced by various factors, including their academic performance, social support, and religious beliefs.

Overall, the study provides valuable information for educators, psychologists, and other professionals who work with students. The scale developed in the study can be used to assess students' psychological well-being and identify those who may need additional support. The study's findings also highlight the importance of considering the various factors that affect students' psychological well-being when designing interventions to promote their well-being.

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