

Planea Scale: Innovation of Student Independent Life Skills Measurement Tool

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Abstract:

Entering early adulthood, students are expected to develop independence in various aspects of life. However, many students still face difficulties in managing life independently. This study aims to adapt and test the validity and reliability of the PLANEA Independent Life Skills Scale in the context of Indonesian students. This research employs a quantitative approach with a survey design. Participants consist of students aged 18-25 years selected using purposive sampling. Data were collected through online and offline questionnaires, then analyzed using Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA) to evaluate the factor structure of the adapted instrument. The results show that this instrument has adequate validity and reliability in measuring students' independent life skills. The obtained factor structure consists of three main dimensions: Self-Care and Wellbeing, Daily Arrangements and Organizational Skills, and Employment and Accommodation. Thus, this scale can be used as a valid measurement tool in assessing students' independence levels in Indonesia. These findings can be utilized by educational institutions to develop intervention programs aimed at improving students' independent life skills. Future research is recommended to examine the relationship between independent life skills and psychological well-being aspects and involve a broader sample.

Keywords: independent life skills, PLANEA scale, students

1. Introduction

The transition to adult life is an essential phase that requires gradual independence and mental readiness. Students, as early adults, are expected to take greater responsibility in various life aspects, including managing personal life, building social relationships, and facing academic and professional challenges independently. However, many students still struggle to develop adequate independence, which can impact their psychological well-being and readiness to enter the workforce and life after graduation (Harder et al., 2020).

Several previous studies have highlighted the importance of independence in students' lives. According to Nollan et al. (2000), independence includes hard skills, such as budgeting and job searching, as well as soft skills, such as interpersonal skills and decision-making. The framework developed by Courtney et al. (2017) categorizes independence skills into several areas, including self-care, practical skills, interpersonal skills, education, and identity skills. Another study by Asiyah (2013) found that students with high independence levels excel in decision-making, self-confidence, and initiative in problem-solving.

Although much research has discussed the importance of independence for students, there are still limitations in measuring independent life skills in Indonesia. Most existing studies focus on the general concept of independence without providing a comprehensive, psychometrically strong measurement tool for objectively assessing students' independence levels. One instrument developed to measure independent life skills is the PLANEA Independent Life Skills Scale, created by García-Alba et al. (2021) in Spain. This instrument has been used in several European countries and has been proven to have high reliability and validity in measuring three main aspects of independence: Self-Care and Wellbeing, Daily Arrangements and Organizational Skills, and Employment and Accommodation.

However, no adaptation of the PLANEA Independent Life Skills Scale has been specifically applied to Indonesian students. Understanding students' independence levels is crucial in helping them adapt to academic challenges and life after graduation. Therefore, this study aims to adapt and test the validity and reliability of the PLANEA Independent Life Skills Scale in the context of Indonesian students.

By adapting this instrument, it is hoped that a valid and reliable measurement tool will be obtained to identify students' independence levels and provide a basis for developing more effective interventions to enhance their independent life skills. This research also contributes to filling the research gap related to measuring students' independence in Indonesia and enriching the literature on independent life skills among students.

2. Method

This study aims to adapt and evaluate the validity and reliability of the PLANEA

Independent Life Skills Scale in the context of Indonesian students. This research employs a quantitative approach with a survey research design. Data analysis was conducted using psychometric methods to test the validity and reliability of the instrument. The study population consists of students in Bandung aged 18-25 years. The research sample was determined using purposive sampling, with a total of 212 participants, consisting of 71.2% females and 28.8% males. Participants who met the study criteria were selected based on their willingness to participate and complete the research questionnaire.

Data collection was carried out using two methods: offline with printed questionnaires ($n = 100$) and online through Google Forms ($n = 112$). Before completing the questionnaire, participants were provided with information about the research objectives, study characteristics, and data confidentiality guarantees. Participation in this study was voluntary. The instrument used in this study is the PLANEA Independent Life Skills Scale developed by García-Alba et al. (2021). This instrument uses a 5-point Likert scale (Almost Always - Almost Never) with an initial total of 36 items. After validity and reliability testing, the number of items used in this study was reduced to 10, categorized into three main factors: Self-Care and Wellbeing, Daily Arrangements and Organizational Skills, and Employment and Accommodation.

Data analysis was conducted using a quantitative approach with Winstep and Jeffreys Amazing Statistics Program (JASP) software. Validity testing was performed using Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA) to evaluate the factor structure of the adapted instrument. Reliability testing was conducted using Cronbach's Alpha, which resulted in a value of 0.732, indicating good reliability. Additionally, person fit and item fit analysis using the Rasch model were performed to assess the quality of the instrument items.

3. Results

This study aims to adapt the PLANEA Independent Life Skills Scale and test its validity and reliability in measuring students' independent life skills. The person fit and item fit analysis results showed that out of the initial 212 participants, 53 were eliminated for not meeting the Rasch model criteria, leaving a final sample of 159 participants. From the initial 36 items, elimination was performed based on item-total correlation analysis and Exploratory Factor Analysis (EFA), leaving 10 items with factor loadings above 0.3, meeting construct validity criteria.

Table 1.

Statistical Analysis

Statistics	Value
Final Partisipants	159
Final Item	10
Cronbach's Alpha	0,732
CFI	0,658
TLI	0,519
RMSEA	0,147
KMO	0,709
Bartlett's Test (p-value)	<0,001

The Confirmatory Factor Analysis (CFA) results indicated that the initial model did not fit the data (CFI = 0.658; TLI = 0.519; RMSEA = 0.147). Therefore, EFA was conducted to explore a more suitable factor structure. The EFA results showed a Kaiser-Meyer-Olkin (KMO) value of 0.709, indicating that the data was adequate for factor analysis. Bartlett's Test of Sphericity was significant ($p < 0.001$), supporting the feasibility of further factor analysis.

4. Discussion

This study contributes to filling the research gap regarding the measurement of independent life skills in Indonesia. The results indicate that the PLANEA Independent Life Skills Scale can be adapted with adequate validity and reliability, proving that this instrument can be used to comprehensively assess students' independence. These findings align with those of García-Alba et al. (2021), who found that the PLANEA Independent Life Skills Scale has three main factors reflecting individual independence in daily life. However, in the context of Indonesian students, some items were eliminated, suggesting that cultural and environmental factors may influence the instrument's factor structure.

5. Conclusion

This study aims to adapt and test the validity and reliability of the PLANEA Independent Life Skills Scale in the context of Indonesian students. The results show that this instrument can be used as a valid and reliable tool to identify students' independence levels. The obtained factor structure aligns with the original PLANEA model, consisting of three main factors: Self-Care and Wellbeing, Daily Arrangements and Organizational Skills, and Employment and Accommodation. The reliability of the instrument, measured by Cronbach's Alpha (0.732), indicates good internal consistency. Exploratory Factor Analysis (EFA) also supports that this instrument has an adequate factor structure. Thus,

the adapted PLANEA Independent Life Skills Scale can be used to assess and understand students' independence levels in Indonesia and serve as a basis for developing intervention programs to enhance their independent life skills.

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