Jurnal Ners

Volume 20 Issue 1, February 2025, p. 17-25
http://dx.doi.org/10.20473/jn.v20i1.64114

Original Article

Open Access

The indonesian self-efficacy questionnaire for children: translation, cross-cultural adaptation, and psychometric evaluation

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Responsible Editor: Praba Diyan Rachmawati

Received: 10 October 2024○ Revised: 28 November 2024 ○ Accepted: 30 December 2024

ABSTRACT

Introduction: Regularly assessing the self-efficacy of adolescents is a crucial practice. Self-efficacy in adolescents plays a vital role in preventing bullying. However, Indonesia needs more tools to evaluate it. This study aimed to translate and validate the Self-Efficacy Questionnaire (SEQ-C) and its subscale for Indonesian adolescents, which has potential implications for bullying prevention.

Methods: Cross-cultural adaptation was carried out using the Beaton guidelines. An assessment of psychometric testing was carried out during January and February 2024. The eligibility criteria for participants were students aged 13 to 15. Students who declined to participate were excluded. The research involved 120 students. Testing the questionnaire's structural factors used Confirmatory Factor Analysis (CFA). IBM SPSS 25 and AMOS 29 were used for the analysis.

Results: Following the criteria established for CFA, two items (ASE10 and SSE18) were eliminated due to their low factor loadings. This resulted in a refined SEQ-C structure of 22 items distributed across three factors. The alpha reliability coefficients showed robust internal consistency for the entire scale at first test and retest (α=0.884; α =0.911) and for each of the three subscales (all >0.80). The model fit indices indicated satisfactory values for the Comparative Fit Index (CFI)=0.906; Root Mean Square Error of Approximation (RMSEA)=0.063; and the Minimum Discrepancy Function by Degrees of Freedom divided (CMIN/DF)=1.474).

Conclusions: The SEQ-C emerges as a trustworthy and valid tool for evaluating self-efficacy across three key components: intellectual, social, and emotional. It can assess adolescent self-efficacy for research, education, and nursing interventions, as part of enhancing the life skills of adolescents.

Keywords: adolescent, psychometric, reliability, self-efficacy, translation

Introduction

Bullying is defined as repeated aggressive actions, whether intentional or not, carried out by individuals or groups where the victim feels pressured and unable to fight back (Olweus, 1994; Menesini and Salmivalli, 2017; Fischer, John and Bilz, 2021). Cyberbullying is a form of bullying carried out through electronic media that can occur anytime and anywhere, and the perpetrator can be an unknown person. The digital traces of bullying can cause long-term trauma for the victim (Zych, Farrington and Ttofi, 2019). Bullying in early adolescence most often occurs among peer groups at school (Menesini and Salmivalli, 2017) and has a reasonably high prevalence (Armitage, 2021), occurring almost every day or at least once a week (CDC, 2019; UNESCO, 2019). One in three high school students reported experiencing bullying in the past month (Sivaraman, Nye and Bowes, 2019; UNESCO, 2019). A study by Chen *et al.*, (2021) showed

that two out of three adolescents aged 13-15 years were involved in bullying. Likewise, the prevalence of cyberbullying is also dominated by this age group, where 42% are exposed to cyberbullying (Peker, Eroglu and Yildiz, 2021), and more than 30% are involved in cyberbullying (CDC, 2019; Peker, Eroglu and Yildiz, 2021). There have been many studies that have developed bullying prevention programs but the prevalence of bullying is still persistent among adolescents.

Bullying is a behavioral problem that can affect their academic, social, and emotional performance (Haraldstad *et al.*, 2019; Fischer, John and Bilz, 2021). Bullies tend to have poorer academic performance (Menesini and Salmivalli, 2017; Mei *et al.*, 2021) and exhibit antisocial and criminal behavior as adults, and be at risk of delinquency and psychotic symptoms (Menesini and Salmivalli, 2017). Victims also tend to have poor academic performance (Duan *et al.*, 2020), depression, and anxiety (Menesini and Salmivalli, 2017; Duan *et al.*, 2020; Peker, Eroglu and Nebioglu Yildiz, 2021). In Indonesia, research on the impact of bullying, such as depression and anxiety, is often conducted. In contrast, measurements of adolescent risk or protective factors, such as self-efficacy, have not been assessed as much.

Self-efficacy plays a vital role in preventing bullying (Xie and Ngai, 2020; Fürtjes *et al.*, 2023; Chen *et al.*, 2023). Adolescents with high self-efficacy can reduce cyberbullying behavior even when they have been victims (Peker, Eroglu and Nebioglu Yildiz, 2021). Adolescents with high self-efficacy tend to be able to defend themselves and distance themselves from the perpetrator (Menesini and Salmivalli, 2017), minimizing the adverse effects (Zhang *et al.*, 2019; Liu *et al.*, 2020). Adolescents who are unassertive and unconfident can risk becoming bullies (Menesini and Salmivalli, 2017). Therefore, a self-efficacy instrument is needed to evaluate an adolescent's self-efficacy in terms of their academic and socio-emotional qualities.

One of the basic concepts of social cognitive theory is self-efficacy (Bandura, 1997), which is the most critical factor in behavioral change (Haraldstad *et al.*, 2019). A person will not realize changes in their behavior if they do not believe in themselves and can do it (Cikrikci and Odaci, 2016). Generally, people with problems know exactly what they should do even though their knowledge of the problem is inadequate (Bandura, 1997). The confidence to carry out these actions is the self-efficacy that Bandura refers to (Muris, 2001). Measuring an adolescent's self-efficacy is needed as primary data to develop interventions to increase self-confidence and change unhealthy adolescent behavior, such as bullying.

SEQ-C was first developed by Muris (2001). This questionnaire has been adopted in several countries, such as China, Persia, and Malaysia. The results show that SEQ is eligible to measure academic, social, and emotional efficacy in adolescents (Suldo and Shaffer, 2007; Tan and Chellappan, 2018; Xie, Shlonsky and Harrigan, 2023; Mousset *et al.*, 2024). Social self-efficacy denotes a person's capacity to establish interactions with others and maintain relationships within their social network. Meanwhile, emotional self-efficacy refers to a person's capability to manage emotions in response to environmental stimuli (Mousset *et al.*, 2024). Finally, academic self-efficacy is one of the abilities that can improve a students' academic performance (Supervía, Bordás and Robres, 2022). It is important to consider that intervention strategies to reduce bullying need to target improving the self-efficacy of the adolescents involved in bullying (Haraldstad *et al.*, 2019). Furthermore, self-efficacy screening can be used to map high-risk schools.

Schools need to identify adolescent self-efficacy periodically as a baseline for developing their self-efficacy abilities. The SEQ-C was developed by Muris (2001) in English, and since then has been translated and psychometric testing conducted in several languages, such as the Persian version (Habibi, Tahmasian and Ferrer-Wreder, 2014), Malaysian version (Tan and Chellappan, 2018), Chinese version (Xie, Shlonsky and Harrigan, 2023), and Turkish version (Güçlü-Aydogan, Ünal-Aydın and Aydın, 2023). It is not yet available in Indonesian. Therefore, this study aimed to translate the SEQ-C into Indonesian and test its reliability among adolescents aged 13 to 15 years.

Materials and Methods

Research Design

The research process began with translating and adapting SEQ-C with Beaton's guidance, and psychometric testing was continued according to a cross-sectional design. The research process had four stages: translation, back translation, pilot testing, and the test-retest of the questionnaire to examine the instrument's reliability. This stage is recommended as a process to achieve the minimum standard for translating instruments involving cross-cultural (Maneesriwongul and Dixon, 2004). Three translation stages were carried out from May 2023 to December 2023, while the test-retest process was from January to February 2024. The minimum age requirement for participants was adolescents aged 13 to 15 years. Students who declined to participate were excluded. The pilot testing phase included 30 pupils, whereas the psychometric testing phase was comprised of 120 students.

Self-Efficacy Questionnaire for Children (SEQ-C)

The original SEQ-C was first developed by Muris (2001) and tested on target groups of students aged 14-17 and 12-19 years (Muris, 2002). The original SEQ-C constituted 24 items to evaluate three aspects of self-efficacy, namely: (1) social self-efficacy, which means confidence in one's capability to make friends with peers and be assertive; (2) academic self-efficacy focused on

self-confidence in one's capability to complete the learning process at school and mastery of subjects; and (3) emotional self-efficacy concerning the perceived proficiency to manage adverse emotions. Of the 24 items developed, three items were removed (Muris, 2021). A five-point Likert scale that ranges from 1 to 5 is used in SEQ. The scores are one = not at all and five = very well. Academic self-efficacy is measured through items 1, 4, 7, 10, 13, 16, 19, and 22. Social self-efficacy is assessed through items 2, 6, 8, 11, 14, 17, 20, and 23. Furthermore, emotional self-efficacy is evaluated based on items 3, 5, 9, 12, 15, 18, 21, and 24. The Cronbach's alpha coefficient for the whole scale was 0.90; social self-efficacy was 0.82; academic self-efficacy was 0.84; and 0.86 was for emotional self-efficacy

The Translation Process

After obtaining permission from Muris (2001), as the first instrument developer who ensured that no translation had been done in Indonesian, the translation process began. The translation process in this study used Beaton's guidelines. Initially, two translators independently rendered the SEQ-C from the original version into Indonesian. The first translator (T1) was from a language institute at Gadjah Mada University, Indonesia. In contrast, the second translator (T2) was an English lecturer at Universitas Jember who did not have a background in health and psychology. She has lived in England for four years.

Furthermore, a nurse who has lived in Australia for eight years reviewed the translation results of T1 and T2. This review was conducted to evaluate the similarity of meaning and for cultural suitability. Additionally, the research team reviewed the results again to ensure the accuracy of selecting words or phrases appropriate for the target group, namely adolescents aged 13 to 15 years, before being retranslated. The back translation stage had the same process as the previous stage. Two different translators from stage one translated the results of T1 and T2 back into English. Then, the nurse reviewed the back translation result. Afterwards, an expert committee review was held to produce the prefinal SEQ-C in Indonesian. The cross-cultural adaptation of self-administered health status surveys for application in different nations, cultures, and languages involves distinct methodologies to confirm consistency according to the first version and target versions of the questionnaire (Beaton *et al.*, 2000). The translation outcomes were tested initially on the target group.

Pilot Testing of the Prefinal Indonesia Version

The pilot test used 30 students aged 13-15 years. Between 30 and 40 persons or subjects from the target setting should be evaluated (Beaton *et al.*, 2000), totaling 10-40 participants ideally. The purpose of this stage was to ensure the clarity and accuracy of the selection of words and phrases based on the target group's perspective (Beaton *et al.*, 2000); Maneesriwongul and Dixon, 2004; Sousa and Rojjanasrirat, 2011). The extent to which the target group understood the meaning, ease of reading, and the estimated time required to complete the questionnaire were determined. As a result, the average time required to complete the answer was approximately 4-5 minutes. At this stage, the participants provided feedback both verbally and through observations during the pilot study. After the instrument was prepared, the participants provided feedback on its items (Sousa and Rojjanasrirat, 2011). The results show changes in the diction of "children". In items 6, 20, and 23, the word "children" is replaced with the word "other students"; in items 14 and 17, the word "children" is replaced with the word "friends". Modifying words and concepts that do not have a precise equivalent meaning in another language is permitted (Maneesriwongul and Dixon, 2004). The students needed clarification interpreting the score choices of 2, 3, or 4 on each item. The score does not display its meaning, such as a score of 1 being "very incapable" and a score of 5 being "very capable." The students suggested explicitly giving a meaning to each score. Based on the final review, the meaning of score 2 as "less capable", score 3, “quite capable", and score 4, "capable", can be understood. It is acceptable because the meaning of scores 2, 3, and 4 interpret the level of ability from low to high.

Test-Retest

This study used the test-retest method to examine the validity and reliability of SEQ-C in Indonesian. There were 120 participants involved, all of whom were students aged 13-15 years, selected using multistage random sampling. The initial phase involved choosing a sub-district beneath the urban area and selecting a junior high school. Random sampling was conducted within each class with five students who satisfied the inclusion criteria representing each class. The first and second data collection periods took two weeks, as suggested by Nunnally and Bernstein (1994). The minimum ratio standard of the participants and questionnaire items used to determine the sample was 1:5 (Hair Jr *et al.*, 2019).

Psychometric analysis

This study's data analysis used SPSS (version 25) and AMOS (version 29). The characteristics of the participants were determined using descriptive data analysis. SEQ-C's descriptive statistics are presented, including the mean, standard deviation, kurtosis, skewness, and the value of Cronbach's alpha. The relationship between SEQ-C and its subscales was investigated using Pearson correlation. The internal reliability of SEQ-C used Cronbach's alpha separately between a test and retest. Cronbach's alpha coefficients above 0.70 were considered satisfactory (Brown, 2015). Absolute skewness values of less than two and a kurtosis of less than seven indicated normally distributed data

(Curran, West and Finch, 1996). Furthermore, CFA was used to test the suitability of the hypothetical three-factor model fit for the data.

The goodness of fit was assessed using multiple fit indices. The chi-square index ($\chi 2$) is the statistical measure used in the likelihood ratio test. A nonsignificant chi-square value indicates a more robust fit between the hypothesized model and the experimental data (Bollen, 1989). Nevertheless, this statistic is minimized in research due to the sensitivity of the likelihood ratio test according to sample size. Given large sample sizes, a well-fitting hypothesized model usually produces a relatively large $\chi 2$ (Byrne, 2010). As a general guideline, it is recommended that Root Mean Square Error of Approximation (RMSEA) values below 0.08 indicate satisfactory model fit, while the confirmatory fit index (CFI) and Tucker Lewis Index (TLI) have been set to or above 0.90 (Brown, 2015).

Ethical approval

The study acknowledges the approval given by the Medical and Health Research Ethics Committee, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Indonesia (KE/FK/0235/EC/2023). The participants had their role explained in terms of participating in the research. They were allowed to ask questions before signing the research consent form, and the counselling teacher and the vice principal accompanied them.

Results

The characteristics of the participants

The participants were mainly female students (60.8%) aged 13 to 15 years (mean: 14.58 yrs; SD = ±0.528). All participants used WhatsApp as their primary social media, followed by Instagram (97.5%), YouTube (92.5%) and TikTok (86.7%). The majority of parents were highly educated, both fathers (60%) and mothers (58.3%), and most of their mothers also worked (53.5%).

Internal consistency and reliability (test and retest SEQ)

The results of the Pearson correlation test between the subscale scores (academic, social, and emotional self-efficacy) with the total SEQ-C score showed significant results ($p<0.01$) (Table 2), meaning that three domains correlate with the concept of self-efficacy. Furthermore, the Pearson correlation coefficient between the mean value and the variance of the first test and retest scores showed there to be no difference. The Cronbach's alpha coefficient values for the test (0.884) and retest (0.911) were separately tested, showing that both had good internal consistency. The Cronbach's alpha coefficient was done for each academic subscale (0.80), social (0.79), and emotional (0.78) self-efficacy for the first test and academic subscale (0.82), social (0.83), and emotional (0.83) self-efficacy. There were no significant differences in the SEQ-C used for the test and retest.

Descriptive Statistics of SEQ-C

Table 3 shows the mean, standard deviation, skewness, and kurtosis values of every item of the 24 SEQ-C items. The average value of the academic self-efficacy subscale (M = 29.11; SD±0.459) was slightly higher than the average value of the social (M=28.50; SD±0.505) and emotional self-efficacy subscales (M=26.98; SD±0.544). The univariate normal distribution can be seen from the skewness and kurtosis values of each item where less than two (skewness value) and less than seven (kurtosis) (Curran, West and Finch, 1996) indicate that the data is typically distributed. Table 3 shows the range of skewness for each self-efficacy item from -0.635 to 0.296 and the kurtosis values from -0.881 and 0.946. It is concluded that the 24 SEQ-C items are normally distributed.

Construct Validity

The level of suitability of the data of this research and the proposed SEQ-C model was tested using confirmatory factor analysis (CFA). The original 24-item three-factor SEQ-C model proposed by Muris (2001) served as the initial measurement model (Model 1). As presented in Table 4, Model 1 showed a satisfactory model fit ($\chi 2$=418.663; DF=249; RMSEA=0.076). However, the CFI value of 0.841 indicated a marginal level of fit. All items showed substantial loadings on the corresponding latent constructs. Nevertheless, the factor loading of the ASE10 item "How well do you manage to complete all your homework each day?" in the social self-efficacy subscale was only 0.34. In contrast, the SSE18 item "How well can you tell a friend that you are not feeling well?" had a factor loading of 0.40, which is beneath the established minimum of 0.40 (Brown, 2015). It suggests that these items may be measuring unrelated constructs compared to other items on the same scale. The factor loadings of all items, except for ASE10 and SSE18, exceeded 0.40, ranging from 0.540 to 0.780. As a result, items ASE10 and SSE18 were eliminated as adjustments for Model 1. The results of the modifications indicate the better suitability of the model for evaluating children's self-efficacy ($\chi 2$=296.357; CFI=0.906; RMSEA=0.063). After adjustment, Model 1 showed moderate levels of correlation across the three SEQ-C components (r=0.530 to 0.730, $p < 0.001$).

Figure 1 explains the loading factor score value for each question item to measure each dimension of self-efficacy. The loading factor value of the question items to measure the academic self-efficacy dimension ranges from 0.58 to 0.71, social self-efficacy between 0.53 to 0.75, and emotional self-efficacy between 0.52 to 0.77. This shows that each question item can be measured in each dimension.

Table 1. The socio-demographic statistics of the participants (n=120)

Variable	n (%)	Mean ± SD
Age		14.58 ± 0.528
Gender Status		
Female	73 (60.8)	
Male	47 (39.2)	
Education: Father		
University	76 (60.0)	
Senior high school	42 (38.3)	
Junior high school	2 (1.7)	
Education: Mother		
University	67 (58.3)	
Senior high school	46 (38.3)	
Junior high school	4 (3.3)	
Elementary school	3 (2.5)	
Working Status: Father		
Unemployed	7 (5.8)	
Employed	113 (94.2)	
Working Status: Mother		
Unemployed	56 (46.6)	
Employed	64 (53.4)	
Access to social media		
WhatsApp	120 (100)	
Instagram	117 (97.5)	
Youtube	111 (92.5)	
TikTok	104 (86.7)	
Telegram	64 (53.3)	
Twitter	55 (45.8)	
Discord	38 (31.7)	
Facebook	41 (34.2)	

Consideration of the Modification Index (MI) and Expected Parameter Change (EPC) indicated many significant values, indicating that the model's fit could be improved by linking error terms with certain items. The findings indicated that the modified three-factor SEQ-C model, comprising 22 items, demonstrated acceptable construct validity. The fit indices for the two proposed models are detailed in Table 4.

Reliability Test

The internal consistency reliability for the SEQ-C subdimension of academic self-efficacy increased after removing item ASE10 from 0.822 to 0.828. Likewise, the Cronbach's alpha value for emotional self-efficacy increased from 0.831 to 0.838 after removing components from ESE18. The increase did not show significant changes before and after removing items ASE10 and ESE18. Internal consistency still shows good results. However, because the loading factor value is less than 0.40 for ASE10 and ESE18, it should be removed because it is possible that it does not correlate enough to measure the dimensions of self-efficacy.

Table 2. Pearson Correlation Coefficients Between the SEQ-C Subscales and Total Score (n = 120)

	Subscale of SEQ-C			
	Academic SE	**Social SE**	**Emotional SE**	**Cronbach's Alpha**
Academic SE				0.822
Social SE	0.635**			0.830
Emotional SE	0.483**	0.642**		0.831
SEQ-C Score	0.811**	0.892**	0.849**	0.911

Abbreviation: SEQ-C: Self-Efficacy for Children; SE: Self-Efficacy
**. Correlation is significant at the 0.01 level (2-tailed).

Discussions

Self-efficacy plays an essential role in supporting positive adolescent development. Research on developing questionnaires to measure self-efficacy has been conducted more in developed countries with American (Suldo and Shaffer, 2007) and European samples (Muris, 2001; Muris, 2002). However, in recent years, this questionnaire's translation process and psychometric testing has begun in Asian countries with Middle-Income Countries such as Malaysia (Tan and Chellappan, 2018), Turkey (Habibi, Tahmasian and Ferrer-Wreder, 2014), Korea (Kim, Kim and Lee, 2017), and China (Xie, Shlonsky and Harrigan, 2023). The SEQ-C still needs to be determined as being able to generalize and measure adolescent self-efficacy worldwide within the various cultural backgrounds that influence adolescents' perceptions and behaviors (Habibi, Tahmasian and Ferrer-Wreder, 2014). Therefore, the translation of the SEQ by considering the cultural adaptation of a particular country is not only literal in terms of language. This study aimed to evaluate the suitability of SEQ-C for measuring self-efficacy among Indonesian adolescents aged 13 to 15 years. The findings of this study align with those of earlier investigations, namely that SEQ-C can be used but with modifications according to the setting of each country. The SEQ-C developed by these students can measure adolescent self-efficacy in Indonesia by eliminating one item each from the ESE and ASE.

The findings from the CFA analysis indicated that the factor structure of the Indonesian version of the SEQ-C was consistent with the findings shown by the first SEQ-C (Muris, 2001) and other studies (Suldo and Shaffer, 2007; Habibi, Tahmasian and Ferrer-Wreder, 2014; Kim, Kim and Lee, 2017; Xie, Shlonsky and Harrigan, 2023). The Malaysian version of the SEQ-C testing used the Rasch model but the results showed where the SEQ-C could be used to measure adolescent self-efficacy (Tan and Chellappan, 2018). The results of this study recommend the SEQ-C using 22 question items (adjusted model 2) by eliminating ASE10 and ESE18. Thus, the final result of the Indonesian version of SEQ-C consists of 22 items: seven items pertain to academic self-efficacy, eight to social self-efficacy, and seven to emotional self-efficacy. SEQ-C, at the beginning of the psychometric test, recommended three items be removed from the original 24-item version of the SEQ, one of which was ESE18, namely, "How well can you tell a friend that you do not feel well?" (Muris, 2001). This result aligns with the Korean version of the SEQ-C psychometric test that removed this item (Kim, Kim and Lee, 2017). ESE18 in the Indonesian version SEQ-C was removed due to the low loading factor. Apart from ESE18, one more item was also removed, namely ASE10.

The statement of ASE10 stating "How well do you succeed in finishing all your homework every day?" was eliminated. The phrase "homework" has two meanings in

Table 3 Descriptive Analysis and Reliability Assessment

Items according to the original SEQ-C (Muris, 2001)	Mean	Standard Deviation	Skewness	Kurtosis	Corrected Item-Dimension Correlation	Alpha if Item Deleted
SEQ-C Academic Self-efficacy (ASE) (α=0.822)	29.11	0.459	-0.072	-0.505	-	-
"How well can you get teachers to help you when you get stuck on schoolwork?" (Q1)	3.51	1.053	-0.220	-0.840	0.609	0.906
"How well can you study when there are other interesting things to do?" (Q4)	3.62	0.936	-0.158	-0.824	0.486	0.908
"How well can you study a chapter for a test?" (Q7)	3.72	0.936	-0.276	-0.494	0.482	0.908
"How well do you succeed in finishing all your homework every day?" (Q10)	3.81	0.873	-0.387	-0.091	0.314	0.911
"How well can you pay attention during every class?" (Q13)	3.54	1.099	-0.320	-0.539	0.524	0.907
"How well do you succeed in understanding all subjects in school?" (Q16)	3.53	0.860	-0.119	0.178	0.475	0.909
"How well do you succeed in satisfying your parents with your schoolwork?" (Q19)	3.73	0.950	-0.635	0.581	0.544	0.907
"How well do you succeed in passing a test?" (Q22)	3.66	0.783	0.046	-0.498	0.494	0.908
SEQ-C Social Self Efficacy (SSE) (α=0.830)	28.50	0.505	0.014	-0.609	-	-
"How well can you express your opinions when other classmates disagree with you?" (Q2)	3.26	1.088	-0.015	-0.745	0.649	0.905
"How well can you become friends with other children?" (Q6)	3.91	0.926	-0.462	-0.356	0.604	0.906
"How well can you have a chat with an unfamiliar person?" (Q8)	3.13	1.171	-0.055	-0.881	0.485	0.905
"How well can you work in harmony with your classmates?" (Q11)	3.89	0.828	-0.607	0.528	0.646	0.906
"How well can you tell other children that they are doing something that you don't like?" (Q14)	3.05	1.173	0.188	-0.843	0.552	0.907
"How well can you tell a funny event to a group of children?" (Q17)	3.79	1.060	-0.432	-0.688	0.525	0.907
"How well do you succeed in staying friends with other children?" (Q20)	4.06	0.823	-0.569	-0.225	0.557	0.907
"How well do you succeed in preventing quarrels with other children?" (Q23)	3.42	1.042	-0.273	-0.376	0.482	0.908
SEQ-C Emotional Self-Efficacy (ESE) (α=0.831)	26.98	0.544	-0.175	-0.339	-	-
"How well do you succeed in cheering yourself up when an unpleasant event has happened?" (Q3)	3.59	1.096	0.296	0.788	0.484	0.908
"How well do you succeed in becoming calm again when you are very scared?" (Q5)	3.34	1.088	-0.161	-0.711	0.589	0.906
"How well can you prevent becoming nervous?" (Q9)	3.02	1.130	0.002	-0.629	0.639	0.905
"How well can you control your feelings?" (Q12)	3.57	0.958	-0.159	-0.640	0.560	0.907
"How well can you give yourself a pep talk when you feel low?" (Q15)	3.61	1.125	-0.401	-0.589	0.459	0.909
"How well can you tell a friend that you don't feel well?" (Q18)	3.58	1.247	-0.484	-0.820	0.438	0.910
"How well do you succeed in suppressing unpleasant thoughts?" (Q21)	3.26	0.939	0.016	-0.525	0.436	0.909
"How well do you succeed in not worrying about things that might happen?" (Q24)	3.00	1.188	0.000	0.949	0.563	0.907
Total (α=.911)	84.58	1.282	0.059	-0.496	-	-

ASE10 and ESE18 were removed in the final model.

Indonesian: assignments from teachers related to subjects that must be completed at home or domestic household work at home. Adolescents in Indonesia are generally responsible for domestic household work such as washing, sweeping, mopping, and other things. Meanwhile, ESE18, "How well can you tell a friend that you do not feel well?" may not be done for fear of being mistrusted or spoiled, which is also considered to be a reason for not participating in school activities. Therefore, eliminating ASE10 and ESE18 due to problems with the choice of phrasing and other cultural factors can be considered rational reasons.

Another modification for the adjusted model 1 of the Indonesian SEQ-C is the connection of the error terms SSE6, "How well can you become friends with other children?" and SSE20, "How well do you succeed in staying friends with other children?" These questions have the same meaning for Indonesian adolescents aged 13 to 15. Making friends means interacting with other students, and they tend to be together for learning and playing activities. In addition, the characteristics of adolescent development are more concerned with their peers, so adolescents aged 13 to 15 years try to maintain their friendships and be accepted by their peer group.

Table 4: Goodness of Fit for the Confirmatory Factor Analysis Models

	χ2(df)	TLI	CFI	RMSEA
M1: SEQ-C original version (24-items)	418.663***(249)	0.787	0.841	0.076
M2: SEQ-C modified version (22-items)	296.357***(201)	0.892	0.906	0.063

***ρ<0.001

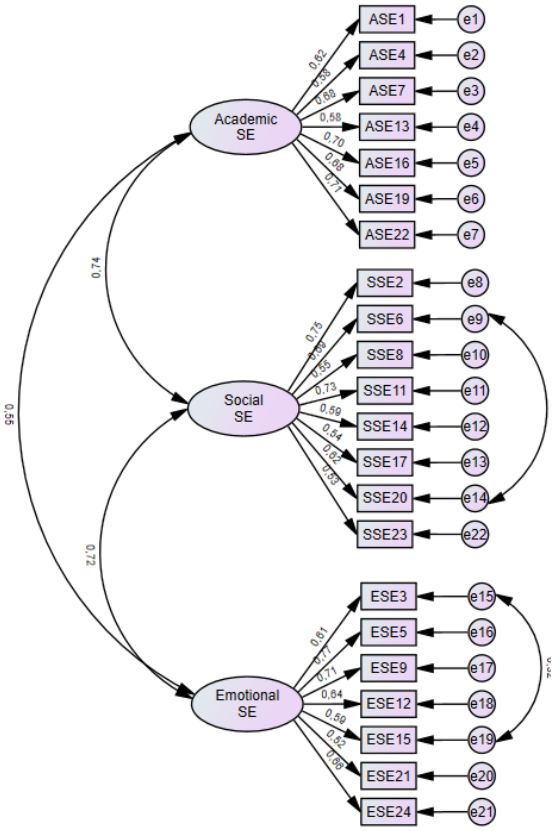

Figure 1. Standardized loading factors of the modified 22-item SEQ-C based on CFA

Another modification is to connect the error terms from ESE3, "How well do you succeed in cheering yourself up when an unpleasant event has happened?" and ESE15, "How well can you give yourself a pep-talk when you feel low?" Furthermore, the correlation test of the latent variables indicated significant correlations among the constructs of SEQ-C, aligning with Muris' findings (2001) and those observed in other samples (Suldo and Shaffer, 2007; Habibi, Tahmasian and Ferrer-Wreder, 2014; Xie, Shlonsky and Harrigan, 2023), although the associated error terms are different such as ASE6 and ASE7 for the China Version of the SEQ-C(Xie, Shlonsky and Harrigan, 2023). The assumption (Bandura, 2006) states that self-efficacy components are interrelated.

In addition, the reliability outcomes of the analysis indicated that the SEQ-C demonstrated adequate internal consistency within an Indonesian context, as indicated by the Cronbach's alpha for the overall SEQ-C (α=0.91) and the three subscales (α=0.83 to 0.84), which is aligned closely with the findings from comparable studies. For instance, the Cronbach's alphas of the SEQ-C ranged from 0.82 to 0.90 in Belgian adolescents (Muris, 2002), 0.75 to 0.86 in Korean adolescents (Kim, Kim and Lee, 2017), 0.68 to 0.89 in Malaysian adolescents (Tan and Chellappan, 2018), and 0.73 to 0.82 in American students (Suldo and Shaffer, 2007), and in Chinese settings α=0.84 to 0.90 (Xie, Shlonsky and Harrigan, 2023). Furthermore, the item-scale correlation indicated that all items, except for ASE10 and ESE18, were connected with their respective subscales, affirming that the items consistently assessed their assigned dimensions. The results indicate that the adjusted SEQ-C is a reliable tool for assessing adolescent self-efficacy in Indonesia.

Regarding the average scores of the SEQ-C subscales, the sample of Indonesian adolescents aged 13 to 15 years had a lower emotional self-efficacy competency but were high for academic self-efficacy. This result is different from the self-efficacy of adolescents in Korea (Kim, Kim and Lee, 2017) and China (Xie, Shlonsky and Harrigan, 2023) where social efficacy is higher than the academic and emotional domains. Meanwhile, the average social self-efficacy of adolescents in the United States is at the lowest level (Suldo and Shaffer, 2007). These findings may be related to each country's cultural norms and values as these results may be related to beliefs about parenting and the local norms. The observed results may be related to the norms in Indonesia, especially that of the Javanese culture, which causes the adolescents to be taught to suppress emotions such as fear, anger, and sadness. Men who shed tears are stereotyped as cowards. Furthermore, parents emphasize academic achievement more than the adolescents' ability to regulate their emotions. As a result, it is only natural that Indonesian children feel less confident regarding emotional self-efficacy.

In addition, adolescents with behavioral problems are correlated with low self-efficacy. Adolescents who experience victimization tend to be less competent in terms of self-efficacy (e.g., bullying) (Xie, Shlonsky and Harrigan, 2023). The results of this study support the conceptual framework (Bandura, 1997) that being effective can increase the children's capability in terms of prosocial competence and minimize the probability of experiencing problematic behaviors. Low levels of self-efficacy are generally accompanied by high levels of anxiety/neuroticism, symptoms of anxiety disorders, and symptoms of depression (Muris, 2002). Measuring the self-efficacy ability of adolescents and developing an intervention plan to enhance self-efficacy is essential to promoting positive development and encouraging healthy behaviors (Kim, Kim and Lee, 2017). The results seem to support the validity of the Indonesian version of the SEQ-C as a measurement tool, and conducting convergent validity with other factors is recommended.

This study also has several limitations. First, the testing is limited to one district in Indonesia. Cultural diversity and the gap in urban and rural socio-economic status can also impact the adolescent's perceptions of self-efficacy. Further research is recommended to involve a larger sample, involving adolescents aged 10-19 years, and several regions in Indonesia. Next, the psychometric analysis of this study did not use convergent validity, meaning that further research can test with other independent variables that correlate with self-efficacy,

such as prosocial behavior, bullying, depression, anxiety, and others.

Conclusion

The SEQ-C is recognized as an instrument that can measure adolescent self-efficacy, divided into three aspects: academic, social, and emotional self-efficacy. The SEQ-C can be used to examine the self-efficacy of adolescents aged 13 to 15 years in Indonesia. Self-efficacy is one of the risk factors for adolescent problems such as bullying. However, the SEQ-C in Indonesian has undergone slight modification, namely the elimination of items ASE10 and ESE18. SEQ-C in the Indonesian version can be used for research, education, or other purposes.

Acknowledgments

We thank all participants, the school principal, and the research assistants who helped collect and enter the data.

Funding source

LPDP RI-Indonesia Endowment Fund for Education Agency has financed the complete study process, excluding the expenses associated with publishing.

Availability of data and materials

The dataset generated during and analyzed during the current study is available from the corresponding author upon reasonable request.

Authors' contributions

EW contributed to data collection and data analysis, wrote the first draft of the manuscript, and revised the final draft. LL, FH, and BW contributed to the concept and design of the study, reviewed the overall content, and gave final approval for publication of the article.

Declaration of Interest

The authors stated there to be no potential conflicts of interest regarding the study and the publication of this paper.

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How to cite this article: Wuryaningsih, E. W., Lusmilasari, L, Haryanti, F., and Wahyuni, B. (2025) 'The Indonesian Self-Efficacy Questionnaire for Children: Translation, Cross-Cultural Adaptation, and Psychometric Evaluation', Jurnal Ners, 20(1), pp. 17-25. doi: http://dx.doi.org/10.20473/jn.v20i1.64114