Education and Work Future Expectation Scale Adaptation for Indonesian University Students

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Abstract

The students' optimism about their future careers and education impacts their educational success. The Future Expectation Scale of Adolescents (FESA) can measure future expectations of education and student career. This study aims to adapt the scale of the FESA work and education domain to the Indonesian language and culture. The adaptation in this study follows the six-stage category of the International Commission Test. Development of adaptation items using a forward-backward translation design involving six experts. The comparability of language and content validity assessments involved nine experts. Pilot study for item evaluation involving 15 students from the target population. The quantitative testing was administered to 297 state college students. Results of the comparability assessment of language indicate that the adapted item has a similar structure and meaning. The content validity assessment demonstrates that the adapted item is already relevant, essential, and clear for measuring educational and work expectations. Confirmatory factor analysis (CFA) reveals that this adaptation scale has good construct validity, as indicated by the value of a good fit model that meets the criteria. Reliability based on construct reliability and internal consistency is also good. Thus, the FESA work and education domain scale version for Indonesia is valid and reliable to measure the youth's future expectations of education and work, especially among Indonesian college students.

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1. Introduction

The expectation of the future is essential for adolescents who can shape their futures (Lazarides et al., 2016; Tan & Ergün, 2021). It is a significant developmental activity in late adolescence and early adulthood that shows the ability to anticipate. Positive future expectations are an individual's optimistic ideas and projections about the future, which can assist them in achieving both their short- and long-term goals (Fraser et al., 2022). Moreover, the future expectation is a cognitive representtation of an individual's estimation that the desired future is possible (Sharp et al., 2020).

Researchers can interchange the phrase future expectation with different terms, e.g., educational/academic/student expectation (Cheung et al., 2014; Cunningham et al., 2009; Sacker & Schoon, 2007; Sandoval-Hernández & Białowolski, 2016), educational/student aspiration (Gizir & Aydin, 2009; Padrón et al., 2014; Sacker & Schoon, 2007), general future orientation/goal material gain/goals setting (Cunningham & Swanson, 2010; Gordon, 1995; Hampton, 2016).

Numerous research investigations have demonstrated that an individu's future expectations significantly affect their life. Students who face significant obstacles in life tend to have a negative perspective of educational expectations (Moses, 2020). However, students who can uphold academic

resilience when confronted with adversity tend to have positive future expectations, including the expectation of obtaining a degree and pursuing higher education (Abukari, 2018; Brooms, 2019; Neal, 2017; Perez-Brena et al., 2019); the hope of escaping poverty, improving their social status, having a high opinion of themselves, and having successful careers (Gayles, 2005; Graff et al., 2013; Morales & Trotman, 2011).

A study conducted with high school students indicates that an increase in positive expectations for the future can significantly improve subjective well-being (Tan & Ergün, 2021). The study also indicated that vocational students have much higher future expectations than high school students, both in general and in the future expectation domains of work and education. This study can be attributed to the work skills training they received in school. Students' high optimism over their futures resulted from their increased clarity of interest and acquired work experience.

Heekerens and Eid (2021) conducted a systematic review and meta-analysis in which he concluded that intervention could increase future expectations, especially when evaluating future expectations shortly after the intervention program is administered. According to a Sharp et al. (2020) study, gender influences future expectations, with more teenage boys having low college expectation profiles. In addition, it was discovered that these adolescents' future expectations could influence their decisions during the transition to adulthood.

Future education and career expectations have a significant impact on academic resilience in college students, which leads to high academic performance and graduation (Abukari, 2018; Graff et al., 2013; Morales, 2008). College students must maintain their future expectations because in the course of lectures, they will encounter numerous challenges and obstacles, such as experiencing future career anxiety (Elfina & Andriany, 2023), still exploring careers, and adapting to career choices (Putri & Salim, 2021), which causes students to drop out of college because they feel unfit for college (Angelia, 2023). These anticipations of the future can influence the decisions that must be made (Sharp et al., 2020). College students who have previously held optimistic views of the future will continue to do so throughout their education (Lawson et al., 2020). College students who have a stronger and more optimistic outlook on the future will survive and graduate (Abukari, 2018). Morales & Trotman (2011) found that college students from a background of low socioeconomic status, a culture of violence, and family failure who have optimistic future expectations are able to complete their education and even outperform more seasoned students.

College students have diverse abilities in determining their future careers. The study found that almost 30% of college students had issues deciding on a career (Rahayu, 2021). According to Rahayu's findings, most college students demonstrated low self-understanding levels. These results show that college students still need to improve their career maturity. According to additional research, 25% of college students still need more career maturity (Syamsu & Satrianta, 2021). The future time perspective, or how an individual sees everything in the future, impacts how career maturity develops (Grashinta et al., 2018). Internal and external influences can affect career development and maturity (Nurillah, 2017). Positive future expectations related to education and work can be an internal factor for college students to motivate themselves to improve career development and maturity. One way to improve career maturity is through guidance and counseling programs.

Effectively guidance and counseling programs can cultivate college students' awareness to set up careers they will explore in the future. The objectives of guidance and counseling in higher education institutions, among others, encourage college students to develop their potential and personality and regulate their present and future lives (Nurillah, 2017). Career guidance is part of a college student guidance and counseling program that focuses on helping college students find, plan, and prepare for their careers (Ash Shiddiqy et al., 2019). According to its potential, the right decision can be predicted to have a good adult life. Since future time perspectives relate to career maturity, then a career guidance program is necessary to follow the inclusion of future orientation, including future expectations.

Considering the significance of future expectations, these variables are expected to continue to be studied alongside numerous other developmental variables. Therefore, an accurate and trustworthy instrument is required to measure future expectations. There are several future-related measurements, including the assessment of future orientation (using interview techniques), the Prospective Life Course Questionnaire, and the Future Orientation questionnaire (using multi-response techniques), and measuring expectations as behavioral change achievements (Seginer, 2009). These measurement techniques will necessitate additional time and distinct analysis and interpretation procedures. Research typically necessitates more practical instruments, as they will be linked to a number of other variables and utilized in a more practical manner (Campbell et al., 2003; Dahm et al., 2016). Therefore, a more concise instrument of future optimism is required. Campbell et al. (2003) investigated the goodness of fit of instruments with multiple versions, such as version 60 items, version 30, version 28, version 20, and version 12 items, as well as various scoring methods. According to his investigation, version 12 is simple to extract. A quality instrument adheres to the principles of simplicity and plausibility.

The Future Expectation Scale of Adolescents (FESA) was developed by McWhirter and McWhirter (2008) in order to assess adolescents' future expectations. A more practical measuring instrument, such as the survey form in the form of a Likert scale. This measurement instrument was developed based on the concept of future optimism indicated by future orientation of Lens and Seginer (2015), hope and optimism of Snyder and Lopez (2007). The instrument was driven by the subject matter of adolescents in developing countries (Chile). Sulimani-Aidan and Benbenishty (2011) developed an adolescent future expectations scale. This instrument focuses more on adolescent populations in conflict zones, as the instrument was developed with teenagers in residential care due to war. Furthermore, the negative future expectations and obstacles aspect on the scale tend to contradict the theory of positive expectations. Whenever a person is pessimistic about the future, they typically get a low score on future expectations (McWhirter & McWhirter, 2008). The negative future expectations and obstacles aspect of the scale is unnecessary. We focus on instruments that comply with the fundamental premise of future orientation and are preferable to the subject context in which they were created and produced, the FESA.

This study focuses on FESA work and education domain because this domain is associated with academic achievement and education in general (McWhirter & McWhirter, 2008). The FESA has also been adapted to the Brazilian language and culture by Dutra-Thomé et al. (2015). In Indonesia, research was also performed on future expectation domain work and education. Andrean and Zakiah Akmal (2019) investigated the future expectations of orphanage adolescents. This study employed the translated FESA scale, although the validity and reliability of the adaption scale have yet to be investigated. Thus, this study aims to make adaptations based on the precise recommendations of International Test Commission (2017) and to establish that the FESA work and education domain scale has the same construct validity as the original scale and confirm the consistency of this adaption scale.

2. Method

2.1. Participant

The study has been granted ethical approval by the Health Research Ethics Committee, Universitas Airlangga. In this study, there are three categories of participants: adaptation instrument development participants, pilot study participants, and validity and reliability confirmation participants. Construction of adaptive instruments consists of 15 experts who are native Indonesians with high TOEFL or IELT scores demonstrating their proficiency in English. In addition, several experts with experience studying and living abroad were chosen. The experts' educational backgrounds include majors in English and psychology. Their current occupations include translators, teachers, lecturers, counsellors, researchers, and some leadership roles at higher education institutions. The pilot study participants consisted of 15 students, who were the target population. The participant stage confirmation of instrument validity and reliability consists of the target population of instrument adaptation. The research population consists of undergraduates from one of public colleges in Malang city. Participants in this stage were taken using non-probality sampling, which means convenience sampling is employed. FESA scale adaption instrument have been created in Microsoft forms

and then distributed in a couple of methods (online and offline). The quantitative test phase of this instrument took two weeks to collect data. The initial data is 316, yet there are 19 outliers; therefore, final data is 297. Participants comprised 240 females (80.8%); 57 males (19.2%); ages between 17-22 years old (mean= 19.43; s.d = 1.02); major of the studies are 252 social humanities (84.8%) and 45 science technology (15.2%); 72 first-year courses (24.2%); 104 second-year (35%); 106 third-year (35.7%); and 15 fourth-year (5.1%).

2.2. Instrument

The instrument adapted in this study is the Future Expectation Scale of Adolescence (FESA) work and education domain developed by McWhirter and McWhirter (2008). The original FESA has five domains: work and education, marriage and family, church and community, health, and children's future. The validity and reliability of the original FESA scale were analyzed by McWhirter and McWhirter (2008) used exploratory factor analysis (EFA) with principal axis factoring and oblique rotation. The reliability of the original FESA scale based on internal consistency obtained Cronbach's alpha value of more than 0.70, α=.87 for a full scale, α= 0.88 for work and education, α= 0.77 for marriage and family, α= 0.78 for church and community, α= 0.71 for health, and α= 0.85 for children's future.

The original FESA consists of 24 Likert scale items with seven response alternatives, ranging from a score of 1 for "I do not believe this at all" to a score of 7 for "I believe this absolutely." The instructions are "When I am an adult..." (McWhirter & McWhirter, 2008). The scoring technique can utilize each domain's mean or total score. The FESA work and education domain contains ten items (see Table 2).

McWhirter and McWhirter (2008) conclude that correlation analysis between five domains is a correlation score between 0.19 and 0.36. This result demonstrates that each domain measures distinct attributes. In addition, a correlation study with other factors revealed that the association between total scores from all FESA domains and GPA was not confirmed. The only FESA domain proven to correlate to GPA is the work and education domain, which also has the highest association with educational aspiration. FESA will be adapted to the work and education domain because this study is designed to clarify students' future educational and career expectations. There currently needs to be evidence regarding the validity and reliability of the FESA Indonesian adaptation scale, and therefore authors adapted it and demonstrated its validity and reliability.

2.3. Procedure

The adaption procedure adheres to six stages of International Test Commission (2017): (1) Pre-condition; (2) Test development; (3) Confirmation (empirical analysis); (4) Administration; (5) Score scale and interpretation; and (6) Documentation.

Stage one, pre-condition, in order to meet the requirements of the target population, decisions regarding the selection of instruments must be adapted through a literature review and consultation with experts. FESA is chosen to measure expectations for future education and employment. The author then communicated with Dr. Ellen Hawley McWhirter via email to request permission to adapt the instrument to the Indonesian language version. Permission for FESA adaptation and research use is granted via email.

Stage two, test development, various processes are carried out. The first process is forward translation, whereby two experts translate the original scale into Indonesian, followed by a reconciliation procedure conducted by one expert. Second, the results of the forward translation are translated back into English by two experts, and after that, one expert undertakes a reconciliation procedure. Third, the comparability of language assessment (Sperber, 2004), which compares the equivalence of language structure and meaning between backward translation items and original scale items as assessed by three linguist specialists. Calculations from the scores given by the experts illustrate that, in general, the FESA adaptation scale in the work and education domain has adequate equality. However, several items have been revised to be more precise and appropriate. Fourth, in assessing content validity (Polit et al., 2007), six experts assess the relevance, essential, and clarity

of forward translation items. The evaluation results indicate that the adaptation items have a good content validity index. However, it is recommended that several items be revised to make them more understandable and uncomplicated for the target population. The fifth process is a pilot study, consisting of a readability test of 10 students using the cognitive interview method (International Test Commission, 2018), and it was noticed that several points still required correction. The authors and experts revised ambiguous parts before conducting a second round pilot study with five students.

Stage three, confirmation (empirical analysis), which involves conducting quantitative and empirical tests on the validity and reliability of adaptation scales. Analysis for construct validity and construct reliability are evaluated utilizing confirmatory factor analysis (CFA). CFA consisted of five stages (Schumacker & Lomax, 2016): (1) model specification, the FESA domain work and education scale is the first order CFA; (2) model identification, the calculation for ten items produces df=35, the model is over-identified; (3) estimation model, the calculation shows multivariate abnormal data (0.001<0.05), so it uses robust ML estimation with data transformation into asymptotic covariance matrices (Brown, 2015); (4) model testing, utilizing the Lisrel 8.8 software; (5) model respecification, only conducted if the model is not yet good fit. The results of the analysis were evaluated based on model fit criteria: Small $\chi 2$ value dan p-value >0.05, Goodness-of-fit index (GFI) ≥0.90, Standardized RMR (SRMR) ≤0.09, Comparative fit-index (CFI) ≥0.90, Incremental Fit Index (IFI) ≥0.90); t-value ≥1.96; and factor loading ≥ 0.35 (Hair et al., 2019).

Stage four, administration, the results of the adaptation of the instructions for working on the scale in Indonesian were "*Silahkan melanjutkan kalimat ini: ketika saya dewasa…*" While the response options were: (1) *sama sekali tidak yakin* to (7) *sangat yakin*. Stage five, score scale and interpretation, adaptive FESA scoring methods also comply with the original scale scoring method. The average of each domain's scores or the sum of each domain's scores determines the scoring. Higher scores indicate optimism regarding future domains. Stage six, documentation, in a report file, the authors detail all phases of adaptation, from preconditioning to scoring. The authors include all translation, refinement, qualitative analysis, and quantitative calculation results in their report.

3. Results

The purpose of this study is to adapt the FESA scale domain of work and education, as it contains variables that have been shown to correlate with the education field, particularly academic success. The study's findings will be presented in three sections: descriptive analysis pertaining to the demographics of the participants, comparability and validity of the results as determined by experts, and validity and reliability of adaptation instruments.

In Table 1, the results of the descriptive calculation between the demographic and score FESA work and education domain adaptation versions are detailed. The independent t-test (Mann-Whitney analysis) of the different measures revealed no gender differences (p=0.906) and no differences between study majorities (p=0.336). Using Spearman's Correlations Test, the correlation analysis of age with FESA work and education domain scores reveals that age is not correlated with high or low FESA work and education scores (p=0.590). The average FESA score of students by course year is not significantly different. The student with the highest score is a second-year student, while the student with the second-highest score is a fourth-year student with a high standard deviation. Thus, the fourth-year student has a large difference between receiving a low and a high score.

Table 1. Descriptive Statistic of Participants

Demographic	Group	Mean Score FESA	Std. Deviation
Gender	Male	59.281	8.368
	Female	59.529	7.323
Major Study	Science technology	58.267	8.142
	Social humanities	59.698	7.400
Year of Course	1	58.611	8.082
	2	60.702	6.440
	3	58.896	7.745
	4	59.333	9.589

The results of evidence based on test content that focuses on comparability of language and similarity of interpretability (see Table 2) indicate that, in general, the structure and meaning of translated adaptation items are comparable to the original items. However, item 2 received a mean score greater than three (3.67), indicating that the language was not very comparable. In spite of this, the item received a mean score of less than two (1.67), indicating that the sentence conveyed the intended meaning.

Table 2. Evidence Based on Test Content: Comparability and Similarity

Level / Range mean score	Comparability of language	Similarity of interpretability
Per Item	1.33–3.67	1–2.67
Full Scale	2.11	1.5

Evidence-based on the test content focus on the validity index (CVI) (see Table 3) indicates that adaptation items have demonstrated high relevance, importance, and clarity in measuring students' future expectations regarding education and employment. A mean score of 1 on the unit alternative response and item CVI demonstrates that all six experts who conducted this evaluation agreed that each item and alternative response had a high value. However, it is suggested that a portion of the instructions be minimally revised by an expert. Prior to conducting a preliminary study, the author implements the suggested revisions.

Table 3. Evidence Based on Test Content: Content Validity Index (CVI)

Unit	Relevance	Importance	Clarity
Instruction	0.83	0.83	0.83
Alternative response	1.00	1.00	1.00
I-CVI	1.00	1.00	1.00
S-CVI	0.98	0.98	0.98

Figure 1 displays the results of a confirmatory factor analysis (CFA) of the FESA work and education domain adaptation scale model fit. The RMSEA value of 0.158>0.08 indicates that the model is not fit. Nevertheless, given that the t-value for each item is greater than 1.96, this indicates that all items are significant in predicting the future expectations of the work and education domain.
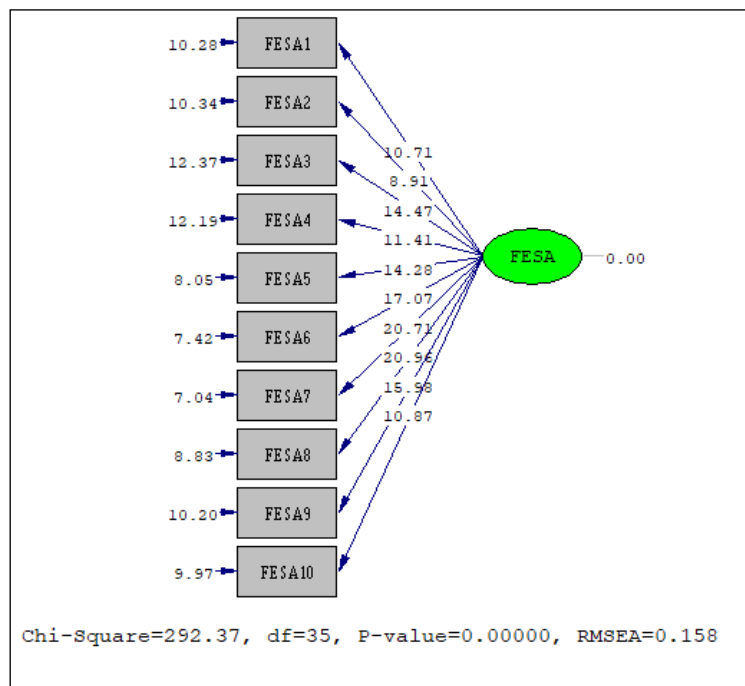

Figure 1. Diagram Path Adaptation of FESA (Work and Education)

Other parameters, including absolute fit indices, incremental indices, and parsimony indices, can be utilized to evaluate the good fit of the model. Table 4 contains the results of model testing.

Table 4. The Goodness of Fit Model FESA Domain Work and Education

No.	Cut Off Model Fit	Model Testing	Conclusion
		Absolute Fit Indices	
1	Chi-square ($\chi2$) Small $\chi2$ value dan p-value >0.05	292.37 (P=0.001)	Not Fit
2	Root Mean Square Error of Approximation (RMSEA) ≤0.08	0.158	Poor fit
3	Goodness-of-fit index (GFI) ≥0.90	0.80	Mediocre
4	Standardized RMR (SRMR) ≤0.09	0.077	Good fit
		Incremental Fit Indices	
5	Comparative fit-index (CFI) ≥0.90	0.93	Good Fit
6	Tucker–Lewis Index (TLI) /NNFI ≥0.90	0.91	Good Fit
7	Normed fit index (NFI) ≥0.90	0.92	Good Fit
8	Incremental Fit Index (IFI) ≥0.90	0.93	Good Fit
		Parsimony Fit Indices	
9	Parsimony fit index (PNFI)	0.72	High

Table 4 shows that the FESA work and education domain indicates a good fit structural model. The subsequent step evaluates convergent validity by ensuring each indicator or item has a standardized factor loading (SFL) value that meets the criteria. The factor loading values and complete CR and AVE calculations are shown in Table 5.

Table 5. Item Adaptation, Factor Loading, and Construct Reliability FESA Indonesian Version

Item Adaptation Indonesian Version (and Original Item)	Convergent Validity			Reliability	
	λ	λ^2	ϵ	CR	AVE
1. *Saya akan mencapai tingkat pendidikan sesuai keinginan saya*. (I will achieve the level of education that I want)	0.58	0.34	0.66		
2. *Saya akan selalu mampu mencukupi kebutuhan makan dan hidup untuk diri saya*. (I will always have enough to eat and live on)	0.46	0.21	0.79		
3. *Saya akan berhasil mencapai apapun yang saya inginkan dalam hidup*. (I will accomplish what I want to do with my life)	0.69	0.48	0.52		
4. *Saya akan mendapatkan hal-hal yang saya inginkan*. (I will acquire the things I want)	0.64	0.41	0.59		
5. *Saya dan pasangan saya kelak akan menghasilkan uang yang cukup*. (The money I earn with my spouse will be sufficient)	0.72	0.52	0.48		
6. *Pekerjaan saya nanti akan membuat saya merasa bangga*. (My work will give me opportunities to feel proud of myself)	0.83	0.69	0.31		
7. *Saya akan mendapatkan pekerjaan yang bagus*. (I will find good work)	0.90	0.81	0.19	0.91	0.51
8. *Saya akan mendapatkan pekerjaan yang stabil*. (I will find stable work)	0.89	0.79	0.21		
9. *Saya akan mendapatkan pekerjaan yang saya sukai*. (I will find work I enjoy)	0.73	0.53	0.47		
10. *Saya akan merasa puas terhadap diri saya sendiri*. (I will feel satisfaction with myself)	0.58	0.34	0.66		
Σ	7.02	5.11	4.89		
$(\Sigma\lambda)^2$	49.28	-	-		

Note: original item from McWhirter and McWhirter (2008)

CFA can obtain reliability values for measuring instruments, specifically construct reliability (CR) and average extracted variance (AVE). According to the calculations in Table 4, CR≥0.70 and AVE≥0.50 indicate that the FESA adaptation scale for the work and adaptation domains has a high level of construct reliability. These findings demonstrate that the convergent validity of this adaptation scale has been proven.

Estimating reliability based on internal consistency, as indicated by Cronbach's alpha value by the JASP software. Cronbach's alpha for the FESA adaptation scale in the work and education domain is 0.907, indicating that this adaptation scale has a high degree of reliability. By calculating the item-rest correlation, the differential power of the items is greater than 0.3 and ranges between 0.509 and 0.783.

Research on the adaptation process and CFA analysis demonstrate that the Indonesian version of the FESA domain of work and education has the same ability as the original scale to measure young people's future education and career expectations, particularly Indonesian undergraduates. The total score for this adaptation scale is calculated by adding the responses for each item. In addition, mean score for each domain (average score) can be used for scoring. The higher the score, the greater the individual's optimism and hope for his future education and career.

4. Discussion

This study demonstrates that the FESA work and education domain adaptation Indonesia version has a natural sense of language and adequate psychometric properties for the target population. The discussion will be divided into three sections based on the exposure structure of the results: FESA scores are based on demographics, language comparability, and empirical analysis results. The average scores of female participants were marginally higher than those of male participants, but the differences were not statistically significant. The mean grades of students in the social humanities are also marginally higher than those of students in science and technology, but statistical analysis reveals no significant difference. Age analysis also demonstrated that there is no correlation between the FESA work and education domain scores and age. The average score of first-through fourth-year students is not significantly different, but second-year students achieve the highest score, while first-year students achieve the lowest. The results demonstrated that the FESA work and education domain adaptation Indonesian version can objectively and comparably evaluate students of diverse genders, majors, ages, and course years. However, it is important to note that first-year students have the lowest optimism, expectations, and confidence in education and employment compared to students in other years, suggesting that first-year students experience adaptation (Arnett, 2004).

The adaptation item analysis results demonstrate that the FESA adaptation scale for the work and education domain shares the comparable linguistic structure and meaning as the original scale. Three experts determined that the mean score for comparability of language was approximately 2.11, while the mean score for similarity of interpretation was 1.5. Scores between one and two were classified as highly comparable and similar (Sperber, 2004). These results indicate that similarity of interpretation achieves a higher mean score than comparability of language, which can be interpreted to mean that, despite minor differences in the selection of words or phrases, the two versions can elicit the same response from respondents.

Adaptation items can achieve linguistically and semantically comparable results because this adaptation follows a rigorous process consisting of six stages and 18 guidelines from International Test Commission (2017), beginning with selecting experts for translation, reconciliation, comparability assessment, and content validity assessment. These experts' backgrounds consist of professional translators, psychologists, lecturers, counselors, measurement developers, and department chiefs. Adaptation of instruments expands beyond simple translation, as adapted instruments can measure the same structure despite differences in the cultural context and individual development context of the target population (International Test Commission, 2017). The purpose of the researchers' selection of experts for the adaptation of measuring instruments is to obtain results from adaptation instruments that are impressively natural, unbiased, simple for the target population to comprehend, and capable of measuring the same construction as the original scale (Ifdil et al., 2019; International Test Commission, 2018; Kumalasari et al., 2020; Rifani et al., 2021; Trigueros et al., 2020). After the translation stage, the next crucial step is to consider linguists' and the content's feedback on problematic items, then revise these items until the most appropriate sentence is obtained. Throughout the pilot study phase, it is crucial to select respondents who are representative of the target population in terms of gender, major, and educational level. The participants in the pilot study were male and female, from a variety of academic disciplines, and of varying course years. This diversity is intended to ensure that the adaptation instrument is comprehensible to the entire target

population, i.e., Indonesian students in general, and elicits a comparable response (International Test Commission, 2018). Trigueros et al. (2020) also follow this procedure in an effort to obtain an adaptation item that can be correctly comprehended by the target population. This adaptation research pilot study was conducted twice. In the initial phase, it was identified that a few questions needed more easily understood by respondents, so these questions were revised. Second round of pilot testing is specifically conducted for the revised items so that respondents can understand all items. Adaptation items prioritize the similarity of interpretation or meaning over the equality of word or phrase choice (Sperber, 2004). The target is encouraging respondents to provide identical responses to the original scale.

The empirical validity and reliability of the FESA adaptation scale in the work and education domain have been demonstrated by statistical analysis. The adaptation scale was administered to sufficient participants to generate sufficient data for calculating its validity and reliability. According to Table 4, GFI, SRMR, CFI, TLI, NFI, IFI, and PNFI meet the goodness-of-fit threshold for a satisfactory model fit. These results demonstrate that the structure of the FESA work and education domain Indonesian version is identical to that of the original scale. The FESA original scale factor analysis employed exploratory factor analysis (EFA) with oblique rotation and produced five factor eigenvalues greater than one and no cross-factor loadings greater than 0.32. The work and education domain accounted for 28.7% of the variance (McWhirter & McWhirter, 2008). It is said that the FESA labor and education domain is unidimensional because each item is interrelated and has a single concept (Hair et al., 2019).

Fit validity is determined by Goodness of Fit (GOF). According to Hair et al. (2019), GOF is a reflective representation of a theoretical structure constructed from empirical data. The analysis revealed that values the GOF of the adaptation scale failed to fulfill the cut-off values for chi-square (X^2), p-value, and RMSEA but met the other GOF criteria. To conclude that the FESA adaptation scale measurement model for the work and education domain reaches the fit validity model requires further evidence. This is supported by the fact that fit validity is not only determined by a single GOF criterion but also through other criteria, such that if one or two of the eligible are not met, this does not necessarily imply that the model is not fit (Brown, 2015). In the study of fit model development instruments, obtaining chi-square (X^2) and p-value results that do not meet adequate fit values is very common. Chi-square (X^2) and p-value values are highly dependent on sample size; when using large sample sizes, the value of chi-square (X^2) is greater and the p-value will be significant, which indicates that the value will not meet the GOF cutoff value (Brown, 2015). Despite the fact that the RMSEA value of the CFA analysis results is insufficient to meet the GOF cut-off, the SRMR value is adequate, so it can be concluded that the model is fit. This condition is supported by the argument that SRMR has the same badness-of-fit as RMSEA and RMR (Hair et al., 2019), so that SRMMR can replace RMEA.

The results of the construct validity analysis demonstrate that this items on the adaptation scale corresponds to its latent theoretical construct. All items have factor loadings above 0.50 support this conclusion, except for item number 2 (0.46). Item number 2 still represents a construct because, according to Hair et al. (2019), a loading factor of 0.35 is the minimum value when the sample size is greater than 250, and this study involved 297 participants. This validity is also supported by the construct reliability (CR) and extracted average variance values (AVE). This adaptation scale has CR and AVE values surpassing their minimum reference values of 0.91≥0.70 and 0.51≥0.5, respectively. These findings suggest that the consistency of the adaptation scale of the FESA employment and education domain is also comparatively high, with all items representing the same latent construct (Hair et al., 2019). Even though the Cronbach's alpha-based internal calculation of consistency is high, it outperforms the original scale calculations (McWhirter & McWhirter, 2008). The results provide additional evidence that the employment and education domain scale of the FESA is consistent even when adapted to other cultures and languages.

5. Conclusion

FESA domain work and education have been adapted to the Indonesian language and culture following recommendations from the international test commission. This standardized procedure yields adaptation instruments of good quality. The results of this study indicate that the FESA

adaptation scale for the work and education domain shares the same structure and interpretation meaning as the original scale. In addition, all items in the work and education domains have been proven valid and reliable, alignment with the goodness of fit, loading factor, CR, and AVE values that surpass acceptable value.

These findings can be utilized for both practical and academic purposes. The practical application of this instrument is to determine student profiles in terms of their future expectations; being conscious of these expectations will encourage actions leading to their fulfillment. Students who lack optimistic expectations for their future education and careers can be directed to be more optimistic through guidance and counseling. This research explicitly adapts the FESA domains of work and education; it is recommended that additional research be conducted on domains such as family, health, community and develop guidance and counseling programs.

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Adaptasi Skala Harapan Masa Depan Pendidikan dan Kerja untuk Mahasiswa Indonesia

Abstrak

Kesuksesan pendidikan dipengaruhi oleh keyakinan positif pelajar terhadap masa depan pendidikan dan pekerjaannya. Skala *the Future Expectation Scale of Adolescent* (*FESA*) dapat mengukur harapan masa depan pendidikan dan pekerjaan pelajar. Penelitian ini bertujuan mengadaptasi skala *FESA work and education domain* ke dalam bahasa dan budaya Indonesia. Adaptasi dalam penelitian ini mengikuti proses 6 tahap dari *International Commission Test*. Pengembangan *item* adaptasi menggunakan *forward-backward translation design* yang melibatkan 6 ahli. Penilaian *comparability of language* dan *content validity* melibatkan 9 ahli. Uji keterbacaan melalui *pilot study* yang melibatkan 15 mahasiswa yang sesuai target populasi. Uji kuantitatif dilakukan terhadap 297 mahasiswa dari perguruan negeri. Hasil penilaian *comparability of language* menunjukkan bahwa *item* adaptasi memiliki kesetaraan struktur bahasa dan makna. Penilaian *content validity* menunjukkan bahwa *item* adaptasi sudah relevan, penting dan jelas untuk mengukur harapan pendidikan dan pekerjaan. *Confirmatory factor analysis* (*CFA*) membuktikan bahwa skala adaptasi ini memiliki validitas konstruk yang baik, ditunjukkan dari nilai *good fit model* yang memenuhi kriteria. Reliabilitas berdasarkan *construct reliability* dan internal konsistensi juga tergolong baik. Dengan demikian, skala *FESA work and education domain* versi Indonesia terpercaya untuk mengukur harapan masa depan pendidikan dan pekerjaan remaja khususnya mahasiswa Indonesia.