



## Research Article

# Adaptation of academic success inventory for college students of the Indonesian: validity and reliability study

Zainul Anwar<sup>1\*</sup>, Fattah Hanurawan<sup>2</sup>, Tutut Chusniyah<sup>3</sup>, Ninik Setiyowati<sup>4</sup> and Shabina Rehman<sup>5</sup>

Psychology Department, University Muhammadiyah of Malang, East Java, Indonesia

### Article Info

**Received:** 22 July 2024  
**Accepted:** 13 September 2024  
**Online:** 30 December 2024

### Keywords:

Academic Success Inventory  
College students  
Scale adaptation

### Abstract

Academic success is defined differently by experts. Some define academic success as a score of learning outcomes in the form of Grade Point Average (GPA) or Standardized Test Scores (SAT). Some define it as academic achievement, academic performance, academic outcomes, and GPA as a tool for measurement. However, academic success is not just the value of learning outcomes in the form of GPA/SAT. It contains very important psychological variables. Therefore, there is a need for a more comprehensive measurement of academic success, not only from a cognitive aspect but also from a psychological aspect. The research objective was to adapt the Academic Success Inventory for College Students (ASICS) instrument developed by Prevatt et al. (2011) in America into Indonesian culture and language so that it can be used to measure the academic success of Indonesian students. The adaptation method, as described by Beaton et al. (2000), includes translations, synthesis, expert committee review, and pretesting. The research respondents were 364 students in the province of East Java, Indonesia. Data analysis used confirmatory factor analysis. The results showed that the loading factor values ranged from 0.716 to 0.959, meeting the minimum validity criteria. the Cronbach's alpha value is between 0.747 and 0.869, and the Composite reliability value is between 0.748 and 0.873. The Average Variance Extracted value is between 0.546 and 0.781.

2717-7602/ © 2024 The Authors.  
Published by Young Wise Pub. Ltd  
This is an open access article under  
CC BY-NC-ND license



### To cite this article

Anwar, Z., Hanurawan, F., Chusniyah, T., Setiyowati, N., and Rehman, S. (2024). Adaptation of academic success inventory for college students of the Indonesian: validity and reliability study. *Psychology Research on Education and Social Sciences*, 5(4), 119-128. DOI: <https://doi.org/10.5281/zenodo.14599790>

## Introduction

The success of students in pursuing their studies is the hope of all parties, be it the universities, families, and the students themselves. With academic success while studying at higher education, it will automatically have many impacts in various sectors, such as increased social status as an educated individual, due to maturity in thinking, socializing, and behaving. Every year, when registration for new students begins to open, thousands of prospective applicants compete to take exams at various tertiary institutions so that they can be accepted for further study. Of course, not all prospective students are successful - only those who meet the requirements and criteria will be accepted.

On the other hand, studying at tertiary institutions has unique characteristics when compared to previous education (junior high school or high school). One of the characteristics of learning in higher education is the study time, which is very flexible and depends heavily on the management of the students themselves. Managing their learning requires

<sup>1</sup> Corresponding Author: Prof.Dr., University Muhammadiyah of Malang, East Java, Indonesia. E-mail: [zainulanwar@umm.ac.id](mailto:zainulanwar@umm.ac.id) ORCID: 0000-0002-6125-002

<sup>2</sup> State University of Malang, East Java, Indonesia. e-mail: [fattah.hanurawan.fpsi@um.ac.id](mailto:fattah.hanurawan.fpsi@um.ac.id) ORCID: 0000-0003-4066-4680

<sup>3</sup> Prof.Dr., State University of Malang, East Java, Indonesia. Email: [tutut.chusniyah.fpsi@um.ac.id](mailto:tutut.chusniyah.fpsi@um.ac.id) ORCID: 0000-0001-8014-7245

<sup>4</sup> State University of Malang, East Java, Indonesia. eE-mail: [ninik.setiyowati.fpsi@um.ac.id](mailto:ninik.setiyowati.fpsi@um.ac.id) ORCID: 0000-0002-6531-6802

<sup>5</sup> Management and Science University, Malaysia. e-mail: [shabina@msu.edu.my](mailto:shabina@msu.edu.my) ORCID: 0009-0001-4267-7787

independence, resilience, and maturity in all respects. It is no wonder that many students fail to complete their academic assignments due to their powerlessness in managing themselves while studying at university.

According to data from the Indonesian Ministry of Research and Technology and Higher Education in 2019, it was found that the highest dropout rates among college students in Indonesia were in Java with 414,901 students, Sumatra with 130,644 students, Kalimantan with 18,561 students, Sulawesi with 89,366 students, Bali and Nusa Tenggara with 26,466 students, Maluku with 10,592 students, and Papua with 7,371 students. Overall, the percentage of dropout rates in Indonesia in 2019 was 7% (602,208) of the total registered students (8,483,213). (Kemenristekdikti, 2019, 2020). Therefore, higher education is an educational institution that can improve the intellectual level of society, enable the acquisition of the ethics of scientific thinking, and develop a qualified workforce to become pioneers of change and development for the nation and state (Bekmezci & Saygin, 2019).

Students who drop out of college can be referred to as experiencing academic failure because they are unable to complete their academic assignments at tertiary institutions. Academic success itself has been interpreted differently by experts, resulting in varying measurements. Some experts interpret academic success as learning outcomes in the form of scores while others interpret it as academic achievement (Serrano et al., 2022), academic performance (Gutiérrez & Tomás, 2019), and academic outcomes (Roksa, 2019). Both of these are measured using test scores, academic achievement indexes, grade point averages (GPA), scholastic assessment tests, or standardized test scores (SAT) (Bachik et al., 2021).

GPA/SAT score is not a psychological construct, so it is not a psychological variable. The measurement of academic success through the academic achievement index (GPA) is also considered a traditional measurement (Bayat & Salehiniya, 2019; Festa-Dreher, 2012; Orcanli et al., 2021; Prevatt et al., 2011). In addition, there is also academic success, which is defined as the state of positively achieving defined goals at the individual level and attaining desired academic outcomes (Demir & Acar, 2020; Orcanli et al., 2021) measured using self-report in the form of a scale.

Academic success so far has been measured primarily using academic achievement, which is expressed in the form of an academic achievement index value. However, this method pays less attention to psychological maturity, which is heavily influenced by individual differences (Anwar et al., 2022). So that, psychologically, it will affect the quality of graduates. In addition, student academic success is not solely a cognitive factor (intelligence), but other psychological factors such as motivation, school welfare, and the ability to master and use technology to support their academics are also very important.

Student achievement index values can now be said to be experiencing "inflation." In almost every subject, there are no bad grades. As a result, the government has adopted a policy in the form of a certificate accompanying a diploma or a certificate accompanying a diploma as an additional alternative to measure student success while pursuing higher education. Therefore, it is necessary to understand student academic success from another perspective.

The scale of the Academic Success Inventory for College Students (ASICS) will provide an alternative perspective on measuring academic achievement. Measurements based on the average academic achievement index do not fully reveal the interest, knowledge, and orientation of students in certain subjects. A measure that incorporates qualitative conditions rather than the average grade point average can provide better results in determining student academic success (Orcanli et al., 2021). Therefore, it is essential to adapt the ASICS to measure the academic success of students in Indonesia.

Instrument adaptation is necessary due to different language, cultural, and contextual factors. For example, drinking alcohol is prohibited in Indonesia but may not be prohibited in other countries. Respecting teachers and studying in Indonesia are heavily guided by religious dogmas, whereas in other countries, this may not be the case. There are many more cultures that need to be considered, so it is crucial to adapt this instrument.

### The basic theory of academic success

It is important to review the existing theories in various literature related to academic success because each theory has a unique perspective related to academic success. A comprehensive review from a theoretical perspective can also provide an extensive review of the factors that are proven to be correlated with academic success. The similarities between the different theories can also highlight factors that consistently emerge across the academic success literature. In addition, this information will be useful for understanding the theoretical basis behind some of the current assessments of academic success and provide direction for the development of assessments of academic success in the future (Festa-Dreher, 2012; Orcanli et al., 2021).

There are several theories that underlie the preparation of successful academic instruments, including: Self-Determination Theory (SDT), Cognitive Evaluation Theory (CET), Organismic Integration Theory (OIT), Achievement Goal Theory (AGT), Self-Regulation Theory (SRT), Input-Environment-Outcomes Model (I-E-O), Student Integration Model (SIM), and Kuh's Student Engagement Model (KSEM) (Festa-Dreher, 2012). As these theories explain, there are several themes that are woven across all the different perspectives, which reinforce the importance of various factors for academic success. These themes include motivation, academic skills, environment, locus of control, and social environment (Festa-Dreher, 2012).

### Definition of Academic Success

Academic success is defined differently by experts. There are those who define academic success as learning outcomes in the form of scores, and there are also those who define it as academic achievement (Serrano et al., 2022), *academic performance* (Gutiérrez & Tomás, 2019), and *academic outcomes* (Bachik et al., 2021; Roksa, 2019). Academic success is defined as academic achievement, engagement in activities aimed at education, satisfaction, acquisition of desired knowledge, skills, and competencies, persistence, achievement of educational outcomes, and post-college performance (York et al., 2019).

In addition, academic success is also defined as achieving self-defined goals positively at the individual level and attaining the desired academic goals (Demir & Acar, 2020; Prevatt et al. 2011; Orcanli et al., 2021). The concept of academic success in this study is based on important themes from previous theories related to academic success, namely motivation, academic skills, environment, locus of control, and social environment. From these five themes, several dimensions were developed as the basis for academic success, namely general academic skills, perceived instructor efficacy, internal motivation/confidence, personal adjustment, external motivation for the future, socialization, career decisiveness, lack of anxiety, concentration, and external motivation for the current time (Orcanli et al., 2021; Prevatt et al., 2011).

Based on various studies, and drawing on the concepts of Demir and Acar (2020), Prevatt et al. (2011), and Orcanli et al. (2021), this study seeks to explore the idea of student academic success. These studies suggest that academic success is a state of positively achieving self-defined goals at an individual level, and successfully reaching desired academic outcomes.

### Dimensions of Academic Success

The dimensions of academic success in this study, as described by Prevatt et al., (2011), include ten dimensions of academic success: General academic skills, Perceived instructor efficacy, Internal motivation and confidence, Personal adjustment, External motivation for the future, Socialization, Career decision-making, Lack of anxiety, Concentration, and External motivation for the current time. The explanation of these ten dimensions of student academic success is as follows:

**General academic skills:** A combination of expended effort, study skills, and self-organization strategies.

**Perceived instructor efficacy:** The teacher's ability to attract students' attention, organize, teach, and assess student progress.

**Internal motivation/Confidence:** Internal motivation to achieve, with an emphasis on personal interest in the subject and belief in one's ability to perform academically, satisfaction, and challenges related to performance

**Personal adjustment:** Lack of personal problems that reduce a person's ability to excel academically.

**External motivation/Future:** External incentives for achievement, with an emphasis on class relevance in the future or motivation for achievement, with an emphasis on current external factors such as grades, parents, or others.

**Socializing:** Partying (having fun), drinking (hanging out in cafes), or not attending lectures to the detriment of one's academic achievement or appropriate level of socialization, or drinking so that one's academic achievement is not hampered.

**Career decidedness:** Progress toward and certainty of one's decision about career goals.

**Lack of anxiety:** Lack of anxiety or nervousness related to studying or exams.

**Concentration:** The ability to concentrate and pay close attention mentally.

**External motivation/Current:** Motivation to do with an emphasis on current external factors such as values, parents, or other people's approval.

## Research Problem

Universities are also very concerned about the academic success of their students as a manifestation of the quality of education they offer, and their success is generally measured using the GPA (Orcanli et al., 2021). Likewise, in Indonesia, it is generally seen that student success is only evaluated based on the GPA variable, even though exam scores or passing grades are not enough to assess academic success. The purpose of this study was to adapt the Academic Success Inventory for College Students (ASICS), developed by Prevatt et al. (2011) in America, to Indonesian culture and language so that it can be used to measure student academic success in a more comprehensive way.

## Method

### Research design

The Ethics Commission of Research of the Faculty of Psychology at the University of Muhammadiyah Malang has approved the study (approval number for research ethics: E.6.m/127/FPsi-UMM/II/2023). The authors have assured the participants that their study data would be presented anonymously, and the participants have agreed in writing to participate.

### Participants

The participants of this research were second, fourth, and sixth-semester students who had a GPA  $\geq 2.00$  and were currently studying at public and private universities in East Java, Indonesia, totaling 364 respondents during May 2023. There were 283 female respondents and 81 male respondents, making a total of 364 students.

### Adaptation procedure

The process of adapting measuring instruments in this study begins with a request for permission from the owner of the measuring instrument. Next, the process of adapting the measuring instrument is carried out, as described by Beaton et al. (2000). There are five stages, among others.

*The first stage* involves translations by two linguists and experts in the field of educational psychology who graduated abroad and understand the context of measuring instruments for Indonesian students. The translations are done through the language center at the University of Muhammadiyah Malang. *The second stage* is synthesis, where the results of the translations from both translators are brought together to find similarities and differences until an agreed-upon translation is obtained. This translation is referred to as the draft translation measuring instrument scale. *The third stage* involves back translation and juxtaposition with the original measurement tool to find differences in meaning so that the meaning can be adjusted. The back translation is done by linguists and experts in the field of educational psychology who are foreign graduates and understand the context of measuring instruments through the language center at the University of Muhammadiyah Malang.

*The fourth stage*, the expert committee review, is to ensure that there is suitability in the meaning and sociocultural context between the original measuring instrument and the translated measuring instrument. The reviewers who

comprised the expert committee consisted of linguists, methodologists, and educational psychologists, totaling five experts. The five experts were asked to provide assessments and corrections for improvements to ensure whether the adapted instruments prepared were equivalent in measuring constructs and suitability for the cultural context of students in Indonesia. The results of the assessment from the five experts were then quantified using Aiken's V formula. The results of the analysis using Aiken's formula from the five experts on each ASICS instrument item obtained a minimum value of the Aiken's V index ranging from 0.81 to 1.00 with a minimum criterion of 0.047 based on the Aiken table ( $P > 0.05\%$ ). Thus, it can be concluded that all instrument items can be declared valid or equivalent in measuring the ASICS construct in students in the context of Indonesian culture.

*The fifth stage*, pretesting, is to test the measuring instrument on a small number of subjects beforehand to find out whether the measuring instrument is well understood by the subjects or not. If the measuring instrument can be understood, then a trial is carried out with a larger number of subjects. Testing the measuring instrument on a small scale was done by giving it to 40 students as a pilot test to determine whether the instructions and statements on each item could be understood properly before being tested on a large scale. Based on the results of the small-scale trials on the pilot tests that were conducted, it is known that the respondents stated that the instructions were easy to understand, and the items of all scales were also clear and well-understood. Thus, they were able to proceed with trials of measuring instruments on a large scale. The testing of the measuring instruments on a large scale was done by collecting data from 364 students to test their validity and reliability using CFA analysis.

### Data Analysis

Data analysis used Confirmatory Factor Analysis (CFA) with the help of Smart PLS 4 CB-SEM software. CB-SEM software is easier to use and provides more comprehensive model fit indices, such as Chi-square, RMSEA, CFI, and TLI, which provide more in-depth information about how well the theoretical model fits the observed data. In addition, PLS CBSEM is more powerful in testing established theories and is used when the model has a strong theoretical basis and requires causality testing. PLS CBSEM is also more sensitive to large sample sizes and data distributions, making it suitable if researchers work with larger data and meet the assumption of normality.

### Results and Discussion

The Academic Success Inventory for College Students (ASICS) consists of ten dimensions with 50 items. After research on the Academic Success Inventory for College Students, 29 items were dropped, resulting in a total of 23 items. The following is the blueprint for ASICS before and after the research.

**Table 1.** Blueprint the Academic Success Inventory for College Students

| No         | Dimensions                       | Before                                       |                | After       |            |
|------------|----------------------------------|----------------------------------------------|----------------|-------------|------------|
|            |                                  | F                                            | UF             | F           | UF         |
| 1          | General Academic Skills          | 4, 8, 12, 14, 23, 31, 33, 34, 43, 44, 45, 46 |                | 14, 31, 33, |            |
| 2          | Internal Motivation/Confidence   | 6, 9, 10, 11, 18, 29, 30                     | 20             | 29, 30      |            |
| 3          | Perceived Instructor Efficacy    | 35                                           | 22, 24, 28, 36 |             | 22, 24, 36 |
| 4          | Concentration                    | 2, 5                                         | 16, 21         | 2, 5        | 16         |
| 5          | External Motivation/Future       | 7, 19, 38, 41                                |                | 19, 38      |            |
| 6          | Socializing                      |                                              | 13, 17, 37, 42 |             | 17, 37     |
| 7          | Career Decidedness               | 47, 48, 50                                   | 49             | 47, 48      |            |
| 8          | Lack of Anxiety                  |                                              | 3, 15, 32      |             | 3, 32      |
| 9          | Personal Adjustment              |                                              | 1, 25, 40      |             | 25, 40     |
| 10         | External Motivation/Current Time | 26, 27, 39                                   |                | 26, 39      |            |
| Total item |                                  | 50                                           |                | 23          |            |

Convergent validity can be seen in the loading factor (outer loadings) as follows:

**Table 2.** Convergent validity of the Academic Success Inventory for College Students.

| No  | Dimension                      | Item | Factor loadings |
|-----|--------------------------------|------|-----------------|
| 1.  | Kemampuan akademik umum        | AS14 | 0,757           |
|     | General Academic Skills        | AS31 | 0,758           |
|     | Internal Motivation/Confidence | AS33 | 0,861           |
| 2.  | Perceived Instructor Efficacy  | AS29 | 0,841           |
|     | Concentration                  | AS30 | 0,810           |
| 3.  | External Motivation/Future     | AS22 | 0,757           |
|     | Socializing                    | AS24 | 0,752           |
|     | Career Decidedness             | AS36 | 0,705           |
| 4.  | Lack of Anxiety                | AS2  | 0,729           |
|     | Personal Adjustment            | AS5  | 0,825           |
|     |                                | AS16 | 0,716           |
| 5.  | Dimensions                     | AS19 | 0,809           |
|     |                                | AS38 | 0,738           |
| 6.  | General Academic Skills        | AS17 | 0,854           |
|     | Internal Motivation/Confidence | AS37 | 0,789           |
| 7.  | Perceived Instructor Efficacy  | AS47 | 0,959           |
|     | Concentration                  | AS48 | 0,801           |
| 8.  | External Motivation/Future     | AS3  | 0,772           |
|     | Socializing                    | AS32 | 0,871           |
| 9.  | Career Decidedness             | AS25 | 0,804           |
|     | Lack of Anxiety                | AS40 | 0,809           |
| 10. | Personal Adjustment            | AS26 | 0,813           |
|     |                                | AS39 | 0,810           |

From the table, it is known that the loading factor of the the Academic Success Inventory for College Students ranges from 0.716 to 0.959. As explained by Hair et al. (2019), the acceptable loading factor is  $\geq 0.5$ . Therefore, it can be concluded that the convergent validity of these items meets the requirements and is valid. The discriminant validity can be seen based on the Heterotrait-Monotrait (HTMT) value as follows.

**Table 3.** Discriminant validity of the Academic Success Inventory for College Students

| Dimensions |       |       |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | 1     | 10    | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
| 1          |       |       |       |       |       |       |       |       |       |
| 10         | 0.388 |       |       |       |       |       |       |       |       |
| 2          | 0.832 | 0.375 |       |       |       |       |       |       |       |
| 3          | 0.230 | 0.167 | 0.215 |       |       |       |       |       |       |
| 4          | 0.742 | 0.143 | 0.627 | 0.315 |       |       |       |       |       |
| 5          | 0.608 | 0.456 | 0.408 | 0.402 | 0.287 |       |       |       |       |
| 6          | 0.426 | 0.315 | 0.399 | 0.413 | 0.332 | 0.514 |       |       |       |
| 7          | 0.563 | 0.222 | 0.602 | 0.199 | 0.454 | 0.556 | 0.375 |       |       |
| 8          | 0.184 | 0.196 | 0.339 | 0.106 | 0.518 | 0.045 | 0.115 | 0.189 |       |
| 9          | 0.260 | 0.120 | 0.170 | 0.396 | 0.427 | 0.099 | 0.358 | 0.164 | 0.447 |

Based on the table, the HTMT values for each dimension range from 0.045 to 0.832. As explained by Henseler, et al., (2015), the HTMT value must be less than 0.9 to ensure discriminant validity between dimensions. The reliability of the ASICS scale construct can be seen in the following table.

**Table 4.** Construct reliability of the Academic Success Inventory for College Students

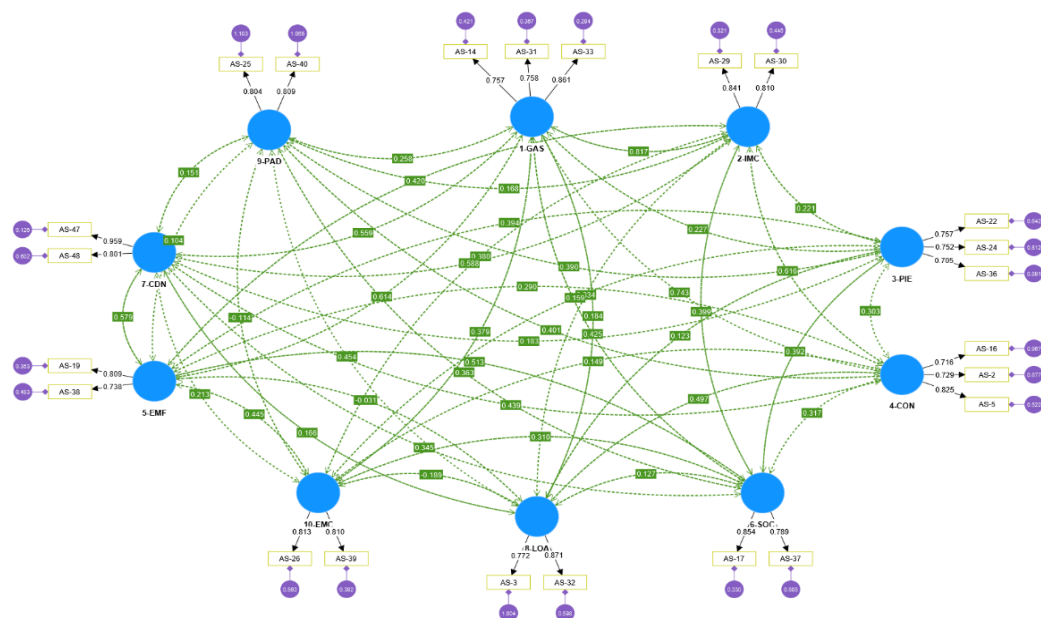
| No  | Dimensions                       | Alpha | CR    | AVE   |
|-----|----------------------------------|-------|-------|-------|
| 1.  | General Academic Skills          | 0.831 | 0.839 | 0.630 |
| 2.  | Internal Motivation/Confidence   | 0.810 | 0.809 | 0.681 |
| 3.  | Perceived Instructor Efficacy    | 0.781 | 0.782 | 0.546 |
| 4.  | Concentration                    | 0.796 | 0.798 | 0.575 |
| 5.  | External Motivation/Future       | 0.747 | 0.748 | 0.599 |
| 6.  | Socializing                      | 0.805 | 0.805 | 0.676 |
| 7.  | Career Decidedness               | 0.869 | 0.873 | 0.781 |
| 8.  | Lack of Anxiety                  | 0.804 | 0.806 | 0.677 |
| 9.  | Personal Adjustment              | 0.788 | 0.788 | 0.650 |
| 10. | External Motivation/Current Time | 0.794 | 0.793 | 0.658 |

From the table, it can be seen that the Cronbach's alpha value is between 0.747 and 0.869, and the Composite reliability (CR) value is between 0.748 and 0.873. As explained by Fornell and Larcker (1981), the value of Composite reliability tends to be greater than the value of Cronbach's alpha. Nunnally and Bernstein (1994) also explained that the Composite reliability is considered reliable if the CR value is  $\geq 0.7$ . The Average Variance Extracted (AVE) value is between 0.546 and 0.781. Chin and Todd (1995) explained that an AVE value  $> 0.50$  can be considered reliable. The ASICS Fit models are shown in the following table.

**Table 5.** Model fit of the Academic Success Inventory for College Students

| Parameter model fit | Estimated model (output) | Criterion   | Description |
|---------------------|--------------------------|-------------|-------------|
| RMSEA               | 0,045                    | $\leq 0,08$ | Fit         |
| GFI                 | 0.931                    | $\geq 0,90$ | Fit         |
| SRMR                | 0.042                    | $< 0,08$    | Fit         |
| NFI                 | 0.921                    | $\geq 0,90$ | Fit         |
| TLI                 | 0.951                    | $\geq 0,90$ | Fit         |
| CFI                 | 0.964                    | $\geq 0,90$ | Fit         |

Based on the table, it is known that the RMSEA, GFI, SRMR, NFI, TLI, and CFI values meet the criteria as described by Hair et al. (2019). If 4-5 parameters are met, the model is considered sufficient to assess the feasibility of a model. The following is an image of the final model of the Academic Success Inventory for College Students



**Figure 1.** Model of the Academic Success Inventory for College Students

A model can be said to be feasible if it fulfills one of the parameters of feasibility, and it will be even better if it fulfills multiple feasibility parameters of the model. According to Hair et al. (2019), if 4-5 parameters are met, the model is considered sufficient to assess feasibility. After fulfilling the feasibility parameters, the size of the factor loading or factor loading of the CFA can be seen. Factor loading with a value between 0.4-0.6 is categorized as sufficient validity, and if the factor loading value is  $\leq 0.7$ , it is categorized as high validity. However, if all items in one indicator are used up or do not represent the factor loading value, it can be lowered to a value of 0.30-0.40 provided that there are at least 250 respondents (Hair et al., 2011).

In addition, in order to determine the reliability or consistency of the instrument, an instrument reliability test was carried out. Instrument reliability relates to the instrument's ability to consistently measure instrument attributes (DeVon et al., 2007). Instrument reliability in this study was measured by calculating composite reliability or construct reliability (CR), and Average Variance Extracted (AVE) was used to determine how well the indicator size described its theoretical latent construct.

Hair et al. (2019) explain that the calculation of CR is the square of the total value (sum) of standard loading divided by the square of the total standard loading value plus the sum of the error value. Meanwhile, the AVE calculation is the total squared value of the standard loading divided by the sum of the squared standards of loading plus the sum of the error value. The reliability of a construct is said to be good if the CR value is  $\geq 0.70$ , but if the CR value is in the range of 0.60-0.70, then the reliability is still good. While an AVE value of more than 0.50 is a good measure of reliability, this AVE is usually optional in research (Davey & Savla, 2010; Hair et al., 2019; McDonald & Ho, 2002).

This study aims to adapt the Academic Success Inventory for College Students (ASICS) into Indonesian and to determine the validity and reliability of the construct to suit Indonesian culture. The original scale consisted of 50 items and ten dimensions. Therefore, because the ASICS instrument meets the standards for adapting measuring instruments and the psychometric properties of measuring instruments, the ASICS instrument is suitable for use in Indonesia and there are 23 items in the Indonesian version.

The ASICS instrument will provide an alternative perspective on measuring student academic success because it will reveal thinking maturity, emotional maturity, and behavioral maturity. A measure that incorporates qualitative conditions, rather than the average grade point average, may provide better results in determining student academic success. This approach is expected to provide significant data in evaluating both student academic performance and the effectiveness of higher education institutions.

## Conclusion

The results of this study conclude that the ASICS instrument is suitable for use in Indonesia and is in accordance with the culture of Indonesian students. The instrument has a smaller number of items than the original version, namely from 50 items to 23 items in the Indonesian version. The psychometric properties indicate that the loading factor values range from 0.716 to 0.959, meeting the minimum validity criteria. The Cronbach's alpha value is between 0.747 and 0.869, and the Composite reliability value is between 0.748 and 0.873. The Average Variance Extracted value is between 0.546 and 0.781. the RMSEA, GFI, SRMR, NFI, TLI, and CFI values meet the criteria.

## References

- Anwar, Z., Rahmawati, H., & Farida, I. A. (2022). Sukses Akademik, Motivasi dan Perbedaan Individu: Studi Literature Review. *Empati-Jurnal Bimbingan Dan Konseling*, 9(2), 217–223. <https://doi.org/10.26877/empati.v9i2.11837>
- Bachik, M. A. K., & Carey, G. (2021). VIA character strengths among US college students and their associations with happiness, well-being, resiliency, academic success and psychopathology. *The Journal of Positive Psychology*, 16(4), 1–14. <https://doi.org/10.1080/17439760.2020.1752785>
- Bayat, B., & Salehiniya, H. (2019). Assessing academic success rate and related factors among the students. *Journal of Education and Health Promotion*, 8(1), 1–5. [https://doi.org/http://dx.doi.org/10.4103/jehp.jehp\\_244\\_18](https://doi.org/http://dx.doi.org/10.4103/jehp.jehp_244_18)
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures. *Spine*, 25(24), 3186–3191.

- [https://journals.lww.com/spinejournal/Fulltext/2000/12150/Guidelines\\_for\\_the\\_Process\\_of\\_Cross\\_Cultural.14.aspx](https://journals.lww.com/spinejournal/Fulltext/2000/12150/Guidelines_for_the_Process_of_Cross_Cultural.14.aspx)
- Bekmezci, M., & Saygin, M. (2019). Mersin ilinde öğrenim gören üniversite öğrencilerinin girişimcilik eğilimleri: Devlet ve vakıf üniversitesi karşılaştırması. *Toros Üniversitesi İİSBF Sosyal Bilimler Dergisi*, 6(11), 108–123. <https://tinyurl.com/DOI-journal2019>
- Davey, A., & Savla, J. (2010). Statistical power analysis with missing data: A structural equation modeling approach. In *Statistical power analysis with missing data: A structural equation modeling approach*. Routledge/Taylor & Francis Group.
- Demir, Ö., & Acar, M. (2020). *Sosyal bilimler sözlüğü*. İstanbul: Ağaç Yayıncılık: LiteraTürk.
- DeVon, H. A., Block, M. E., Moyle-Wright, P., Ernst, D. M., Hayden, S. J., Lazzara, D. J., Savoy, S. M., & Kostas-Polston, E. (2007). A Psychometric Toolbox for Testing Validity and Reliability. *Journal of Nursing Scholarship*, 39(2), 155–164. <https://doi.org/https://doi.org/10.1111/j.1547-5069.2007.00161.x>
- Festa-Dreher, D. (2012). *The academic success inventory for college students: An item response theory analysis* [Proquest]. <https://search.proquest.com/openview/9763b1a949bec7c644bd2a6302e038d8/1?pq-origsite=gscholar&cbl=18750>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Gutiérrez, M., & Tomás, J. M. (2019). The role of perceived autonomy support in predicting university students' academic success mediated by academic self-efficacy and school engagement. *Educational Psychology*, 39(6), 729–748. <https://doi.org/https://doi.org/10.1080/01443410.2019.1566519>
- Hair, Joe F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, Joseph F, Black, W. C., Babin, B. J., Anderson, R. E., Black, W. C., & Anderson, R. E. (2019). Multivariate data analysis. In *Cengage Learning, EMEA* (8th ed). <https://tinyurl.com/yc3cs8he>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Kemenristekdikti. (2019). Statistik Pendidikan Tinggi (Higher Education Statistics) 2019. In *Pusdatin Kemenristekdikti*. <https://pddikti.kemdikbud.go.id/asset/data/publikasi/Statistik Pendidikan Tinggi Indonesia 2019.pdf>
- Kemenristekdikti. (2020). *Statistik Pendidikan Tinggi (Higher Education Statistics) 2020*. <https://pddikti.kemdikbud.go.id/asset/data/publikasi/Statistik Pendidikan Tinggi 2020.pdf>
- McDonald, R. P., & Ho, M.-H. R. (2002). Principles and practice in reporting structural equation analyses. In *Psychological Methods* (Vol. 7, pp. 64–82). American Psychological Association. <https://doi.org/10.1037/1082-989X.7.1.64>
- Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric Theory New York. In *McGraw-Hill* (Third Edit). McGraw-Hill. <https://tinyurl.com/Psychometric-Theory>
- Orcanli, K., Bekmezci, M., & Boztoprak, H. (2021). Adaptation of Academic Success Inventory Scale for College Students to Turkish: Validity and Reliability Study. *OPUS Uluslararası Toplum Araştırmaları Dergisi*, 17(37), 399–4026. <https://doi.org/https://doi.org/10.26466/opus.879645>
- Prevatt, F., Li, H., Welles, T., & Festa-Dreher, D. (2011). The Academic Success Inventory for College Students: Scale Development and Practical Implications for Use with Students. *Journal of College Admission*, 2(11), 26–31. <https://eric.ed.gov/?id=EJ926821>
- Roksa, J., & Kinsley, P. (2019). Correction to: The Role of Family Support in Facilitating Academic Success of Low-Income Students. *Research in Higher Education*, 60(4), 437. <https://doi.org/https://doi.org/10.1007/s11162-018-9517-z>
- Serrano, C., Murgui, S., & Andreu, Y. (2022). Improving the prediction and understanding of academic success: The role of personality facets and academic engagement. *Revista de Psicodidáctica (English Ed.)*, 27(1), 21–28. <https://doi.org/https://doi.org/10.1016/j.psicoe.2021.11.002>
- York, T. T., Gibson, C., & Rankin, S. (2019). Defining and measuring academic success. *Practical Assessment, Research, and Evaluation*, 20(5), 1–20. <https://doi.org/https://doi.org/10.7275/hz5x-tx03>

## Appendix 1. ASICS (Academic Success Inventory College Student) Indonesian Version

| <b>Inventaris Keberhasilan Akademik Mahasiswa Perguruan Tinggi</b>                                                                                                 |                                                                                                                                     |   |   |   |   |   |   |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| Pilihlah pernyataan dibawah ini yang sesuai dengan diri Saudara dengan memberikan tanda centang (√) sesuai dengan ketentuan berikut:                               |                                                                                                                                     |   |   |   |   |   |   |   |
| <b>1</b> Sangat Tidak Setuju, <b>2</b> Tidak Setuju, <b>3</b> Agak Tidak Setuju, <b>4</b> Ragu-Ragu, <b>5</b> Agak Setuju, <b>6</b> Setuju, <b>7</b> Sangat Setuju |                                                                                                                                     |   |   |   |   |   |   |   |
| No                                                                                                                                                                 | Pernyataan                                                                                                                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1                                                                                                                                                                  | Mudah bagi saya untuk menjaga fokus ketika berada di kelas                                                                          |   |   |   |   |   |   |   |
| 2                                                                                                                                                                  | Saya merasa gugup ketika akan ujian meskipun sudah mempersiapkan dengan baik*                                                       |   |   |   |   |   |   |   |
| 3                                                                                                                                                                  | Saya mudah berkonsentrasi ketika berada kelas                                                                                       |   |   |   |   |   |   |   |
| 4                                                                                                                                                                  | Saya belajar sungguh-sungguh di kelas                                                                                               |   |   |   |   |   |   |   |
| 5                                                                                                                                                                  | Saya sulit berkonsentrasi ketika berada di kelas*                                                                                   |   |   |   |   |   |   |   |
| 6                                                                                                                                                                  | Nilai saya jelek karena terlalu aktif di kehidupan sosial*                                                                          |   |   |   |   |   |   |   |
| 7                                                                                                                                                                  | Apa yang saya pelajari di kelas akan sangat berguna untuk karir saya                                                                |   |   |   |   |   |   |   |
| 8                                                                                                                                                                  | Saya kecewa dengan kualitas pengajaran*                                                                                             |   |   |   |   |   |   |   |
| 9                                                                                                                                                                  | Nilai saya buruk karena pengajarnya tidak kompeten*                                                                                 |   |   |   |   |   |   |   |
| 10                                                                                                                                                                 | Saya akan dapat nilai yang baik jika saja tidak menghadapi masalah-masalah pribadi*                                                 |   |   |   |   |   |   |   |
| 11                                                                                                                                                                 | Penting bagi saya mendapatkan nilai yang bagus di kelas karena alasan eksternal (seperti orang tua, beasiswa, atau regulasi kampus) |   |   |   |   |   |   |   |
| 12                                                                                                                                                                 | Saya cukup yakin akan dapat nilai bagus di kelas                                                                                    |   |   |   |   |   |   |   |
| 13                                                                                                                                                                 | Saya cukup percaya diri dengan kemampuan dan keterampilan saya di kelas                                                             |   |   |   |   |   |   |   |
| 14                                                                                                                                                                 | Saya belajar dengan giat di kelas karena ingin memahami materi pelajaran                                                            |   |   |   |   |   |   |   |
| 15                                                                                                                                                                 | Saya merasa cemas saat mengikuti ujian di kelas*                                                                                    |   |   |   |   |   |   |   |
| 16                                                                                                                                                                 | Saya belajar dengan giat di kelas                                                                                                   |   |   |   |   |   |   |   |
| 17                                                                                                                                                                 | Saya lebih banyak belajar sendiri karena di kelas dosennya bukan pengajar yang baik*                                                |   |   |   |   |   |   |   |
| 18                                                                                                                                                                 | Saya merasa tertinggal di kelas karena terlalu banyak menghabiskan waktu untuk bersenang-senang dan nongkrong dengan teman-teman*   |   |   |   |   |   |   |   |
| 19                                                                                                                                                                 | Kelas ini penting untuk kesuksesan saya di masa depan                                                                               |   |   |   |   |   |   |   |
| 20                                                                                                                                                                 | Saya harus mendapatkan nilai yang bagus untuk mempertahankan nilai IPK                                                              |   |   |   |   |   |   |   |
| 21                                                                                                                                                                 | Saya memiliki beberapa masalah pribadi yang mempengaruhi belajar di kelas*                                                          |   |   |   |   |   |   |   |
| 22                                                                                                                                                                 | Saya sangat yakin dengan pekerjaan yang saya inginkan setelah lulus kuliah                                                          |   |   |   |   |   |   |   |
| 23                                                                                                                                                                 | Saya tahu apa yang ingin saya lakukan setelah lulus                                                                                 |   |   |   |   |   |   |   |

\* Item Terbalik

### Dimensi

**Keterampilan Akademik Umum:** 14, 31 33

**Motivasi/Kepercayaan Diri Internal:** 29, 30

**Efikasi Pengajar yang Dirasakan:** 22, 24, 36

**Konsentrasi:** 2, 5, 16

**Motivasi Eksternal/Masa Depan:** 19, 38

**Bersosialisasi:** 17, 37

**Keputusan Karier:** 47, 48

**Tidak Ada Kecemasan:** 3, 32

**Penyesuaian Pribadi:** 25, 40

**Motivasi Eksternal/Waktu Saat Ini:** 26, 39