

# Content Validation of KIP-K Scholarship Instruments at Higher Education Using Aiken's Coefficient Validity Scale

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## Abstract:

This study aims to analyze the KIP-K Scholarship instrument at PTKIN IAIN Langsa while developing non-test instruments (questionnaires). This instrument is used to obtain information about students who apply for KIP-K scholarships. The instrument's content validity is obtained by a quantitative analysis approach by nine selected experts and a qualitative approach with an expert review of a set of questionnaires that have been arranged. In determining the content validity and reliability level, the experts analyzed a questionnaire quantitatively consisting of 29 items in the three components; economic, household, and academic and non-academic students' achievements. The data from this expert judgment is calculated by the formula Aiken V. While expert reviews are qualitatively similar to suggestions and feedback, they are used to refine constructed items. The result of these students' economic condition, household, and academic and non-academic achievements was above 0.72 with a significance level of 5%, namely 0.92, 0.96, and 0.96. All of the 29 items are very valid ( $V > 0.72$ ,  $V_1 > 0.50$ ) and reliable ( $\alpha = 0,944$ ). The conclusion that each component is closely related indicates information on the feasibility of distributing KIP-K. The instruments embodied at IAIN Langsa have high validity, and the level of reliability is excellent. This instrument can obtain complete information on prospective students who will become KIP-K scholarship recipients in 2022.

**Keywords:** *Content validity, KIP-K, Scholarship Instruments, Aiken's Coefficient*

## Abstrak:

Penelitian ini bertujuan untuk menguji validitas konten terhadap instrumen Beasiswa KIP-K calon mahasiswa IAIN Langsa. Instrumen ini digunakan untuk memperoleh informasi tentang mahasiswa yang mengajukan beasiswa KIP-K. Validitas isi dari kuestioner ini diperoleh dengan pendekatan analisis kuantitatif oleh sembilan pakar terpilih dan pendekatan kualitatif dengan tinjauan ahli terhadap seperangkat kuestioner yang telah disusun. Dalam menentukan tingkat validitas isi dan reliabilitas kuestioner. Para pakar menganalisis secara kuantitatif kuestioner yang terdiri dari 29 butir soal yang dibagi dalam tiga komponen; prestasi mahasiswa, ekonomi, rumah tangga, prestasi akademik dan non akademik. Data dari penilaian pakar ini dihitung dengan rumus Aiken V untuk menentukan validitas isi dari butir soal. Hasil dari kondisi ekonomi mahasiswa, rumah tangga, dan instrumen prestasi akademik dan

non akademik ini berada di atas 0,72 dengan tingkat signifikansi 5%, yaitu 0,92, 0,96, dan 0,96. Semua 29 item valid ( $V > 0,72$ ,  $V1 > 0,50$ ) dan dapat diandalkan ( $\alpha = 0,944$ ). Kesimpulan bahwa setiap komponen memiliki keterkaitan erat yang menunjukkan informasi kelayakan penyaluran KIP-K. Instrumen yang dikembangkan di IAIN Langsa memiliki validitas yang tinggi dan tingkat keandalannya sangat baik. Instrumen ini dapat digunakan untuk mendapatkan informasi lengkap calon mahasiswa yang akan menjadi penerima beasiswa KIP-K pada tahun 2022.

**Kata Kunci:** *Validasi Konten, KIP-K, Instrumen Beasiswa, Koefisien Aiken*

## INTRODUCTION

In providing educational services for all levels of society, better known as EFA (Education for All), the government seeks to make various breakthroughs so that all citizens can enjoy education equally and without distinguishing ethnicity, race, class, education, and community status (Sabaruddin et al., 2020). Obtaining services in the field of education is a citizen's right and has become the mandate of the state constitution as stipulated in article 31 of the 1945 Constitution. Nonetheless, the reality on the ground shows that more than 100 million children and adults fail to complete education at a basic level. The main factor of this failure is the high poverty level, which is still a crucial problem that must be addressed immediately.

The government seeks to solve the problems faced by students and disburse funds through scholarship programs that are prioritized, especially for underprivileged students who have better achievements. With this scholarship program, it is hoped that they will continue their education to the highest level consistent with their interests and desires. The scholarship intended for these students is packaged in the Kartu Indonesia Pintar (KIP) program package, which is a transformation of the Bidik mission scholarship program implemented by the government. The Program Indonesia Pintar (PIP) Scholarship, which has been only given to elementary and middle school students who are less able, is beginning to be expanded and distributed to higher education students under the name of the KartuIndonesiaPintar-Kuliah (KIP-K) scholarship. The name change from the Bidik Misi Scholarship to the KIP-K Scholarship also impacts the system's change and the program recipients' selection mechanism. KIP-K scholarship recipients are KIP scholarship recipients when they become students at the equivalent high school level or in the Program KartuHarapan (PKH) program. This KIP-K scholarship is provided by the government in the form of cash assistance, expanded access, and extensive learning opportunities for students and students who come from poor and pre-prosperous families in financing all needs related to their education.

Within the scope of education under the ministry of religion, the Directorate General of Islamic Education of the Republic of Indonesia has allocated 17,565 PTKIN students throughout Indonesia to get this KIP-K Scholarship assistance in 2021/2022. IAIN Langsa, which this year also obtained a scholarship quota for 130 underprivileged students, must select and determine students who are eligible and entitled to receive this scholarship assistance by using standard and accountable measuring instruments. The

measuring instrument used is a questionnaire that has been developed and has a good level of validity, so it is worth using in measuring or selecting students who deserve KIP-K scholarships based on the criteria drawn up. This measurement activity must be carried out so that the instrument used is suitable for psychometric use.

Measurement is the process of giving attributes in the form of numbers to a set of measuring instruments that will be used to get information in the form of data in an assessment or research. One of the dimensions that must be considered in this measurement activity is validity and reliability (Nur & Fadli, 2021). Validity and reliability are two quality criteria that each measuring instrument must meet for researchers to use in their studies. Therefore, the instruments used in measuring must be of high quality, making it easier to obtain evidence in the form of valid and reliable data so that the results obtained are more meaningful as the researcher wants. Validity and reliability are the primary keys in determining the measuring instrument used in psychometrics.

Validity describes how accurately a measuring instrument can produce accurate research data and information (Bolarinwa, 2015) and is used as one of the requirements of scientific research methods (Babae et al., 2013). The validity of an instrument is an integral part of the assessment process because a valid instrument can describe accurate information when measuring or assessing something. The primary purpose of analyzing the items in the instrument development is to produce a measuring instrument with a reasonable validity value. The instrument must also have good reliability before being used for measuring. Reliability serves to see the extent to which a measuring instrument to be used obtains consistent calculation results when repeated. Reliability can provide consistency in validity (Yasin et al., 2015).

Validity is categorized into four types; content validity, face validity, construct validity, and criterion validity associated with criteria (Embretson, 2007). In instrument development, the first step that the test developer must take is to investigate the instrument's content validity (Rodelli et al., 2022). Content validity is most commonly used in the early stages of developing tests and is one of the three empirical validation procedures that must be performed in developing an instrument. Content validity focuses on the extent to which a measure describes the full dimensions of a particular concept. A measure indicating the validity of a high content indicates the full scope of the meaning of the concept used in measurement (Elangovan & Sundaravel, 2021). Content validity can be used to test whether the question items used as measuring instruments in the research have been represented and completed and whether the tested question items have fully described the content and theory of the designed research. Content validity can be used to test whether the items used as measuring instruments in the research have been represented and completed and whether the question items tested have fully described the content and theory of the designed research. The content validity of an instrument is an excavation to find information on the extent to which the instrument's items represent the components to be measured and the extent to which they describe

the properties and behaviors to be measured (Shrotryia & Dhanda, 2019). The instrument validation used in educational research should involve both content analysis and empirical analysis of the scores obtained from the instrument and the respondent's response to the item (Shirali, Shekari, & Angali, 2018). Analysis of the content of an instrument is associated with content analysis, which later also requires empirical analysis to prove the validity of the construct. Both of these analyses are intended so that instruments in the world of education qualify as standard measurement instruments (Retnawati, 2016).

In the past, measurement experts tested the content validity of an instrument by relying on logical analysis, which is based on a theoretical representation of the field, in determining whether a scale has content validity (Saks et al., 2020). However, this test has not been able to objectively determine the validity value of the contents through quantification methods (Syakir, 2021). Several theories began to emerge and were used as solutions for these measurements. In 1975, Lawshe proposed a content validity ratio (CVR) to measure expert agreement in determining the degree of content validation on question points and stated that the value of content validation is seen to be at a ratio of -1 to 1. Another way to prove the validity of the contents can be done by looking at the expert agreement by using the expert index agreement (Patricia et al., 2019). Lewis Aiken in 1980 with measurements of the validity coefficient (content validity coefficient) and coefficient of reliability (homogeneity reliability coefficient). This validity is better known as Aiken's V Coefficient and can be used to measure the degree of validity of each question item into one coefficient (V-value). Aiken (1985) himself defined his V coefficient as proportion and used the binomial distribution to create a hypothetical test of a population value point of 0.50 (Almanasreh et al., 2019)

In assessing the content validity, there is no standard technique that can be used to analyze it, so in developing this instrument, one can use qualitative or quantitative approaches or combine the two approaches. Since there is no statistical test to assess the content validity specifically, researchers usually use an approach through the judgment of an expert or committee (Kimberlin & Winterstein, 2008). The way to assess the quality of an instrument is by consulting with experts evaluating the instrument using a procedure better known as expert judgment (Hanea et al., 2018). In developing this KIP-K Scholarship instrument, the type of validation used is content validity and the V Aiken formula. Nine experts, including lecturers and education practitioners, were asked to study the instruments that had been compiled. The number of experts used as panelists vary. The number of experts recommended for content validity should be at least six and no more than ten (Yusoff, 2019). In developing this instrument, nine experts will be selected to assess it. They are predicted to have good competency and be understandable in the context of the instrument. They put a checkmark on the available columns in the validation sheet. They also provide suggestions or feedback on the reviewed questionnaire.

Furthermore, the results of the checklist of experts and practitioners were changed to four scales for analysis using the V Aiken formula (Hsiao et al.,

2021). The expert agreement is used to determine the content validity. The agreement of these experts is a domain that is measured to determine the content of validity stratification (related content). It happens because the measuring instrument, for example, tests or questionnaires, proves valid if experts believe it can measure mastery abilities defined in the domain or measured in psychological measurement constructions (Retnawati, 2016). Therefore, experts' involvement in determining the instrument's content validity level is necessary. The suitability of the agreements of all these experts can be reviewed using the coefficient V formula developed by Aiken. This study aims to determine the elements of content validity, describe a practical approach to assessing content validity and discuss the validity index of existing content. This is a narrative review of the assessment and quantification of the validity of the content. It describes the critical stages in conducting a content validation study and discusses the quantification and evaluation of the approximate validity of the contents. Experts quantitatively give the assessment results after researchers revise them based on suggestions and inputs given by experts (Suciati et al., 2020).

## RESEARCH METHODS

In the study, the instrument's content validity was determined by the quantitative expert's judgments and the expert reviews on the KIP-K scholarship questionnaire. The quantitative approach was used to analyze the validity of the contents by using the Aiken V formula to analyze a set of development instruments consisting of 29 items. The data studied was obtained from a panel of experts selected according to their expertise. The technique used in establishing the content validity requires a literature review and involves experts in determining whether the instrument is valid or not (Taherdoost, 2016). Nine experts were asked to evaluate each item on the KIP-K Scholarship instrument. These items are grouped into three components: economic conditions, housing conditions, and academic and non-academic achievements of students. They are: (CC1, CC2, CC3, CC4, CC5, CC6, CC7, and CC8); 12 items from the student's social condition (CR1, CR2, CR3, CR4, CR6, CR7, CR8, CR9, CR10, CR11, and CR12); and nine items used to obtain information related to academic and non-academic achievements obtained by students (SA1, SA2, SA3, SA4, SA5, SA6, SA7, SA8, and SA9). In obtaining the data, the experts assessed the questionnaire form by checking the suitability of the question items with the concepts, writing techniques, and language used. The construct criteria are evaluated using a Likert scale of 1 to 5 categories; 1 = less suitable, 2 = not appropriate, 3 = neutral, 4 = appropriate, and 5 = very appropriate in three aspects, namely; 1) relevance (the achievement of each item by the purpose of the instrumented assessment); 2) unambiguous (sentences in the statement are easy to understand and do not confuse the expert), and 3) significant (the relationship of each item based on the purpose of the assessment). They were also asked to review the aspects of the questionnaire that needed to be improved with the development of these items (qualitative evaluation).



The score results of the expert's judgment of the instrument quantitatively are used to analyze the content validity of the questionnaire using Aiken's V formula. In contrast, the expert reviews' results in suggestions or feedback are analyzed qualitatively to improve the items.

The items are analyzed to determine which question items will be discarded, revised, or received according to the values obtained after calculating the V Aiken coefficient (Aiken, 1980). Calculating the level of content validity in the questionnaire based on the assessment of expert reviews using Aiken's coefficient V. Aiken's formula is used to calculate the content-validity coefficient of the question item representing the measured construct. Based on empirical criteria, items can be declared valid if they have a value of  $V \geq 0.2$  (Daali, 2013). Aiken's V formula can be seen in the table as follows (Lewis R Aiken, 1996).

$$V = \frac{\sum n_1}{[n(c - lo)]}$$

Desc.:

$\sum n_1$  = Total score

n = Number of experts

c = The highest number of scores

lo = The lowest score

The Aiken's index (V), value V is located between 0 and 1, with a scoring scale from low (lo) to high (c), 1 to 5, where one from (lo +1) to (lo+0-1) = 2,3,4,5, and n = the number of values on Aiken coefficient values are used to measure the relevance of an item in the opinion of a group of experts, indicating conformity among experts to the content being evaluated. Using this calculation, items that achieve optimal chords are maintained, and items susceptible to improvement are revised according to the experts' suggestions or feedback. Then the coefficient V Aiken is calculated. It is necessary to establish criteria to determine whether the item is valid. In determining the criteria for content validation, according to Aiken, the criteria below 0.4 are declared invalid, the validity between 0.4-0.8 is declared moderate, and the value of 0.8 and above is expressed as high validity (Telenius et al., 2015). As seen in Table 1 below, an item is declared valid if the Aiken V validity index is more significant than 0.8.

**Table 1: Criteria for content validity Using the Aiken Index**

Index Validity (V)	Interpretation
$V > 0,8$	Very valid
$0,4 < V \leq 0,8$	Moderate validity
$V \leq 0,4$	Invalid

Table 1 shows that an item is declared valid if the Aiken V validity index is more than 0.8. After the validity index is measured and valid items are found, it is continued by determining the reliability value of the instrument. Instruments that have been validated using construct validity, criterion validity, and content validity, widely used in measuring validity, are essential in any

measurement. A range of numbers from 0 to 1 is used to determine the high or low reliability of an instrument called the reliability coefficient value. A value of a number close to the value of 1 indicates that the reliability value of the question item is high. While the value of the number is close to the number 0, it indicates that the reliability of the item is low. General reliability is satisfactory enough if  $\geq 0.700$  (Bland & Altman, 1997). Assessing the reliability of this item of the questionnaire using the Alpha Cronbach formula In general, studies use the Alpha Cronbach coefficient as an indicator of scale reliability or consistency of the instrument internally. The Alpha-Cronbach assessment was widely used after a discussion by Cronbach, who suggested using the Cronbach alpha value rather than the Kuder-Richardson formula (KR-20), which has been used in measurements (Cronbach, 1951). Cronbach's alpha value is considered ideal and acceptable if it ranges from 0.7 to 0.95 (Terwee et al., 2007). A value of  $<0.70$  indicates a lack of correlation between items, and a value of  $> 0.95$  indicates redundancy in data from questions (Bland & Altman, 1997). The criteria used to determine the level criteria of the items'reliability can be seen in Table 2 as follows:

**Table 2: Reliability Criteria for KIP-K Scholarship Instruments**

Alpha Cronbach ( $\alpha$ )	Interpretation
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

**Source:** (Cronbach, 1951)

The results of the experts' judgment and review of the 29 items were divided into three components: students' economic conditions, students' household conditions, and the students' academic and non-academic achievement. These expert reviews were described in a quantitative form. This data is then analyzed using the Aiken formula to find out the value of its coefficient V. A recapitulation of the data is shown below:

**Table 3: The Results of The Content Validity of Students' Economics Items by Nine Experts**

Aspects	n1	n2	n3	n4	n5	Aiken Index (V)	Interpretation of The Aiken Index
Student status	0	0	0	1	8	0.97	Very Valid
Students include poor scholarship aid recipients	0	0	0	1	8	0.97	Very Valid
The amount of money earned by parents or guardians each month	0	0	0	2	7	0.94	Very Valid
Productivity and health of parents or guardians (males)	0	0	0	2	7	0.94	Very Valid
Dependents of a parent or guardian (including student)	0	0	0	2	7	0.94	Very Valid

The number of dependents still in school	0	0	0	2	7	0.94	Very Valid
The number of dependents who are still enrolled in college	0	0	0	2	7	0.94	Very Valid
Daily family transportation	0	0	0	1	8	0.97	Very Valid
<b>Average</b>						<b>0.92</b>	<b>Very valid</b>

Based on table 3 above, it can be seen that the coefficient value of V Aiken for each item in the EC component is in the range of 0.94 to 0.97, which means that all of these items are very valid, with an average value of 0.92. This result shows that the students' economic condition items are good and conform to the indicator because the value of Coefficient V exceeds the minimum value of the Aiken index by 0.72 with an error rate of 5%. So, it can be concluded that this questionnaire can be used to measure what should be measured, especially for the students' economic condition component, so this instrument is suitable to measure.

The results of the content validity in students' household conditions as assessed by nine experts are shown in table 4 below:

**Table 4: The Content Validity Result of Students' Household Conditionitems**

Items	n1	n2	n3	n4	n5	Aiken Index (V)	Interpretation of The Aiken Index
Home ownership status Building Area	0	0	0	3	6	0.92	Very valid
The land area of the house plus the yard	0	0	1	0	8	0.94	Very valid
The area of land owned	0	0	0	3	6	0.92	Very valid
Home Structure	0	0	0	1	8	0.97	Very valid
Home Floor	0	0	0	3	6	0.92	Very valid
Washing, Toilet, and Bathing facility	0	0	1	2	6	0.89	Very valid
Water source	0	0	1	3	5	0.86	Very valid
Lighting/electrical source	0	0	0	2	7	0.94	Very valid
Cooking fuel	0	0	0	3	6	0.92	Very valid
The distance between the house and the centre of the sub district or city	0	0	0	3	6	0.92	Very valid
Road to home condition (if taken from the capital city)	0	0	0	2	7	0.94	Very valid
<b>Average</b>						<b>0.96</b>	<b>Very valid</b>

Table 4 above shows that the coefficient value V for each item in the students' household condition is in the range between 0.86 and 0.97, with an average value of 0.96, which is a very valid category. This result shows that all the students' household condition items have evidence of very valid conformity with the indicator because the coefficient value V exceeds the minimum value of the Aiken index of 0.72 with an error rate of 5%. So that the results of expert judgment of all item components have met the content validity criteria, they already have conformity between the instrument items and the indicators of drafting items.



The results of the content validity in students' academic and non-academic achievement items assessed by nine experts are shown in table 5 below:

**Table 5: The Results of The Stating and Scoring of Test Items About Students' Academic And Non Academic Achievement**

Items	n1	n2	n3	n4	n5	Aiken Index (V)	Interpretation of The Aiken Index
Obtaining academic achievement in the 12 <sup>th</sup> grade- odd semester	0	0	0	1	8	0.97	Very valid
Obtaining academic achievement in the 11 <sup>th</sup> grade of even semester	0	0	0	1	8	0.97	Very valid
Obtaining academic achievement in the 11 <sup>th</sup> grade - odd semester	0	0	0	1	8	0.97	Very valid
Obtaining academic achievement in the 10 <sup>th</sup> grade of even semester	0	0	0	2	7	0.94	Very valid
Obtaining achievements in the odd 10-semester class	0	0	0	2	7	0.94	Very valid
Winning a competition in the academic field	0	0	0	2	7	0.94	Very valid
Winning a competition in the no-academic field	0	0	0	2	7	0.94	Very valid
Participation in school organizations	0	0	0	2	7	0.94	Very valid
Participation in out-of-school organizations	0	0	0	1	8	0.97	Very valid
<b>Average</b>						<b>0.96</b>	<b>Very valid</b>

Table 5 shows that the coefficient value V for each item of students' academic and non-academic achievement is in the range between 0.94 and 0.97, with an average score of 0.96. The items are very valid. The results of the experts' judgment on these component items have good content validity and are very valid by the indicator because the value of Coefficient V exceeds the minimum value of the Aiken index coefficient of 0.72 with an error rate of 5%. So, it can be concluded that all the items in the components of this instrument have met the criteria for validation of the contents that have been set. This means there is already compatibility between the questionnaire items and the problem's indicators.

The results of this recapitulation of the V Aiken coefficient index for the KIP-K scholarship questionnaire are shown in table 6 below:

**Table 6: The Recapitulation Results of The Stating and Scoring of KIP-K Scholarship Questionnaire**

Scale	n1	n2	n3	n4	n5	Index (v)
Items						
1 - 8	0	0	1	21	50	0.92
9 - 20	0	0	3	27	78	0.96
21 - 29	0	0	0	14	67	0.96
<b>Average</b>						<b>0.95</b>

Based on Tabel 6 shows that all of the 29 items of the KIP-K scholarship questionnaire consisting of three components are very valid, namely 0.92, 0.96, and 0.96. The average of the items is 0,95, and the coefficient V value for each item has exceeded the minimum value of 0.72. The problem's level of error is 5% for each. So, this instrument is worth using because it already has compatibility between the item point and the item indicator.

Meanwhile, the Cronbach's alpha values of the KIP-K scholarship instrument on the three components are shown in table 7 below;

**Table 7: Alpha Cronbach's Reliability for KIP-K Scholarship Instruments KIP-K**

Component	Number of items	Alpha Cronbach ( $\alpha$ )	Mean	S.D
Economic Conditions	8	0,722	37,66	1,88
Household Conditions	12	0,911	56,33	4,32
Academic or non-academic achievement	9	0,898	43,44	0,80

Table 7 shows that the average of alpha's Cronbach reliability is high. Cronbach's alpha value is 0.944 for three measured components of 29 items. They are the students' economic condition items (0,722), the students' household condition items (0,911), and the students' academic and non-academic achievement items (0,898). It means that the components in the questionnaire are above Cronbach's alpha value of more than 0,722, which means they are acceptable and pleasing to use.

### Students' Economic Conditions

Economic factors are a concern in the development of the KIP-K scholarship instrument. This variable provides important information related to the status of prospective students, parental income, parental transportation, and the number of dependents in the household. Economic factors are critical in the lecture process, as Sugiyarto's (2018) research found that many students had to find their income to meet the needs of life and college, so they experienced delays in completing college. The latest research also shows that each student spends an average of at least Rp. 650,000, - up to Rp. 2,700,000, - per month (Risnawati, Tahir, Hasan, Dinar, & Rahmatullah, 2021). Therefore, the government provides scholarships for prospective students who excel and meet several elements in the recipient criteria based on the instruments in this study.

The population of the Indonesian people is increasing. The COVID-19 pandemic also has an economic impact on the entire community. Meeting the necessities of life is a problem for some people, let alone continuing their education to a higher level (Lulaj, 2022). Educational operations also impact the global crisis. Thus the cost of education must also be borne by the community (Amjad et al., 2015). The same problem has also been experienced in several other countries; Pakistan supports the continuation of citizen education by providing scholarships ranging from undergraduate, master's, and doctoral levels. The Higher Education Commission of Pakistan (HEC) scholarship distribution agency is concerned with providing educational assistance to

economically disadvantaged communities (Ahmed, 2021). The results show that the HEC program tremendously impacts the growth of community participation in continuing education at a higher level.

### **Students' Household Conditions**

The condition of the house indicates the economic state of a family. This instrument is also highlighted as related to the state of the house of the family of the prospective KIP-K scholarship recipient. Home conditions are one of the social indicators for the community; as researched by Kasimin (2015), They are very influential because a permanent home makes them feel in a good and comfortable state. The correlation value of home conditions with well-being is the highest among other factors.

The condition of the house reviewed in the KIP-K scholarship acceptance instrument is the distance traveled by student mobility from home to campus. The distance from home to campus will affect the time students spend in the learning process. The KIP-K scholarship considers the cost of renting student residences located around campus. Living around the campus will make it easier for students to do college activities, and more time can be used to study. Research conducted by Mbandlwa (2021) found that the type of accommodation where students live is a factor, but the most crucial factor is the personal motivation of individual students. The university provides accommodation to make all the necessary learning resources, such as wifi and other equipment, available to students, but student commitment also plays a role.

### **Students' Academic and Non-Academic Achievement**

The hope of awarding scholarships is not just to go through a college routine. However, the most important thing is to show academic performance and have a good performance so that it can compete in various ways. KIP-K guarantees the right of all citizens of the country to obtain an equal education even with a weak economy but have substantial achievements and can carry out lectures. Hajri's research (2016) shows the influence of Bidikmisi Scholarships on Student Learning Achievement.

This instrument's development takes into account prospective scholarship recipients' academic and non-academic achievements. However, the prospective scholarship recipients come from a weak economy, which affects the achievement background. The consideration is that the recipients of the KIP-K scholarship come from a weak economy but have academic and non-academic achievements. Initial achievement will affect the personality and sincerity of students in learning (Kamara & Dadhabai, 2022). Several studies have stated that the background of student achievement shows good results at the lecture level.

## **CONCLUSION**

Based on the results of the validation of the contents carried out by nine experts on the three components analyzed, namely the components of economic conditions, household conditions, and academic and non-academic

achievements, the V index is good, namely 0.92, 0.92, and 0.96. The coefficient value V for each question item exceeded the minimum value of 0.72. The validity of this instrument is high and can be used as a standard measuring instrument. Similarly, the reliability value of each item used is excellent and high. So it can be concluded that this KIP-K scholarship instrument has a high level of validity. The economic components, home conditions, and achievements of prospective students are interrelated in providing necessary information in determining prospective students receiving KIP-K scholarships. This means that this instrument is excellent and worthy of use to attract prospective students who receive KIP-K scholarships in 2021 or 2022.

## AKCNOWLEGMENT

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## REFERENCES

- Ahmad Syakir, J. (2021). Validity and Reliability of Technology Entrepreneurship Module for Public University Undergraduates in Malaysia. *Elementary Education Online*, 20(5), 1722–1726. <https://doi.org/10.17051/ilkonline.2021.05.189>
- Ahmed, B. (2021). Role of Higher Education Commission in Supporting Students with Lower Economic Conditions in Attaining Higher Education. *Elementary Education Online*, 20(4), 2292–2298.
- Aiken, L. R. (1985). Three Coefficients for Analyzing The Reliability and Validity of Ratings. *Educational and Psychological Measurement*, 45(1), 131-142.
- Aiken, R. (1996). *Rating Scales & Checklists; Evaluating Behavior, Personality, and attitude*. Canada: John Wiley & Sons Inc.
- Almanasreh, E., Moles, R., & Chen, T. F. (2019). Evaluation of Methods Used for Estimating Content Validity. *Research in Social and Administrative Pharmacy*, 15(2), 214–221. <https://doi.org/10.1016/j.sapharm.2018.03.066>
- Amjad, M., Zahida A, S., & Faheem, M. (2015). Impact of Socio-Economic Background of Students on their Achievements at Secondary Level. *Pakistan Journal of Social Sciences (PJSS)*, 35(2), 981–995.
- Babae, M., Lê, Q., & Lê, T. (2013). How are The Concepts “Reliability” and “Validity” Dealt with in Qualitative Research? In *Conducting Research in a Changing and Challenging World*.
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Marketing. UK. McGraw-Hill International. *Cronbach's alpha*. *BMJ*, 314, 572.
- Bolarinwa, O. (2015). Principles and Methods of Validity and Reliability Testing of Questionnaires Used in Social and Health Science Researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195.

- Cronbach, L. J. (1951). Coefficient Alpha and The Internal Structure of Tests. *Psychometrika*, 16(3), 297-334 (293). <https://doi.org/10.1007/BF02310555>
- Daali, S. N. (2013). *Teori Skor pada Pengukuran Mental*. Jakarta: Nagrani Citrayasa.
- Elangovan, N., & Sundaravel, E. (2021). Method of Preparing A Document For Survey Instrument Validation by Experts. *MethodsX*, 8(April), 101326.
- Embretson, S. E. (2007). Construct Validity: A Universal Validity System or Just Another Test Evaluation Procedure? *Educational Researcher*, 36(8), 449-455. <https://doi.org/10.3102/0013189x07311600>
- Hajri, T., Zulihar, M., & Muhammad, Y. (2016). Pengaruh Beasiswa Bidikmisi Terhadap Prestasi Belajar Mahasiswa Program Studi Pendidikan Pancasila dan Kewarganegaraan Fakultas Keguruan dan Ilmu Pendidikan Universitas Syiah Kuala. *Jurnal Ilmiah Mahasiswa Pendidikan Kewarganegaraan Unsyiah*, 1(19), 49-60.
- Hanea, A. M., McBride, M. (2018). Classical meets modern in the IDEA protocol for structured expert judgement. *Journal of Risk Research*, 21(4), 417-433.
- Hsiao, Y., Qi, H., Hoy, R., Dale, P. (2021). Hierarchy and Reliability of the Preschool Language Scales - Fifth Edition: Mokken Scale Analysis. *Journal of Speech, Language, and Hearing Research*, 64(October), 3983-3995.
- Kamara, S. S., & Dadhabai, S. (2022). Assessment Factors Influencing Students' Academic Achievement Academic Achievement. *Journal of Management Information and Decision Sciences*, 25(1), 1-13.
- Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and Reliability of Measurement Instruments used in Research. *American Journal of Health-System Pharmacy*, 65(23), 2276-2284. <https://doi.org/10.2146/ajhp070364>
- Lulaj, E. (2022). The Correlation of Financial-Stress and Educational-Teaching Factors on Students during Online Learning in the Covid-19 (Cov19) Pandemic. *International Journal of Instruction*, 15(2), 435-454.
- Mbandlwa, Z. (2021). The Comparison of The Academic Performance of Students That are Staying at Student Residences and Those Who Are Staying in Their Homes. *Elementary Education Online*, 20(4), 1562-1571.
- Nur, M., Sabaruddin, S., & Fadli, M. (2021). Development of Student's Satisfaction Instruments on The Thematic Community Service Lectures Management Using Rasch Model Analysis. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(02), 283-292.
- Patricia, S., Arias, A., Luis, J., & Gómez, P. (2019). Content Validity Analysis of ISD-1: An Instrument for Social Diagnosis in Care Homes for Older Persons. *European Journal of Social Work*, 22(3), 526-540.
- Retnawati, H. (2016). Proving Content Validity of Self-Regulated Learning Scale (The comparison of Aiken Index and expanded Gregory Index). *Research and Evaluation in Education*, 2(2), 155-164.
- Risnawati, Tahir, T., Hasan, M., Dinar, M., & Rahmatullah. (2021). Analisis Pola Konsumsi Mahasiswa Penerima Beasiswa Bidikmisi Program Studi Pendidikan Ekonomi Fakultas Ekonomi Universitas Negeri Makassar. *Implementasi Merdeka Belajar Di Masa Pandemi Covid-19: Peluang Dan Tantangan*, 619-625. Lampung: FKIP Universitas Lampung.



- Rodelli, M., Koutra, K., & Birna, K. (2022). Conceptual Development and Content Validation of a Multicultural Instrument to Assess the Normalization of Gender - Based Violence against Women. *Sexuality & Culture*, 26(1), 26–47.
- Sabaruddin, S., Mansor, R., Rusmar, I., & Husna, F. (2020). Student with Special Needs and Mathematics Learning: A Case Study of An Autistic Student. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 5(3), 317–330. <https://doi.org/10.23917/jramathedu.v5i3.11192>
- Saks, J., Fuller, A., Erford, B. T., & Bardhoshi, G. (2020). Meta-Study of Measurement and Evaluation in Counseling and Development (MECD) Publication Patterns from 2000–2019. *Measurement And Evaluation In Counseling And Development*, 53(4), 279–288.
- Shirali, G., Shekari, M., & Angali, K. A. (2018). Assessing Reliability and Validity of an Instrument for Measuring Resilience Safety Culture in Sociotechnical Systems. *Safety and Health at Work*, 9(3), 296–307. <https://doi.org/10.1016/j.shaw.2017.07.010>
- Shrotryia, V. K., & Dhanda, U. (2019). Content Validity of Assessment Instrument for Employee Engagement. *SAGE Open*, 15(2), 1–7. <https://doi.org/10.1177/2158244018821751>
- Suciati, Munadi, S., Sugiman, & Ratna Febriyanti, W. D. (2020). Design and Validation of Mathematical Literacy Instruments for Assessment for Learning in Indonesia. *European Journal of Educational Research*, 9(2), 865–875. <https://doi.org/10.12973/eu-jer.9.2.865>
- Sugiyarto. (2018). Pengaruh Pendapatn Mahasiswa terhadap Tingkat Konsumsi Mahasiswa Program Pendidikan D-III Sekretari Universitas Pamulang. *Prosiding Kearifan Lokal Untuk Menjawab Tantangan Global*, 169–178. Pamulang: Universitas Pamulang.
- Suyanti, K. (2015). Indikator Sosial Ekonomi Wilayah dan Ketahanan Pangan Rumah Tangga Perempuan Miskin di Aceh. *Agrisepe*, 16(1), 1–9.
- Taherdoost, H. (2016). Validity and Reliability of the Research Instrument ; How to Test the Validation of a Questionnaire / Survey in a Research Hamed Taherdoost To cite this version. *International Journal of Academic Research in Management*, 5(3), 28–36.
- Telenius, E. W., Engedal, K., & Bergland, A. (2015). Inter-rater Reliability of The Berg Balance Scale, 30 S Chair Stand Test and 6 M Walking Test, and Construct Validity of The Berg Balance Scale in Nursing Home Residents with Mild-To-Moderate Dementia. *BMJ Open*, 5(9), e008321. <https://doi.org/10.1136/bmjopen-2015-008321>
- Yasin, R. M., Yunus, F. A. N., Rus, R. C., Ahmad, A., & Rahim, M. B. (2015). Validity and Reliability Learning Transfer Item Using Rasch Measurement Model. *Procedia - Social and Behavioral Sciences*, 204. <https://doi.org/10.1016/j.sbspro.2015.08.143>
- Yusoff, M. S. B. (2019). ABC of Content Validation and Content Validity Index Calculation. *Education in Medicine Journal*, 11(2), 49–54. <https://doi.org/10.21315/eimj2019.11.2.6>