

## Validity Of Expert Assesment on The Learning Environment Inventory Instrument of Character Pancasila Students in High School

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### Abstract

*The aim of this research is to determine the validity of the expert assessor's responses to the Pancasila Student Character Learning Environment Inventory instrument at the Senior High School level. This research uses quantitative methodology with a survey method, while a sample of 20 panelists was selected using purposive sampling from students who have completed their PEP Doctoral education and students who are currently completing their Doctoral education. Data collection through the non-test form of the Pancasila student character learning environment inventory instrument was distributed with the help of Google Form. Interrater reliability uses Intraclass Correlation Coefficients (ICC), the results of the analysis show a value of 0.77, which means good reliability. Data analysis uses the Aiken formula technique to analyze the validity of the expert assessor's response results. The results show that the instrument, which was designed from six dimensions, 19 indicators and 53 items, has a validity value in the range of 0.46 to 0.91 in the adequate category. Meanwhile, the dimension with the greatest validity value is the global diversity dimension with a validity value of 0.81 and the smallest validity value is the critical reasoning dimension with a validity value of 0.73. The panelists' suggestions and recommendations are that the items in each indicator be developed and adapted to the construct of the instrument being developed.*

**Keywords:** *Validity, interrater, Expert Assessment, Inventory instruments.*

### INTRODUCTION

In several countries, including Indonesia, character education has become an important issue. Pros and cons views have long influenced the discourse on character education, although character education currently receives little attention, but this is a school task that must be carried out. The result of a lack of attention to character education in schools, as stated by Thomas Lickona, has led to the development of various social ills in society, such as the decline of morals, morals and ethics. (Lickona, 2013). Similar studies have been carried out by foreign and domestic researchers, such as research conducted by (Adillah et al., 2022). The aim of this research is to determine the validity of the expert rater's responses to the instrument Student Perception of Opportunity Competence Development at the Higher Education level. This research using quantitative methodology with survey methods. The results show that the SPOCD instrument is designed from six dimensions, 22 indicators and 35 items have validity values in the range of 0.36 to 0.81 in the category which is quite adequate. Meanwhile, the dimension with the greatest validity value is Using Language and value smallest validity in the Making Connection dimension, panelists' suggestions and recommendations for each item indicators are developed and adapted to the needs of the current learning environment. The next research is research conducted by (Zamroni, Badrun Kartowagiran, 2021). This research aims to develop the construct of a character education evaluation model instrument in MTs in the Bekasi region of Indonesia. The data were analysed using a quantitative and qualitative descriptive analysis technique.

To improve the validity and reliability of the instruments, a CFA was done through the Lisrel 8.5 program. The instrument construct so that a fit model is obtained, seen from the following indicators: (a) Chi-Square, the value obtained = 789,9; (b) GFI, the value obtained = 0.83; (c) RMSEA, the value obtained = 0,071. The judgment for face validity and content validity in the model is good (0.73), while construct validation with CFA shows that all variables appear to have a factor load value of ( $\lambda$ ) > 0.30. The estimated reliability of the

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model instrument using the Cronbach Alpha formula has met the minimum standard index, which is above 0.7. The empirical character education evaluation model has been declared feasible in the implementation test on the users.

Character development is motivated by reasons including: philosophical, ideological, historical normative, or sociocultural. Because this is considered important for a nation's level of life. A nation that has strong character and identity will exist, therefore building national character is a basic need in the national process. The embodiment of Pancasila ideology in national and state life does not escape character development itself. One of the steps to achieve the nation's goals is through character building, normatively, namely protecting the entire Indonesian nation and all of Indonesia's bloodshed; realizing general welfare; enrich the life of a nation. In a multicultural nation like Indonesia throughout history, both the colonial era and the independence era, character development has become a necessity (Koesoema, 2011).

Character emerges when the self is seen as part of a community. a person's character is linked to community, embracing values such as honesty, responsibility, respect, fairness, helpfulness, and thrift (Telli, S., Maulana, R., & Helms-Lorenz, 2021) (Savickas, 2011). Communities attempt to assess character in members through the circulation of archetypal stories and cultural myths. In organizations, character is taken to reflect morality, humility (Barry et al., 2013), loyalty, and togetherness and those who have good character. Likewise in education (Göthberg, 2019), shows how in the early twentieth century, teaching applicants were required to provide evidence of good character. Character has long been central to building a career. In a study of Scottish banking history (Quinlan, 2016). shows how advancement depends on employees' diligent behavior, high moral standing, and conformity to their organizational culture. In return for compliance, the bank promises a 'career'. That is, security and rewards are available to those who teach sequentially for a living, but those who feel a 'calling' and have a desire to prepare students for life morally as well as intellectually. Writing about early professions, (Abbott, 2016) argues that some professions gained legitimacy through good character. At least until the 1970s, the French army corps maintained legitimacy based on courage, service and personal nobility. As formally professionalized professions developed their social structures in examinations, licensure applications and codes of ethics, engineering became a primary source of legitimacy (Abbott, 2016).

The Pancasila Student Profile is the answer to the question, "what are the characteristics of Indonesian students?". And this answer is summarized in one sentence: "Indonesian students are lifelong learners who have global competence and behave in accordance with Pancasila values." Six dimensions need to be developed optimally and in balance to realize such a student profile. The six dimensions are: 1) faith, devotion to God Almighty, and noble character, 2) global diversity, 3) working together, 4) independence, 5) critical reasoning, and 6) creativity (Kemendikbud, 2020).

Pancasila Student Profile is a big vision, ideals, main goal of education, as well as the commitment of education providers in developing Indonesia's human resources. The Pancasila Student Profile is a guide for all stakeholders and the efforts they make to improve the quality of national education. The Pancasila Student Profile is designed with reference to the noble character of the Indonesian nation that we want to realize and the challenges that Indonesian students must face in the future (Kemendikbud, 2020). The perspective used in the Pancasila Student Profile is the student's perspective, namely what abilities (character and competencies) they need to develop to become productive and democratic Indonesian people in the 21st Century. Competencies and character to become democratic Indonesian citizens, and to become human beings. excel and be productive in the 21st Century, where they can participate in the nation's progress as well as sustainable global development, industry 4.0, and be resilient in facing complex, unstable, ambiguous and uncertain changes. This formulation needs to be carried out by paying attention to internal factors related to the identity, ideology and ideals of the Indonesian nation; and also global factors which are the context of life and the challenges of the Indonesian nation in the 21st Century.

No	Dimensions	Favorable	Unfavorable	Total	ijor.co.uk 2964
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1	Have faith, be devoted to God Almighty, and have noble character	1,3	2	3
		4,6	5	3
		7,8,9	10	4
		11,12		2
		14,15	13	3
2	Global Diversity	16,17,18	19	4
		20,21		2
		22,24	23	3
		25,26	27	3
3	Worked together	28,29		2
		30,31,32		3
4	Independent	33,34,35		3
		36,37		2
5	Critical Reasoning	38,39,40		3
		41,42,44	43	4
		45,46		2
6	Creative	48	47	2
		49,50	51	3
		52,53		2
	Total	43	10	53

Before the developed Pancasila student character learning environment inventory instrument is tested empirically, it is important to carry out an expert assessment (Werner, C., Bedford, T., Cooke, R. M., Hanea & M., & Morales-Nápoles, 2017), where this condition must be carried out to test the instrument based on the construct built on the instrument (Leite, M., Infante, V., & Andrade, 2021).

Expert assessment reports are rarely explained clearly in the results of other studies (Werner, C., Bedford, T., Cooke, R. M., Hanea & M., & Morales-Nápoles, 2017). Therefore, the purpose of writing this article is to find out the validity of expert assessors on the Pancasila student character learning environment inventory instrument for upper secondary students.

## RESEARCH METHOD

The methodology in this research is quantitative with a survey method on 20 panelists as experts in assessing the Pancasila student character learning environment inventory instrument. The sample was selected purposively by considering that the sample has an area of expertise in education (Afzaal, S., Siau, N. Z., & Suhali, 2019). Pancasila student character learning environment inventory instrument designed in non-test form with answer choices using a Likert scale, namely: Very Inappropriate (1), Not Appropriate (2), Not Appropriate (3), Appropriate (4), and Very Appropriate (5) which is to be given to the appraiser. The grid of the instruments developed is in the following table:

Table 1 Grid of inventory instrument (attitude scale)

Table 2 Grid Of Inventory Instrument (Skills Scale)

No	Dimensions	Favorable	Unfavorable	Total
1	Have faith, be devoted to God Almighty, and have noble character	1,3	2	3
		4,6	5	3
		7,8,9	10	4
		11,12		2
		14,15	13	3
2	Global Diversity	16,17,18	19	4
		20,21		2
		22,24	23	3
		25,26	27	3

3	Worked together	28,29		2
		30,31,32		3
4	Independent	33,34,35		3
		36,37		2
5	Critical Reasoning	38,39,40		3
		41,42,44	43	4
		45,46		2
6	Creative	48	47	2
		49,50	51	3
		52,53		2
	Total	43	10	53

Further, review and validation by domain panelists is required to ensure that the instrument meets its objectives (Razali, S. N., Shahbodin, F., Ahmad & Adly, H., & Noor, 2016). Therefore, panelist validation was carried out before conducting the empirical study.

The results of the development of 53 questionnaire items were given to 20 panelists to assess based on the quantity of the instrument. The results of the panelists' responses were analyzed using Intraclass Correlation Coefficients (ICC), an inter-rater reliability test, namely to see the level of agreement between experts or raters in assessing each aspect of the instrument, using SPSS ICC. The results of this ICC calculation will later be classified by the level of reliability between raters into four categories according to Fleiss (Fleiss, J. L., Levin, B., & Paik, 2004), namely as follows: Kappa < 0.4: bad, Kappa 0.4-0.60: fair, Kappa 0.60-0.75: satisfactory (good), Kappa > 0.75: excellent and uses the validity of the Aiken index. The validity index for each item is calculated using the following Aiken validity index formula (Ibáñez, S. J., Martínez-fernández, S., Gonzalezpespina, S., García-rubio, J., Feu, S. & García-rubio, 2019):

$$V = \frac{\sum n_i |i - r|}{N(t - 1)}$$

The meaning of the code

V : Item-based suitability index expert assessment;

i : scores given by experts;

r : assessment score for lowest validity

t : assessment score for highest validity

$n_i$ : number of expert options at value i

The validity index is expressed as V, the higher the V value, the more appropriate it is measurement targets. The V index value ranges from 0 to 1, getting closer to the value 1 will be better because it is more relevant to the indicator (Razali, S. N., Shahbodin, F., Ahmad & Adly, H., & Noor, 2016). The results of calculations and analysis using Aiken's formula approach will later be concluded in the form of categorization/validity classification. The categorization of content validity refers to the validity classification proposed by Guilford (Guilford, 1956) are as follows: 0.80 < rxy < 1.00: very high validity (very good), 0.60 < rxy < 0.80: high validity (good), 0.40 < rxy < 0.60: medium validity (fair), 0.20 < rxy < 0.40: low (poor) validity, 0.00 < rxy < 0.20: very low (bad) validity, and then rxy < 0.00: invalid.

## RESULTS AND DISCUSSION

The Pancasila student character learning environment inventory instrument was tested on 20 panelists, where the selection of 20 panelists was based on certain considerations looking at their educational background and experience in the learning environment. This is done to find out whether the question items in the questionnaire distributed can be well understood by respondents so that the construct designed in the questionnaire is declared valid as a measuring tool. The results of data collection from panelist respondents

were then analyzed using Intraclass Correlation Coefficients (ICC), Hoyt reliability and using the validity of the Aiken index. So the calculation results can be presented as follows:

**Table 3. Intraclass Correlation Coefficient (Attitude Scale)**

	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.141 <sup>a</sup>	.088	.220	6.342	52	988	.000
Average Measures	.766 <sup>c</sup>	.660	.849	6.342	52	988	.000

Based on Table 3 (attitude scale), the average agreement between raters is 0.766, whereas for one person the consistency rater is 0.141. If the results of the ICC value are classified as reliability, it is stated by Fleiss, it can be concluded that the agreement between raters is very strong, and each rater has quite good consistency.

Table 4. Intraclass Correlation Coefficient (skills scale)

	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0		
		Lower Bound	Upper Bound	Value	df1	df2
Single Measures	.137 <sup>a</sup>	.085	.215	6.446	52	988
Average Measures	.760 <sup>c</sup>	.650	.846	6.446	52	988

Based on Table 4 (skills scale), the average agreement between raters is 0.760, whereas for one person the consistency rater is 0.137. If the results of the ICC value are classified as reliability, it is stated by Fleiss, it can be concluded that the agreement between raters is very strong, and each rater has quite good consistency.

Table 5 Panelist reliability results (attitude scale)

No	Dimension	Reliability value	Remark
1	Have faith, be devoted to God Almighty, and have noble character	0,92	Reliabel
2	Global Diversity	0,87	Reliabel
3	Worked together	0,89	Reliabel
4	Independent	0,71	Reliabel
5	Critical Reasoning	0,85	Reliabel
6	Creative	0,89	Reliabel

The results of the reliability coefficient calculation are used to determine the level of agreement of the 20 panelists with a reliability coefficient acceptance limit of  $r_{xx} \geq 0,70$  (Naga, 1992). Based on table 5 (attitude scale) the calculation results of the reliability test using the Hoyt formula, with the reliability value criteria determined theoretically, namely  $\geq 0.70$ . The lowest reliability value obtained for each dimension was 0.71 and the highest was 0.92.

Table 6 Panelist reliability results (skills scale)

No	Dimension	Reliability value	Remark
1	Have faith, be devoted to God Almighty, and have noble character	0,92	Reliabel
2	Global Diversity	0,73	Reliabel
3	Worked together	0,75	Reliabel
4	Independent	0,72	Reliabel
5	Critical Reasoning	0,81	Reliabel
6	Creative	0,71	Reliabel

Based on table 6 (skills scale) the calculation results of the reliability test using the Hoyt formula, with the reliability value criteria determined theoretically, namely  $\geq 0.70$ . The lowest reliability value obtained for each dimension was 0.71 and the highest was 0.92.

**Table 7 Panelist Validity Test Results (Attitude Scale)**

No. Item	Indeks Aiken	Remark	No. Item	Indeks Aiken	Remark
1	0.78	Valid	28	0.89	Valid
2	0.46	Valid	29	0.9	Valid
3	0.83	Valid	30	0.89	Valid
4	0.84	Valid	31	0.84	Valid
5	0.68	Valid	32	0.83	Valid
6	0.65	Valid	33	0.84	Valid
7	0.88	Valid	34	0.89	Valid
8	0.88	Valid	35	0.86	Valid
9	0.88	Valid	36	0.91	Valid
10	0.54	Valid	37	0.83	Valid
11	0.9	Valid	38	0.83	Valid
12	0.75	Valid	39	0.9	Valid
13	0.59	Valid	40	0.9	Valid
14	0.86	Valid	41	0.84	Valid

15	0.85	Valid	42	0.81	Valid
16	0.8	Valid	43	0.65	Valid
17	0.84	Valid	44	0.68	Valid
18	0.85	Valid	45	0.66	Valid
19	0.76	Valid	46	0.76	Valid
20	0.81	Valid	47	0.46	Valid
21	0.78	Valid	48	0.74	Valid
22	0.8	Valid	49	0.69	Valid
23	0.54	Valid	50	0.65	Valid
24	0.74	Valid	51	0.65	Valid
25	0.84	Valid	52	0.79	Valid
26	0.9	Valid	53	0.78	Valid
27	0.54	Valid			

Based on Table 7 (attitude scale) , it shows that the lowest Aiken's V coefficient value is 0.46 and the highest coefficient is 0.91. Meanwhile, the dimension with the largest validity value is the global diversity dimension with a validity value of 0.81 and the smallest validity value is the critical reasoning dimension with a validity value. 0.73. The Aiken's V coefficient value ranges from 0-1. Based on the validity classification proposed by Guilford, it is as follows:  $0.80 < r_{xy} < 1.00$ : very high (very good) validity,  $0.60 < r_{xy} < 0.80$ : high (good) validity,  $0.40 < r_{xy} < 0.60$ : moderate validity (fair),  $0.20 < r_{xy} < 0.40$ : low validity (poor),  $0.00 < r_{xy} < 0.20$ : very low validity (poor), and then  $r_{xy} < 0, 00$ : invalid, it can be concluded that the aspect of the Pancasila student character learning environment inventory instrument has high content validity because it has an average Aiken index of 0.77.

**Table 8 Panelist Validity Test Results (Skills Scale)**

No. Item	Indeks Aiken	Remark	No. Item	Indeks Aiken	Remark
1	0.77	Valid	28	0.85	Valid
2	0.46	Valid	29	0.76	Valid
3	0.83	Valid	30	0.81	Valid
4	0.84	Valid	31	0.77	Valid
5	0.67	Valid	32	0.46	Valid
6	0.65	Valid	33	0.82	Valid
7	0.87	Valid	34	0.83	Valid
8	0.87	Valid	35	0.67	Valid
9	0.87	Valid	36	0.65	Valid
10	0.53	Valid	37	0.87	Valid
11	0.91	Valid	38	0.87	Valid
12	0.75	Valid	39	0.87	Valid
13	0.58	Valid	40	0.53	Valid
14	0.86	Valid	41	0.77	Valid
15	0.85	Valid	42	0.46	Valid
16	0.81	Valid	43	0.82	Valid
17	0.83	Valid	44	0.83	Valid
18	0.85	Valid	45	0.67	Valid
19	0.76	Valid	46	0.65	Valid
20	0.81	Valid	47	0.87	Valid
21	0.90	Valid	48	0.87	Valid
22	0.75	Valid	49	0.87	Valid
23	0.58	Valid	50	0.53	Valid
24	0.86	Valid	51	0.65	Valid
25	0.85	Valid	52	0.78	Valid
26	0.82	Valid	53	0.77	Valid
27	0.83	Valid			

Based on Table 8 (skill scale) , it shows that the lowest Aiken's V coefficient value is 0.46 and the highest coefficient is 0.91. Mean while, the dimension with the largest validity value is the global diversity dimension with a validity value of 0.83 and the smallest validity value is the critical reasoning dimension with a validity value. 0.71. The Aiken's V coefficient value ranges from 0-1. Based on the validity classification proposed by Guilford, it is as follows:  $0.80 < r_{xy} < 1.00$ : very high (very good) validity,  $0.60 < r_{xy} < 0.80$ : high (good) validity,  $0.40 < r_{xy} < 0.60$ : moderate validity (fair),  $0.20 < r_{xy} < 0.40$ : low validity (poor),  $0.00 < r_{xy} < 0.20$ : very low validity (poor), and then  $r_{xy} < 0, 00$ : invalid, it can be concluded that the aspect of the Pancasila

student character learning environment inventory instrument has high content validity because it has an average Aiken index of 0.71

In this research, content validity testing uses a quantitative approach, namely testing reliability between raters (agreement between raters) and consistency of each rater using intraclass correlation coefficients (ICC) analysis. Why use ICC because the number of raters is more than two. In other words, several raters assessed the construction of the Pancasila student character learning environment inventory instrument. The ICC analysis produced shows that the average agreement between raters is 0.766, while for one rater the consistency is 0.141. According to Fleiss, the categories of agreement between raters are values above 0.75, very good agreement, values from 0.40-0.75, good agreement, ICC values above 0.75, very good agreement. Because the ICC results are above this assessment category, it can be concluded that the agreement between raters is very strong, and each rater has quite good consistency. Besides that Determination of inter-panel reliability coefficients using the Hoyt formula. The results of the reliability coefficient calculation are used to determine the level of agreement of the 20 panelists with a reliability coefficient acceptance limit of  $r_{xx} \geq 0,70$  (Naga, 1992). Attitude scale the calculation results of the reliability test using the Hoyt formula, with the reliability value criteria determined theoretically, namely  $\geq 0.70$ . The lowest reliability value obtained for each dimension was 0.71 and the highest was 0.92. Skills scale the calculation results of the reliability test using the Hoyt formula, with the reliability value criteria determined theoretically, namely  $\geq 0.70$ . The lowest reliability value obtained for each dimension was 0.71 and the highest was 0.92. Meanwhile, another quantitative approach has produced content validity (Aiken) as follows: the aspect of the Almighty God shows a value of  $V = 0.765$ , the aspect global diversity shows a value of  $V = 0.810$ , the aspect of mutual cooperation shows  $V$  value = 0.782, the independent aspect shows a value of  $V = 0.776$ , the critical reasoning aspect shows 0.73, and the creative aspect shows a value of  $V = 0.771$ . The  $V$  value is compared to the standard table value compiled by Aiken (Aiken, 1985). By using 5 rating categories and 20 raters, the minimum Aiken's  $V$  standard for this research is 0.76. So it can be said that the Pancasila student character learning environment inventory instrument is content valid or this instrument has high content validity, because it has an average validity value of 0.771. Based on the results of this quantitative approach, it can be said that the Pancasila student character learning environment inventory instrument has high content validity and has quite good inter-rater reliability.

## CONCLUSION

Based on the results and discussion, it can be concluded that the Pancasila student character learning environment inventory instrument has sufficient content validity with Aiken, and inter-rater reliability is quite reliable. Therefore, this instrument can be used or tested. It is recommended that stronger instruments need to be tested for empirical validity and reliability.

**Acknowledgment;** This research certainly involves several experts according to existing expertise, special thanks to the lecturers at Jakarta State University.

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