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FEASIBILITY ANALYSIS OF COMPETENCY TRAINING MODEL RESEARCH INSTRUMENTS RESIDENTIAL CONSTRUCTION WORKERS WHO HAVE LOCAL WISDOM VALUES

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Abstract. The aim of this research is to analyze the feasibility of research instruments that will be used in developing a design for a competency training model for residential construction workers that has local wisdom values. The research method, namely analyzing the validity and reliability of research instruments, aims to determine the level of validity of research instruments before they are used to describe the implementation of learning. Analysis of validation results was carried out using quantitative methods by providing assessments by 6 experts or experts. The research results show that the instruments used in the research on the competency training model for residential construction workers which have local wisdom values obtained a mean value of > 0.90 including very high validity and reliability which shows that these instruments are suitable for use.
Keywords: Instruments, Validity, Reliability

A. INTRODUCTION

Research is currently carried out using many methods, with various goals and interests, and is carried out scientifically and systematically. Current research also uses various scientific procedures and regulations or is usually called scientific research. Scientific research does not only produce the discovery of something, but rather in-depth discoveries, proof of existing phenomena, scientific developments that are more scientifically accountable. (Adib, 2015). Scientific research is research carried out with scientific objectives so that the results can also be scientifically justified.

To measure a variable, a measuring instrument is needed which is usually called an instrument. Djaali (2000: 9) states that in general what is meant by an instrument is a tool which, because it meets academic requirements, can be used as a tool to measure a measuring object or collect data about a variable. It is further

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stated that basically instruments can be divided into two types, namely tests and non-tests. Which includes a group of tests, for example learning achievement tests, intelligence tests, aptitude tests; Meanwhile, non-tests include interview guides, questionnaires, observation sheets, checklists, attitude scales, assessment scales, and so on.

In terms of measurement, in other words, instruments can be referred to as data collection tools. In carrying out the development of research instruments, you can follow Research and Development or R&D procedures and the resulting instruments become products resulting from the implementation of R&D research. Matondang (2009: 87-97) states that measurement is an operation carried out on the physical world by an observer. For example, you want to measure learning outcomes, intelligence, attitudes, achievement motivation, and so on, where the results point to two main things, namely validity and reliability.

This research aims to analyze the feasibility of research instruments that will be used in developing the design of a competency training model for residential construction workers that has local wisdom values.

B.METHOD

Analysis of the validity and reliability of research instruments aims to determine the level of validity of research instruments before they are used to describe learning implementation. Analysis of validation results was carried out using quantitative methods by providing assessments by 6 experts or experts. The validity and reliability categories for each aspect or all aspects assessed are determined based on valid categorization criteria from Giford (1956) which are presented in Table 1 and Table 2.

Table 1 Instrument Validity Criteria

Parameters	**Validity Category**
0,8-1,0	Very high validity (best)
0,6-0,8	High validity (good)
0,4-0,6	Medium validity (enough)
0,2-0,4	Low validity (less)
0,0-0,2	Very low validity (bad)

Source Guiford (1956)

Table 2. Instrument Reliability Criteria

Parameters	**Validity Category**
0,8-1,0	Very high reliability
0,6-0,8	High reliability
0,4-0,6	Medium reliability
0,2-0,4	Low reliability
0,0-0,2	Very low reliability

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The criteria used to decide that the instrument used has an adequate degree of validity is if the P value is in the minimally valid category. To calculate the validity coefficient, the Aiken's V validity coefficient formula is used (Aswar, 2012), with the formula:

$V = \sum s/[n(c-1)]$ (1)

Information:
V = Aiken's content validity coefficient V s = r-lo lo = Number
lowest validity assessment (in this case = 1) c = Number
highest validity assessment (in this case = 4) r = Number
given by an assessor n = Number of assessors

Next, to determine the level of reliability of the instrument, use the percentage of agreements (PA). The reliability coefficient is calculated using the Alpha Cronbach formula (Arikunto, 2013), as follows:

r_11=(n/(n-1))(1-(∑ 〖σt〗 ^2)/(σ^2t)) (2)

Information:
r11 = instrument reliability coefficient
n = number of questions tested
$\sum \sigma t2$ = total item variance
$\sigma t2$ = total variance

C.RESULTS AND DISCUSSION

Based on data from the validation results of worker competency training model instruments, model books, training modules and training guides, the average value of the scores given by each assessor is then determined. Furthermore, the total average validation value which refers to the categorization is presented in Table 3.

Table 3. Summary of Instrument Feasibility Results

No	Instrument Nam	Koef. Validity (V) criteria ≥ 0,8 Va	Criteria	Koef. Reliability (r) criteria a ≥ 0,7 PA	Criteria	Keterangan
1	Competency Training Model validity instrument validation sheet	0,92	Very Valid	0,97	Reliabel	Eligiable
2	Validation sheet for the validity of the Competency Training Model book	0,93	Very Valid	0,97	Reliabel	Eligiable
3	alidation sheet for the Validity of the Competency Training Model module	0,94	Very Valid	0,96	Reliabel	Eligiable
4	Validation sheet for the validity of the Competency Training Model module	0,93	Very Valid	0,98	Reliabel	Eligiable
5	Validation sheet for the observation instrument for the implementation of the Competency Training Model	0,94	Very Valid	0,95	Reliabel	Eligiable
6	Competency Training Model user response instrument validation sheet	0,96	Very Valid	0,97	Reliabel	Eligiable
7	Competency Training Model user response instrument validation sheet	0,94	Very Valid	0,95	Reliabel	Eligiable

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1. The results of the assessment of the feasibility of the training model by the validator obtained an average score of 0.9, which is in the very valid category and can be applied with several additional notes and improvements, as follows:
a. The editorial sentence in the instructions still contains ambiguous sentences that can confuse the assessor
b. The reaction principle, support system, teaching impact and accompanying impact must be adapted to the training model being created.
2. The results of the validity assessment of the model book instrument by the validator obtained an average score of 0.93, which is in the very valid category and can be applied with several additional notes and improvements, as follows:
a. The book cover is improved and made more attractive, it should depict the training modules that are part of the model.
b. Add and sharpen explanations regarding reaction principles, support systems, instructional impacts and accompaniment impacts.
3. The results of the Training Module feasibility assessment by the validator obtained an average score of 0.94 which is in the very valid category and can be applied with several additional notes and improvements, as follows:
a. Work competency references are improved and added
b. Training syllabus is completed in competency elements
4. The results of the feasibility assessment of the Module Use Guide by validators obtained an average score of 0.93, which is in the very valid category and can be applied with several additional notes and improvements, as follows:
a. Guide to using the training module with foreword, table of contents and bibliography/reference list.
b. Guide to using the training module is equipped with the number of participants
5. Feasibility assessment results i The implementation of the model by the validator obtained an average score of 0.94 which is in the very valid category and can be applied with several additional notes and improvements, namely improvements and additions to assessment criteria, adjusted to the model being developed.
6. The results of the feasibility assessment by the validator obtained an average score of 0.96, which is in the very valid and applicable category.
7. The results of the feasibility assessment by the validator obtained an average score of 0.92, which is in the very valid and applicable category.

D.CONCLUSION

The results of the research show that the instruments used in the research on the competency training model for residential construction workers which have local wisdom values obtained a mean value of > 0.90 including very high validity and reliability which shows that these instruments are suitable for use..

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