

The Developing of *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* Assessment Instruments for Eighth Class

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Abstract--The aims of this research to develop of instrument *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* assessment (Jawa Tengah) in writing skills on junior high school's subject especially Javanese language material. The research used the instrument development method by following the steps of Mardhapi which consisted of 9 steps. The data collection through an assessment questionnaire. The data collection tool was validated by 3 validators who were analyzed using the Aiken V formula, the reliability of the experts was analyzed using two-way ANOVA then continued using the Hoyt formula. The performance appraisal field test was analyzed using the construct validity of Explanatory Factor Analysis (EFA), and the reliability was analyzed using Alpha Cronbach. The results of the validity of the expert judgment/ validator showed that the validity was ≥ 0.3 , its mean that, all of items were valid, the reliability between the raters showed no significant difference. The reliability results of the instrument using an interrater got a value of 0.702. The analysis of trial data in the field can be seen in the KMO of 0.772, its means that the instrument indicators can be analyzed. The developing of assessment, it produces component factors that can represent all indicators. These factors include the carakan character, partner, clothing, punctuation. Meanwhile, the reliability of the field trials resulted in a value of 0.833, its mean that the assessment of the transfer of wulangreh pupuh gambuh was good. The final product of the research is in the form of an assessment instrument for translating valid, reliable *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* which is packaged in the form of a performance appraisal instrument manual.

Keywords: Development of Instrument, *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh*, Assesment.

1. INTRODUCTION

The Javanese language subjects that aim to support students to have good Javanese language skills, both orally and in writing. Research conducted by Lady (2018, p. 416) saying that, Javanese is one of the most widely spoken languages in Indonesia, because Javanese is still growing rapidly in everyday conversation. In Javanese learning, students are required to master five competency standards, namely: (1) listening, (2) speaking, (3) reading, (4) writing, (5) literary and non-literary appreciation

within the framework of Javanese culture. Translating is included in the standard of writing competence, because it changes the form of writing from Latin writing to Javanese script. Transferring is also found in the basic competency of 4.2 in Javanese language subjects in class VIII, namely translating the *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* is one from Latin letters to Javanese letters. Javanese script is one of the subjects that must be taught at elementary school to higher levels (Ebi & Muning 2018, p. 37). Research by Hendra, Sigit, & Barakbah (2017, p. 154) Javanese letters are part of Javanese cultural heritage. However, not all Javanese can read Javanese characters. Javanese script has 103 characters, which are further broken down into 20 carakan characters, 20 pair characters, and 63 sandhangan characters (Rita & Nari, 2009, p. 2201). To be able to write with quality, it must take a long time, by going through a long process and continuous practice (Sianna 2017, p.51).

Based on the results of interviews with the several Javanese language teachers, it can be concluded that apart from time constraints, the another problem is the students' lack of interest in Javanese writing material. The problem in Javanese script material is not only from the students, but the teacher also still uses the usual assessment, there is no assessment instrument to assess writing Javanese characters using the rubric and assessment guidelines. Research conducted by Utami (2012, p. 8) that Javanese people have difficulty in writing Javanese characters, so it is rare to do an assessment of writing Javanese characters.

Meanwhile, a valid assessment is very important because it is to see the learning outcomes of students. The results of research by Novitasari & Lisdiana (2015, p. 100), the assessment instrument developed was accompanied by an assessment rubik which became a guide in providing value decisions to students. The inclusion of an assessment rubik based on the needs of assistants and lecturers, and the observation sheet is a sheet used to observe the existence of an object or the appearance of the observed skill aspects based on certain criteria or rubics. Good assessment guidelines can be used to find out how much success students have related to the mastery of competencies or materials that have

been taught by educators. Educators can reflect and evaluate the quality of learning that has been carried out through assessment activities (Kunandar, 2015, p.10).

In other line description above, the development of an assessment instrument is very necessary because it can increase knowledge in the field of Javanese language lessons, especially in Javanese script material and is also useful for making it easier for teachers to make assessments on writing wulangreh pupuh gambuh fibers using Javanese script. Therefore, in this study, an assessment instrument will be developed to transcribe *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* for grade VIII students, including a rubric and assessment guidelines so that the assessment of transcribing Javanese characters is valid and reliable.

II. METHOD

This study used an instrument development method following by Djemari Mardapi, there are 10 steps to develop the instrument and then modified it into 9 development steps, including (1) instrument specifications, (2) make a instrument, (3) conducting scale of instruments (4) analyzed the instrument,(5) improving the instrument,(6) testing of instrument (7) interpreting the results of the instrument, (8) the final instrument in the form of a manual product.

The subjects in this study were SMP N 1 Kersana, consisting of 138 students. The instrument used in this study was a performance appraisal instrument consisting of (1) the instrument validation sheet given to the expert judgments in order to obtain the validity of the instrument content, (2) the assessment sheet transcribing the *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* by the students.

The validity of the instrument used the content validity and the construct validity. The

content validity test was carried out by 3 expert judgments then the results of the data were analyzed using the Aiken V formula, the inter-rater reliability was analyzed using the two way ANOVA test followed by the Hoyt formula. The construct validity was analyzed using Explanatory Factor Analysis (EFA) and the reliability of the field test was analyzed using Alpha Cronback.

III. RESULT AND DISCUSSION

The results of this study discuss three important points, namely 1) Based on the assessment experts of translating wulangreh pupuh gambuh fibers, the contents are valid and reliable, 2) Based on the field tests, the development of the assessment instrument for transferring *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* is valid and reliable, and 3) Generalizing the factors - the assessment instrument factor *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh*. The form of the assessment instrument transcribes the *Mengalihaksarakan Serat Wulangreh Pupuh Gambuh* of the VIII grade students who were developed before the field trial was carried out first having to pass the content validity test stage carried out by the experts (expert judgment) to see the suitability of the grid, rubik, assessment sheet, and instrument scoring whether these items are feasible to be tested or need revision. The expert who is involved in the validation of the instrument, namely 3 people who are competent according to the research conducted with a rating scale of 1 to 4 consisting of 10 statements. Then analyzed using the Aiken V formula. Below is table 1 the results of the validity of the content of the assessment instrument transcribing wulangreh pupuh gambuh fibers.

Table 1. The Result Of Content Validity of the Performance Appraisal Instrument

No.	Expert 1	Expert 2	Expert 3	V Index	R Kritis	Description
1	4	4	3	0.9	0.3	Valid
2	4	3	3	0.8	0.3	Valid
3	3	4	3	0.8	0.3	Valid
4	3	4	4	0.9	0.3	Valid
5	4	4	3	0.9	0.3	Valid
6	4	4	4	1.0	0.3	Valid
7	4	4	4	1.0	0.3	Valid
8	4	4	3	0.9	0.3	Valid
9	3	4	3	0.8	0.3	Valid
10	4	4	4	1.0	0.3	Valid

Based on the table above, it can be concluded that the results show that of all 10 items have a value above 0.3 which can be said that these items are valid and can be used in field product trials. According to (Azwar, 2016, p. 143) said that the value of the validity coefficient above 0.30 means that the item can be said to be valid or adequate.

After analyzing the content validity with the experts' considerations, the next step is to calculate the reliability or level of agreement between the three experts. Interrater reliability test used the two way ANOVA test then continued using the Hoyt formula. Below is table 2 of the reliability calculation results obtained from the expert's assessment.

Table 2 The Result of Reliability by Two Way Anova

Dependent Variable:Skor Penilaian

<i>Source</i>	<i>Type III Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>
<i>Corrected Model</i>	6.667 ^a	29	.230
<i>Intercept</i>	403.333	1	403.333
P	1.267	2	.633
Butir	2.000	9	.222
P * Butir	3.400	18	.189
Error	.000	0	.
Total	410.000	30	
<i>Corrected Total</i>	6.667	29	

a. *R Squared* = 1.000 (*Adjusted R Squared* =.)

Based on the table above, it can be concluded that the results of the reliability analysis showed that the value of the variance between the assessors was stated by the Mean Square of the Appraisers, namely 0.633, while the error variance was stated by the Means Square of the Appraisers * Item which was 0.189. The next step is to recalculate using the Hoyt formula with the average of the three assessors being $r_{xx} = 1 - \frac{s^2_r}{s^2_s} = 1 - \frac{0.189}{0.633} = 0.702$. The reliability of the inter-rater consistency is calculated using the Hoyt formula resulting in a reliability coefficient value above 0.6, which is equal to 0.702, which means that the appraisers agree or are consistent with the appropriateness of the content of the assessment instrument to transcribe wulangreh pupuh gambuh fibers. According to (Sujarwanto & Rusilowati, 2015, p.20), the performance assessment instrument is said to be reliable and consistent if the reliability coefficient is above 0.6.

Furthermore, the construct validity is analyzed using explanatory factors seeing the value of KMO (Kaiser Meyer Olkin Measure of Sampling), a requirement to be able to perform factor analysis if the KMO value is > 0.5 otherwise if the value KMO < 0.5 then it is not possible to do factor analysis

because it does not meet the feasibility. Below is table 3 the results of the construct validity test.

Table 3. The Result of Content Validity looking KMO's Value on EFA

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.772
Bartlett's Test of Sphericity	Approx. Chi-Square	1.307E3
	Df	325
	Sig.	.000

Based on the table above, by looking at the KMO value, the Kaiser Meyer Olkin Measure of Sampling Adequacy value is above 0.5 which is equal to 0.772, it can be concluded that the results of the analysis of the assessment instrument transcribing wulangreh pupuh gambuh fiber class VIII based on field tests have met the criteria and can be analyzed further. To see how many factors are formed in the explanatory factor analysis, look at the total variance explained. Below table 4 the results of the total variance analysis are explained using the explanatory factor analysis.

Table 4. *Total Variance Explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.257	20.219	20.219	5.257	20.219	20.219	3.951	15.198	15.198
2	3.919	15.072	35.291	3.919	15.072	35.291	3.585	13.789	28.987
3	1.825	7.020	42.311	1.825	7.020	42.311	2.556	9.832	38.819
4	1.521	5.850	48.161	1.521	5.850	48.161	1.617	6.219	45.038
5	1.330	5.114	53.275	1.330	5.114	53.275	1.567	6.026	51.064
6	1.203	4.626	57.901	1.203	4.626	57.901	1.371	5.272	56.336
7	1.055	4.056	61.957	1.055	4.056	61.957	1.318	5.069	61.404
8	1.030	3.962	65.919	1.030	3.962	65.919	1.174	4.515	65.919
9	.954	3.670	69.589						
10	.836	3.217	72.806						
11	.806	3.098	75.905						
12	.694	2.668	78.572						
13	.677	2.604	81.176						
14	.622	2.392	83.568						
15	.596	2.293	85.861						
16	.524	2.014	87.875						
17	.480	1.847	89.723						
18	.422	1.624	91.347						
19	.408	1.568	92.914						
20	.346	1.331	94.246						
21	.321	1.234	95.480						
22	.295	1.134	96.614						
23	.263	1.013	97.627						
24	.240	.923	98.550						
25	.201	.773	99.323						
26	.176	.677	100.000						

Extraction Method: Principal Component Analysis.

In this research, it consists of 4 indicators and 26 instruments after analyzing the data with EFA by seeing the output total variance explained formed by 8 factors and then given the names of new factors. Based on the table above, factor 1 is given the name of the Javanese script writing component which is declared construct validly with a construct validity value of 0.7485 consisting of item number 4,8,13,15. Factor 2 consists of item number 1,4,6,18,21,22 which is given the name of writing pair characters and clothing which are declared as valid constructs with the construct validity value of 0.6715. The third factor with the construct validity value is 0.7117 which is named writing carakan script consists of item number 11,9,7. Factor 4 is given the name of the writing component of the carakan and clothing characters which is declared valid in a construct with a construct validity value of 0.662 consisting of items number 10,23. Factor 5 is given the name of the writing component of the writing script and the punctuation

marks are declared valid in a construct with a construct validity value of 0.632 consisting of items number 26,18. Factor 6 is given the name of writing clothing which is declared construct validly with a construct validity value of 0.832 consisting of item number 17. Factor 7 is named carakan writing which is declared valid in a construct with a construct validity value of 0.878 consisting of item number 12.

Finally, factor 8 given the name of the combined component of Javanese script writing is declared valid in a construct with a construct validity value of 0.384 consisting of items 10,14,20. The next step is done to know after the results of the construct validity based on the field test and then perform a reliability analysis. The reliability test of the assessment instrument transcribing wulangreh pupuh gambuh fibers used the Cronbach Alpha formula reliability test using the SPSS version 16 application program. Below is table 5 the results of the reliability test in the field.

Table 5. The Result of Reliability Conducting By In The Field

Reliability Statistics	
<i>Cronbach's Alpha</i>	N of Items
.833	34

Based on the table above, it can be concluded that the results of the analysis of the reliability test of the instrument tested in the field, the value of the reliability coefficient is 0.833, so the assessment instrument for transferring wulangreh pupuh gambuh fibers meets the requirements of being reliable or the assessment instrument is consistent to use. Based on the reliability criteria, the assessment instrument is said to be reliable if $r_{xx} > 0.6$; $0.83 > 0.6$ (Suharsimi A. 2008: 75).

IV. CONCLUSION

The assessment instrument transcribes wulangreh pupuh gambuh fibers based on expert judgment, the statement items are declared valid in content because the validity value is above 0.3 all. The reliability value of the instrument obtained results above 0.5, namely 0.702, so the evaluators agreed or were consistent with the appropriateness of the content of the assessment instrument to transcribe wulangreh pupuh gambuh fibers. The assessment instrument transcribes wulangreh pupuh gambuh fibers based on field tests, the resulting data is suitable for use or can be continued to be tested for validity because the results of KMO MSA are 0.772. From 26 instrument items, they are grouped into 8 factors. Factor 1 is given the name of the writing component of characters, factor 2 is given the name of writing the script of the pair and the script, the third factor is the writing of the script carakan, factor 4 is the component of writing the script carakan and the characters, factor 5 is the writing of the writing component of the script and signs read, factor 6 is given the name of writing article number 17, factor 7

is given the name of writing carakan item number 12, and factor 8 is given the name of the combined component of writing Javanese script.

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