Development of Literacy Aspects Class Minimum Competency Assessment Instruments With 21st Century Skills for Class VII Junior High School Students

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ABSTRACT

Assessment is the process of collecting information about students (through various sources of evidence), regarding what they know and what they do. Efforts to improve the quality of learning can be achieved through improving the quality of the assessment system. The need for classroom AKM equipment for junior high schools is very large. Class AKM is related to measuring students' competence in thinking or reasoning in reading texts and solving problems that require literacy knowledge. The aim of this research is to analyze the development needs required in the AKM class instrument for literacy aspects through 21st century skills for junior high school students and develop an instrument design. The approach used in this research is a qualitative descriptive approach, with a research and development (R&D) approach. The data sources used were students and teachers at SMP Muhammadiyah 4 Semarang and SMP Negeri 37 Semarang. The results of the needs analysis according to the perception of students and teachers, the characteristics needed are a model for developing minimum competency assessment instruments for classes with literacy aspects with 21st century skills. In the model for developing minimum competency assessment instruments for classes with literacy aspects with 21st century skills, several Indonesian language learning materials are represented, namely materials fantasy story text with critical thinking aspects, poetry and gurindam pantun material with communication aspects, observation report material with creative thinking aspects, fiction and non-fiction story text material with collaboration aspects, and descriptive text material with critical thinking aspects.

Keywords: Assessment, 21st Century Skills, Students, Teacher

INTRODUCTION

Assessment is the process of collecting information about students (through various sources of evidence), regarding what they know and what they do (Wahyuni 2012:2). Assessment is an important component in learning activities (Syukur 2019). Efforts to improve the quality of learning can be achieved through improving the quality of the assessment system. The quality of learning can be seen from the results of the assessment, a good assessment system will encourage educators to determine good teaching strategies and motivate students to learn better.

The objectives of conducting an assessment according to Wahyuni (2012: 4) include (1) to determine the position of students compared to other students, (2) to separate students who fall into a certain category and those who do not, (3) describe the extent to which a person students have mastered competencies, (4) to evaluate student learning outcomes in order to help students understand themselves, make decisions

about next steps, both for program selection, personality development and majors, (5) show learning difficulties experienced by students and the possibility of developing achievements, so that it can help teachers whether someone needs remediation or enrichment, (6) to obtain information that can predict how students will perform at the next level of education, (7) to determine the level of efficiency of learning methods and components others that are used for a certain period of time.

Minimum competency assessment (AKM) is a minimum ability assessment carried out on students. The minimum abilities in question are the most basic abilities that students at a certain level must have. These basic abilities in this case include reading literacy and numeracy. This ability is in accordance with 21st century skills which require students to be able to keep up with developments in times full of challenges. By mastering 21st century skills, students will have learning and innovation skills, skills in using and utilizing information technology/media, and will be able to work and survive using life skills (Pusmenjar 2020:2). This assessment is intended to measure students' ability to reason when reading texts (literacy) and facing problems that require mathematical knowledge (numeracy). Mastery of a lot of content is not required in working on AKM, but the content is created in the form of text and numbers.

The need for classroom AKM equipment for junior high schools is very large. This is because the questions circulating related to AKM are still general in nature, not yet specific to competencies that refer to classroom learning. The development of class AKM tools with 21st century skills has not been implemented for class assessments. Therefore, the need to develop AKM tools for classroom aspects of literacy with 21st century skills is the main basis for this research.

21st century skills, namely 4C include critical thinking and problem solving, creativity and innovation, collaboration, communication. The development of AKM tools for classes on literacy aspects with 21st century skills is an alternative solution to this. The research and development of this assessment is more specific to the development of AKM tools for classes on literacy aspects with 21st century skills for class VII junior high school students. Based on problem identification, this research is limited to developing AKM tools for classes on literacy aspects with 21st century skills for class VII junior high school students. This class AKM device includes informational text content and literary texts at grade VII SMP level, developed through 21st century skills, especially 21st century competencies, namely critical thinking and problem solving, creativity and innovation, collaboration, communication. This minimum competency assessment tool will be developed based on an analysis of teacher and student needs.

This research can be useful both from a theoretical and practical perspective. Theoretically, the AKM class tools for literacy aspects with 21st century skills for class VII SMP students produced in this research can contribute to teachers in carrying out assessments so that the level of competency measurability can be achieved properly. It is also hoped that this research will be useful for enriching the body of knowledge, especially the development of AKM instruments for classes on literacy aspects with 21st century skills for class VII junior high school students in Semarang City.

MATERIALS & METHODS

The approach used in this research is a qualitative descriptive approach, namely a research procedure that is investigated using the condition of the subject or object of research based on visible facts and the causes and effects that arise. A qualitative approach is used to obtain in-depth data containing meaning. In line with this, in qualitative research researchers use a research and development (R&D) approach.

Data on the development of needs for AKM class questions regarding literacy aspects with 21st century skills were obtained from the results of a needs analysis of Class VII students in the research sample, namely SMP Muhammadiyah 4 Semarang. Educators are the second source of data in developing AKM class questions on literacy aspects with 21st century skills that are in accordance with the needs of educators' perceptions by referring to the results of the analysis of students' development needs in information texts.

RESULT

In this type of research, the researcher uses Research and Development (R&D) with the presentation of research results which include several sub-chapters, namely the characteristics of the needs for a model for developing a minimum competency assessment instrument for a class of literacy aspects with 21st century skills, developing a model for a minimum competency assessment instrument for a class for a literacy aspect with 21st century skills. 21 and test the effectiveness of the model for developing minimum competency assessment instruments for classroom aspects of literacy with 21st century skills.

Table 1. Model Development Grid

Learning Materials	Content	Competence	21st Century Skills	Question Form	No. Question	Competency Details
Fantasy Story Text	Literary Texts	Finding Information	Critical thinking	PG	1	Finding information in literary texts
				PGK	2	Finding information in literary texts
				PG	3	Finding information in literary texts
		Understand		PG	4	Find and conclude information in literary texts
				PGK	5	Find and conclude information in literary texts
				PGK	6	Find and conclude information in literary texts
				Uraian	7	Find and conclude information in literary texts
Pantun, Poetry, Gurindam	Poetic Text	Understand	Communication	PG	8	Understand what is implied in the poetry text
				PG	9	Understand what is implied in the poetry text
				PG	10	Understand what is implied in the poetry text
			Critical thinking	PGK	11	Understand what is implied in the poetry text
				PGK	12	Understand what is implied in the poetry text
				PGK	13	Understand what is implied in the poetry text
				Stuffing	14	Understand what is implied in the poetry text
Observation Results Report	Infographics	Finding Information	Critical thinking	PG	15	Find information on infographics
				PGK	16	Find information on infographics
		Understand		Description	17	Find and understand information in infographics
		Finding Information	Creative Thinking	PG	18	Find information on infographics
				PGK	19	Find information on infographics
				PG	20	Find information on infographics
				PGK	21	Find information on infographics
Fiction and Non-Fiction Story Texts	Non-Literary Texts	Finding Information	Communication	PG	22	Finding information in literary texts
				PGK	23	Finding information in literary

Learning Materials	Content	Competence	21st Century Skills	Question Form	No. Question	Competency Details
						texts
	Literary Texts	Finding Information	Collaboration	PG	24	Find and understand information in literary texts
				PGK	25	Find and understand information in literary texts
				PGK	26	Find and understand information in literary texts
			Critical thinking	PGK	27	Find and understand information in literary texts
				Deskription	28	Find and understand information in literary texts
Description Text	Literary Texts	Understand	Creative Thinking	PG	29	Find and understand information in literary texts
				PG	30	Find and understand information in literary texts
			Collaboration	PGK	31	Find and understand information in literary texts
				PGK	32	Find and understand information in literary texts
				Description	33	Find and understand information in literary texts
				PGK	34	Find and understand information in literary texts
				PGK	35	Find and understand information in literary texts

Validation of Fantasy Story Text Material with Critical Thinking Aspects

Table 2. Validation Results of Fantasy Story Text Material with Critical Thinking Aspects

No	Indicator	Validation Results			Mean
		V1	V2	V3	
(1)	(2)	(3)	(4)	(5)	(6)
1	Fantasy story text learning materials in accordance with 21st century skills	4	5	4	4,33
2	Number of narrative texts of fantasy stories for AKM instruments with 21st century skills in aspects of critical thinking and problem solving	4	5	4	4,33
3	Number of questions for AKM questions on fantasy story text material with 21st century skills in aspects of critical thinking and problem solving	4	4	5	4,33
4	Question form for fantasy story text material for AKM instruments with 21st century skills in aspects of critical thinking and problem solving	5	4	5	4,67
5	Number of introductory paragraphs to measure students' identification of fantasy stories with 21st century skills in aspects of critical thinking and problem solving	5	4	4	4,33
6	The text theme for the AKM instrument is fantasy story text material with 21st century skills in aspects of critical thinking and problem solving	4	5	4	4,33
7	Text content for the AKM instrument is fantasy story text material with 21st century skills in aspects of critical thinking and problem solving	4	4	5	4,33
8	Information text with subcompetencies for the AKM instrument, fantasy story text material with 21st century skills in aspects of critical thinking and problem solving	4	5	4	4,33
	Rata-Rata	**4,25**	**4,50**	**4,38**	**4,38**

Based on the table above, it can be seen that the results of validation tests from educational practitioners regarding the development of the minimum competency assessment instrument model for classes in literacy aspects with 21st century skills in fantasy story text material with critical thinking aspects received a good assessment. Each aspect of the assessment received the lowest score of 4 and the highest 5 with an average score of 4.38. With a maximum score of 5, the average score is 4.38 or 87.5%. Based on the category table and assessment range, the average score obtained falls into good qualifications. Thus, it can be concluded that the development of a minimum competency assessment instrument model for literacy aspects with 21st century skills in fantasy story text material with critical thinking aspects is acceptable.

Validation of Pantun, Poetry and Gurindam Material with Communication Aspects

Table 3. Validation Results of Pantun, Syair and Gurindam Material with Communication Aspects

No	Indicator	Validation Results			Mean
		V1	V2	V3	
(1)	(2)	(3)	(4)	(5)	(6)
1	Learning materials for pantun, poetry and gurindam are in accordance with 21st century skills	4	5	5	4,67
2	Number of questions for AKM questions on pantun, poetry and gurindam material with 21st century skills in communication aspects	4	4	3	3,67
3	Form questions for pantun, poetry and gurindam for AKM instruments with 21st century skills in communication aspects	3	4	4	3,67
4	Number of introductory sentences to measure students' identification of rhymes, poetry and gurindam with 21st century communication skills	3	4	4	3,67
5	Poetry themes for the AKM instrument, sentence material with 21st century communication skills	4	5	5	4,67
6	Information text with subcompetencies for AKM instruments, material for pantun, poetry and gurindam with 21st century skills in communication aspects	4	5	5	4,67
	Rata-Rata	3,60	4,40	4,20	4,07

Based on the table above, it can be seen that the results of the validation test from educational practitioners regarding the development of a minimum competency assessment instrument model for classes in literacy aspects with 21st century skills in pantun, syair and gurindam material with communication aspects received a good assessment. Each aspect of the assessment received a score as low as 3 and as high as 5 with an average score of 4.07. With a maximum score of 5, the average score is 4.07 or 81.33%. Based on the category table and assessment range, the average score obtained falls into good qualifications. Thus, it can be concluded that the development of a minimum competency assessment instrument model for the literacy aspect class with 21st century skills in pantun, poetry and gurindam materials with communication aspects is acceptable.

Validation of Observation Report Material with Creative Thinking Aspects

Table 4. Validation Results of Observation Report Material with Creative Thinking Aspects

No	Indicator	Validation Results			Mean
		V1	V2	V3	
(1)	(2)	(3)	(4)	(5)	(6)
1	Learning materials for pantun, poetry and gurindam are in accordance with 21st century skills	5	4	5	4,67
2	Number of questions for AKM questions on pantun, poetry and gurindam material with 21st century skills in communication aspects	3	5	3	3,67
3	Form questions for pantun, poetry and gurindam for AKM instruments with 21st century skills in communication aspects	4	5	4	4,33
4	Number of introductory sentences to measure students' identification of rhymes, poetry and gurindam with 21st century communication skills	4	4	5	4,33
5	Poetry themes for the AKM instrument, sentence material with 21st century communication skills	4	3	5	4,00
6	Information text with subcompetencies for AKM instruments, material for pantun, poetry and gurindam with 21st century skills in communication aspects	5	4	5	4,67
	Rata-Rata	4,00	4,20	4,40	4,20

Based on the table above, it can be seen that the validation test results from educational practitioners regarding the development of a minimum competency assessment instrument model for the literacy aspect of the class with 21st century skills in the observation report material with the creative thinking aspect received a good assessment. Each aspect of the assessment received a score as low as 3 and as high as 5 with an average score of 4.2. With a maximum score of 5, the average score is 4.2 or 84%. Based on the category table and assessment range, the average score obtained falls into good qualifications. Thus, it can be concluded that the development of a minimum competency assessment instrument model for the literacy aspect class with 21st century skills in observation report material with creative thinking aspects is acceptable.

Validation of Fiction and Non-Fiction Story Text Material with Collaborative Aspects

Table 5. Validation Results of Fiction and Non-Fiction Story Text Material with Collaboration Aspects

No	Indicator	Validation Results			Mean
		V1	V2	V3	
(1)	(2)	(3)	(4)	(5)	(6)
1	Fiction and non-fiction story text learning materials in accordance with 21st century skills	4	5	5	4,67
2	Number of fiction and non-fiction story texts for AKM instruments with 21st century skills in collaboration aspects	4	5	3	4,00
3	Number of questions for AKM questions on fiction and non-fiction story texts with 21st century skills in collaboration aspects	4	5	4	4,33
4	Question form for fiction and non-fiction story text material for AKM instruments with 21st century skills in collaboration aspects	4	4	5	4,33
5	Number of introductory paragraph questions to measure students identifying fiction and non-fiction story texts with 21st century skills in collaboration aspects	3	5	4	4,00
6	Text themes for the AKM instrument, text material for fiction and non-fiction stories with 21st century skills, aspects of collaboration	4	4	5	4,33
7	Text content for the AKM instrument, fiction and non-fiction story texts with 21st century skills, aspects of collaborative thinking	5	4	3	4,00
8	Information texts with subcompetencies for the AKM instrument, fiction and non-fiction story text material with 21st century skills, collaboration aspects	5	4	4	4,33
	Rata-Rata	**4,13**	**4,50**	**4,13**	**4,25**

Based on the table above, it can be seen that the validation test results from educational practitioners regarding the development of a minimum competency assessment instrument model for classes in literacy aspects with 21st century skills in fiction and non-fiction story text material with collaboration aspects received a good assessment. Each aspect of the assessment received a score as low as 3 and as high as 5 with an average score of 4.25. With a maximum score of 5, the average score is 4.25 or reaches 85%. Based on the category table and assessment range, the average score obtained falls into good qualifications. Thus, it can be concluded that the development of a minimum competency assessment instrument model for literacy aspect classes with 21st century skills in fiction and non-fiction story text material with collaboration aspects is acceptable.

Validation of descriptive text material with critical thinking aspects

Table 6. Validation Results of Description Text Material with Critical Thinking Aspects

No	Indicator	Validation Results			Mean
		V1	V2	V3	
(1)	(2)	(3)	(4)	(5)	(6)
1	Descriptive text learning material in accordance with 21st century skills	4	5	4	4,33
2	Number of descriptive texts for AKM instruments with 21st century skills in aspects of critical thinking and problem solving	4	5	4	4,33
3	Number of questions for AKM questions descriptive text material with 21st century skills aspects of critical thinking and problem solving	4	3	5	4,00
4	Question form for descriptive text material for AKM instruments with 21st century skills in aspects of critical thinking and problem solving	3	4	5	4,00
5	Number of introductory paragraphs to measure students' identification of descriptive text with 21st century skills in aspects of critical thinking and problem solving	4	5	4	4,33
6	Text theme for the AKM instrument descriptive text material with 21st century skills aspects of critical thinking and problem solving	4	5	5	4,67
7	Text content for the AKM instrument is descriptive text material with 21st century skills in aspects of critical thinking and problem solving	5	4	3	4,00
8	Information text with subcompetencies for AKM instruments descriptive text material with 21st century skills in aspects of critical thinking and problem solving	5	5	4	4,67
	Rata-Rata	**4,13**	**4,50**	**4,25**	**4,29**

Based on the table above, it can be seen that the results of the validation test from educational practitioners regarding the development of a minimum competency assessment instrument model for classes on literacy aspects with 21st century skills on descriptive text material with critical thinking aspects received a good assessment. Each aspect of the assessment received the lowest score of 3 and the highest of 5 with an average score of 4.29. With a maximum score of 5, the average score is 4.29 or 85.83%. Based on the category table and assessment range, the

average score obtained falls into good qualifications. Thus, it can be concluded that the development of a minimum competency assessment instrument model for literacy aspects with 21st century skills in descriptive text material with critical thinking aspects is acceptable.

Homogeneity Test

This homogeneity test aims to find out whether the final data in the form of learning outcomes has the same variance (hogomen) or not. Following are the results of the homogeneity test:

Table 7. Homogeneity Test Results

Test of Homogeneity of Variances			
Skor			
Levene Statistic	df1	df2	Sig.
1,543	1	34	,223

Source: Primary data processed, 2023

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig.
Skor	Based on Mean	1,543	1	34	,223
	Based on Median	,671	1	34	,418
	Based on Median and with adjusted df	,671	1	27,864	,420
	Based on trimmed mean	1,201	1	34	,281

Source: Primary data processed, 2023

Based on the results above, it shows that the homogeneity test obtained a Sig. 0.223 > 0.05. So it can be concluded that the decision making in the homogeneity test above shows that the variance of the data from testing the AKM instrument model for 21st century skills for Class VII students is the same or homogeneous.

Mean Difference Test

Testing the average difference between the control group and the experimental group used the t test. The following are the results of the average difference test, as follows:

Table 8. Average Difference Test Results

Group Statistics					
	Hasil	N	Mean	Std. Deviation	Std. Error Mean
Skor	Kelompok Kontrol	17	71,242	6,2839	1,5241
	Kelompok Eksperimen	19	71,345	4,2484	,9747

Source: Primary data processed, 2023

Based on the table above, it shows that the average value for the control group is 71.242, while for the experimental group it is 71.345. From these results it can be said that in descriptive statistics it can be said that there is a difference in the averages of the control group and the experimental group. The t test results also show a Sig value. 0.223 > 0.05 which can be interpreted as meaning that there is a significant difference between the average results of the control group and the experimental group.

DISCUSSION
Paradigm for Acceptance of Research Products

Authentic assessment models play a very important role in learning because the use of authentic assessment models that have been studied can direct teachers to carry out effective learning. A good teacher's teaching method will also influence student learning well, so teacher creativity in using models is the main key in the learning process. The product of this research is a model for developing a minimum competency assessment instrument for literacy aspect classes with 21st century skills which has been recommended by validation test experts. Based on the results of the questionnaire analysis given to teachers and students, an overview of the model for developing minimum competency

assessment instruments for classes on literacy aspects with 21st century skills expected by teachers and students was obtained.

Characteristics of the model for developing a minimum competency assessment instrument for class aspects of literacy with 21st century skills which are expected to include several aspects which are divided into class VII Indonesian language learning material, such as fantasy story text material with critical thinking aspects, pantun poetry and gurindam material with communication aspects, report material observation results with creative thinking aspects, fiction and non-fiction story text material with collaboration aspects, as well as descriptive text material with critical thinking aspects. The competency expected by most teachers and students is understanding narrative texts, literary texts and informational texts to identify, understand and analyze various forms of text descriptions presented in the questions.

Future Product Range

The success of the learning process cannot be separated from using a model that is suitable for students. Each learning model is in accordance with the design of guidance for students in achieving learning goals. As a product of developing a model for developing a minimum competency assessment instrument for classroom aspects of literacy with 21st century skills, it is hoped that it will have a far-reaching future. Process assessment as authentic evidence of student achievement in the teaching and learning process is the main basis for an educator in carrying out teaching and learning activities. The existence of authentic assessment can be used by teachers to carry out remedial teching or enrichment which depends on the achievement of students' competencies.

The model for developing a minimum competency assessment instrument for classroom aspects of literacy with 21st century skills was developed in accordance with the characteristics of the Indonesian language subject as a driver of all subjects in schools and a carrier of knowledge. Model for developing minimum competency assessment instruments for literacy aspect classes with 21st century skills consisting of critical thinking, creative thinking, communication and collaboration. To meet the need for an assessment model that meets the expectations of teachers and students and meets future assessment demands, this model was developed based on research. This research and development was carried out through theoretical studies, practical studies and needs studies by asking for input from various parties, from teachers, assessment experts to language and literature experts. For this reason, it is hoped that this model for developing a minimum competency assessment instrument for classes on literacy aspects with 21st century skills can truly function as an effective assessment model.

Research Limitations

This research has attempted to comply with correct research and development procedures. However, there are still limitations, namely the shortcomings and limitations in this research are disclosed so that there are no misperceptions and misguidance in utilizing the results. The limitations in question relate to several aspects, namely:

1) The data sources for this research are three class VII Indonesian language subject teachers and students from two different schools, namely SMP Muhammadiyah 4 Semarang and SMP Negeri 37 Semarang. This school was chosen as a limited trial of a model for developing a minimum competency assessment instrument for classes on literacy aspects with 21st century skills as a representation of a limited trial. Because it is too small to represent the existing population, because there is a possibility that if more research data sources were used, the results of this research would be different.

2) All research instruments used in this research are instruments that are not yet standardized even though their validity has been consulted and validated by the supervisor. Therefore, it is possible that the data found does not represent the actual conditions.

CONCLUSION

Based on the results of the needs analysis according to the perception of students and teachers, the characteristics needed are a model for developing minimum competency assessment instruments for classes with literacy aspects with 21st century skills. In the model for developing minimum competency assessment instruments for classes with literacy aspects with 21st century skills, several Indonesian language learning materials are represented, namely fantasy story text material with critical thinking aspects, poetry and gurindam pantun material with communication aspects, observation report material with creative thinking aspects, fiction and non-fiction story text material with collaboration aspects, and descriptive text material with critical thinking aspects.

The assessment of the expert's validation in all aspects and materials falls into good qualifications. Fantasy story text material with critical thinking aspects got an average score of 4.38 or reached 87.5%, poetry and gurindam pantun material with communication aspects got an average score of 4.07 or reached 81.33%, results report material observation with the creative thinking aspect got an average score of 4.2 or reached 84%, fiction and non-fiction story text material with the collaboration aspect got an average score of 4.25 or reached 85%, and descriptive text material with the critical thinking aspect got a score an average of 4.29 or reaching 85.83%.

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