

Development Of Infographic-Based Minimum Competency Assessment Instruments For High School Students In Medan City

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Abstract.

This research is an applied research which aims to develop a Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics. Making the Minimum Competency Assessment Instrument (AKM) for History Lessons based on this infographic is in order to support the government's program related to the Minimum Competence Assessment (AKM) which was launched by the government as a substitute for the National Examination (UN). In this case, the making of History Questions as a simulation for Students and Handbook of Results for History Teachers in Medan. This research was conducted in three stages of trials and involved validation of material experts and also students who assessed the language component, media aspect, learning aspect, language aspect, material aspect. The final result of the three trials is very good value. To further develop the Minimum Competency Assessment Instrument (AKM) for History Lessons based on Infographics as an Assessment for Students, especially in History Lessons.

Keywords: *Minimum Competency Assessment, High School, History Education, Merdeka Belajar*

I. INTRODUCTION

Through the decision of the Minister of Education and Culture through Nadiem Makarim's circular letter number 1 of 2021 concerning the abolition of the National Examination and Equality Examination and the Implementation of School Examinations in the Emergency Period for the Spread of Covid-19 which was signed by Nadiem on February 1, 2021. (Kompas.com, 2021). Students are declared to have passed after completing the learning program as evidenced by a report card each semester, obtaining a minimum good behavior score, and taking exams held by the education unit. The exams are carried out in the form of assignments, online tests, portfolios in the form of evaluation of report cards, attitude values, and previous achievements, as well as other assessment activities determined by the education unit. To anticipate this in the future, the government will launch the National Assessment (AN) program. (Tirto.id, 2020) The National Assessment and National Examination have a very basic difference, namely they do not evaluate the achievements of individual students, but evaluate them as a whole, and are carried out periodically to map the education system. In general, the assessment does not only assess knowledge, but includes all methods used to collect information about knowledge, abilities, understanding, attitudes, and motivation (PISA, 2016).

Assessment in learning activities is a very important element to collect data and information needed related to the learning process (Pellegrino, 2014). The data obtained can be used to make decisions about teaching content and methods, to make decisions about classroom climate, and to provide value (Brown, 2019). The ideal assessment system is designed continuously, more than just documenting students' abilities and what they are capable of doing. That is, assessments must measure student progress over time, to provide a complete picture of progress, observations over time must be linked conceptually so that changes can be observed and interpreted (Baird et al., 2017), (Wiliam, 2011). The student's level of progress in learning should underlie the assessment system, and tests should be designed to provide information and remap learning progress. This National Assessment consists of three parts: - Minimum Competency Assessment

(AKM), - Character Survey, and - Learning Environment Survey. AKM is designed to measure student achievement from cognitive learning outcomes, namely literacy and numeracy. The Minimum Competency Assessment and Character Survey are not carried out based on mastery of subjects or based on mastery of content or material as has been applied in the national exam, but rather the measurement of minimum abilities which are mapped into literacy and numeracy skills (Hasibuan, 2007). Literacy ability can be understood as the ability to analyze information in the form of text, while numeracy ability is understood as the ability to analyze information in the form of numbers. Preparing students for the assessment of numeracy skills is a challenge for teachers because numeracy skills are cross-subject and related to logic, science and arithmetic (National Literacy Movement, 2017).

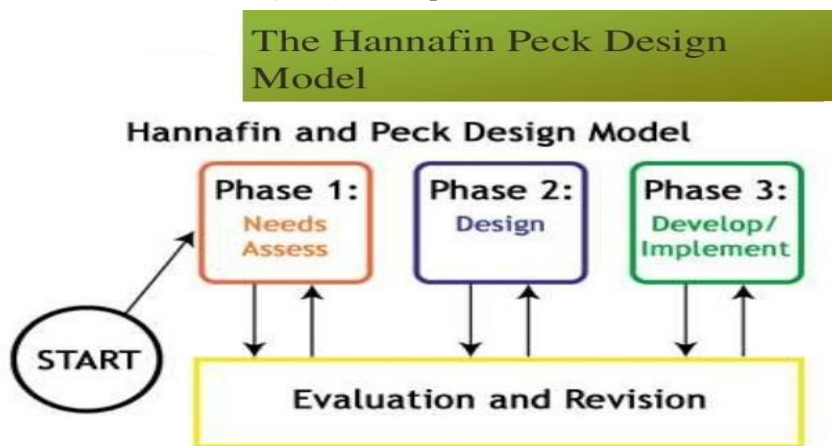
The Minimum Competency Assessment consists of two things, namely reading literacy and numeration, at these stage students will be tested to understand, analyze a reading text and an analytical problem using numbers. Character Survey is an activity that will be carried out by students to find out personal social emotional learning outcomes based on values in Pancasila such as faith in God Almighty, global diversity, mutual cooperation, independence, critical reasoning, creative. The Learning Environment Survey is a collection of information regarding the quality of learning and the school learning environment. This stage is carried out by the principal, educators, and students. This learning environment survey was conducted with the aim of increasing the level of learning facilities and infrastructure in schools. However, in the current state of the Covid 19 pandemic, which also has an impact on the education system, this has resulted in a lack of direct training and debriefing provided by the government to all parties involved in the implementation of AN. The debriefing and training related to the implementation of AN can only be done virtually, of course with all the limitations. Minimum competence assessment (AKM) is also used to map schools and regions based on minimum competence. The implementation of the assessment will be followed by students who are in the middle of the school level (eg grade 4 SD, 8 SMP, 11 Senior High School or equivalent). teachers' learning.

The results of this assessment will also not be used as a basis for selection. Students continue to the next level. Based on the results of observations on evaluations conducted by history teachers in Medan, there is less use of variation. The paper and pencil test is the element that is mostly done. The rest of the students are asked to work on the questions in the Student Worksheet (LKS). Of course, the evaluation carried out in such a way is limited to only measuring the competence of students related to left brain development. The use of history questions in the form of infographics will make students interested in reading other than that students will be clearer in understanding the form of questions because they are accompanied by supporting images. Infographics are a presentation of data combined with pictures that are expected to be able to attract students' attention and help students understand historical material in chronological order. Basic visualization allows people to immediately understand a message with striking patterns, tendencies and oddities in the data (Lancow et al, 2014:30). In order to support the government's program to participate in the success of the Minimum Competency Assessment program in place of the National Examination in the form of service activities which are part of the tridharma of higher education (Guidelines for Implementation of Research and Community Service LPPM UNIMED, 2021), the authors propose a problem-solving framework in the form of developing a Competency Assessment instrument. Minimum in history lessons at Senior High School Pertiwi Medan. This activity is carried out by providing materials related to making assessments and measurements to assess the numeracy skills of high school students in the form of questions and their solutions including logical thinking with the help of Infographic Media. By providing this training, it is hoped that history teachers can use and create history AKM questions with the help of infographics to students, so that government programs related to the replacement of the National Examination can be successful.

II. METHODS

Development research is a step taken to improve or develop a product and test its effectiveness longitudinally or gradually. In this study, the researcher tried to develop the AKM Question instrument in the history map based on infographics. Educational research and development is the process used to develop and

validate research products. The research model in this study uses the Hannafin and Peck Model (1998), the selection of this model in the development of the AKM Question Instrument for Teaching History Lessons based on Infographics is because this model is very complete and detailed to guide the development of the Assessment Instrument. According to Hanafin and Peck (Afandi and Badarudin, 2011:26) the learning design model consists of three phases, namely Need Assessment (Needs Analysis Phase), Design (Design Phase), and Develop/Implement (Development and Implementation Phase). In this model, each phase will be assessed and repeated. To understand the stages of the research, it will be further elaborated through the following chart of the Hanafin and Peck (1998) development model.



The development is carried out through the preparation of Infographic AKM Question Materials based on the input of respondents from both students and teachers. The next stage of the AKM question design will be validated by the validator before the effectiveness test is carried out in the testing step after development. small and large group tests were carried out to obtain input on the Infographic-based AKM Questions. The population in this study were students of class XI at Senior High School Pertiwi Medan, and the samples taken were class XI IPA and XI IPS. Collecting data at the analysis stage using interview and observation methods in order to get an overview of learning and conditions as well as teaching materials. At the implementation stage, the researcher used the test method to measure student learning outcomes and awareness. The test was conducted twice, namely at the beginning (pre-test) and at the end of learning (post-test). The following table of media validity criteria is used as a reference in this development research.

Persentase	Keterangan	Keterangan
25,00	Invalid	Cannot be used
40,00		
41,00	Less Valid	Cannot be used
55,00		
56,00	Quite Valid	Can be used with major revision
70,00		
71,00	Valid	Can be used with minor revision
85,00		
86,00	Very Valid	Sangat baik untuk digunakan
100,00		

Table 1. Media Assessment Criteria (Akbar, 2016)

III. DISCUSSION

This study uses the model of Hanafin and Peck (1998) in developing Infographic-based Minimum Competency Assessment Instruments for History Lessons in the form of pictures and information related to class XI Senior High School material. The following will explain the stages used through the selected development model. At the development stage, the lecturer needs analysis will conduct preliminary research to find out what is happening in the field, in this case the XI Class Students at Senior High School Pertiwi Medan. The use of questionnaires, field observations and literature studies are data collectors to understand what needs are useful for the development of the Historical AKM Development Instruments. The results of the initial observations showed that students still had difficulty understanding the questions in the history

course exam. They are just trying to memorize the answers without knowing the depth of their understanding of the material. Whereas the history material for class XI is very rich in discussion, namely based on the curriculum starting from the days of Colonialism and Imperialism to the period of Struggle in defense of independence. The lack of student interest in history lessons is caused because they think history lessons are only memorized so they feel monotonous and the questions given are only in the form of text, so boredom during the exam will result in lack of development both from the model or the media used during the learning process in class.

The use of questionnaires is also carried out to analyze problems and the need for the use of media such as what is needed by students in facilitating learning with them. So the questionnaire will be used in the form of 20 questions that cover the development of higher-order thinking carried out by students in the Infographic-based History AKM Instrument. Based on the results of these observations and questionnaires, it can be concluded that history subjects require the delivery of material through attractive media in appearance and content. With these varied items, it can trigger students' high-level thinking power and increase student focus in working on questions because they are challenged in solving them. Meanwhile, library research activities are carried out in the Medan State University library as well as collections from the history education study program as a reference for the development of Assessment Instruments regarding what materials can be developed as well as the latest historical information about history in class XI. And utilizing online media in this case infographics by using the content as development in the questions that will be made. Which will later be packaged into a question bank book to be a guide and reference material for history teachers in the manufacture and implementation of AKM in the History Maple.

a. *Augmented Reality Design (Product Component)*

Hannafin and Peck stated that the design phase aims to identify and document the best methods to achieve the goal of creating the media. One of the documents produced in this phase is a story board document which follows the sequence of teaching activities based on the needs of the lesson and the objectives of the learning media as obtained in the needs analysis phase. As in the first phase, an assessment needs to be carried out in this phase before proceeding to the development and implementation phase. The visual design of the history lesson infographic will be adjusted to the story board regarding the appearance and content of the material. In this stage, the developer determines the infographic design that will be presented in the AKM Instrument, the design of the display of attractive teaching materials, the selection and arrangement of images, the size of the text and the clarity of the content.

b. *Development and Implementation*

Development and implementation phase. Hannafin and Peck said the activities carried out in this phase were the production of flowcharts, testing, as well as formative assessments and summative assessments. The story board document will be used as the basis for making flow diagrams that can help the process of making visual infographics. To assess the smoothness of the resulting media such as link continuity, assessment and testing are carried out in this phase.

The results of the assessment and testing process will be used in the adjustment process to achieve the desired quality of infographic visual media. Hannafin and Peck's model emphasizes that the assessment and repetition process must include processes of testing and evaluating learning media that involve the three phases on an ongoing basis. Furthermore, Hannafin and Peck mention two types of assessment, namely formative assessment and summative assessment. Formative assessment is an assessment that is carried out throughout the media development process while summative assessment is carried out after the media has been developed. This continues with the test as a question in the Minimum Competency Assessment, along with the Historical Infographic which will be applied to the Minimum Competency Assessment.

Fig 1. The product of the development of the Indonesian Independence History Infographic in the History of AKM Questions

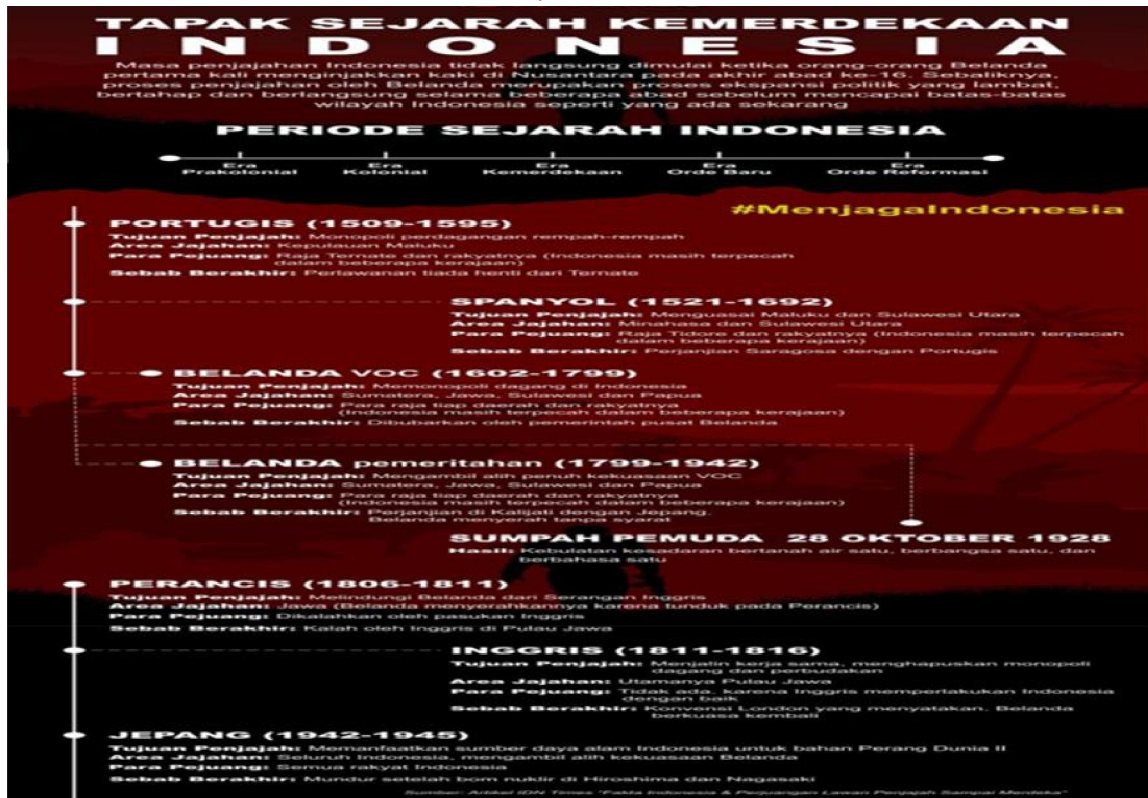


Fig 2. The product of Budi Utomo's infographic development and National Awakening in the History of AKM Problems

c. Evaluation

This stage aims to assess the level of validity of the AKM infographic. The validator who will validate is the Unimed history education lecturer. Where the tasks are divided, namely Dr. Syamsidar Tanjung, M.Si as Education Expert and Dr. Lukitaningsih, M.Hum as Material Expert Then Abdul Haris, M.Pd for Media Expert. The instrument is in the form of a Likert Scale to collect ratings and suggestions from the validator. The statement in the instrument is based on observations of the AKM Infographics and Instruments. The results of the validation are used as further improvements. The material expert validation test serves to assess the appropriateness of the material contained in the Historical AKM Question Bank.

Validation was carried out in early July 2021 using a material expert feasibility test questionnaire. The questionnaire consists of two assessment components, namely the content component and the learning component. The results of the material expert validation showed that the material expert validation results for the content component got an average score of 4.7 and 4.66 for the language component. The total average score for both components reached 4.69 in the "Very Good" category. Based on these results, the Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics is worth testing without having to revise

d. Product Trial and Revision

The tryout of the Infographic-Based AKM History Question was conducted three times by involving students of class XI IPA and IPS SMA Pertiwi Medan as users. The trial activities were carried out at their respective residences due to the COVID-19 pandemic. Use of a Smartphone/laptop that is connected to the internet network. The feasibility assessment of the Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics is carried out by asking students to fill out a feasibility test questionnaire. If the student's assessment results in each trial are below the minimum average score, a revision will be made to the History AKM Infographic. The minimum average score set is 3.4 – 4.2 in the good category.

3.3.1 First Trial

The first phase of the trial activity was carried out in mid-July 2021 by involving three students who had high, medium and low abilities. This student's ability assessment is based on learning outcomes. Third, students are asked to assess the Minimum Competency Assessment (AKM) for History Lessons based on infographics by filling out a feasibility test questionnaire. The questionnaire contains four aspects of assessment, namely media, presentation of material, learning and language. The data obtained from the first phase of the trial show that the average score for the media aspect from the results of the assessment of three students reached 4.44 with the "Very Good" category, the average score for the material aspect was 4.4 with the "Very Good" category. " and the average score for the learning aspect was 4.33 in the "Very Good" category, while the language aspect got an average score of 4.5 in the "Very Good" category. The image below shows the results of the first stage of the trial in the following diagrams and tables.

No	Name	Media Aspect					Σ	Material Aspect					Σ	Learning Aspect		Σ	Language Aspect		Σ
		Indicator						No. Butir Indikator						Indicator			Indicator		
		(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(1)	(2)				
1	Aqila putri Fadhillah	5	4	4	5	4	22	4	4	5	4	5	22	5	4	9	5	4	9
2	Diva nayaka siswadi	4	4	5	4	4	21	4	4	5	4	5	22	5	4	9	4	4	8
3	Fasya aisyah deli	5	5	5	4	5	24	5	5	5	4	5	24	5	4	9	5	4	9
4	Harika nanda aulia	5	4	5	5	4	23	5	5	5	5	5	25	5	5	10	5	5	10
5	Lisa Natasya	4	4	4	4	4	20	4	4	4	4	4	20	4	4	8	4	4	8
Total		23	21	23	22	21	66	22	22	24	21	24	66	24	21	26	23	21	27
Average		4,66	4	4,66	4,66	4	4,4	4	4	5	4	5	4,4	4,66	4	4,33	4,66	4	4,5

Table 1. User Trial Results Phase 1

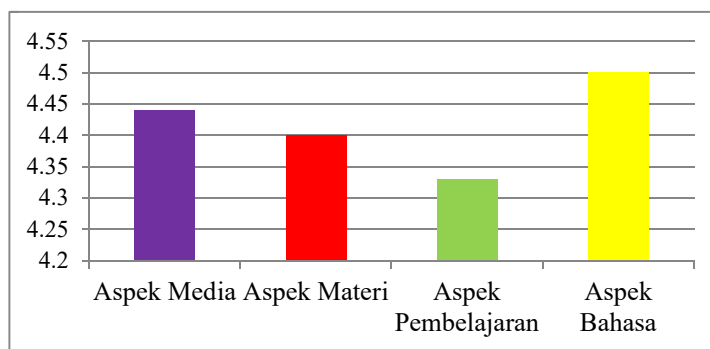


Diagram 1. First Phase Trial Results

The average score for the four aspects assessed in this first trial reached 4.42 with the "Very Good" category. Based on these results, the researcher did not find any fundamental deficiencies in the product that needed to be improved, both in terms of media, material and language. The Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics could be tested in the second stage.

3.3.2 Second Trial

The second stage trial of the Infographic-based History AKM questions was carried out in mid-July 2021 by involving ten students who had high, medium and low abilities. This student's ability assessment is based on learning outcomes. Each student can use their respective Android/laptop to access the History AKM Questions. After they accessed the infographics, they were asked to rate the media by filling out a due diligence questionnaire. The data obtained from the second stage of the trial showed that the average score for the media aspect from the assessment results of ten students reached 4.34 with the "Very Good" category, the average score for the material and learning aspects was 4.3 respectively. with the "Very Good" category, while the average score for the language aspect is 4.45 with the "Very Good" category. The average score obtained by the four aspects in the second phase of the trial is not much different from the results of the first phase of the trial. The results of the second stage of the trial in the form of a diagram can be seen in the following figure and table.

No	Name	Media					Σ	Material					Σ	Learning		Σ	Language		Σ
		Indicator						Indicator						Indicator			Indicator		
		(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(1)	(2)				
1	Gerrid Arisandy	5	5	5	4	4	23	4	4	5	4	5	22	5	4	9	4	4	8
2	Harvien Wichen	5	4	4	4	4	21	5	4	5	4	4	22	4	4	8	5	5	10
3	Inayah Sabila	4	4	4	4	4	20	4	4	4	4	5	21	5	4	9	5	5	10
4	Indra syahputra	4	4	4	4	4	20	5	5	5	4	4	23	5	4	9	4	4	8
5	Kirana Arashinta	5	5	5	4	4	23	4	4	4	4	4	20	4	4	8	5	4	9
6	M.daffa Aditiya pohan	5	5	4	4	4	22	4	4	5	4	5	22	5	4	9	4	4	8
7	Muhammad Fahrizal Basri	4	5	5	4	4	22	4	4	4	4	4	20	4	4	8	5	4	9
8	Najwa khuwailidiah	4	4	4	4	4	20	5	4	5	4	5	23	5	4	9	5	4	9
9	Nakita	5	5	4	4	5	23	4	4	5	4	5	22	5	5	10	5	5	10
10	Quratu aini	4	4	4	4	4	20	4	4	4	4	4	20	4	4	8	5	4	9
Total		46	46	44	41	40	217	43	41	46	40	45	215	46	40	86	46	43	89
Average		4,6	4,6	4,4	4,1	4	4,34	4,3	4,1	4,6	4	4,5	4,3	4,6	4	4,3	4,6	4,3	4,45

Table 2. User Trial Results Phase 2

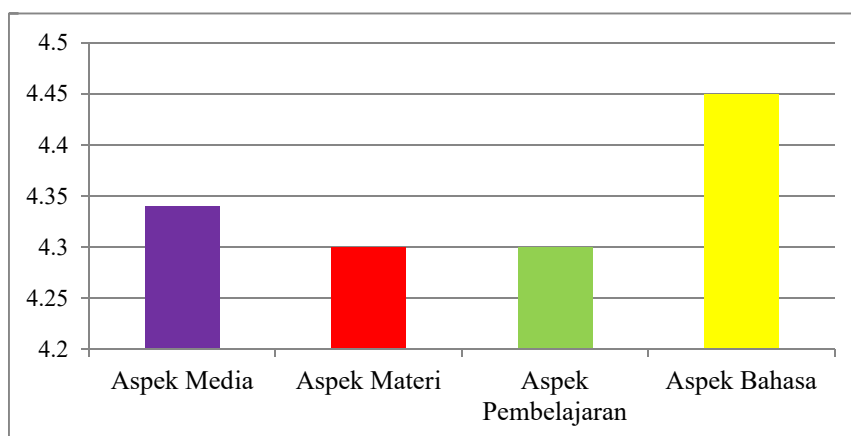


Diagram 2. Results of the Second Stage Trial

Based on table 3 above, it is known that the average score for the four aspects assessed reached 4.35 with the "Very Good" category. Student assessments for each aspect are in the "Very Good" category so that there are no fundamental deficiencies in the product that need to be improved by researchers. That way, the Infographic-Based AKM Question can be continued in stage 3.

3.3.3 Third Trial

The third phase of the trial activity was carried out on August 4, 2021, involving 20 students. Each student uses a computer device that is connected to the internet to access the Infographic-Based AKM Questions. After they accessed the East Asian Augmented Reality-based Teaching Materials, they were asked to conduct an assessment of the media by filling out a feasibility test questionnaire given by the researcher. The data obtained from the third phase of the trial showed that the average score for the media aspect from the assessment results of twenty STUDENTS reached 4.44 in the "Very Good" category, the average score for the material aspect was 4.46 in the "Very Good" category. and the average score for the learning aspect is 4.5 in the "Very Good" category, while the language aspect gets an average score of 4.58 in the "Very Good" category. The average score obtained by the four aspects in the third stage of the trial is not much different from the results of the first and second stages of the trial. The results of the third stage of the trial in the form of diagrams can be seen in the following figures and tables.

No	Nama Siswa	Aspek Media					Σ	Aspek Materi					Σ	Aspek Pembelajaran		Σ	Aspek Bahasa		Σ
		No. Butir Indikator						No. Butir Indikator						No. Butir Indikator			No. Butir Indikator		
		(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(1)	(2)	(1)	(2)		
1	Nadira Azra Belva	5	5	5	4	5	24	5	4	5	5	5	24	5	5	10	5	5	10
2	Nazla Soraya	5	5	5	5	4	24	5	4	5	5	5	24	5	5	10	5	5	10
3	Nisa Zahra Winnetou	4	5	4	4	4	21	4	4	5	4	5	22	5	4	9	5	4	9
4	Nurfatma Az-Zahra Isma	4	5	5	4	4	22	4	4	5	4	5	22	5	5	10	5	5	10
5	Nurwdia kasih	5	4	5	5	5	24	5	4	5	4	4	22	5	4	9	4	4	8
6	Ranny ayu barata	5	5	5	4	5	24	5	5	5	4	5	24	5	5	10	5	5	10
7	Roseyla sahdina pasaribu	4	4	4	4	4	20	4	4	4	4	5	21	4	4	8	4	4	8
8	Putra Hanan Alfuthuh	4	5	4	4	5	22	4	4	5	4	5	22	4	4	8	5	4	9
9	Sarah Ananda	4	4	5	4	4	21	4	4	5	4	4	21	4	4	8	4	4	8

	Fatinah																		
10	Shabrina najla	5	5	5	4	5	24	5	5	5	4	5	24	5	5	10	5	5	10
11	Sherin fatiha rahman siregar	4	4	4	4	4	20	4	4	4	4	4	20	4	4	8	5	4	9
12	Taufiqah Rahmatillah	5	4	5	4	4	22	4	4	5	4	5	22	5	4	9	5	4	9
13	Tengku annurul syahfitri	5	4	5	4	4	22	4	4	5	4	5	22	4	4	8	4	4	8
14	Ummu azzahra hutabarat	5	5	4	5	5	24	5	5	5	5	5	25	5	5	10	5	5	10
15	Uyun saskiyah	4	4	4	4	4	20	4	4	4	4	4	20	4	4	8	5	4	9
	Total	91	90	91	84	88	444	88	85	95	84	94	446	92	88	180	95	88	183
	Average	4,55	4,5	4,55	4,2	4,4	4,44	4,4	4,25	4,75	4,2	4,7	4,46	4,6	4,4	4,5	4,75	4,4	4,58

Table 3. User Trial Results Phase 3

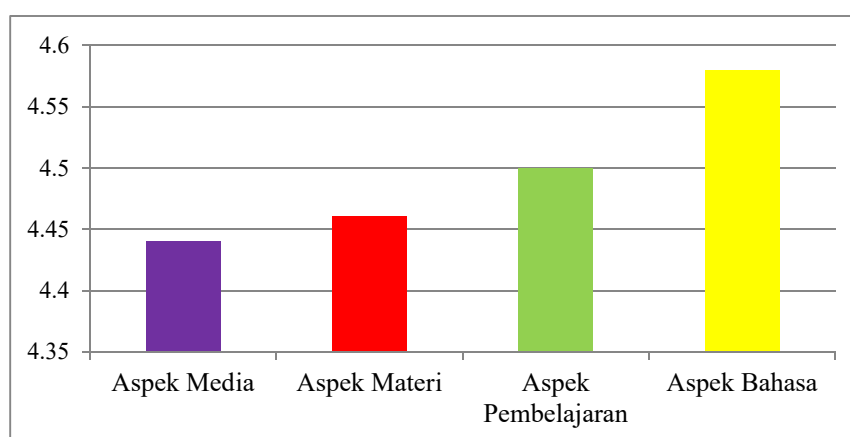


Diagram 3. Third Phase Trial Results Diagram

Based on table 3, it is known that the average score for the four aspects assessed reached 4.45 in the "Very Good" category. The average score in the third stage of the trial is not much different from the average score in the first and second stages of the trial. From the results of the student assessment, there were no fundamental deficiencies in the History Infographic AKM Question, both in terms of media, material and language. Precisely during the trial, the students looked enthusiastic. They were so excited to explore one by one the content presented in the Minimum Competency Assessment Instrument (AKM) for History Lessons based on Infographics. Thus, the researcher concludes that the Minimum Competency Assessment Instrument (AKM) for History Lessons based on Infographics does not need to be revised. This Infographic-Based AKM History Question can be said to be suitable for use as a learning medium in Medan City High School.

Product validity discussion (AKM History Infographic)

This National Assessment consists of three parts: - Minimum Competency Assessment (AKM), - Character Survey, and - Learning Environment Survey. AKM is designed to measure student achievement from cognitive learning outcomes, namely literacy and numeracy. The Minimum Competency Assessment and Character Survey are not carried out based on mastery of subjects or based on mastery of content or material as has been applied in the national exam, but rather the measurement of minimum abilities which are mapped into literacy skills and abilities. Literacy ability can be understood as the ability to analyze information in the form of text, while numeracy ability is understood as the ability to analyze information in the form of numbers. Preparing students for numeracy skills assessments is a challenge for teachers because numeracy skills are cross-subject and related to logic, science and arithmetic.

The Minimum Competency Assessment consists of two things, namely reading literacy and numerization, at this stage students will be tested to understand, analyze a reading text and an analytical problem using numbers. Character Survey is an activity that will be carried out by students to find out personal social emotional learning outcomes based on values in Pancasila such as faith in God Almighty, global diversity, mutual cooperation, independence, critical reasoning, creative. The Learning Environment Survey is a collection of information regarding the quality of learning and the school learning environment. At this stage carried out by the principal, educators, and students. This learning environment survey was conducted with the aim of increasing the level of learning facilities and infrastructure in schools. Based on the results of observations on evaluations conducted by history teachers in Medan, there is less use of variation. The paper and pencil test is the element that is mostly done, the rest of the students are asked to work on the questions in the Student Worksheet (LKS). Of course, the evaluation carried out in such a way is limited to only measuring student competencies related to left brain development. The use of history questions in the form of infographics will make students interested in reading besides that students will be clearer in understanding the form of the questions because they are accompanied by supporting pictures. Infographics are a presentation of data combined with pictures that are expected to be able to attract students' attention and help students understand historical material in chronological order.

Basic visualization allows people to immediately understand a message with striking patterns, tendencies and oddities in the data. In order to support the government's program to participate in the success of the Minimum Competency Assessment program in place of the National Examination in the form of service activities which are part of the tridharma of higher education (Guidelines for Implementation of Research and Community Service LPPM UNIMED, 2021), the authors propose a problem-solving framework in the form of developing a Competency Assessment instrument. Minimum in history lessons at SMA Pertiwi Medan. This activity is carried out by providing material related to making assessments and measurements to assess the numeracy skills of high school students in the form of questions and their solutions including logical thinking with the help of Infographic Media. By providing this training, it is hoped that history teachers can use and create history AKM questions with the help of infographics to students, so that government programs related to the replacement of the National Examination can be successful. The AKM infographic on the History Map has been validated by media experts who are lecturers who have expertise in learning media.

Of the eight components assessed by media experts, the use of Augmented in the lecture process got an average score of 4.47 with the 'Very Good' category. The AKM infographic on the History Map has also been validated by a material expert who is a lecturer who has expertise in educational technology. The average score for the two components assessed by material experts reached 4.69 with the category "Very Good. The results of the material and media expert validation show that the Infographic-based History AKM Question is very suitable to be used in the Minimum Competency Assessment Question. After being validated by media experts and material experts, the Infographic-Based History Map AKM Instrument was tested three times to class XI students for the 2021/2022 academic year at SMAS Pertiwi Medan. During three product trials, students seemed enthusiastic and serious in learning because learning using infographics was very interesting. Even students gave a very good assessment of the items given. This is indicated by the high average score for each trial, namely 4.42 (Very Good) in the first trial, 4.35 (Very Good) in the second trial and 4.45 (Very Good) in the third trial. . Based on the results of three trials, the Infographic-Based History Map AKM Instrument can be said to be suitable for use as a question bank in the Minimum Competency Assessment (AKM) in Medan City Senior High School.

IV. CONCLUSION

Based on the results of research on the development of the Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics, several conclusions can be drawn. The development of the AKM History Learning Instrument based on Infographics is carried out by utilizing infographics from online media that are adapted to the content of class XI material based on the 2013 curriculum syllabus. The creation of varied items that lead students to think at a high level and focus when

answering questions. The selection is based on the effective use of historical material content. The development of the Minimum Competency Assessment Instrument (AKM) for History Lessons based on infographics is carried out in several stages. First, research and data collection. At this stage, observations, questionnaires and literature studies were carried out to collect useful information and literature for the development of the AKM instrument. Second, planning activities which include the preparation of materials for the preparation of materials, selecting images and scripts (image captions) that are in accordance with the material, and downloading infographics from online media. Third, product development is carried out in four stages: a) Development of Historical Content which is designed to be different for each material object; b) Development of visual infographics in the form of texturing and object modeling activities to provide attractive colors and textures. The number of models and various models that will be developed is based on the existing government AKM which is narrowed down to the needs of students c) Implementation of Question Items for Infographics, here the problem model will be arranged in such a way as to match the visual infographic.

After implementing the problem model, it will then be continued into the google form. Implementation of AKM Questions to a laptop/smartphone connected to the internet. This step is the implementation of the AKM Instrument on several smartphone and laptop devices to ensure system reliability and feedback that can be used as input in improving application performance and usability. d) validation of media experts and material experts. Fourth, product trials and revisions. The product trial was carried out three times by involving students of class XI IPA and IPS for the 2021/2022 academic year as users. If in each trial there are still deficiencies, then revisions are made to improve the assessment instrument. The media expert's feasibility assessment of the Development of the Minimum Competency Assessment Instrument (AKM) for History Lessons based on Infographics got an average score of 4.47 in the 'Very Good' category, while the average score of the material experts reached 4.69 in the 'Very Good' category. The results of the validation of material and media experts show that the Infographic-based Minimum Competency Assessment Instrument (AKM) for History Lessons is "very feasible" to be used as the AKM History Question of SMA Pertiwi in Medan city. Even the responses from students also stated that the Development of an Infographic-based Minimum Competency Assessment Instrument (AKM) for History Lessons is very suitable to be used as an Instrument for Assessment or evaluation of History lessons. This is indicated by the high average score for each trial, namely 4.42 (Very Good) in the first trial, 4.35 (Very Good) in the second trial and 4.45 (Very Good) in the third trial.

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