The Development of Question Points on Socrative in Exposition Text Learning For the Grade Viii of Junior High School Students

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Abstract:
Background*: The problem in this research is related to the development question points of the exposition text on Socrative. The purpose of this study is to produce exposition text questions on Socrative, to describe the validity of exposition text items on Socrative, and to describe the reliability of exposition text items on Socrative.*
Materials and methods: *The method used in this research is research and development (R&D). Data collection techniques used tests, interviews and questionnaires to three schools Junior High School (SMP) in East Lampung, including SMP Negeri 1 Way Jepara, SMP Negeri 1 Braja Selebah, and SMP YPI 1 Braja Selebah in academic year 2020/2021. The product design was validated through evaluation of relevant experts and practitioner assessments (Bahasa Indonesia teachers), then tested on the junior high school students.*
Result: *The results showed that the items on Socrative in learning the exposition text were successfully developed, there were 42 valid items with and 8 items were invalid with, the items tested were reliable. $r_{xy} > r_{tabel}$ $r_{xy} < r_{tabel}$ $r_{11} = 0.8602$ and $= r_{tabel} 0.2028$ so that the instrument is reliable. $r_{11} > r_{tabel}$.*
Conclusion: *The items on Socrative can be used as an evaluation instrument by the teacher for students in the process of evaluating the exposition text learning.*
Keywords*: Evaluation; Question Points; Exposition Text; Socrative.*

I. Introduction

Equalization and improvement of the quality of national education continues to be carried out by the government through various policies and programs, one of which is based on the results of the analysis of the assessment of student learning outcomes. Assessment of student learning outcomes is obtained from evaluation activities. Cross in Sukardi (2010: 01) defines evaluation is a process which determines the extent to which objectives have been achieved. This definition explains directly the relationship between evaluation and the objective of an activity that measures the degree to which the goal can be achieved. More specifically, according to Law of the Republic of Indonesia Number 22 of 2003 concerning the National Education System Article 57 paragraph (1) in Sukardi (2010: 01), evaluation is carried out in the context of controlling the quality of education nationally as a form of accountability for the delivery of education to interested parties, including the students, institutions and educational programs.

Considering the importance of evaluation, in the implementation of evaluation activities a quality question points instrument is needed so that it can guarantee the quality of the evaluation presented to students. To get quality questions, before the questions are used, each point needs to be analyzed first. This aims to help improve the test through revisions or discarding ineffective questions, and to find out information on whether the students have mastered the material taught by the teacher. According to Arifin (2016: 68), a good question point instrument has eight characteristics, namely valid, reliable, relevant, representative, practical, discriminatory, specific, and proportional.

One of the subjects to be achieved in the 2013 curriculum is Bahasa Indonesia which is regulated by Permendikbud number 24 of 2016 concerning Core Competencies and Basic Competencies. One of the materials studied was the exposition text. Exposition text is taught to SMP grade VIII in Odd Semester students. The learning result of students in Bahasa Indonesia subjects, especially exposition text material, can be seen by carrying out a learning evaluation process in appropriate with KD 3.5 identifying exposition text information in the form of popular scientific articles from newspapers/magazines) that are heard and read, and 3.6 examine the content and structure of the exposition text (in the form of popular scientific articles from newspapers/magazines) which are listened to or read.

Wiersma and Jurs in Hamzah (2014: 12) suggested that evaluation is a process that includes measurement and testing which contains decision making about value. This opinion is in line with what

Arikunto (2016: 12) states that evaluation is an activity of measuring and assessing. One of the measurements and assessments is by using test techniques. According to Mulyadi (2010: 55), the test technique is a technique in evaluation that is used to determine the learning result of students by using a test tool. The test is a tool or procedure that is used in the form of tasks or commands that must be carried out and can also in the questions form or questions that must be answered. The implementation can be oral or written test.

Based on the results of the needs analysis, 83.3% of the question points used in the evaluation of the exposition text were developed result. The question points that developed show that 100% is not tested to know its validity and reliability. This shows that the question points that developed for the evaluation of exposition text learning are not necessarily valid and reliable. Therefore, the development of questions must be tested for validity and reliability to determine their feasibility.

Keraf (1981: 3) defines exposition as a form of writing or rhetoric that try to explain and elaborate a main idea that can expand the view or knowledge of a person who reads the description. In contrast to Keraf's opinion, Purwitosari (2018: 24) suggested that the exposition text is a text that contains information and knowledge that is loaded briefly, clearly, and densely. Finoza (2013: 264) suggested that an exposition essay is a discourse that aims to inform, analyze, describe, or explain something. Meanwhile, Wiranto in Mahsun (2014: 31) suggested that the exposition text contains a description of the idea or suggestion of something personal. That is why this text is often called as one-sided argumentation text. Furthermore, Jauhari (2018: 58-59) suggested that exposition in a lexical comes from an English word, exposition that means opening. Kosasih and Kurniawan (2018: 98) suggested that the exposition text material includes ideas and facts in the exposition text, patterns of exposition text development, general ideas and special ideas, types of paragraphs based on their main ideas, the structure and the rules of the exposition text. The material will be developed into question points evaluation.

Making good question instruments can be used together with information technology such as online applications/platform. The use of technology in the form of online applications/platforms can simplify the learning evaluation process for teachers and students. The used of online applications/platforms is a form of innovation in the learning evaluation process. The ease of technology can be used for convenience in the learning evaluation.

Based on the results of the needs analysis, it shows that 60% of students stated that information technology is very needed in the learning evaluation. The used of online applications/platform is intended to make easier. The ease in the evaluation process is also be thing that needs attention. In this case, the teacher can use an online media application/platform in the learning evaluation.

It is very important to make innovation in the learning evaluation. One of them is by including technology as a component in learning evaluation. One of the good technologies to use as an evaluation tool of exposition text learning such as, Socrative.

Dervan (2014) expressed that Socrative is a cloud-ased response system that is available free. The Socrative system can be accessed by students via PC, cell phones, and tablet devices connected to WiFi or cellular data. Wash (2014), stated that Socrative increases class participation, helps teachers to find out students' responses to the learning process, and increases student involvement in learning. This is because each options on Socrative enable teachers and students can interact in real time. Socrative is also an educational page with an online system. In the Socrative application, there is a quiz feature that can be used as an evaluation media. Instrument in question points can be arranged in such a way that the processing time format can be adjusted by the user.

Similar research was also conducted by Coca and Slisko (2013), the results of the research showing that by using technology, lecturers can achieve three goals, are carrying out real time assessment, encourage student's learning motivation, and providing active learning spaces for students. Furthermore, a similar research was conducted by Rahmawati and Kurniawati (2020), showing that the implementation of online evaluation saves cost because it does not use paper (paperless), the implementation of the evaluation makes it easier to correct because the value is automatically displayed so it saves time and the results of the assessment are transparent, the implementation of online evaluation makes the focus of the work because it is limited by time and the form cannot be accessed if the given time duration already finished. Based on these research, certainly has the differences with the research that conducted by the researcher, are (1) the research of Coca and Slisko, the use of Socrative in learning activity whereas the research use Socrative for learning evaluation and (2) the research of Rahmawati and Kurniawati to develop instrument of test assessment based on mobile online whereas the researcher produced question points of exposition text on Socrative with KD 3.5 Identifying exposition text information in the form of popular scientific articles (from newspapers or magazines) that are heard and read, and 3.6 Identifying structures, linguistic elements, and oral aspects in the exposition of popular scientific articles (environment, social conditions, and or cultural diversity, etc.) that are listened to or read.

Based on the explanation that has been described, it can be concluded that the development of the question points in the exposition text learning uses Socrative for students of grade VIII SMP it needs to be

designed to know the quality of the question points based on their validity and reliability and the utilization of information technology in the evaluation of learning.

II. Materials and Methods

The research method used in this research is descriptive method. The data collection technique was done by interviewing the teachers and filling out questionnaires by the teachers and students. The trial subjects in this research were evaluation experts, linguists, media experts, practitioners, and students from SMP Negeri 1 Way Jepara, SMP Negeri 1 Braja Selebah, and SMP YPI 1 Braja Selebah. In this sresearch, two data analysis techniques were used, namely qualitative descriptive analysis and quantitative descriptive analysis. Qualitative data in the form of criticism and suggestions for repair that contained in the questionnaire. The results of this data analysis then used as a reference for revising the product. Quantitative descriptive data analysis techniques were used to know the validity and reliability of the question points.

Data analysis from the results of expert and practitioner trial questionnaires was obtained through an assessment instrument with a scale of 4. Then, these results are described and used as the basis for assessing the quality of the question point products. The formula used to calculate the percentage from each subject is as follows.

$$\text{Percentage} = \frac{\sum x}{SMI} \times 100\%$$

Note:
$\sum x$ = total score
SMI = Maximum Ideal Score

Then, for the giving of meaning and decision making used provision from Riduan & Sunarto (2009: 23) which have been modified as follows.

Table 1 Conversion of Achievement Level with Percentage

No.	Score Range	Criteria
1	21% - 40%	Less Feasible
2	41% - 60%	Fairly Feasible
3	61% - 80%	Feasible
4	81 - 100%	Very Feasible

Calculation of the validity of the question pointd that developed accorded to Hamzah (2014: 225), the dichotomy point score (0, 1) uses the Biseral point correlation coefficient (r_{pbis}).

$$r_{pbis} = \frac{Mp - Mt}{St} \sqrt{\frac{p}{q}}$$

Information :
r_{pbis} : Biseral correlation coefficient
Mp   : Average score of subjects who answered correctly for the item sought validity
Mt   : Average total score
St   : Standard deviation of the total score
p   : The proportion of students who answered correctly
q   : Proportion of students who answered incorrectly (1-p)
The r_{pbis} values will be compared with the table correlation coefficient $r_{tabel} = .r_{(a,n-2)}$ If, $r_{pbis} > r_{tabel}$ is the instrument is valid.

Furthermore, the calculation of the question points reliability that the developed using the split half method used the test with the Spearman Brown formula.

$$r_{11} = \frac{2r_{1/2\,1/2}}{1 + r_{1/2\,1/2}}$$

Information:

r_{11} : Adjusted reliability coefficient

$r_{1/2\ 1/2}$: Correlations between scores for each part of the test

The value of the alpha coefficient (r) will be compared with the table correlation coefficient $r_{tabel} = r_{a,n-2}$. If ,$r_{11} > r_{tabel}$, so the instrument is reliable.

This research is development or Research and Development (R&D). Borg & Gall (in Tegeh et al, 2014: xiii) suggested development research as an effort to develop and validate products which will be used in education. The research procedure was simplified into seven steps from ten steps of Borg & Gall. This is adjusted with the characteristics, limited of time, cost, and energy. These steps are (1) potential and problems, (2) collecting data on the question points needed of the Socrative, (3) making the first product form, (4) evaluating the product through validation by relevant experts / experts, (5)revising the product design. , (6) small class trials (10 respondents) and revised product trial results of followed by wider trials (94 respondents), (7) revising the question point product on Socrative.

III. Results and Discussion

Results and discussion contain research introduction, development process, product testing, question points validity, and question points reliability.

1) Preliminary Research

Preliminary research results shows that the three schools used as research sites have used the revised 2013 Curriculum, have adequate facilities, such as electricity networks, computers, LCDs, and other supporting devices. The potential can be seen from the results of interviews and questionnaires which show that in the process of evaluating Bahasa Indonesia learning, especially the exposition text, the question points that used by the teacher are the result of development and their validity and reliability are not yet known, so it cannot be said as a viable instrument. In the process of evaluating the exposition text learning, the question points developed were also used without the touch of information technology in the form of online applications/platform. The implementation of the learning evaluation is conducted directly by printing the questions on paper media and sometimes being conveyed verbally. Consequently, the question points of the exposition text on Socrative have potential to be developed.

2) Development Process

The product development process, namely, (1) Determining the exposition text material and KD (3.5 identifying the exposition text information in the form of popular scientific articles from newspapers/magazines that are heard and read, and 3.6 examining the content and structure of the exposition text in the form of popular scientific articles from newspapers/magazines be heard or read), (2) describe the indicators, (3) designing the grid for drafting of questions, (4) designing the question format and assessment rubric, (5) inputting the questions on Socrative. Product evaluation is cconducted by material experts, media experts, and practitioners.

Table 2 Results of Expert Evaluation

No.	Expert	Percentage	Category
1	Evaluation	90%	Very Feasible
2	Language	81.25%.	Very Feasible
3	Media	83.9%	Very Feasible
4	Practitioner	88.47%	Very Feasible

Based on the assessment of evaluation experts, linguists, media experts, and practitioner experts, it can be concluded that the question point product of the Socrative that developed is in the very feasible category of being tested in schools.

3) Product Trial

Product trials are conducted in two steps, namely limited-scale product trials and wide-scale product trials. Limited scale product trials were conducted at SMP N 1 Way Jepara with a total of 10 respondents. Wide-scale product trials were conducted at SMP N 1 Way Jepara, SMP N 1 Braja Selebah, and SMP YPI 1 Braja Selebah with 94 respondents. The following table shows the results of the two trials.

Table 3 Limited Scale Trial Results

Number Question	r_{xy}	r_{tabel}	r_{11}	Information	
				Validity	Reliability
1	0.6421	0.6319	0.9240	Valid	Reliable
2	0.6817	0.6319	0.9240	Valid	Reliable
3	0.6817	0.6319	0.9240	Valid	Reliable
4	0.6438	0.6319	0.9240	Valid	Reliable
5	0.7006	0.6319	0.9240	Valid	Reliable
6	0.6942	0.6319	0.9240	Valid	Reliable
7	-1,573	0.6319	0.9240	Invalid	Reliable
8	0.6942	0.6319	0.9240	Valid	Reliable
9	-0.0650	0.6319	0.9240	Invalid	Reliable
10	-0.4428	0.6319	0.9240	Invalid	Reliable
11	0.6942	0.6319	0.9240	Valid	Reliable
12	0.7793	0.6319	0.9240	Valid	Reliable
13	0.7793	0.6319	0.9240	Valid	Reliable
14	0.7970	0.6319	0.9240	Valid	Reliable
15	0.7006	0.6319	0.9240	Valid	Reliable
16	0.7970	0.6319	0.9240	Valid	Reliable
17	0.7574	0.6319	0.9240	Valid	Reliable
18	0.7793	0.6319	0.9240	Valid	Reliable
19	0.7970	0.6319	0.9240	Valid	Reliable
20	-0.2082	0.6319	0.9240	Invalid	Reliable
21	0.7006	0.6319	0.9240	Valid	Reliable
22	0.7970	0.6319	0.9240	Valid	Reliable
23	0.7970	0.6319	0.9240	Valid	Reliable
24	-0.7006	0.6319	0.9240	Invalid	Reliable
25	0.7793	0.6319	0.9240	Valid	Reliable
26	0.7793	0.6319	0.9240	Valid	Reliable
27	-0.2429	0.6319	0.9240	Invalid	Reliable
28	0.7793	0.6319	0.9240	Valid	Reliable
29	0.7439	0.6319	0.9240	Valid	Reliable
30	0.6817	0.6319	0.9240	Valid	Reliable
31	0.7970	0.6319	0.9240	Valid	Reliable
32	-0.3181	0.6319	0.9240	Invalid	Reliable
33	0.3181	0.6319	0.9240	Invalid	Reliable
34	0.7970	0.6319	0.9240	Valid	Reliable
35	0.7462	0.6319	0.9240	Valid	Reliable
36	0.9033	0.6319	0.9240	Valid	Reliable
37	0.6942	0.6319	0.9240	Valid	Reliable
38	0.9033	0.6319	0.9240	Valid	Reliable
39	0.9718	0.6319	0.9240	Valid	Reliable
40	0.6421	0.6319	0.9240	Valid	Reliable
41	0.5900	0.6319	0.9240	Invalid	Reliable
42	-0.7970	0.6319	0.9240	Invalid	Reliable
43	0.7006	0.6319	0.9240	Valid	Reliable
44	0.7385	0.6319	0.9240	Valid	Reliable
45	0.7006	0.6319	0.9240	Valid	Reliable
46	-0.5680	0.6319	0.9240	Invalid	Reliable
47	-0.3542	0.6319	0.9240	Invalid	Reliable
48	0.4121	0.6319	0.9240	Invalid	Reliable
49	-0.6768	0.6319	0.9240	Invalid	Reliable
50	0.7006	0.6319	0.9240	Valid	Reliable

Based on the calculation of data processing on a limited scale trial, the results obtained from the 50 question points that have been done by students show that $r_{xy} > r_{tabel}$. So, the instrument is valid. There were 36 valid instruments and 14 invalid questions. An invalid question instrument means it cannot be used without revision first. Meanwhile, if the calculation of data processing on a limited scale trial shows $r_{11} > r_{tabel}$, so the instrument is reliable. r_{11} on a limited scale trial is 0.9240 while it is 0.6319 so that the $r_{tabel} r_{11} > r_{tabel}$ instrument is reliable.

Table 4: Wide Scale Trial Results

Number Question	r_{xy}	r_{tabel}	r_{11}	Information	
				Validity	Reliability
1	0.5962	0.2028	0.8602	Valid	Reliable
2	0.8145	0.2028	0.8602	Valid	Reliable
3	0.5293	0.2028	0.8602	Valid	Reliable
4	0.6411	0.2028	0.8602	Valid	Reliable

5	0.6891	0.2028	0.8602	Valid	Reliable
6	0.3698	0.2028	0.8602	Valid	Reliable
7	-0.0041	0.2028	0.8602	Invalid	Reliable
8	0.6011	0.2028	0.8602	Valid	Reliable
9	0.5673	0.2028	0.8602	Valid	Reliable
10	0.1541	0.2028	0.8602	Invalid	Reliable
11	0.2582	0.2028	0.8602	Valid	Reliable
12	0.6068	0.2028	0.8602	Valid	Reliable
13	0.2070	0.2028	0.8602	Valid	Reliable
14	0.4722	0.2028	0.8602	Valid	Reliable
15	0.7213	0.2028	0.8602	Valid	Reliable
16	0.6166	0.2028	0.8602	Valid	Reliable
17	0.3409	0.2028	0.8602	Valid	Reliable
18	0.3426	0.2028	0.8602	Valid	Reliable
19	0.4322	0.2028	0.8602	Valid	Reliable
20	0.3137	0.2028	0.8602	Valid	Reliable
21	0.2562	0.2028	0.8602	Valid	Reliable
22	0.2216	0.2028	0.8602	Valid	Reliable
23	0.2319	0.2028	0.8602	Valid	Reliable
24	0.3605	0.2028	0.8602	Valid	Reliable
25	0.1432	0.2028	0.8602	Invalid	Reliable
26	0.1931	0.2028	0.8602	Invalid	Reliable
27	-0.1836	0.2028	0.8602	Invalid	Reliable
28	0.4406	0.2028	0.8602	Valid	Reliable
29	0.2628	0.2028	0.8602	Valid	Reliable
30	0.5640	0.2028	0.8602	Valid	Reliable
31	0.4613	0.2028	0.8602	Valid	Reliable
32	0.2883	0.2028	0.8602	Valid	Reliable
33	0.4985	0.2028	0.8602	Valid	Reliable
34	0.4169	0.2028	0.8602	Valid	Reliable
35	0.3878	0.2028	0.8602	Valid	Reliable
36	0.2137	0.2028	0.8602	Valid	Reliable
37	-0.1751	0.2028	0.8602	Invalid	Reliable
38	0.0700	0.2028	0.8602	Invalid	Reliable
39	0.4757	0.2028	0.8602	Valid	Reliable
40	0.4529	0.2028	0.8602	Valid	Reliable
41	0.5031	0.2028	0.8602	Valid	Reliable
42	0.4097	0.2028	0.8602	Valid	Reliable
43	0.2201	0.2028	0.8602	Valid	Reliable
44	0.1232	0.2028	0.8602	Invalid	Reliable
45	0.4144	0.2028	0.8602	Valid	Reliable
46	0.4268	0.2028	0.8602	Valid	Reliable
47	0.5515	0.2028	0.8602	Valid	Reliable
48	0.5613	0.2028	0.8602	Valid	Reliable
49	0.2313	0.2028	0.8602	Valid	Reliable
50	0.6181	0.2028	0.8602	Valid	Reliable

Based on calculations from data processing on a large-scale trial, if $r_{xy} > r_{tabel}$ then the instrument is valid. There are 42 valid question and 8 invalid question points. Valid instruments can be used as questions in the evaluation of learning exposition text for grade VIII SMP while invalid instruments cannot be used as learning evaluation instruments so that these question points must be discarded. Based on the calculation of data processing on a limited scale trial,if $r_{11} r_{tabel}$, so the instrument is reliable. The results of the wide-scale trial on 94 respondents of grade VIII students found that $r_{11} = 0.8602$ and $> r_{tabel} = 0.2028$ so that the $r_{11} > r_{tabel}$, instrument is reliable.

IV. Conclusion

Based on the results and discussion of the research, it can be concluded as follows.
1. The process of developing the exposition text item on Socrative begins with determining the material and basic competency (KD), describing indicators, designing grid of the question draftinh, designing the question format and assessment rubric, inputting questions on Socrative, evaluating/testing validators and product revisions, conducting scale trials limited and revising products, conducted wide-scale trials and revise products.
2. The question points of the exposition text on Socrative were tested on 94 respondents if $r_{xy} > r_{tabel}$ then the instrument is valid so that the data obtained 42 question points are valid and 8 items are invalid.
3. The question points of the exposition text on Socrative were tested on 94 respondents and obtained data $r_{11} = 0.8602$ and $r_{tabel} = 0.2028$ so $r_{11} > r_{tabel}$ that the instrument is reliable.

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