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ANALYSIS OF SUMMATIVE QUESTIONS ON REPRODUCTION PHOTOS & PRINTING REFERENCES FOR GRADE XI AT SMKN 1 MOJOANYAR

Abstrak

Tujuan penelitian ini adalah menganalisis soal-soal pilihan ganda untuk menilai tingkat validitasnya, mengukur reliabilitasnya, menilai tingkat kesukarannya, dan mengidentifikasi daya pembedanya. Subjek penelitian terdiri dari 15 siswa kelas XI SMKN 1 Mojoanyar. Pendekatan yang diterapkan adalah metode penelitian deskriptif berdasarkan data kuantitatif. Data dalam penelitian ini dikumpulkan dengan menggunakan instrumen tes berupa 20 soal pilihan ganda terkait materi Reproduksi Foto & Referensi Cetak. Data dianalisis menggunakan perangkat lunak SPSS. Berdasarkan hasil penelitian ini, dapat diambil beberapa kesimpulan. Pertama, hasil uji validitas menunjukkan bahwa sebagian besar soal pada instrumen tes dapat dikategorikan valid (92%) yang menunjukkan bahwa instrumen ini mempunyai tingkat validitas yang baik. Kedua, pada uji reliabilitas, hasilnya menunjukkan nilai koefisien reliabilitas lebih rendah dari batas standar (0,957 < 0,2960). Selanjutnya dilihat dari tingkat kesukaran soal, sebagian besar soal tergolong dalam kategori mudah (9 soal) dan sedang (1-3 soal). Hal ini menunjukkan variasi level. Terakhir, hasil evaluasi daya pembeda soal menunjukkan bahwa sebagian besar soal memiliki daya pembeda sangat baik (4,0 %), ada beberapa soal yang mempunyai tingkat daya pembeda baik (4,3 %) dan ada pula yang mempunyai daya pembeda yang baik (4,3 %). tingkat kekuatan pembeda yang cukup (17%). Oleh karena itu, diperlukan perhatian khusus untuk memperbaiki butir soal dengan daya pembeda kategori cukup untuk meningkatkan efektivitas instrumen tes dalam membedakan kemampuan siswa.

Kata Kunci: Soal Pilihan Ganda, Esai, SPSS, Reproduksi Foto, Referensi Cetak

Abstract

The purpose of this study was to analyze multiple-choice questions in order to evaluate their validity level, measure their reliability, assess their difficulty level, and identify their differentiating power. The subjects of the study consisted of 15 students of class XI at SMKN 1 Mojoanyar. The approach applied was a descriptive research method based on quantitative data. The data in this study were collected using a test instrument in the form of 20 multiple-choice questions related to the material of Photo Reproduction & Print References. The data were analyzed using SPSS software. Based on the results of this study, several conclusions can be drawn. First, the results of the validity test showed that most of the questions in the test instrument could be categorized as valid (92 %), indicating that this instrument has a good level of validity. Second, in the reliability test, the results showed a reliability coefficient value that was lower than the standard limit (0.957 < 0.2960). Furthermore, in terms of the level of difficulty of the questions, most of the questions were classified into the easy (9 questions) and medium (1-3 questions) categories. This shows variation in level. Finally, the results of the evaluation of the discriminating power of the questions show that most of the questions have very good discriminating power (4.0 %), with some questions having a good level of discriminating power (4.3 %) and with some questions having a sufficient level of discriminating power (17 %). Therefore, special attention is needed to improve the question items with the discriminating power of the category enough to increase the effectiveness of the test instrument in differentiating student abilities.

Keywords: Multiple Choice Questions, Essay, SPSS, Photo Reproduction, Print Reference

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INTRODUCTION

Learning is a process in which students interact with learning resources. In the learning process, there are many factors that can influence the learning process to be meaningful. Some of these factors include the role of teachers, student characteristics, facilities and infrastructure, learning media, the environment, and other factors. These factors need to support each other to create quality and meaningful learning for students. With quality learning, it is hoped that the learning objectives that have been set can be achieved by students. The achievement of these learning objectives can be measured using various measuring instruments such as tests, observation sheets, and other assessment instruments. (Lestari et al., 2023; Nurul Muchlizani A et al., 2023; Setiawati, 2023).

Assessment activities in the field of education are often referred to as evaluation. Evaluation is an inseparable part of the entire learning process. Regulations on evaluation activities have been regulated in the Republic of Indonesia Law No. 20 of 2003 concerning the National Education System Chapter XVI Article 58 Paragraph 1. The article states that "Evaluation of student learning outcomes is carried out by educators to monitor the development, progress, and improvement of student learning outcomes on an ongoing basis." Therefore, the purpose of evaluating learning outcomes is to assess student competency achievement and improve the learning process, as well as provide guidelines in compiling student learning progress report (Angelina et al., 2022; Siskawati et al., 2022; Umami, 2022).

To carry out evaluation activities in a more structured manner, assessment tools or techniques are used. In the context of education, evaluation tools used to collect data can be tests or non-tests. A test is an instrument or method used to identify or measure something using established procedures or rules. If the test is designed appropriately and is of high quality, then the purpose of the test will be achieved. A test is a technique for conducting an assessment that involves a series of tasks that must be carried out by students or groups of students, which will then produce an assessment. (Masulili et al., 2022; Riau & Mukhlis, 2023; Wulandari et al., 2022).

Evaluation in the teaching and learning process has a very important and inseparable role. As expressed by (Padmadewi et al., 2022; Pradani & Efendi, 2023; Yusri Irawan et al., 2023), evaluation is an assessment action carried out after taking measurements. Evaluation as a process of determining values, whether achievements have reached standards or not. To ensure that the evaluation process functions according to the stated objectives, it is important to pay attention to the quality of the evaluation tools. Unfortunately, education practitioners in the field often only focus on reporting evaluation results without checking the extent to which the evaluation tools they use are of good quality. Evaluation tools in the context of education can be tests or non-tests. Evaluation is an activity of collecting data and information about students' learning abilities, which aims to assess the extent to which the programmed targets have been achieved (Marambaawang et al., 2023; Ulum & Anriani, 2023; Yudhanto, 2022).

Evaluation of the teaching and learning process can utilize standardized tests or tests made by the teacher themselves (Teacher-made test). Standardized tests are tests that have gone through a standardization process, including validity and reliability testing, so that the test is considered valid (accurate) and reliable (consistent) for certain purposes and for certain groups. The central government uses this standardized test in national exams. Meanwhile, teacher-made tests are tests prepared by teachers to evaluate the teaching and learning process. This test is often used at the school level and is often used to measure student progress in a particular class or school. (Arwansyah et al., 2022; Ernawati, 2023; Jumini et al., 2023).

Teachers need to have assessment instruments in the form of questions or problems to conduct evaluations, which include testing cognitive, affective, and psychomotor aspects. Usually, assessment instruments used by teachers to measure student achievement are obtained from various sources, such as books or collections of exam questions. These questions can be multiple choice questions or essay questions. However, after field observations, it was found that the questions tended to emphasize memory testing. Students need to be taught to think more deeply and critically. Teachers can train students to have high-level thinking skills by providing questions that encourage students to think analytically, synthetically, and evaluatively. (Bano et al., 2022; Fahmi et al., 2022; Himawan & Nurgiyantoro, 2022). However, the importance of understanding Photo Reproduction & Print Reference is often overlooked, and students may

face difficulties in understanding it. Various factors, such as inadequate curriculum, teaching methods, or teaching materials, can be obstacles in learning Photo Reproduction & Print Reference. Therefore, it is necessary to conduct an in-depth analysis of the assumptive questions of Photo Reproduction & Print Reference that test the understanding of Photo Reproduction & Print Reference in Class XI students at SMKN 1 Mojoanyar.

According to (Hanan et al., 2023; Nur Cahyo et al., 2022; Verawati et al., 2023) The situation in the field shows that item analysis is often ignored. Therefore, information regarding the quality of the material, question construction, language used, validity, reliability, and item analysis such as level of difficulty, discriminating power, and distractor are often not clearly measurable. Item analysis is an important activity for a teacher to improve the quality of the questions created. This activity involves collecting, summarizing, and utilizing information from student answers to make decisions regarding each aspect of the assessment. The purpose of item analysis is to identify good, poor, and bad quality questions. Through item analysis, we can gain insight into weaknesses in a question as well as instructions for making improvements. A quality question is a question that is able to provide information that is in accordance with the purpose of the assessment, including in terms of assessing the extent to which students understand the material taught by the teacher. (Musdhalifah et al., 2022; Rismaulhijjah & Kuswanti, 2022; Sari, 2022). Grade XI at SMKN 1 Mojoanyar is one of the educational institutions in Indonesia that aims to provide quality education to its students. Grade XI is one of the levels in Elementary School which is an important stage in learning Photo Reproduction & Print Reference. At this level, students are introduced to the more complex basic concepts of Photo Reproduction & Print Reference, including Photo Reproduction & Print Reference. A strong understanding of Photo Reproduction & Print Reference is essential, because Photo Reproduction & Print Reference plays a key role in explaining the phenomena of Photo Reproduction & Print Reference in the world around us. In addition, understanding Photo Reproduction & Print Reference is also relevant in various aspects of everyday life. This assumptive question analysis aims to identify the level of difficulty of the questions, whether the questions are in accordance with the level of understanding of Class XI students, and to ensure that the teaching materials presented are in accordance with the applicable curriculum. The results of this analysis will provide insight which is clear about the effectiveness of learning Photo Reproduction & Printing References for Class XI at SMKN 1 Mojoanyar.

In order to improve the quality of education and ensure that students understand Photo Reproduction & Print Reference well, the assumptive question analysis of Photo Reproduction & Print Reference is an important initial step. Thus, it is expected that the results of this analysis can be the basis for the development of a curriculum, teaching methods, and more effective teaching materials in learning Photo Reproduction & Print Reference for Grade XI. By considering the problems mentioned previously, this study focuses on evaluating the quality of the questions that have been made by Grade XI teachers at SMKN 1 Mojoanyar. After that, revisions were made to the questions that were considered less good based on the results of the analysis that had been carried out.

METHOD

This study adopts a quantitative descriptive research method. The quantitative approach aims to describe and interpret the research object according to the actual situation. (Sugiyono, 2019). On the other hand, quantitative research is a type of research that focuses on objective phenomena that are investigated using quantitative approaches, such as the use of numbers, statistical analysis, data structures, and controlled experiments. (Creswell, 2015). Therefore, quantitative descriptive research is a type of research that emphasizes data analysis using numerical calculations or statistics. Researchers try to collect data, explain, analyze, and finally conclude the findings of this study. The steps in this study include (1) compiling multiple-choice test instruments, (2) collecting data, (3) describing the collected data, (4) analyzing data, and (5) compiling conclusions from the results of the analysis.

This research was conducted in Grade XI at SMKN 1 Mojoanyar in September and involved research subjects consisting of 30 Grade XI students in the 2024/2025 academic year. The data collection technique used was through a test instrument in the form of multiple-choice questions consisting of 20 and 5 essay questions. The data used in this study were quantitative data in the

form of students' answers to daily exam questions that tested their understanding of Photo Reproduction & Print References. The data analysis process used SPSS 27 software. The data obtained were then processed with SPSS 27 to evaluate the validity, reliability, level of difficulty, and discriminatory power of the test instruments used. multiple choice questions consisting of 2 0 and essay questions with 5 points

RESULTS AND DISCUSSION

This study was conducted to analyze the quality of multiple-choice questions used in the assumptive test on the material of Reproduction Photos & Print References for Class XI at SMKN 1 Mojoanyar. Therefore, this study involved validity tests, reliability tests, difficulty level tests, and discriminatory power tests for each question item evaluated.

Question Validity Test

This validity test was conducted using multiple-choice questions consisting of 20 Grade 4 Class XI Students at SMKN 1 Mojoanyar. This validity test uses correlation. Questions can be said to be valid if the correlation value r> r table with the results obtained from 2 5 questions, there are 23 valid questions and 2 invalid questions. The description of the question validity test with SPSS is as follows:

Table 1. Results of the Validity Test of the Test Instrument

Question Number	r-table	r-count	Sig	Question Item Status
1.	0.2960	0.501^{**}	0.005	Valid
2.	0.2960	0.993^{**}	0.000	Valid
3.	0.2960	0.670^{**}	0.000	Valid
4.	0.2960	0.993^{**}	0.000	Valid
5.	0.2960	0.402^{*}	0.028	Valid
6.	0.2960	0.626^{**}	0.000	Valid
7.	0.2960	0.501^{**}	0.005	Valid
8.	0.2960	0.356	0.053	Invalid
9.	0.2960	0.993^{**}	0.000	Valid
10.	0.2960	-0.341	0.065	Invalid
11.	0.2960	0.929^{**}	0.000	Valid
12.	0.2960	0.717^{**}	0.000	Valid
13.	0.2960	0.390^{*}	0.033	Valid
14.	0.2960	0.916^{**}	0.000	Valid
15.	0.2960	0.993^{**}	0.000	Valid
16.	0.2960	0.402^{*}	0.028	Valid
17.	0.2960	0.626^{**}	0.000	Valid
18.	0.2960	0.501^{**}	0.005	Valid
19.	0.2960	0.916^{**}	0.000	Valid
20.	0.2960	0.540^{**}	0.002	Valid
21	0.2960	0.402^{*}	0.028	Valid
22	0.2960	0.626^{**}	0.000	Valid
23	0.2960	0.501^{**}	0.005	Valid
24	0.2960	0.916^{**}	0.000	Valid
25	0.2960	0.993^{**}	0.000	Valid

With the results of the question validity analysis:

Table 2. Results of Test Instrument Validity Analysis

Category	Amount	Presentation	Question number
Valid	23	92 %	1, 2, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
Invalid	2	8 %	8 and 10
Amount	2 5	100%	25

From the table above, the data shows that 92 % of the questions fall into the valid category, while the remaining 8 % are categorized as invalid. Since most of the questions are classified as valid, it can be concluded that the overall validity level of the questions can be considered good.

Reliability Test

The results of the reliability analysis for multiple-choice questions on the Photo Reproduction & Print Reference material, which was carried out using SPSS software, are listed in the following table.

Table 3. Reliability Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.957	23

Based on the table above, the reliability test on students consisting of 23 the question item obtained a value of 0.957 which is greater. As is known that R < 0.2960 then the question is reliable.

Difficulty Level

The results of the analysis of the level of difficulty of the multiple-choice test instrument on the material of Photo Reproduction & Printed References analyzed using SPSS 27 software are available in the following table:

Table 4. Results of the Level of Difficulty of the Test Instrument

Question Number	Difficulty Level	Decision Making Criteria	Question Item Status
1.	0. 80	Difficulty level index	Easy
2.	0. 46	0.00-0.15 = very difficult	Currently
3.	0. 70	0.16-0.30 = difficult	Currently
4.	0.4 6	0.31-0.70 = moderate	Currently
5.	0. 83	0.71-0.85 = easy	Easy
6.	0.6 6	0.86-1.00= very easy	Currently
7.	0. 80		Easy
9.	0.46		Currently
11.	0. 43		Currently
12.	0. 63		Currently
13.	0.8 3		Easy
14.	0. 53		Currently
15.	0. 46		Currently
16.	0.8 3		Easy
17.	0. 66		Currently
18.	0. 80		Easy
19.	0. 53		Currently
20	0.73		Easy
21	083		Easy
22	0.66		Currently
23	0.80		Easy
24	0.53		Currently
25	0.46		Currently

Based on the results of the difficulty level test, 1 question is in the good category, 9 questions are in the moderate category, and 10 questions are in the easy category.

Distinguishing Power

By using SPSS, the results of the discriminatory power of the multiple-choice test instrument for the Photo Reproduction & Printed Reference material can be seen in the following table:

Table 5. Results of the Discriminatory Power of the Test Instrument

No Question	R Calculation Results	Interpretation criteria for differential power	Validity
item01	0.496	Interpretation criteria for differential power 0.70-1.00 = very good 0.40-0.69 = good 0.20-0.39=sufficient 0.00-0.19=bad	Good
item02	0.993		Very well
item03	0.651		Good
item04	0.993		Very well
item05	0.388		Enough
item06	0.593		Good
item07	0.496		Good
item09	0.993		Very well
item11	0.929		Very well
item12	0.696		Good
item13	0.345		Enough
item14	0.914		Very well
item15	0.993		Very well
item16	0.388		Enough
item17	0.593		Good
item18	0.496		Good
item19	0.914		Very well
item20	0.529		Good
item21	0.388		Enough
item22	0.593		Good
item23	0.496		Good
item24	0.914		Very well
item25	0.993		Very well

So, the number of questions that fall into the good, sufficient, and poor discriminatory power categories are as follows:

Table 6. Results of the Analysis of the Distinguishing Power of the Test Instrument

Number of Questions	Distinguishing Power Category		
	Very well	Good	Enough
2 3	9	10	4
Presentation	40%	43 %	17 %

The results of the evaluation of the discriminating power, as depicted in the table above, reveal that in the multiple-choice and essay test instruments that tested the material on Photo Reproduction & Print References for Class XI students in the 2024/2025 academic year. Class XI at SMKN 1 Mojoanyar, 40 % or 9 questions were classified as having low discriminating power, 43 % or 10 questions had a moderate level of discriminating power, and 17 % or 4 questions were considered to have good discriminating power.

CONCLUSION
Based on the results of this study, several conclusions can be drawn. First, the results of the validity test show that most of the questions in the test instrument can be categorized as valid (92 %), indicating that this instrument has a good level of validity. Second, in the reliability test, the results showed a reliability coefficient value that was lower than the standard limit ($0.957 < 0.2960$). Furthermore, in terms of the level of difficulty of the questions, most of the questions were classified into the easy (9 questions) and medium (13 questions) categories. This shows variation in level. Finally, the results of the evaluation of the discriminatory power of the questions showed that most of the questions had very good discriminatory power (40 %), with some questions having a good level of discriminatory power (43 %) and with some questions having a sufficient level of discriminatory power (17 %). Therefore, special attention is needed

to improve the question items with the discriminatory power of the category enough to increase the effectiveness of the test instrument in differentiating student abilities.

REFERENCES

Angelina, Gm, Elfitra, L., & Zaitun, Z. (2022). Item Analysis Using Classical Measurement Theory And Bloom's Taxonomy In The Final Semester Exam Of Indonesian Language Subject For Grade Vii Of School …. Student Online Journal (Soj) ….

Arwansyah, Yb, Putro Setiawan, Ke, & Yuda, Rk (2022). Analysis Of Final Year Assessment (Pat) Indonesian Language Questions For Grade Xi Of State High School 1 Polanharjo Klaten. Lingua Rima: Journal Of Indonesian Language And Literature Education, 11 (2). Https://Doi.Org/10.31000/Lgrm.V11i2.6620

Bano, Vo, Marambaawang, Dn, & Njoeroemana, Y. (2022). Analysis Of Criteria For Science Subject School Exam Questions At Smp Negeri 1 Waingapu. Ideas: Journal Of Education, Social, And Culture, 8 (1). Https://Doi.Org/10.32884/Ideas.V8i1.660

Creswell, Jw (2015). Qualitative Research & Research Design. In Mycological Research (Vol. 94, Issue 4).

Ernawati, E. (2023). Analysis Of Mathematics Exam Questions In The Higher Order Thinking Skills (Hots) Category For Junior High School Students With Rasch Model Analysis. Journal Of Elementary Education Didactics, 7 (1). Https://Doi.Org/10.26811/Didaktika.V7i1.1027

Fahmi, B., Rizqi, S., & Harmeilinda, Ne (2022). Analysis Of Arabic Language Test Items At Mas Pondok Pesantren Assalam Kampar Riau. Ta'lim Al-'Arabiyyah: Journal Of Arabic Language Education & Arabic Language, 6 (1). Https://Doi.Org/10.15575/Jpba.V6i1.16193

Hanan, Mp, Jannah, Rr, & Alim, Ja (2023). Analysis Of Mathematics Questions On Lcm And Fpb Materials Based On Stories At Sdn 111 Pekanbaru. Journal Of Educational Learning And Innovation (Elia), 3 (1). Https://Doi.Org/10.46229/Elia.V3i1.538

Himawan, R., & Nurgiyantoro, B. (2022). Analysis Of Final Semester Assessment Practice Questions For Indonesian Language Subjects For Class Viii Of Smpn 1 Bambanglipuro Bantul Using The Iteman Program. Kembara: Journal Of Language, Literature, And Teaching, 8 (1).

Jumini, S., Madnasri, S., Cahyono, E., & Parmin, P. (2023). Analysis Of The Quality Of Scientific Literacy Measurement Items Through Classical Test Theory And Rasch Model. Proceedings Of The National Postgraduate Seminar Of Unnes.

Lestari, As, Fitrianna, Ay, & Zanthy, Ls (2023). Analysis Of Test Items On Two-Variable Linear Equation System Material For Grade Viii Students. Journal Of Innovative Mathematics Learning, 6 (1).

Marambaawang, D., Bano, Vo, & Hada Enda, Rr (2023). Analysis Of The Quality Of Final Assessment Questions For The Odd Semester Of 2021/2022 Using Iteman At Smp Negeri 1 Kambera. Dharmas Education Journal (De_Journal), 4 (1). Https://Doi.Org/10.56667/Dejournal.V4i1.961

Masulili, Rr, Dama, L., & Abdul, A. (2022). Analysis Of Even Semester Questions For Grade Xi Biology Subjects At Sman 3 Gorontalo And Sman 5 Gorontalo. Jambura Edu Biosfer Journal, 3 (2). Https://Doi.Org/10.34312/Jebj.V3i2.7211

Musdhalifah, A., Djuwita, P., &... (2022). Analysis Of Odd Semester Final Exam Questions Containing Civics Subjects For Class Ii Of Elementary School 4, Bengkulu City. … : Journal Of Educational Research …, 5 (1).

Nur Cahyo, A., Luriawati, D., & Wagiran, W. (2022). Analysis Of Language Skills Assessment Question Items In Class Xi Explanatory Text Learning. Jbsi: Journal Of Indonesian Language And Literature, 2 (01). Https://Doi.Org/10.47709/Jbsi.V2i01.1493

Nurul Muchlizani A, Sitti Mania, & Muhammad Nur Akbar Rasyid. (2023). Analysis Of The Quality Of Final Semester Exam Questions For The Subject Of Creed And Morals In Grade V Mi Radhiatul Adawiyah Makassar. Inspiratif Pendidikan, 12 (1). Https://Doi.Org /10.24252/Ip.V12i1.32040

Padmadewi, A., Hermawan, Gs, &... (2022). Analysis Of Japanese Language School Exam Questions For Grade Xii At Sma Negeri 2 Singaraja: Indonesia. … Linguistics, Literature And ….

Pradani, Ra, & Efendi, A. (2023). Analysis Of School Exam Questions Using The Iteman Program. Indonesian Language Education And Literature, 8 (2). Https://Doi.Org/10.24235/Ileal.V8i2.11002

Riau, Ui, & Mukhlis, M. (2023). Analysis Of Reading Literacy Question Items On The Minimum Competency Assessment Instrument For Vocational High School Students. In Indonesian And Regional Literature (Vol. 13, Issue 2).

Rismaulhijjah, W., & Kuswanti, N. (2022). Analysis Of Daily Test Questions From Teacher Development Of Human Movement System Material For Grade Xi Science. Scientific Periodical Of Biology Education (Bioedu), 11 (3). Https://Doi.Org/10.26740/Bioedu.V11n3.P643-661

Sari, Rp (2022). Analysis Of Final Semester Exam Questions For Mathematics Subject Of Class Xi Smk Negeri 1 Percut Sei Tuan Academic Year 2019/2020. Journal Of Science And Mipa Education Research, 7 (1). Https://Doi.Org/10.32696/Jp2mipa.V7i1.1360

Setiawati, I. (2023). Comparison Of Machine Learning Algorithms From Daily Student Question Analysis Prediction Dataset. Jurnal Cakrawala Informasi, 3 (1). Https://Doi.Org/10.54066/Jci.V3i1.235

Siskawati, Fs, Suci Qurrota A'yun, Aa, & Irawati, Tn (2022). Analysis Of The Feasibility Of Question Items On Intermathly (Interesting Mathematic Monopoly) Media. Jurnal Cendekia: Journal Of Mathematics Education, 6 (1). Https://Doi.Org/10.31004/Cendekia.V6i1.1181

Sugiyono. (2019). Quantitative, Qualitative, And R&D Research Methods (Sutopo (Ed.); 1st Ed.). Alphabet.

Ulum, Ua, & Anriani, N. (2023). Analysis Of Multiple Choice Questions Of Indonesian Language Subject In Planning And Evaluation Results In Grade Xi Otkp Of State Vocational High School 1 Pandeglang. Darma Agung Journal, 31 (1). Https://Doi.Org/10.46930/Ojsuda.V31i1.3076

Umami, F. (2022). Analysis Of Multiple Choice Test Items For The 2018-2019 National Examination For The Indonesian Language Subject For Junior High School (Sltp) Level. Repository.Uinjkt.Ac.Id.

Verawati, Y., Siskawati, Fs, & Susilaningtyas, T. (2023). Analysis Of Final Semester Exam Questions (Uas) For Mathematics Subject In The 2020/2021 Academic Year For Class Vii Of Smp Islam At Tanwir, Ledokombo District, Jember Regency. Education Window Journal, 3 (01). Https://Doi.Org/10.57008/Jjp.V3i01.422

Wulandari, T., Ramli*, M., & Muzzazinah, M. (2022). Analysis Of Dynamic Assessment Question Items To Measure Understanding Of Plant Classification Concepts In Students. Indonesian Journal Of Science Education, 10 (1). Https://Doi.Org/10.24815/Jpsi.V10i1.22082

Yudhanto, Y. (2022). Design And Construction Of Exam Application With Question Item Analysis Method. Indonesian Journal Of Applied Informatics, 5 (2). Https://Doi.Org/10.20961/Ijai.V5i2.43505

Yusri Irawan, Sa'adah, R., Thoyibah3, A., Sari, M., Muslimah, M., & A'isyah, S. (2023). Analysis Of The Development Of Multilevel Comparison Question Items To Improve Students' Problem Solving Skills. Indiktika: Journal Of Mathematics Education Innovation, 5 (2). Https://Doi.Org/10.31851/Indiktika.V5i2.11592