JISER

Journal of Islamic Studies and Educational Research

doi: 10.33830/jiser.v1i2.11646

THE DEVELOPING AN ASSESSMENT TOOL FOR THE WRITING SUBJECT IN LIGHT OF HIGHER-ORDER THINKING SKILLS BY UTILIZING THE WORDWALL PLATFORM FOR HIGH SCHOOL STUDENTS

Afif Kholisun Nashoih[1]; Hifi Risa Febianti[2]

[1, 2] Universitas KH. A. Wahab Hasbullah Jombang

Correspondence email: afifkholis@unwaha.ac.id

Received: 23 nov 25	**Accepted:** 30 Dec 25	**Published:** 21 Feb 26

Abstract

This study aims to develop an assessment instrument for writing skill (maharah kitabah) based on Higher-Order Thinking Skills (HOTS) by utilizing the Wordwall application at Madrasah Aliyah Unggulan Wahab Hasbullah (MAUWH) Tambakberas Jombang. The research method used is Research and Development (R&D), with the stages of needs analysis, product development, expert validation, limited trials, and item analysis. The results of expert validation show that the developed assessment instrument has a very high level of feasibility, with a score of 91% from the material expert and 83% from the design expert. A trial conducted with 30 female students produced an acceptance rate of 82% in the very feasible category. Item analysis using Anabus V1.7 showed that 87% of the questions were valid, had very high reliability (a score of 5.12), and showed variation in difficulty levels and discriminating power appropriate for HOTS assessment. In conclusion, the Wordwall-based assessment instrument is effective in increasing learning interest and in measuring writing ability more comprehensively. The use of technology in learning assessment provides innovation for teachers and can be a solution for improving the quality of Arabic language learning, particularly in writing skills.

Keywords: *Assessment;Writing Skill (Maharah Kitabah);Higher-Order Thinking Skills;Wordwall.*

A. Introduction

The rapid development of technology has changed the perspective of human life in various aspects, including the field of education (Helty dkk., 2024). Technology not only facilitates access to information but also changes the way humans learn and teach (Makruf, 2020). In this digital era, the use of technology in education is essential for improving the quality of learning and for responding to the challenges of a fast-moving and dynamic age. In the context of Arabic language education, the use of technology is expected to create a learning atmosphere that is interactive, enjoyable, and effective in achieving the expected language competencies (Hasyim dkk., 2021).

The use of technology in education has been shown to increase the effectiveness of the learning process. Various innovations, such as e-learning, learning applications, and interactive platforms, help students understand the material more easily and enjoyably (Rahmayanti & Abidin, 2023a). In Arabic language learning, technology plays a strategic role in bridging the gap between students' diverse needs and effective teaching methods. By utilizing technology, teachers can design materials that are more engaging, interactive, and connected to students' daily lives (Amalia dkk., 2022). This not only helps students understand the material but also increases their learning motivation.

The use of technology is also an unavoidable innovation that teachers must undertake. Teachers are no longer merely the main source of information; they have also become facilitators and motivators in the learning process (Fahraini & Almaliki, 2024). Therefore, digital literacy is one of the important skills that teachers must possess. In this regard, teachers are expected to be able to utilize various digital platforms and learning applications to create an interactive and enjoyable learning atmosphere. Innovation in learning through technology helps not only in delivering material but also in assessing learning more effectively and efficiently (Laila & Nashoih, 2024).

One of the educational variables that must be carried out is assessment. Assessment is a systematic process of measuring the extent to which the competencies set out in the learning objectives have been achieved. In Arabic language learning, assessment aims not only to measure students' cognitive abilities but also to determine the extent to which they are able to apply linguistic knowledge in daily life (Yani dkk., 2021). Good assessment should be able to measure the various aspects of language skills, namely listening (istima'), speaking (kalam), reading (qira'ah), and writing (kitabah).

In this case, the use of technology can help teachers design assessment instruments that are more varied, interactive, and effective in measuring students' competencies (Fattah dkk., 2022).

The importance of employing technology in the assessment aspect of Arabic language learning cannot be ignored. The use of technology in assessment enables a more efficient, objective, and accurate assessment process (Laila & Nashoih, 2024). In addition, technology-based assessments can also provide immediate feedback to students, so that they can identify their strengths and weaknesses more quickly. In the context of Arabic language learning, technology-based assessment makes possible a comprehensive and authentic measurement of language skills, including writing skill (maharah kitabah).

Writing skill (maharah kitabah) is one of the important subjects in Arabic language learning and requires special attention in its assessment. Writing skills involve not only the ability to connect words and sentences but also require critical and creative thinking skills in organizing ideas logically and systematically (Pangestika dkk., 2024). In reality, however, the assessment of maharah kitabah at the senior high school (Madrasah Aliyah) level is still conventional, using monotonous question formats such as short answers and simple descriptions, which do not challenge students to analyze, evaluate, or create new ideas. As a result, students are less challenged to develop ideas in depth and critically.

This condition contributes to students' low ability to compose logical, systematic, and innovative writing. In addition, students also feel bored with an assessment model that is considered monotonous and lacking in variety. The lack of variety in question formats also limits the measurement of students' analysis, evaluation, and creativity skills in writing. The results of preliminary observations confirmed that the assessment of maharah kitabah still focuses on grammatical aspects and does not include the assessment of students' critical and creative thinking abilities. In fact, higher-order thinking skills are essential for facing the challenges of the digital era, which demands literacy and creative problem-solving skills (Anderson & Krathwohl, 2001).

Therefore, it is necessary to develop HOTS-based writing assessment instruments that can not only measure students' critical, analytical, and creative thinking skills but can also utilize digital technology to create more interactive and enjoyable assessments. The use of the Wordwall platform in developing this instrument is expected to provide a more varied and

challenging assessment experience, so that it can increase students' motivation and learning outcomes in maharah kitabah.

This research is a development study that aims to produce a HOTS-based learning assessment product for maharah kitabah using the Wordwall platform. Higher-Order Thinking Skills (HOTS) are thinking skills that involve analysis, evaluation, and creation (Anjani dkk., 2024; Nashoih, 2024). In the learning context, HOTS aims to train students to be able to think critically, logically, reflectively, metacognitively, and creatively in solving problems (Izzah & Fauji, 2024; Zubaidah dkk., 2022). In the assessment of maharah kitabah, HOTS is implemented by presenting questions that require students to analyze problems, evaluate arguments, and create texts with logical and creative ideas. Through this approach, it is hoped that students will be able not only to write correctly in terms of structure and grammar but also to convey ideas and concepts with a good and critical flow of thought.

In addition to HOTS, the writing assessment instrument in this study is presented using the Wordwall platform. Wordwall is a digital platform that allows teachers to create various types of quizzes, educational games, and interactive online exercises (Rahmayanti & Abidin, 2023b). This platform has various features that make it easy for teachers to design engaging and interactive assessments, such as a wide choice of templates, ease of adding content, and broad accessibility, since it can be accessed through various devices such as computers, tablets, and smartphones (Khairunnisa, 2024; Lubis & Nuriadin, 2022). By using Wordwall, the assessment of maharah kitabah can be presented in an interactive and enjoyable way, which is expected to increase students' learning motivation. In addition, Wordwall also allows automatic and accurate analysis of assessment results, making it easier for teachers to measure students' competency achievement (Nur dkk., 2024).

B. Method

The type of research used is the Research and Development (R&D) approach, a research method used to produce particular products and to test the feasibility of the products being developed (Andi Rustandi & Rismayanti, 2021). The development model used in this research is the Borg and Gall model. According to Borg and Gall, there are 10 steps in development research, which are simplified into the following steps: 1) the research and data collection stage, 2) the planning stage, 3) the product trial stage, 4) the

revision stage, 5) the main field trial stage, and 6) the dissemination and implementation stage (Lutfiyatun & Haniefa, 2022).

The research subjects were eleventh-grade students of the religious program at Madrasah Aliyah Wahab Hasbullah in the second semester of the 2023/2024 academic year. The reason for choosing these female students as research subjects was that maharah kitabah lessons were offered only in the religious program classes. Thus, they became the trial subjects for the development of the HOTS-based maharah kitabah assessment instrument utilizing the Wordwall application.

The following data collection techniques were used: 1) Interviews. Interviews are an interactive method used by researchers to obtain in-depth information from sources. In this study, interviews were used to explore the problems existing at the madrasah. 2) Observation. Observations were conducted with the aim of gaining a deeper understanding of the condition of the madrasah as the research setting. 3) Questionnaire. Questionnaires were used to collect data from students as responses to the development product presented. Before being distributed, the questionnaire was prepared based on predetermined indicators. 4) Documentation. Documentation relies on the use of concrete data such as books, photographs, archives, and other information relevant to the research topic.

Data analysis was carried out using two analysis techniques, namely qualitative analysis and quantitative analysis. Qualitative analysis was conducted on data obtained from interviews and from the experts' criticisms and suggestions regarding product revision. Meanwhile, quantitative analysis was conducted to process the data obtained from the results of the expert validation tests and the student questionnaires, which were then recorded and processed in the form of percentages, as well as scores from the item analysis calculated with the Anabus V1.7 application to determine the reliability, validity, difficulty, and discriminating power of the question items.

Table 1. Expert Validity Assessment Criteria

Achievement Level	Qualification	Remarks
84% < Score ≤ 100%	Very valid	No revision needed
68% < Score ≤ 84%	Valid	Norevision needed
52% < Score ≤ 68%	Fairly valid	Needs revision
36% < Score ≤ 52%	Not valid	Revise
20% < Score ≤ 36%	Completely invalid	Revise

Table 2. Validity Criteria for the Student Response Questionnaire

Average Score (%)	Classification
81% ≤ P ≤ 100 %	Very valid
61% ≤ P ≤ 81 %	Valid
41% ≤ P ≤ 61 %	Fairly valid
21% ≤ P ≤ 41 %	Not valid
0% ≤ P ≤ 20 %	Completely invalid

C. Result and Discussion

1. Result

a). Needs Analysis

The needs analysis in the study "Development of a HOTS-Based Maharah Kitabah Assessment Instrument Using Wordwall at MAUWH Tambakberas Jombang" was carried out comprehensively through observation and interviews to obtain a clear picture of the actual conditions in the field. In-depth observations were made of the maharah kitabah learning process taking place in the classroom. The observation results show that the assessment methods used are still very conventional and limited to questions based on memorization and basic comprehension. The questions given are mostly in the form of short answers that measure only lower-order cognitive abilities. As a result, students receive less practice in critical, analytical, and creative thinking, which are the higher-order thinking skills (HOTS) considered essential in today's information age.

In addition to the observations, in-depth interviews were conducted with Arabic language teachers and students to obtain more detailed information about the needs and problems they faced in the assessment of *maharah kitabah*. The teachers explained that they prepared the writing

questions based on the textbooks used during lessons. They feel restricted to conventional question models because of a lack of references and understanding regarding the construction of HOTS questions. Furthermore, time constraints in preparing questions and a lack of training in the use of digital technology are also obstacles to developing more innovative assessments. It is also known that the assessment approaches currently used are unable to meet students' needs for critical and creative thinking. The teachers also acknowledged that the use of technology in assessment could help increase students' interest and motivation, but they are still unfamiliar with digital platforms that can be used for effective assessment.

Meanwhile, interviews with students revealed that they felt less challenged by the format of the questions given so far. Students want a form of assessment that is more engaging, interactive, and challenging, and that is able to stimulate their critical and creative thinking. They feel bored with the type of questions that test only memorization and simple comprehension. Students also showed great interest in the use of technology in learning and assessment because they feel more comfortable with and are accustomed to digital devices. They hope that assessments can be conducted flexibly and not be limited to paper, as has been the case so far.

Based on the actual conditions in the field revealed through the observations and interviews, there is an urgent need to develop a *maharah kitabah* assessment instrument based on HOTS and utilizing digital technology such as Wordwall. The developed assessment instrument is expected to be able to measure students' critical, analytical, and creative thinking skills effectively, while increasing motivation and interest in learning through a more interactive and engaging assessment approach. Accordingly, it is hoped that this instrument will not only improve the quality of *maharah kitabah* assessment but also support the achievement of Arabic language learning objectives that are better suited to the needs of the twenty-first century.

b). Design and Development of the HOTS-Based Assessment Instrument Utilizing the Wordwall Application

After analyzing the problems and needs at Madrasah Aliyah Wahab Hasbullah, the researcher began developing an Arabic language (maharah kitabah) learning assessment instrument based on HOTS using the Wordwall

application. The assessment instrument was designed according to the conditions and needs of teachers and students in the Arabic language subject (*maharah kitabah*) at MAUWH. The condition of teachers, who need innovation as a tool to support their teaching, and of students, who have very little interest in learning, formed the basis for the researchers to develop a learning assessment instrument that can increase students' interest in learning and provide innovation for teachers in the learning process.

Based on these needs, the researcher prepared a learning assessment instrument for the eleventh-grade material, Chapters IV to VI, covering linguistic conjugation (*tasrif lughawi*) of past (*madi*) and present (*mudari'*) verbs, as well as numbers (*'adad)* in nominal (*ismiyyah*) and verbal (*fi'liyyah*) sentences. It consists of 30 questions of various types, and the question grid was arranged according to the learning achievement indicators. The preparation of these questions is based solely on multiple-choice types, with cognitive levels from C1 to C6. The question formats compiled are: completing incomplete texts (10 questions), correcting incorrect sentences (8 questions), identifying sentence types (2 questions), arranging sentences (5 questions), and picture comprehension (5 questions).

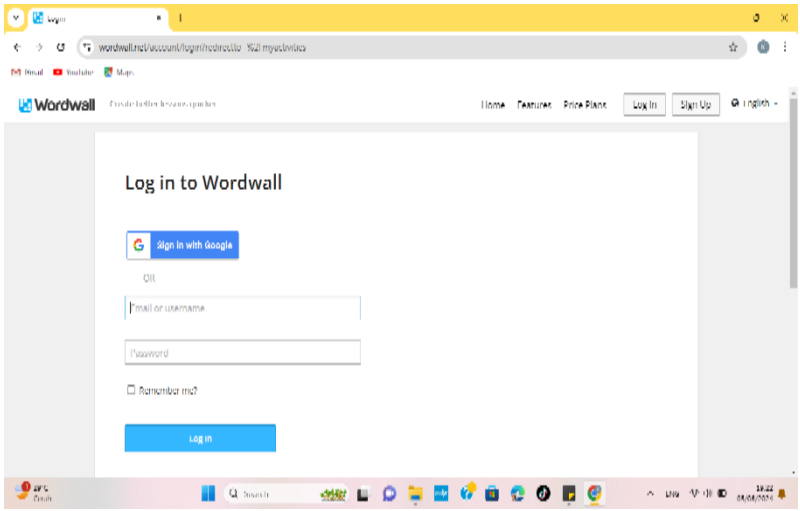
Table 3. Specification Grid of the HOTS-Based Learning Assessment Instrument

Question Number.	Specification (Indicator)	Cognitive Level
No. 01	Complete the text with a past-tense verb (fi'l madi)	C6
No. 02	Complete the text with a present-tense verb (fi'l mudari')	C6
No. 03	Find the verb (fi'l) in the text	C6
No. 04	Complete the text with an imperative verb (fi'l amr)	C6
No. 05	Identify the past-tense verb (fi'l madi) in the sentence	C6
No. 06	Explain the form, meaning, and function of the conjugation of the past-tense verb (fi'l madi) in a linguistic context	C3
No. 07	Explain the form, meaning, and function of the conjugation of the present-tense verb (fi'l mudari') in a linguistic context	C3

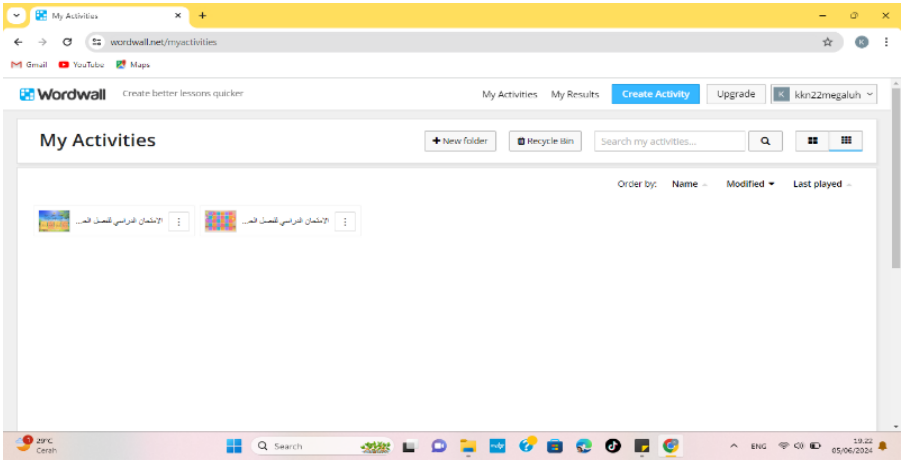
Question Number.	Specification (Indicator)	Cognitive Level
No. 08	Explain the form, meaning, and function of the conjugation of the past-tense verb (fi'l madi) in a linguistic context	C3
No. 09	Explain the form, meaning, and function of the conjugation of the present-tense verb (fi'l mudari') in a linguistic context	C3
No. 10	Explain the form, meaning, and function of the conjugation of the past-tense verb (fi'l madi) in a linguistic context	C4
No. 11	Adjust the form of the verb to suit the subject (fa'il)	C4
No. 12	Combine words to form correct nominal and verbal sentences	C4
No. 13	Combine words to form correct nominal and verbal sentences	C4
No. 14	Combine words to form correct nominal and verbal sentences	C4
No. 15	Find the present-tense verb (fi'l mudari') in the sentence	C5
No. 16	Identify the past-tense verb (fi'l madi) in the sentence	C5
No. 17	Complete the sentence with the appropriate verb	C5
No. 18	Adjust the verb to suit the subject (fa'il)	C5
No. 19	Complete the verbal sentence with the appropriate subject (fa'il)	C5
No. 20	Adjust the verb to suit the subject (fa'il)	C5
No. 21	Adjust the verb to suit the subject (fa'il)	C6
No. 22	Explain the form of the past-tense verb according to the subject (fa'il)	C6
No. 23	Identify the number ('adad) in nominal and verbal sentences	C6
No. 24	Identify the number ('adad) in nominal and verbal sentences	C6
No. 25	Identify the number ('adad) in nominal and verbal sentences	C6

Question Number.	Specification (Indicator)	Cognitive Level
No. 26	Identify the number ('adad) in nominal and verbal sentences	C6
No. 27	Identify the number ('adad) in nominal and verbal sentences	C6
No. 28	Identify the number ('adad) in nominal and verbal sentences	C6
No. 29	Identify the number ('adad) in nominal and verbal sentences	C6
No. 30	Identify the number ('adad) in nominal and verbal sentences	C6

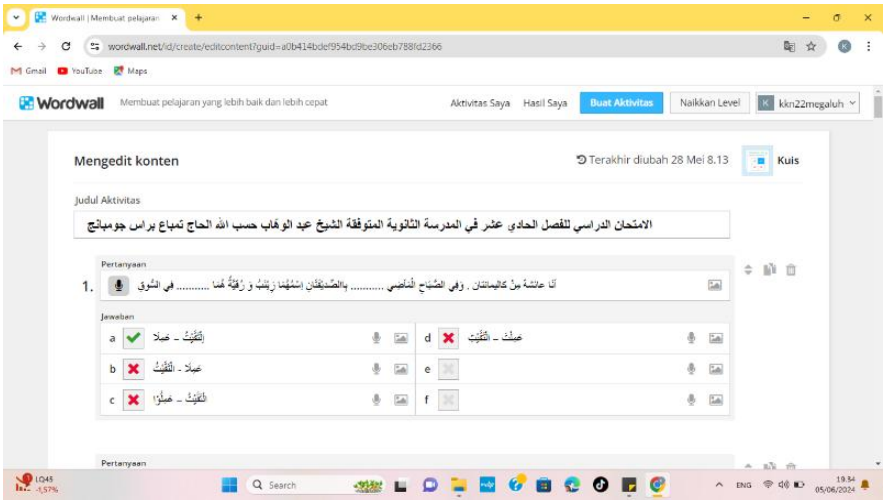
After compiling the assessment instrument above, the researcher designed the application-based instrument using the Wordwall web application. This application is an online educational game application that is already available on the web and has many features, both standard and premium. In addition, this application can be accessed from anywhere, whether on a laptop, a smartphone, or another device. Here is how to use the Wordwall application:



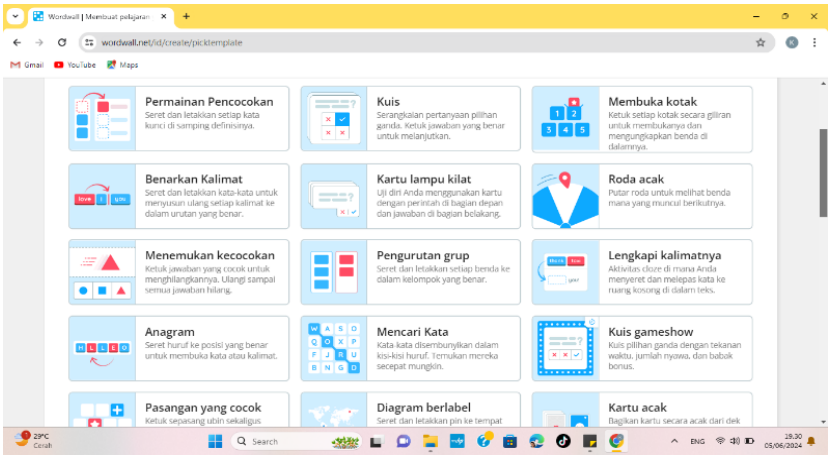
1. Open Google and log in to your Google account



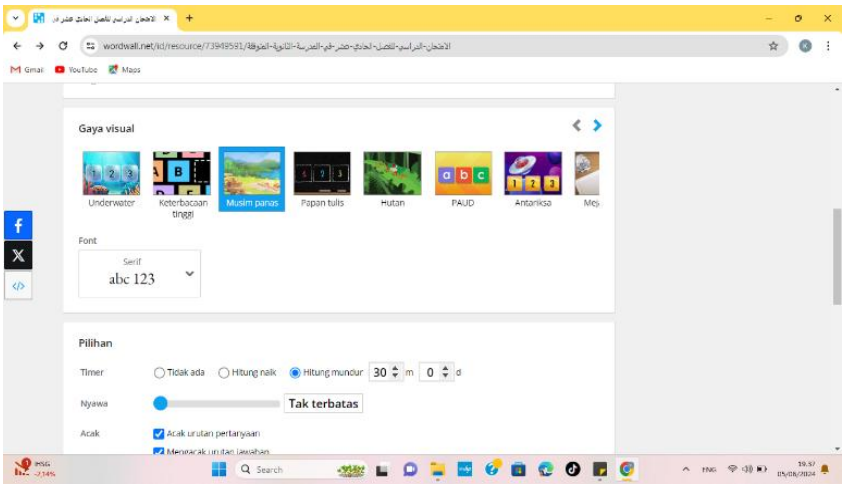
2. Start creating an activity



3. Edit the content by entering the questions that have been created



4. Choose the desired game features



5. Set the game theme



6. Assign the task and send the link to the target users and The platform is ready to use

Validity of the Developed Assessment Instrument

This study aims to validate the development of a Higher-Order Thinking Skills (HOTS) assessment instrument using the Wordwall application. The validation was carried out by two experts, namely the material expert, Ifatunnuha, M.Pd., and the design expert, Rina Dian Rahmawati, M.Pd. This process aims to assess the level of feasibility and validity of the product before it is applied in learning.

The validation results from the material expert show that this assessment instrument obtained a score of 91%. Based on the conversion in the qualification table, this result falls into the "very valid" category, meaning that the instrument is highly suitable for use without the need for major revision. This high percentage shows that the prepared material is in line with the relevant standards for measuring HOTS-based writing skill competencies. Thus, this instrument is considered capable of meeting learning needs that emphasize higher-order thinking skills in Arabic writing.

In addition, the validation carried out by the design expert focused on the appearance and interactivity of the instrument developed through the Wordwall application. From the assessment results, the instrument obtained a score of 83%, which also falls into the "very valid" category. This shows that the design and functionality of the instrument are very effective in supporting the learning process. The attractive and interactive presentation

is expected to increase student engagement in working on the assessment questions provided.

Although the validation results showed a very good level of feasibility, the experts provided several notes for improving the instrument to make it more optimal in use. Some of the suggested revisions include changing the formats of various questions to be more varied and better suited to students' characteristics, adding emoji and audio features to increase interaction and comfort in answering the questions, and changing the naming format of the web links to make them shorter and easily accessible to students.

Based on the validation results from the two experts and the suggested revisions, it can be concluded that the HOTS-based maharah kitabah assessment instrument using the Wordwall application is very valid and suitable for use in the learning process. It not only meets the expected standards for material and design but also provides a more interactive and engaging learning experience for students. Thus, this instrument can be effective in measuring students' writing skills in a more innovative, technology-based way.

Trial of the Developed Instrument

After making revisions based on the experts' input, the researcher conducted a product trial with users, namely eleventh-grade students of the religious program at Madrasah Aliyah Wahab Hasbullah Jombang. The trial was conducted on Wednesday, 27 May 2024, and involved 30 female students. The test subjects were chosen on the grounds that the eleventh-grade female students of the religious program have a level of understanding commensurate with the maharah kitabah content being tested. Moreover, they had also received the relevant basic material, so that they could provide accurate and constructive feedback on the developed assessment instrument.

This trial aims to evaluate the effectiveness and applicability of the "*Maharah Kitabah*" learning assessment instrument based on Higher-Order Thinking Skills (HOTS), developed using the Wordwall application. This assessment instrument is designed to measure higher-order thinking skills, such as analysis, evaluation, and creation, which are closely related to the demands of the Independent Curriculum (*Kurikulum Merdeka),* which emphasizes in-depth mastery of competencies. By using the Wordwall digital platform, it is hoped that the assessment can be carried out in an interactive and enjoyable way, thereby increasing students' learning motivation in honing their maharah kitabah skills.

During the trial, students were given 10 questions carefully prepared to measure their critical and creative thinking skills in maharah kitabah. Each question item was designed to challenge students' understanding comprehensively, from understanding a text to the ability to write logically and argumentatively. The trial was carried out in a suitable atmosphere, under the direct supervision of the researchers to ensure the validity of the data obtained.

The trial results showed a very positive response from users. Based on analysis of the data from the participants' answers to the 10 questions, the satisfaction rate reached 82%. This percentage shows that most students felt comfortable with, and were helped by, the developed assessment instrument. This figure was then converted using Table 2, which was compiled on the basis of a qualitative rating scale, showing that the product falls into the "very feasible" qualification level. In other words, the HOTS-based Maharah Kitabah learning assessment instrument using the Wordwall application has proven to be effective and suitable for use as an innovative assessment tool relevant to current learning needs.

The achievement of these results shows that the developed assessment instrument is not only effective in measuring *maharah kitabah* ability but is also able to increase students' learning motivation through an interactive and engaging approach. Students gave positive feedback on the user-friendly interface, the variety of challenging questions, and the enjoyable learning experience of using the Wordwall application. In addition, the use of HOTS in this instrument encourages students to think critically and creatively, so that their higher-order thinking skills can be well honed.

Although the trial results showed that this product is largely feasible, the researchers carried out a thorough and careful final revision to ensure the quality and refinement of the product. The revision took into account several important aspects, including:

1. Language – ensuring the use of language that is easy to understand and appropriate to the students' ability level. Some words and phrases were corrected to avoid ambiguity and misunderstanding.
2. Material – ensuring that the material used in the assessment instrument is relevant to the expected basic competencies, so that the instrument is truly able to measure maharah kitabah abilities in depth and comprehensively.

3. Design – adjusting the appearance and layout to make it more attractive, user-friendly, and interactive. The use of colors, images, and animations is considered a factor in making the learning experience more enjoyable.
4. Technical – addressing the technical challenges encountered during the trial, such as slow loading times on the Wordwall application or difficulty accessing the platform for some students with limited devices or internet connections.

In addition to the technical and content aspects, the researchers also paid attention to the field constraints found during the trial. Some of the obstacles that arose include the following:

1. Limited devices and internet access, which affected the smooth use of the Wordwall application by some students.
2. Differences in digital skill levels among students, which affected the speed of solving the problems.
3. Students' adjustment to HOTS-based assessment models, which required adaptation because they were not yet accustomed to the type of questions that demand higher-order thinking skills.

User input and feedback on the field constraints were used as evaluation and improvement material to increase the quality and effectiveness of the developed assessment instrument. The researchers also sought to provide technical assistance and training for students and teachers so that they could become more familiar with using the Wordwall application and implementing HOTS-based assessment.

Through this comprehensive improvement, it is hoped that the resulting product will be not only suitable for use but also relevant and effective in the maharah kitabah learning process at the Madrasah Aliyah. This instrument is expected to serve as an innovative solution for facing the learning challenges of the digital era, while also supporting the development of students' higher-order thinking skills.

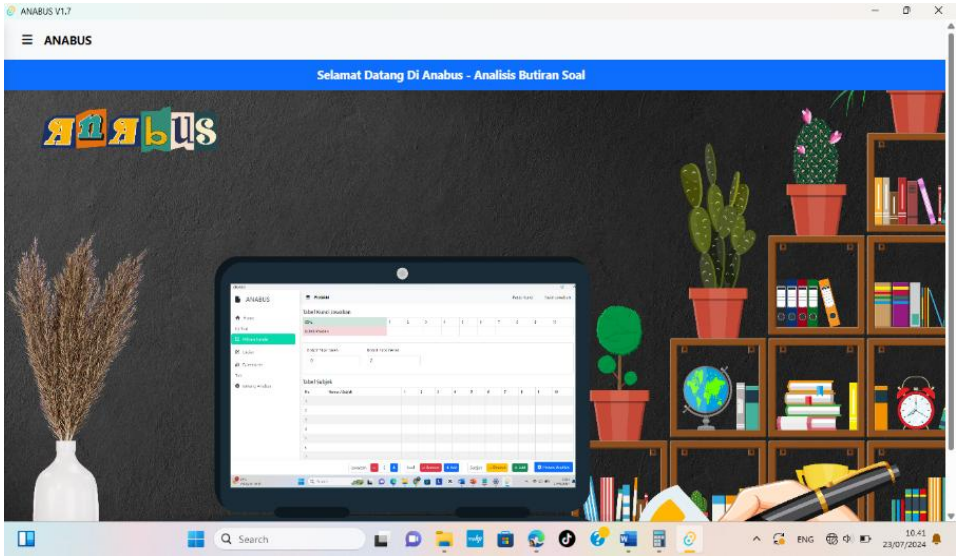
Overall, the trial use of this product provides a clear picture of the effectiveness, feasibility of implementation, and potential for further development of the HOTS-based Maharah Kitabah assessment instrument. Thus, this product not only helps teachers assess students' competencies more objectively and comprehensively but also provides an enjoyable and

challenging learning experience for students in honing their critical and creative thinking skills.

Item Analysis of the Developed Assessment Instrument

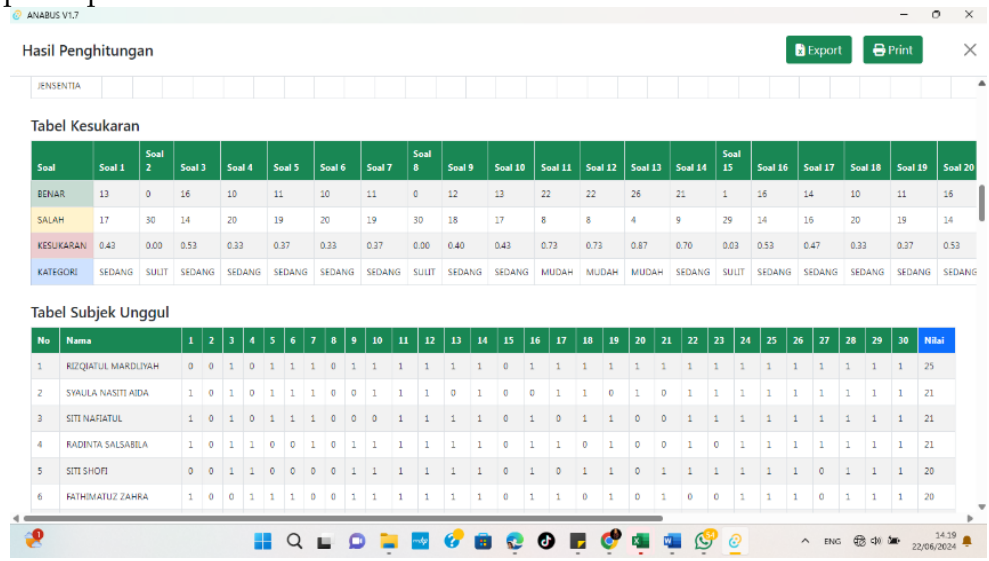
Item analysis is an important step in evaluating test instruments in order to measure the quality and effectiveness of each item. The main purpose of this analysis is to assess the validity, reliability, discriminating power, and difficulty level of the questions. Validity concerns the extent to which a question measures what it is supposed to measure, while reliability concerns the consistency of the results obtained. Discriminating power aims to determine the ability of the questions to distinguish between students of high and low ability. The difficulty level of the questions is used to determine how easy or difficult the questions are for the test participants.

In this study, the item analysis was carried out using the Anabus V1.7 application. This application was developed by several students of Universitas KH. A. Wahab Hasbullah Tambakberas Jombang as a tool for conducting statistical analysis efficiently and accurately. Anabus V1.7 was chosen because of its ability to process test data and present the analysis results in an easy-to-understand form. The analysis process includes calculating the validity, reliability, discriminating power, and difficulty level of each question item to produce a comprehensive evaluation.



The analysis results showed that the validity of the questions in this study reached 87% in the valid category and 13% in the invalid category. This indicates that most of the questions have met good validity criteria. In addition, the reliability of the questions obtained a score of 5.12, which is in the very high category. This indicates that the assessment instrument has strong consistency in measurement. High reliability indicates that the questions are stable and dependable for use in other assessments.

In terms of difficulty level, the analysis results showed that 20% of the questions were classified as easy, 29% as moderate, and 51% as difficult. This composition shows that the majority of the questions have a difficulty level that poses a considerable challenge to the test participants. To obtain balanced assessment results, the proportion of easy, moderate, and difficult questions should be more balanced, so that the participants' abilities can be measured more accurately. Therefore, the questions in the difficult category need to be improved so that they do not place a heavy burden on the test participants.



In terms of discriminating power, the results obtained were 30% in the very good category, 35% in the good category, 17% in the sufficient category, 11% in the poor category, and 7% in the very poor category. High discriminating power indicates that a question is effective in distinguishing between participants of high and low ability. However, there are a number of questions with low discriminating power that require revision so that they

can function optimally in the assessment process. Based on the results of this analysis, further improvements and development are needed to enhance the overall quality of the assessment instrument.

2. Discussion

This research was conducted because of the need for innovation in the assessment of writing skill (maharah kitabah) learning at Madrasah Aliyah Unggulan Wahab Hasbullah (MAUWH) Tambakberas Jombang. Based on the results of observations and interviews with various relevant parties, several main problems were identified. The supervising teacher, Ali Mudlofar, revealed that the assessment used is still conventional and has not adopted an approach based on higher-order thinking skills. He also pointed out that there had been no innovation in developing assessment instruments that are more effective and better suited to current learning needs. Meanwhile, the vice principal for curriculum, Siti Sholiha, added that there is a need for technology-based assessment instruments that can help teachers organize learning more interactively and efficiently. In addition, one of the students, Siti Sofia, admitted that maharah kitabah learning was boring and less engaging because it was not integrated with technology.

Based on the needs analysis, it can be concluded that maharah kitabah learning assessment, which is still conventional, causes the learning atmosphere to become monotonous. This contributes to students' low interest in learning. Therefore, innovation is needed in the form of technological applications that are able not only to increase interest in learning but also to measure higher-order thinking skills (HOTS), in line with the expectations of the vice principal for curriculum at MAUWH. For this reason, this research focuses on developing HOTS-based assessment instruments by utilizing the Wordwall platform, which is equipped with interactive features and themes.

The process of developing the assessment instrument refers to the learning achievement indicators in the maharah kitabah book, Chapters IV to VI, which cover the material on linguistic conjugation (tasrif lughawi) of past (madi) and present (mudari') verbs, as well as numbers ('adad) in nominal and verbal sentences. The assessment instrument consists of 30 questions in various formats, namely completing missing text, correcting sentences, identifying sentence types, sequencing sentences, and picture comprehension. These question types were designed to measure students' cognitive abilities from level C1 (remembering) to C6 (creating) according to

Bloom's taxonomy. All the questions were then implemented in the Wordwall application to create an interactive and engaging assessment.

Before being tested, this assessment instrument was validated by two experts, namely a material expert and a design expert. The material expert, Ifatunnuha, M.Pd., gave a rating of 91%, indicating that the instrument is highly suitable in terms of content and the appropriateness of the material to the learning objectives. Meanwhile, the design expert, Rina Dian Rahmawati, M.Pd., gave a rating of 83%, indicating that the instrument is highly suitable in terms of appearance, readability, and clarity of instructions. Several suggestions for improvement from both experts were implemented before the product was tested with 30 students of MAUWH. The trial showed that this assessment instrument received a rating of 82% from the participants, in the very feasible category. This indicates that the developed HOTS-based assessment instrument is not only effective in measuring students' abilities but also attracts their interest in learning.

After the trial, item analysis was carried out using the Anabus V1.7 application to measure the validity, reliability, difficulty level, and discriminating power of the questions. The analysis results showed that the validity of the questions reached 87% in the valid category and 13% in the invalid category. A reliability score of 5.12 indicates very high reliability, meaning that this instrument is consistent in measuring students' abilities. In terms of difficulty level, 20% of the questions were at the easy level, 29% were moderate, and 51% were difficult, indicating that most of the questions are quite difficult for students. The discriminating power of the questions showed 30% in the very good category, 35% good, 17% sufficient, 11% poor, and 7% very poor.

Overall, the research results show that the HOTS-based maharah kitabah assessment instrument has high validity and reliability and is able to measure students' cognitive abilities comprehensively. However, improvements are needed for several questions that have a very high level of difficulty and low discriminating power, so that this instrument can be used more effectively in the learning assessment process at MAUWH. In addition, the Wordwall application has proven effective in increasing students' interest in learning because it provides an interactive and enjoyable assessment experience.

D. Conclusion

This study aims to develop a HOTS-based maharah kitabah assessment

instrument using the Wordwall application at Madrasah Aliyah Unggulan Wahab Hasbullah (MAUWH) Tambakberas Jombang. The instrument was designed to overcome the limitations of conventional assessment methods, which are less interactive and not yet HOTS-based, and also to increase students' interest in learning Arabic writing skills.

The results of the study showed that the developed assessment instrument is highly suitable for use in learning. Based on expert validation, the scores obtained were 91% from the material expert and 83% from the design expert, indicating a very high level of validity. The trial conducted with 30 students of MAUWH produced a rating of 82%, which also falls within the very feasible category. Analysis of the test items using the Anabus V1.7 application shows that this instrument has high validity (87% of the questions valid), very high reliability (a score of 5.12), and varying levels of discriminating power and difficulty, and is effective in measuring students' cognitive abilities comprehensively.

Based on the research results, the problem formulation concerning the need for an interactive and effective HOTS-based assessment instrument for measuring students' abilities in writing skills has been well answered. The Wordwall-based assessment instrument has been proven able to increase students' interest in learning and to provide innovation in the learning assessment process. Thus, the developed product can be used as an alternative solution for improving the quality of Arabic language learning at MAUWH Tambakberas Jombang.

Bibliography

Amalia, R., Ulin Nuha, M. A., & Nashoih, A. K. (2022). Development of Kosbarab Learning Media to Improve Arabic Vocabulary Mastery of Elementary Level Students Based on Android Construct 2. *Al-Ta'rib : Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya*, *10*(2), 145–158. https://doi.org/10.23971/altarib.v10i2.4529

Anderson, L. W., & Krathwohl, D. R. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Longman.

Andi Rustandi, & Rismayanti. (2021). Penerapan Model ADDIE dalam Pengembangan Media Pembelajaran di SMPN 22 Kota Samarinda. *Jurnal Fasilkom*, *11*(2), 57–60. https://doi.org/10.37859/jf.v11i2.2546

Anjani, N. D., Hikmah, & Masrun. (2024). PENERAPAN HOTS (HIGHER ORDER THINKING SKILLS) DALAM SOAL BUKU BAHASA ARAB DI MTS MIFTAHUL HIDAYAH. *Jurnal Pendidikan Sosial Dan Humaniora*, *3*(2), 1445–1455.

Fahraini, S., & Almaliki, M. F. (2024). TAMUS (Ta'lim Musaghar): Augmented Reality-Based Speaking Platform to Improve the Maharah Kalam for Arabic Language Education Students. *Proceeding International Conference on Religion, Science and Education*, *3*, 469–475.

Fattah, M., Rahman, N. F., & Editor, E. M. (2022). *Paradigma Baru Assessment Bahasa Arab di Indonesia: Konvensional Menuju Digital*. http://repository.uinsi.ac.id/handle/123456789/2704

Hasyim, M., Rokhmatulloh, Rosadi, I., & Faizal. (2021). Implementasi Teknologi Augmented Reality Sebagai Media Pembelajaran Bahasa Arab Berbasis Android Menggunakan Metode Markerless Tracking. *Explore IT: Jurnal Keilmuan Dan Aplikasi Teknik Informatika*, *13*(1), Article 1. https://doi.org/10.35891/explorit.v13i1.2684

Helty, H., Rahmadani, A., & Syayidi, M. (2024). Pengembangan Literasi Digital dalam Pembelajaran Bahasa Arab. *Indonesian Research Journal on Education*, *4*(2), Article 2. https://doi.org/10.31004/irje.v4i2.532

Izzah, H. S., & Fauji, I. (2024). Analyzing Higher Order Thinking Skills (HOTS) in Arabic Language Instruction: Insights from Kitab Arabiyyah Baina Yadaik Volume 4A: *Indonesian Journal of Islamic Studies*, *12*(2), Article 2. https://doi.org/10.21070/ijis.v12i2.1693

Khairunnisa, A. (2024). Pemanfaatan Aplikasi Wordwall Sebagai Media Evaluasi dalam Pembelajaran Bahasa Arab: Manfaat, Tantangan, dan Strategi Optimalisasi. *Jurnal Pendidikan Tambusai*, *8*(2), 16–21.

Laila, L. M., & Nashoih, A. K. (2024). Taṭwīr Adawāt Taqwīm Ta'līm al-Balāgah 'abra Minaṣṣah Wordwall fī Ḍaui Madkhal al-Ikhtibār at-Tasykhīsyī li Arba'ati Mustawayāt: تطوير أدوات تقويم تعليم البلاغة عبر منصة وورد وول في ضوء مدخل الاختبار التشخيصي لأربعة مستويات. *LISANIA: Journal of Arabic Education and Literature*, *8*(2), Article 2. https://doi.org/10.18326/lisania.v8i2.227-256

Lubis, A. P., & Nuriadin, I. (2022). Efektivitas Aplikasi Wordwall untuk Meningkatkan Hasil Belajar Siswa dalam Pembelajaran Matematika Sekolah Dasar. *Jurnal Basicedu*, *6*(4), 6884–6892. https://doi.org/10.31004/basicedu.v6i4.3400

Lutfiyatun, E., & Haniefa, R. (2022). Pengembangan Hots Online Assessment Dengan Quizizz Berkarakter Untuk Keterampilan Membaca

Pemahaman. *JURNAL Al-AZHAR INDONESIA SERI HUMANIORA*, *7*(3), 181. https://doi.org/10.36722/sh.v7i3.1587

Makruf, I. (2020). Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Pembelajaran Bahasa Arab Di Madrasah Aliyah Kabupaten Sukoharjo. *Arabi : Journal of Arabic Studies*, *5*(1), Article 1. https://doi.org/10.24865/ajas.v5i1.93

Nashoih, A. K. (2024). HOTS-Based Qiro'ah Textbook Development To Improve Arab Language Students' Extensive Reading Skills. *DINAMIKA: Jurnal Kajian Pendidikan dan Keislaman*, *9*(2), 24–42.

Nur, R., Zulhannan, & Lena, M. D. G. (2024). MEDIA GAME WORDWALL SEBAGAI ALAT EVALUASI PEMBELAJARAN BAHASA ARAB KELAS X TKJ 3 SMK MUHAMMADIYAH SEKAMPUNG. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, *9*(2), Article 2. https://doi.org/10.23969/jp.v9i2.14632

Pangestika, E., Baroroh, R. U., & Maknuna, S. L. (2024). Innovation Discrete Approach Based on Arabic Language Test Assessment. *Arabiyatuna: Jurnal Bahasa Arab*, *8*(1 May), Article 1 May. https://doi.org/10.29240/jba.v8i1.8992

Rahmayanti, I., & Abidin, M. (2023a). Efektivitas penggunaan Wordwall sebagai media evaluasi pembelajaran Bahasa Arab di MAN Kota Batu. *Sustainable: Jurnal Kajian Mutu Pendidikan*, *6*(2), Article 2.

Rahmayanti, I., & Abidin, M. (2023b). Efektivitas Penggunaan Wordwall Sebagai Media Evaluasi Pembelajaran Bahasa Arab di MAN Kota Batu. *Sustainable Jurnal Kajian Mutu Pendidikan*, *6*(2), 349–358. https://doi.org/10.32923/kjmp.v6i2.3413

Yani, M. Y., Koderi, K., Zulhanan, Z., Tubagus, M., & Fauzan, M. S. (2021). The Development of Arabic Learning Evaluation based on Kahoot Application in Covid Outbreak l Tatwir Taqwim Ta'lim al-Lughah al-'Arabiyyah 'ala Asas Tatbiq Kahoot Khilala Jaikhah Covid. *Jurnal Al Bayan: Jurnal Jurusan Pendidikan Bahasa Arab*, *13*(1), Article 1. https://doi.org/10.24042/albayan.v13i1.7219

Zubaidah, Z., Ainin, M., Muassomah, M., Albantani, A. M., & Maimunah, I. (2022). Higher Order Thinking Skills (HOTS) Level Instructional Book of Arabic Language at Senior High School. *Arabiyat : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban*, *9*(2), Article 2. https://doi.org/10.15408/a.v9i2.28184