



Needs Analysis for Developing HOTS *Sharf Awwal* Questions Using a Web-Based LMS

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ENGLISH ABSTRACT

The direction of learning targets in the modern era is not only at the level of understanding but also at the level of implementing, analyzing, producing, and evaluating, even to the ability to utilize technology such as websites. *Sharf* lessons are complex lessons. Very few quality questions are found, and educators still use the Lower Order Thinking Skill (LOTS) level, which sometimes causes them to forget that the target of mastering *Sharf* science is actually to master Arabic. This study aims to produce questions for the evaluation of *Sharf Awwal* High Order Thinking Skill (HOTS) learning through the Learning Management System (LMS) website. This study is still in the initial research stage using descriptive qualitative methods. The data collection process uses documentation, interviews, and questionnaires. The results show that developing *Sharf Awwal* HOTS questions using the website must be based on related materials. In addition, the questions that are compiled must lead to practice in producing descriptive and narrative texts, analyzing texts from sources such as the text of the Qur'an, Alhadith, Arabic news, poetry, to the production of dialogue or communicative texts.

Keywords: Sharf Lessons, LMS Website, HOTS learning

INDONESIAN ABSTRACT

Arah dari target pembelajaran pada era modern saat ini tidak hanya sampai pada level memahami, tetapi sampai pada level mengimplementasi, menganalisis, memproduksi dan mengevaluasi, bahkan sampai pada kemampuan memanfaatkan teknologi seperti website. Pelajaran Sharf merupakan pelajaran yang kompleks. Sedikit sekali ditemukan soal-soal yang berkualitas. Kebanyakan masih menggunakan level LOTS, yang mana terkadang pendidik lupa bahwa target penguasaan ilmu Sharf sebenarnya untuk penguasaan bahasa Arab. Penelitian ini bertujuan untuk menghasilkan soal-soal untuk evaluasi pembelajaran Sharf Awwal HOTS melalui website. Penelitian ini masih pada tahapan penelitian awal menggunaka metode kualitatif deskriptif. Proses pengumpulan data menggunakan dokumentasi, wawancara dan angket. Hasil menunjukkan bahwa untuk mengembangkan soal-soal Sharf Awwal HOTS menggunakan wesbite harus berdasarkan pada materi terkait. Di samping itu, soal-soal yang disusun harus mengarah pada praktik untuk menghasilkan teks deskriptif dan naratif, menganalisis teks dari sumber asli seperti teks Alqur'an, Alhadits, berita Arab, syair, hingga produksi teks dialog atau komunikatif.

Kata Kunci: Ilmu Sharf, LMS Website, Pembelajaran Berbasis HOTS

Introduction

The integration of information and communication technology or ICT which has now evolved into online learning in the implementation of formal learning (Park and Kim, 2021) especially in higher education is now increasingly being adopte in higher educational not only in Indonesia (Rukmini et al., 2023) but also globally (Chung et al., 2020; Wang et al., 2023). Several research results examining the use of online media in learning show increasingly better learning outcomes and satisfaction from its users (Chung et al., 2020; Lemay et al., 2021). The direction of the learning mode has now shifted from regular face-to-face learning to learning that integrates with technology (Lemay et al., 2021; Wang et al., 2023), either in the form of full online learning, blended online learning or traditional learning supported by online learning (Almahasees et al., 2021; Lemay et al., 2021). Thus, it is hoped that the proliferation of online learning can overcome various problems in learning that are considered difficult to master, one of which is the branch of Arabic, namely, *Sharf* learning.

One indication that learning Arabic is difficult to master is that the grammar material is very complex and rigid (Zakiatunnisa et al., 2020). Arabic grammar is divided into two categories: *Nahwu*, or syntax, and *Sharf*, or morphology. Simply put, *Nahwu* is the science that studies sentences, while *Sharf* studies words. However, after this material is studied, it seems that it is not that simple. In *Nahwu* lessons, studying sentences means we must know the state of each word in the sentence so that we can judge each word and give it the appropriate and correct mark (Hamid et al., 2020). Similarly, *Sharf* involves determining each word form into other forms with specific patterns so that its function and meaning change, from the form of *fi'il madhi* to *fi'il mudhari*, to *fi'il amr*, to *masdar*, to *ismi fa'il*, to *ismi maf'ul*, to *shighah mubalaghoh*, to *ismi*

tafdhil, to *sifat musyabbahah*, and so on, where if the signs and/or forms are incorrectly placed, it will result in an incorrect and deviant meaning.

Sharf, in terms of language, is defined as change (تغيير), while according to the term, *Sharf* refers to the alteration of the root of a word into several different words to achieve the desired meaning, which can only be attained through that change (Busyro, 2016). *Sharf* involves changing the root of a word into several different words to obtain the intended meaning, which can only be achieved through that process of change. In other words, the science of *Sharf* is a field that discusses the state of the letters of each sentence by altering the original form of the sentence into other forms to achieve the desired meaning, which can only be attained through that change (Zaini, 2015).

The teaching of Arabic grammar, especially *Sharf*, should receive special attention from Arabic language educators. Attention to *Sharf* learning should not only stop at the curriculum, materials, and teaching methods but also include how to develop its evaluation system and combine it with modern learning media such as websites, thereby creating effective and efficient *Sharf* learning.

Modern century learning places great emphasis on meaningful and comprehensive learning, which not only focuses on knowledge mastery but also on skills and affective aspects. Thus, learning activities are directed towards simple thinking activities such as remembering, memorizing, and understanding, then to higher-level activities such as implementing and analyzing, and finally to the last activities of producing and evaluating, commonly known as LOTS and HOTS tasks. Meanwhile, the grammar learning model generally still uses the traditional model (Hamid et al., 2020).

King stated that higher-order thinking skills include critical, logical, reflective, metacognitive, and creative thinking (Alfarisy et al., 2023; Dinni, 2018). These skills are also used to underline various high-level processes according to Bloom's taxonomy. According to Bloom, skills are divided into two parts. First, the low-level skills that are important in the learning process, namely remembering, understanding, and applying. Second, classified into high-level thinking skills such as analyzing, evaluating, and creating (Anderson and David, 2015). Everything is activated when an individual encounters an unfamiliar, uncertain, and question-filled problem (Shidiq et al., 2015). Thus, High Order Thinking Skill or higher-order thinking ability is a complex and gradual

thinking process to find solutions in problem-solving. To enhance students' higher-order thinking skills, it is necessary to develop these abilities through consistent practice with High Order Thinking Skill (HOTS) questions during the learning process (Yuliandini et al., 2019).

Previous research similar to this study was conducted by Alfarisy, who stated that HOT grammar questions are determined by two factors: teacher qualifications and the curriculum (Alfarisy et al., 2023). Then Raswan R, et al. revealed that *Sharf* learning will become easier and more productive using a constructivist and analogy approach (Raswan et al., 2022). The research conducted by Faizmailiatus Sofa et al. revealed that the mentimeter media can enhance *Sharf* learning (Sofa et al., 2022). Nurfin Sihotang revealed the success of *Nahwu-Sharf* learning with interactive and participatory methods (Sihotang, 2023). Muhammad Syamsuri Siddik et al. revealed that the use of the Latih Paham application can accelerate the mastery of tashrif lughowi, thereby leading to the mastery of the Arabic language (Siddiq et al., 2020).

From the previous research, it has been found that learning *Sharf* with media and methods that actively involve students participatively can enhance the mastery of *Sharf* knowledge. However, the mastery of *Sharf* knowledge must be integrated with an applicable language context because, after all, the mastery of *Sharf* knowledge is essentially a step towards mastering the Arabic language. Therefore, in its teaching, it is necessary to integrate exercises that direct the implementation of *Sharf* in communicative Arabic. Therefore, in this research, the researcher wants to highlight the importance of *Sharf* exercises using online media based on HOTS.

Methods

In the preliminary research, the researcher found several facts, namely: 1) *Sharf Awwal* is one of the courses in the curriculum of the Arabic Language Education Study Program at Jakarta State University, offered to fifth-semester students; 2) Currently, the teaching of the *Sharf Awwal* course uses the teaching module 'Ilmu *Sharf Awwal*, which is a module developed by the course instructor. However, it still does not integrate HOTS-based questions using the Learning Management System (LMS) website.

From this preliminary research, the authors then developed and compiled a needs analysis through a questionnaire to determine the needs of students and lecturers regarding HOTS-based *Sharf Awwal* questions using the LMS website. The questionnaire items were created based on a literature review of *Sharf Awwal* science, HOTS, and LMS. The questionnaire items for students consisted of three main categories: 1) Students' habits in learning and studying *Sharf Awwal* science; 2) Difficulties in understanding the material; 3) The importance of developing HOTS-based *Sharf Awwal* questions using the LMS website.

This study uses survey research with quantitative and qualitative descriptive methods (Padmadewi et al., 2022). This method describes phenomena to show patterns and themes related to facts through questions adapted from *Sharf*'s learning theory and LOTS and HOTS theory, and the needs of students, totaling 18 questions addressed to students and 10 questions addressed to teachers. The participants of the study are the teachers who taught *Sharf Awwal*, and the students are in the 5th semester of the 2023/2024. The location of the research is Arabic Education at Jakarta State University.

The process of collecting data in this study is: (1) Documentation. This process is to analyze the needs of questions *Sharf Awwal* has used in the Arabic Education Program Study. (2) Interviews. It is to know the students' and teachers' needs in terms of questions, *Sharf Awwal*. (3) Questionnaire. It is to know the students' and teachers' needs in terms of questions, *Sharf Awwal*. The researcher provides some questions that are related to the needs of *Sharf Awwal*.

The Needs Analysis for the Development of *Sharf Awwal* Science HOTS Questions through the website

Sharf Awwal is one of the courses in the curriculum of the Arabic Language Education study program at Universitas Negeri Jakarta, where the graduate profiles in this program are: 1) Arabic Language Teacher, 2) Beginner Researcher, 3) Beginner Translator. To achieve this profile, several learning outcomes have been formulated, one of which is "mastering the theoretical concepts of language science (linguistics) in general and specifically about Arabic language science, and applying them in teaching, research, and translation." The curriculum projects this learning outcome onto the *Sharf*

course. In this regard, it is very important to formulate the development of HOTS-based *Sharf* questions using the LMS website to ensure student-centered learning.

As explained, HOTS questions require students to think from lower levels, such as remembering, understanding, and applying, to higher levels, such as analyzing, evaluating, and creating. In this regard, the following outlines the stages of the development process for HOTS questions in the subject of *Sharf Awwal* through the LMS website. To obtain this information, the researcher distributed a questionnaire to 57 fifth-semester students who had attended the *Sharf Awwal* course in the Arabic Language Education Study Program at the Faculty of Language and Arts, Jakarta State University (UNJ). In the following table, the results of the questionnaire distribution can be seen.

In developing Sharf Awwal questions, how often do you do the following?

First, review the discussion of practice questions independently or in groups.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Usually	31	54.4	55.4	55.4
	Often	22	38.6	39.3	94.6
	very often	3	5.3	5.4	100.0
	Total	56	98.2	100.0	
Missing	System	1	1.8		
Total		57	100.0		

Table 1. The Results from the Respondents' Answers to the First Question

Based on the results from the respondents' answers to the questions posed, respondents answered very often at 5.3%, often at 38.6%, and sometimes at 54.4%. Therefore, the conclusion that can be drawn from the above question is that 54.4% of students sometimes review exercise questions independently or in groups.

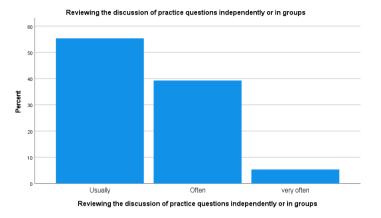


Figure 1. The Results from the Respondents' Answers to the First Questions

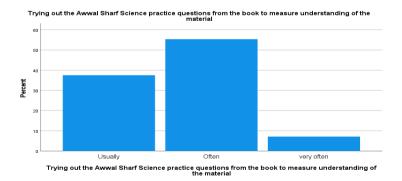
Second, try the *Sharf Awwal* science exercises from the book to measure understanding of the material.

Table 2. The Results from the Respondents' Answers to the Second Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Usually	21	36.8	37.5	37.5
	Often	31	54.4	55.4	92.9
	very often	4	7.0	7.1	100.0
	Total	56	98.2	100.0	
Missing	System	1	1.8		
Total		57	100.0		

Based on the results of the respondents' answers to the questions posed, the respondents answered very often at 7%, often at 54.4%, sometimes at 36.8%, and never at 0%. Therefore, the conclusion that can be drawn from the above question is that 54.4% of students often try the Ilmu *Sharf Awwal* exercises from the book to measure their understanding of the material.

Figure 2. The Results from the Respondents' Answers to the Second Question

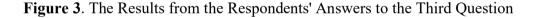


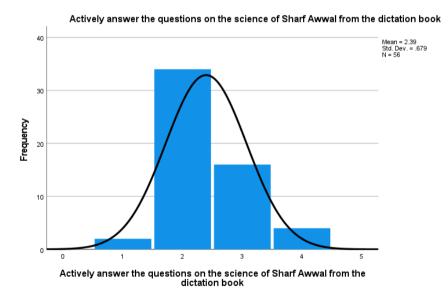
Third, actively answer the questions on the Science of *Sharf Awwal* from the dictation book.

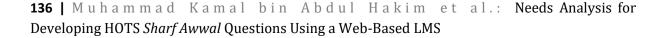
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	3.5	3.6	3.6
	Usually	34	59.6	60.7	64.3
	Often	16	28.1	28.6	92.9
	very often	4	7.0	7.1	100.0
	Total	56	98.2	100.0	
Missing	System	1	1.8		
Total		57	100.0		

Table 3. The Results from the Respondents' Answers to the Third Question

Based on the results of the respondents' answers to the questions posed, the respondents answered very often 7%, often 28.1%, sometimes 59.6%, and never 3.5%. Therefore, the conclusion that can be drawn from the above question is that 59.6% of students sometimes actively answer correctly the questions of Ilmu *Sharf Awwal* from the dictation book.







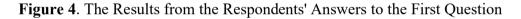
Based on your experience, how often do you have difficulty answering questions in the Sharf Awwal Modul?

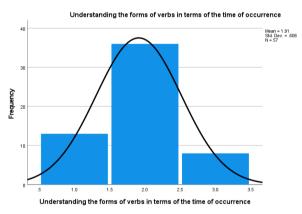
First, understanding the forms of verbs in terms of the time of occurrence.

		Frequency	Percent	Valid Percent	Percent
Valid	Very easy	13	22.8	22.8	22.8
	Easy	36	63.2	63.2	86.0
	Hard	8	14.0	14.0	100.0
	Total	57	100.0	100.0	

Table 4. The Results from the Respondents' Answers to the First Question

Based on the results of the respondents' answers to the questions posed, respondents answered very difficult 0%, difficult 14%, easy 63.2%, and very easy 22.7%. Therefore, the conclusion that can be drawn from the above question is that 63.2% of students find it easy to understand the forms of verbs in terms of the time of occurrence, namely *fi'il madhi* and *fi'il mudhari*.





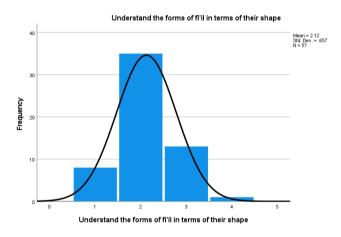
Second, understanding the forms of verbs in terms of their structure.

Table 5. The Results from	the Respondents'	Answers to the Second (Question
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		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	8	14.0	14.0	14.0
	Easy	35	61.4	61.4	75.4
	Hard	13	22.8	22.8	98.2
	Very hard	1	1.8	1.8	100.0
	Total	57	100.0	100.0	

Based on the results from the respondents' answers to the questions posed, respondents answered very difficult at 1.8%, difficult at 22.8%, easy at 61.2%, and very easy at 14%. Therefore, the conclusion that can be drawn from the above question is that 61.4% of students find it easy to understand the forms of verbs in terms of their structure, namely *mashdar, isim fa'il, isim maf'ul, shifat musyabbahah, shighot mubalaghoh, isim makaan, isim zaman, isim alat.*

Figure 5. The Results from the Respondents' Answers to the Second Question



Third, understanding the forms of verbs in terms of their subjects and objects. **Table 6**. The Results from the Respondents' Answers to the Third Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	5	8.8	8.8	8.8
	Easy	36	63.2	63.2	71.9
	Hard	15	26.3	26.3	98.2
	Very hard	1	1.8	1.8	100.0
	Total	57	100.0	100.0	

Based on the results from the respondents' answers to the questions posed, the respondents answered very difficult at 1.8%, difficult at 26.3%, easy at 63.2%, and very easy at 8.8%. Therefore, the conclusion that can be drawn from the above question is that 63.2% of the students find it easy to understand the forms of verbs in terms of subject and object or *fi'il mutta'addi* and *fi'il lazim*.

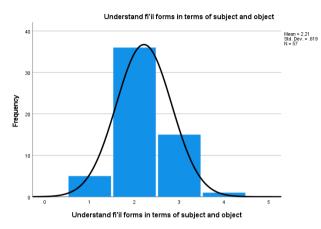


Figure 6. The Results from the Respondents' Answers to the Third Question

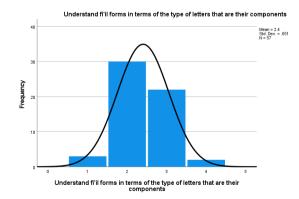
Fourth, understanding the forms of verbs in terms of the types of letters that make up their components.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	3	5.3	5.3	5.3
	Easy	30	52.6	52.6	57.9
	Hard	22	38.6	38.6	96.5
	Very hard	2	3.5	3.5	100.0
	Total	57	100.0	100.0	

Table 7. The Results from the Respondents' Answers to the Fourth Question

Based on the results of the respondents' answers to the questions posed, respondents answered very difficult at 3.5%, difficult at 38.6%, easy at 52.6%, and very easy at 5.3%. Therefore, the conclusion that can be drawn from the above question is that 52.6% of students find it easy to understand the forms of verbs in terms of the types of letters that make up their components.

Figure 7. The Results from the Respondents' Answers to the Fourth Question



139 | Muhammad Kamal bin Abdul Hakim et al.: Needs Analysis for Developing HOTS *Sharf Awwal* Questions Using a Web-Based LMS

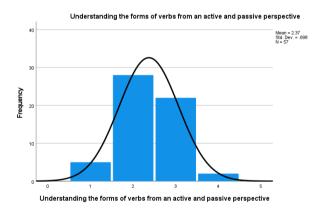
Fifth, understanding the forms of verbs in terms of their active and passive aspects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	5	8.8	8.8	8.8
	Easy	28	49.1	49.1	57.9
	Hard	22	38.6	38.6	96.5
	Very hard	2	3.5	3.5	100.0
	Total	57	100.0	100.0	

Table 8. The Results from the Respondents' Answers to the Fifth Question

Based on the results from the respondents' answers to the questions posed, 3.5% of respondents answered very difficult, 38.6% answered difficult, 49.1% answered easy, and 8.8% answered very easy. Therefore, the conclusion that can be drawn from the above question is that 49.1% of students find it easy to understand the forms of verbs in terms of their active and passive voices.

Figure 8. The Results from the Respondents' Answers to the Fifth Question



Sixth, understanding the forms of verbs in terms of their derivation.

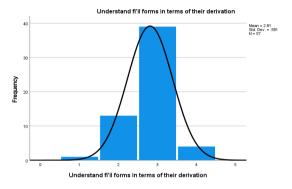
Table 9. The Results from the Respondents' Answers to the Sixth Question

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	1	1.8	1.8	1.8
	Easy	13	22.8	22.8	24.6
	Hard	39	68.4	68.4	93.0
	Very hard	4	7.0	7.0	100.0
	Total	57	100.0	100.0	

Based on the results from the respondents' answers to the questions posed, 7% of the respondents answered very difficult, 68.4% answered difficult,

22.8% answered easy, and 1.8% answered very easy. Therefore, the conclusion that can be drawn from the above question is that 68.4% of the students find it difficult to understand the forms of verbs in terms of their derivation.

Figure 9. The Results from the Respondents' Answers to the Sixth Question



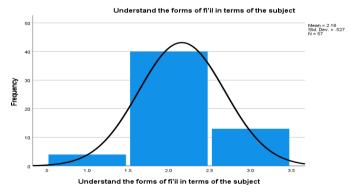
Seventh, understanding the forms of verbs in terms of their subjects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	4	7.0	7.0	7.0
	Easy	40	70.2	70.2	77.2
	Hard	13	22.8	22.8	100.0
	Total	57	100.0	100.0	

Table 10. The Results from the Respondents' Answers to the Seventh Question

Based on the results of the respondents' answers to the questions posed, respondents answered very difficult 0%, difficult 22.8%, easy 70.2%, and very easy 7%. Therefore, the conclusion that can be drawn from the above question is that 70.2% of students find it easy to understand the forms of verbs in terms of their subjects.

Figure 10. The Results from the Respondents' Answers to the Seventh Question



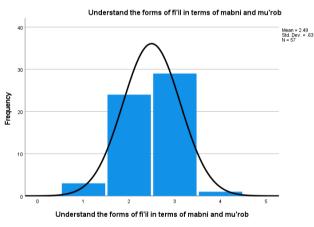
Eighth, understanding the forms of verbs in terms of *mabni* and *mu'rab*.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	3	5.3	5.3	5.3
	Easy	24	42.1	42.1	47.4
	Hard	29	50.9	50.9	98.2
	Very hard	1	1.8	1.8	100.0
	Total	57	100.0	100.0	

 Table 11. The Results from the Respondents' Answers to the Eighth Question

Based on the results of the respondents' answers to the questions posed, respondents answered very difficult at 1.8%, difficult at 50.9%, easy at 42.1%, and very easy at 5.3%. Therefore, the conclusion that can be drawn from the above question is that 50.9% of students find it difficult to understand the forms of fi'il in terms of mabni and mu'rob.

Figure 11. The Results from the Respondents' Answers to the Eighth Question

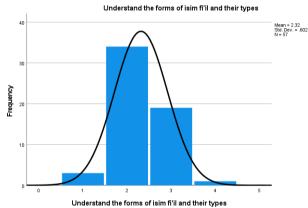


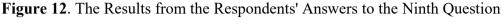
Ninth, understanding the forms of verbal nouns and their types.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very easy	3	5.3	5.3	5.3
	Easy	34	59.6	59.6	64.9
	Hard	19	33.3	33.3	98.2
	Very hard	1	1.8	1.8	100.0
	Total	57	100.0	100.0	

Table 12. The Results from the Respondents' Answers to the Ninth Question

Based on the results from the respondents' answers to the questions posed, respondents answered very difficult at 1.8%, difficult at 33.3%, easy at 59.6%, and very easy at 5.3%. Therefore, the conclusion that can be drawn from the above question is that 59.6% of students find it easy to understand the forms of verbs and their types.





Tenth, understanding *ta'kid fi'il* and its types.

Based on the results from the respondents' answers to the questions posed, respondents answered very difficult at 3.5%, difficult at 61.4%, easy at 31.6%, and very easy at 5.3%. Therefore, the conclusion that can be drawn from the above question is that 61.4% of students find it difficult to understand ta'kid fi'il and its types.

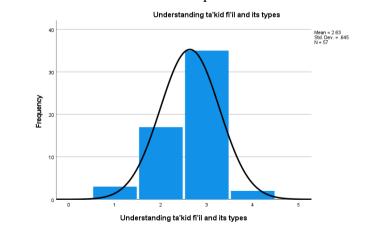


Figure 13. The Results from the Respondents' Answers to the Tenth Question

143 | Muhammad Kamal bin Abdul Hakim et al.: Needs Analysis for Developing HOTS *Sharf Awwal* Questions Using a Web-Based LMS

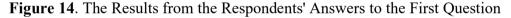
To develop HOTS questions for Ilmu Sharf Awwal through a website, in your opinion, how important are the following aspects?

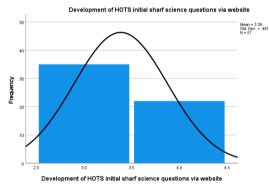
First, the Development of HOTS-level *Sharf* science questions through the website.

Table 13. The Results from the Respondents' Answers to the First Question

			Frequency	Percent	Valid Percent	Percent
	Valid	Important	35	61.4	61.4	61.4
		Very Important	22	38.6	38.6	100.0
		Total	57	100.0	100.0	

Based on the results from the respondents' answers to the questions posed, 38.6% of respondents answered very important, 61.4% answered important, 0% answered not important, and 0% answered very unimportant. Therefore, the conclusion that can be drawn from the above question is that 61.4% of students feel it is important for the development of basic HOTS science questions through the website.



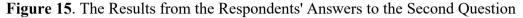


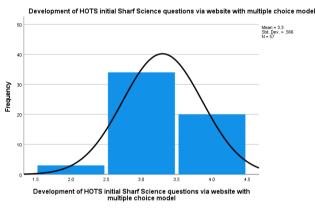
Second, the Development of HOTS *Sharf Awwal* Science questions through a website using a multiple-choice model.

Table 14. The Results from the Resp	ondents' Answers to the Second Question
	Course of a time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not important	3	5.3	5.3	5.3
	Important	34	59.6	59.6	64.9
	Very Important	20	35.1	35.1	100.0
	Total	57	100.0	100.0	

Based on the results of the respondents' answers to the questions posed, respondents answered "very important" at 35.1%, "important" at 59.6%, "not important" at 5.3%, and "not very important" at 0%. Therefore, the conclusion that can be drawn from the above question is that 59.6% of students feel it is important to develop HOTS questions in Ilmu *Sharf Awwal* through a website with a multiple-choice model.





Third, the score obtained from the answers to the Ilmu *Sharf Awwal* Hots questions through the website.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not important	3	5.3	5.3	5.3
	Important	33	57.9	57.9	63.2
	Very Important	21	36.8	36.8	100.0
	Total	57	100.0	100.0	

Table 15. The Results from the Respondents' Answers to the Third Question

Based on the results from the respondents' answers to the questions posed, 36.8% of respondents answered very important, 57.9% answered important, 5.3% answered not important, and 0% answered very unimportant. Therefore, the conclusion that can be drawn from the above question is that 57.9% of students feel it is important to obtain scores from the Ilmu *Sharf Awwal* Hots questions directly through the website.

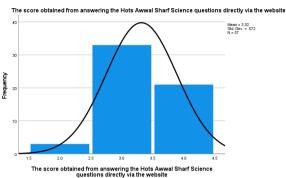


Figure 16. The Results from the Respondents' Answers to the Third Question

Fourth, the correct answer to the Ilmu *Sharf Awwal* Hots question, on the website after answering the question.

Table 15. The Results from the Res	pondents	Answers to	the Fourth	Question
			Cumulative	

		Frequency	Percent	Valid Percent	Percent
Valid	Important	26	45.6	45.6	45.6
	Very Important	31	54.4	54.4	100.0
	Total	57	100.0	100.0	

Based on the results from the respondents' answers to the questions posed, 54.4% of the respondents answered "very important," 45.6% answered "important," 0% answered "not important," and 0% answered "not very important." Therefore, the conclusion that can be drawn from the above question is that 54.4% of the students feel it is very important to obtain the correct answers to the Ilmu *Sharf Awwal* HOTS questions directly through the website.

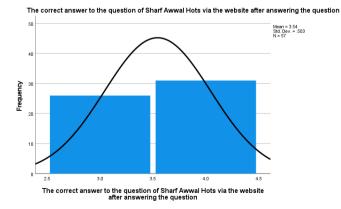


Figure 16. The Results from the Respondents' Answers to the Fourth Question

146 | Muhammad Kamal bin Abdul Hakim et al.: Needs Analysis for Developing HOTS *Sharf Awwal* Questions Using a Web-Based LMS

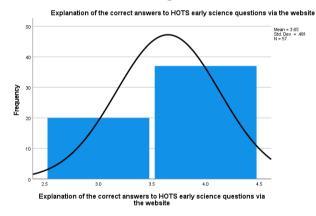
Fifth, explanation of the correct answer to the HOTS Ilmu *Sharf Awwal* question through the website.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Important	20	35.1	35.1	35.1
	Very Important	37	64.9	64.9	100.0
	Total	57	100.0	100.0	

Table 16. The Results from the Respondents' Answers to the Fifth Question

Based on the results of the respondents' answers to the questions posed, 64.9% of the respondents answered "very important," 35.1% answered "important," 0% answered "not important," and 0% answered "very unimportant." Therefore, the conclusion that can be drawn from the above question is that 64.9% of students feel it is very important to receive correct explanations for the Ilmu *Sharf Awwal* Hots questions through the website.

Figure 17. The Results from the Respondents' Answers to the Fifth Question



From the entire diagram above, it can be seen that the students' responses regarding the questions that are very much needed according to their level of difficulty are as follows: 63.2% of students find it easy to understand the forms of verbs in terms of the time of occurrence or *fi'il madhi* and *fi'il mudhari*, 61.4% of students find it easy to understand the forms of verbs in terms of their structure or *mashdar, isim fa'il, isim maf'ul, shifat mushabbah, shigot mubalaghoh, isim makan, isim zaman, isim alat*, 63.2% of students find it easy to understand the forms of verbs in terms of verbs in terms of their structure or *mashdar, isim alat*, 63.2% of students find it easy to understand the forms of verbs in terms of verbs in terms of their subject and object or *fi'il mutta'addi* and *fi'il lazim*, 52.9% of students find it easy to understand the forms of verbs in terms of the type of letters that make up the components, 49.1% of

students find it easy to understand the forms of verbs in terms of active and passive or *fi'il ma'lum* and *majhul*, 68.4% of students find it difficult to understand the forms of verbs in terms of derivation, 70.2% of students find it easy to understand the forms of verbs in terms of their subject, 50.9% of students find it difficult to understand the forms of verbs in terms of mabni and mu'rob, 59.6% of students find it easy to understand the *ta'kid* of verbs and their types.

Meanwhile, the review of the importance of developing HOTS *Sharf Awwal* questions through the website yielded the following data: 61.4% of students feel it is important to develop HOTS *Sharf Awwal* questions through the website, 59.6% of students feel it is important for the development of HOTS *Sharf Awwal* questions through the website to help understand the material being studied, 59.6% of students feel it is important for the development of HOTS *Sharf Awwal* questions through the website using multiple-choice models, 57.9% of students feel it is important to obtain scores from HOTS *Sharf Awwal* questions through the website directly, 54.4% of students feel it is very important to obtain the correct answers from HOTS *Sharf Awwal* questions through the website directly, and 64.9% of students feel it is very important to obtain the correct answers from HOTS *Sharf Awwal* questions through the website.

Conclusion

The development of *Sharf Awwal* science questions based on HOTS through a website is adapted from the *Sharf* material studied by students. Whatever the materials are: verbs in terms of the time of occurrence, verbs in terms of their form, verbs in terms of their subject and object, verbs in terms of the type of letters that make up their components, verbs in terms of their active and passive forms, verbs in terms of their derivation, verbs in terms of their subject, verbs in terms of their subject, verbs in terms of their mabni and mu'rob forms, isim fi'il and its types, ta'kid fi'il and its types.

Then the need for the development of *Sharf* question forms is: 1) Development of *Sharf* science HOTS questions through the website at 61.4%; 2) Development of *Sharf* science HOTS questions through the website with a multiple-choice model at 59.6%; 3) **148** | Muhammad Kamal bin Abdul Hakim et al.: Needs Analysis for Developing HOTS *Sharf Awwal* Questions Using a Web-Based LMS

The score obtained from answering *Sharf* science HOTS questions through the website directly at 57.9%; 4) The correct answers to *Sharf* science HOTS questions through the website after answering the questions at 54.4%; 5) The explanation of the correct answers to *Sharf* science HOTS questions through the website at 64.9%.

Meanwhile, the issues that need to be considered are: 1) The forms of verbs in terms of the time of occurrence need development besides objective questions, also contextual questions such as creating narrative texts; 2) The forms of verbs in terms of their letter shapes need development, besides objective questions, also contextual questions such as analyzing Middle Eastern news texts; 3) The forms of verbs in terms of their subjects and objects need development besides objective questions, also questions about creating descriptive texts; 4) The forms of verbs in terms of the types of letters that are their components need development besides objective questions, also questions about composing communicative texts; 5) The forms of verbs in terms of their active and passive forms need development besides objective questions, also questions about composing descriptive texts; 6) The forms of verbs in terms of their derivations need development, also questions about analyzing verbs from news texts; 7) The forms of verbs in terms of their subjects need development, also questions about composing dialogue texts; 8) The forms of verbs in terms of their mabni and mu'rob need development, also questions about analyzing texts from the Quran and/or Hadith; 9) The forms of verbs and their content types need development besides objective questions, also questions about composing dialogue texts; 10) The ta'kid of verbs and their types need development besides objective questions, also questions about analyzing texts from literary works.

References

- Y., Sihotang, N. (2023). Interactive and Participatory Methods to Improve Learning Outcomes of *Nahwu-Sharf*. KnE Social Sciences.
- Adesoji, F.A., (2018). Bloom's Taxonomy Of Educational Objectives And The Modification Of Cognitive Levels. Adv Soc Sci Res J 5.
- Alfarisy et al. (2023). Constructing Arabic Grammar Test Items Involving Higher-Order Thinking Skills: The Obstacles Against the Teachers. Journal of Higher Education Theory and Practice 23, 147–154.

- Almahasees, Z. et al. (2021). Faculty's and Students' Perceptions of Online Learning During COVID-19. Front Educ (Lausanne) 6.
- Anderson, L.W. & David, R. (2015). Kerangka Landasan untuk Pembelajaran, Pengajaran dan Asessmen (Terjemahan). Pustaka Pelajar, Yogyakarta.
- Auliya, H. & Anwar, N. (2024). Learning *Nahwu* and Sharaf via WhatsApp at the Islamic and Arabic Learning Foundation (BISA) Depok.
- Busyro, M. (2016). Shorof Praktis "Metode Krapyak." Menara Kudus., Jogjakarta.
- Chung, E. et al. (2020). Online learning readiness among university students in Malaysia amidst COVID-19. Asian Journal of University Education 16, 45–58.
- Dinni, H.N. (2018). HOTS (High Order Thinking Skills) dan kaitannya dengan kemampuan literasi matematika. PRISMA, Prosiding Seminar Nasional Matematika.
- Faizmailiatus Sofa et al. (2022). Can Mentimeter Become an Innovative Media in *Sharf* Learning? Studi Arab 13, 51–61.
- Hamid, M.F.A. et al. (2020). An insight into needs analysis towards the development of an animated infographic module in Arabic grammar learning. Journal of Language and Linguistic Studies 16, 1387–1401.
- Izzuddin et al. (2020). The Curriculum Development of Arabic Instruction to Improve Students' Writing Skills. Universal Journal of Educational Research 4261–4272.
- Lemay, D.J. et al. (2021). Transition to online learning during the COVID-19 pandemic. Computers in Human Behavior Reports 4.
- Liu, M. & Yu, D. (2023). Towards intelligent E-learning systems. Educ Inf Technol (Dordr) 28, 7845–7876.
- Maulana, R. (2022). Analisis Capaian Pembelajaran Bahasa Arab dengan Taksonomi Bloom Revisi. Jurnal PTK dan Pendidikan 8.
- Munip, A., 2020. Tantangan dan Prospek Studi Bahasa Arab di Indonesia. al Mahāra: Jurnal Pendidikan Bahasa Arab 5, 303–318.
- Nujaima, I., Kurniawan, H., 2024. The Role of *Nahwu* and *Sharf* Sciences in Arabic Language Learning. Jurnal Al-Hibru 1, 14–23.
- Park, S. & Kim, S. (2021). Is sustainable online learning possible with gamification?—The effect of gamified online learning on student learning. Sustainability (Switzerland) 13.
- Rahmi Nur Fauziah, I. et al. (2020). Analisis Kualitas Tes Bahasa Arab Berbasis Higher Order Thinking Skill (HOTS). لساننا (Lisanuna): Jurnal Ilmu Bahasa Arab dan Pembelajarannya 10, 45.
- Raswan, R. et al. (2022). Simplifikasi Morfologi Arab (*Sharf*) Dengan Pendekatan Konstruktivisme Dan Analogi. Arabi : Journal of Arabic Studies 7, 25–37.
- Rukmini, E. et al. (2023). Indonesia's higher education system's online learning during the pandemic. International Journal of Evaluation and Research in Education 12, 2286–2301.

- Shidiq, A.S., Masykuri, M., Susanti, E., 2015. Analisis Higher Order Thinking Skills (HOTS) Menggunakan Instrumen Two-Tier Multiple Choice Pada Materi Kelarutan Dan Hasil Kali Kelarutan Untuk Siswa Kelas Xi Sma N 1 Surakarta. Prosiding Seminar Nasional Pendidikan Sains.
- Siddiq, M.S. et al. (2020). Penggunaan Aplikasi Latih Faham Sebagai Media Pembelajaran Tashrif Lughowiydalam Pembelajaran Bahasa Arab. Prosiding Semnasbama IV UMJilid 2.
- Sofyan, S. (2020). Sejarah Perkembangan Bahasa Arab dan Lembaga Islam di Indonesia. Insan Cita 5, 73–88.
- Syarifaturrahmatullah, Ihsan et al. (2023). Analisis Faktor Kesulitan Belajar Ilmu *Nahwu* dan Sharaf. IJM: Indonesian Journal of Multidisciplinary 1, 1549–1563.
- Taufiq, W. (2016). Teori Asal-Usul Bahasa Dalam Literatur Islam Klasik (Sebuah Prespektif Ontologis serta Implikasi Hermenetis terhadap Kitab Suci). Al-Tsaqafa: Jurnal Ilmiah Peradaban Islam 16, 145–158.
- Wang, Y. et al. (2023). The moderating effect of participation in online learning activities and perceived importance of online learning on EFL teachers' teaching ability. Heliyon 9.
- Yuliandini, N. et al. (2019). Pengembangan Soal Tes Berbasis Higher Order Thinking Skill (Hots) Taksonomi Bloom Revisi di Sekolah Dasar. Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar 6.
- Zaini, M.A. (2015). Ilmu Shorof untuk Madrasah Tsanawiyah Al-Futuhiyyah. Rencana Induk Penelitian Universitas Negeri Jakarta, Jakarta.
- Zakiatunnisa et al. (2020). Problematika Pembelajaran Bahasa Arab dan Solusinya Bagi Non-Arab. Prosiding Semnasbana IV UM Jilid 2 4.
- Zurqoni, Z. et al (2020). Has Arabic Language Learning Been Successfully Implemented? International Journal of Instruction 13, 715–730.