Development of Multimedia-based Nahwu Evaluation Instruments Using Wondershare Quiz Creator

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Abstract—**The purpose of this study is to assess the use of a set of tests in Nahwu using Wondershare quiz creator based on a question bank on Nahwu used in a state university in Bandung. Employing R & D, this study involved 24 sixth semester students of Arabic Department of a university in Bandung. Drawing on tests, questionnaires, and interviews as data collection techniques, the study reveals two major findings: 1) generally students express pleasure and enthusiasm to use this software; 2) the test items seem to be too difficult for most students. It is expected that the study will give insights into making assessments for Arabic lessons, especially Nahwu, more interesting.**

Keywords—Arabic; multimedia; nahwu; wondershare quiz creator

I. INTRODUCTION

In the Arabic language learning system, one of the basic components that must be understood is the evaluation of the learning process. Evaluation is one way that can be done to find out the results achieved by educators in the learning process. Evaluation consists of measurement and assessment. Measurement is comparing something with the size, while assessment is making a decision about something bad with good size [1]. In the world of Arabic teaching and learning, the evaluation of learning Arabic means measuring (*qiyas*) the acquisition of the skills of learners in Arabic in order to know their weaknesses and strengths of the language, so that educators can provide appropriate solutions to the problems related to students' learning of the language.

Educators should strive to know the results of the learning process. This is important because it can act as a reference for educators to determine how much of the learning process has helped to develop the learners' potentials. With evaluation, the development level of the quality of education can be known, and we can find the weak spots in learning and make it easier to find a better solution in the future. Evaluation is considered to have strategic importance because the results will be of interests to all the stakeholders, such as teachers, students, parents, government, and society at large. The importance of evaluation and assessment is also argued by Smith to play an important role in education in general and in the process of learning and teaching in particular [2]. Teachers and schools are expected to assess students' learning for a variety of purposes, such as to help them to learn (evaluation for learning) and to see the results of student achievement and report to parents (assessment of learning).

The objectives and functions of assessment according to Arikunto are: selective functioning assessment, diagnostic functioning assessment, assessment functions as placement and assessment functions as a measure of success [1]. From these purposes and functions, a measurement of success is the focus of the study. Thus, the product to be developed in this study is an instrument to evaluate student learning outcomes.

Basuki and Hariyanto argue that a good test has the following characteristics, among others: trustworthy (reliable), legitimate or valid, as well as practical [3]. First of all, a test is said to be reliable if it can be trusted. A test is said to be credible if the results achieved by the test is constant or fixed. Next, the validity of the test means the test really measures what should be measured. In addition, a good test should also be objective which means that the test is unbiased. This will be the case if the opinion or judgment of the examiners of the tests do not take effect in the process of determining the grading or the process of granting score (scoring). That is, there is no subjective element of the examiner in determining the answers to the test scores. In other words, if the test results are checked by another examiner, the result will remain the same. Next, practicability. If a test is both practical and easy to administer, it is said that the test has a high practicability. In contrast, tests which are complicated and difficult to administer are said to have low practicability.

To obtain a better evaluation, the following principles should be considered: continuity, comprehensive, objectivity, cooperative, and practical. Thus, evaluation of learning should be: 1) designed in such a way that makes it clear what skills and materials to be evaluated, as well as the tool for assessing and interpreting of the results of the evaluation; 2) an integral part of the learning process; 3) objective -- the evaluation should use various tools (instruments) -- and comprehensive; and 4) continuous – there should be a follow up. In addition, the evaluation must also consider the principles of integrity, life-skills oriented, active learning, continuity, coherent, comprehensive, pedagogic, non-discriminative, and accountability [4].

Thus, it can be concluded that evaluation should be practical, allow for accurate evaluation of students' learning,

have objective results, and pay attention to certain principles. In reality however, there are emerging issues regarding the evaluation of Arabic learning, such as tedious use of evaluation techniques, insufficient means of supportive evaluation practices, and incomprehensive evaluation tool of the four language skills. Evaluation in learning Arabic is always considered to be identical to memorizing Arabic dialogue. When it comes to writing, evaluation will take form in either short essays or multiple choice. Often, the tests are compiled and produced in paper form about finding some problems, creating so much paper waste. Additionally, sometimes the students take the test rowdily and lazily, even ask their friends to do the tests for them so that the teacher cannot objectively students' learning. On the other hand, teachers also need a long time to assess the results of the paper-based student evaluation, especially if the number of students is many.

These various problems motivated the authors to develop an evaluation technique that will make students take the test quietly, honestly and enthusiastically, and that teachers can assess students' learning outcomes according to the abilities of each student, grade the assessments in short time, and paperless.

According to Watson-Davis, one of the creative teaching strategies is to use the technology [5]. Educational technology can present the material in a logical, scientific, and systematic ways and allow teachers to complement, support, clarify concepts, principles or propositions to the learning materials. Furthermore, the technology teacher can be a partner in order to realize an effective, efficient, and productive learning process as well as to meet the needs and demands of their students. Equally important, educational technology can also be used as a learning resource, presenting the material more attractively, especially if accompanied by the ability and skillful use [6].

One technology that can be used in education is computers. Wena argues that the use of learning through computers in the learning will make the learning activities take place efficiently for improved students' learning outcomes [7]. With regard to this, multimedia is the use of computers to present and combine text, sound, images, animation, audio and video with tools and links so that users can navigate, interact, work and communicate. Multimedia is often used in the world of informatics, the game world, and over the website. Multimedia is also used in education and business. In the world of education, multimedia is used as a medium of instruction, both in the classroom and individually or self-taught. In the business world, multimedia is used as a media for company profile, product profile, even as media information kiosks and training in e-learning system. At first multimedia included only the media related to the sense of sight (still images, text, motion picture video, and motion picture fiction/ animation), and auditory (sound).

Many have suggested that computer in education can make learning fun, effective, and it can motivate students to learn. This technology can also be used in evaluation of learning. Many teachers have used applications for evaluating subjects such as mathematics, physics, and English. However, as far as we are concerned, there has been no application used in the

evaluation of Arabic materials, especially Nahwu lessons. With this background, we developed the application evaluation of learning Arabic, nahwu in particular. We expect that this application will be useful for learning Arabic both for the teachers and students.

Considering the advantages of multimedia, the study was triggered to develop questions for Arabic quizzes in multimedia form. In this study the authors chose Wondershare Quiz Creator to create interactive questions in Arabic because the software is easy to use and does not use action script like Macromedia Flash and Adobe Flash. As stated by Hernawati, "Wondershare Quiz Creator is a software for manufacturing problems, quizzes or tests online (web-based) [8]". This quiz creator is helpful to create user friendly tests, making it very easy to use without the need of language programming skills that are difficult." In addition, Quiz Creator is a software that can be used to make IT based learning evaluation program. Quiz creator is very useful for educators to evaluate learning fast; it is concise as well as fun and interesting for students. The publication of the test results also varies, from SWF file, HTML file to EXE file.

This study was guided by the following research problems: 1) what is the development process of multimedia-based evaluation instruments for Nahwu lesson?; and 2) what is the results of tests of evaluation instruments based Nahwu multimedia?

It is expected that this study will benefit those involved in the teaching and learning of Arabic, especially related to the field of evaluation of learning and development forms of evaluation.

II. METHOD

The method of this study is research and development. Research and development is a research method that is used to produce a particular product, and test the effectiveness of the product proficiency level [9].

Research and development is an approach to research to produce new products or enhance existing products [10]. For this study, the authors will produce a new product that is a multimedia-based evaluation instrument for Arabic language by using Wondershare Quiz Creator.

Due to time and cost constraints, this study simplified the research steps of R & D proposed by Sugiyono into three [9]. The model simplification in this study followed the model proposed by Sukmadinata [11,12] as follows:

A. Preliminary Study (Preliminary)

In this step, we carried out studies on the evaluation of Nahwu learning, especially for midtest and final test.

B. Preparation of Product (Development)

In this step, we determined the effective evaluation instrument to be implemented in the evaluation of Nahwu learning at midtest and final test.

C. Testing Products

This stage is the trial stage of the product that has been prepared in the previous step. This stage includes revision and validation of the product to publish the final product. 27 students of Arabic language education of a university in Bandung were involved in the study.

III. FINDINGS AND DISCUSSION

A. Procedure for the Application of Wondershare for Nahwu Learning

The procedures of making and implementing Nahwu learning using Wondershare quiz creator:

- Selecting teaching Nahwu learning materials according to the curriculum of the university in which this study was conducted;

- Preparing the questions in the grid form;

- Converting the questions that have been made into Microsoft word or pdf;

- Converting the data from Microsoft Word or pdf into Wondershare quiz creator application;

- Reviewing the questions for irregularities;

- Reviewing the questions by experts -- From the review process by experts, the number of questions was reduced from 60 to 50.

- Further reviewing process for online and offline problems.

- Setting up the computer to facilitate the students' work on the problems.

- Analyzing data test.

- Presentation in a table form.

From the above procedure it is clear that the Wondershare Quiz Creator was very helpful in creating tests or quizzes. This is in line with what argued by Hernawati that the application allows teachers to create quizzes or tests online that are user friendly [8]. In addition, this application can be integrated with other applications such as PowerPoint, flash, web browser, or other web-based applications such as Moodle and so on. In this regard, Retnawati states that with Wondershare Quiz Creator, users can create and arrange different forms and levels of questions, including the form of true / false questions, multiple choices, fill in the blank, matchmaking, and others [13]. Even with Wondershare Quiz Creator, users can also insert various images and flash files to support students' understanding.

B. Students' Achievement and Response

Table 1 presents students' tests scores using Wondershare quiz creator on Nahwu.

TABLE I.   STUDENTS' TEST SCORE ON NAHWU

No	Name	Score	Limit Pass	Pass	Not Pass	Top score	Lowest score
1	KS	70	50	20	7	70	32
2	SF	32					
27	…	…					
	Sum	1458					
	Mean	54					

From table 1 it can be seen that from 27 test-takers, only 20 people who pass the course. This means that more than half (74%) of students passed the course, while the remaining 7 students (26%) did not pass and they had to retake the course in the following semester. The passing score was based on the assessment of the reference benchmark (PAP), which is used by the Nahwu faculty team with the following criteria: A = 71-80; B = 61-70; C = 49-60; D = 40-50; and E / G = 0 - 39. However, only 10 students (37%) who were considered to pass by the department based on the internal regulation of the study program that the passing grade of core courses is B.

As for the students' response to the use of wondershare in the Nahwu test can be seen in the following explanation.

From the above view can be explained: half of students (50%) stated that the Nahwu test using Wondershare is very fun and 10% of them felt that the test was difficult.

The students who stated that it was difficult to use the Nahwu test with wondershare was only a small part (15%), while the rest said it was moderate and easy (85%).

Students who stated the practicality of wondershare were more than half (60%), while those who said they were confused were only a small portion (10%).

Less than half (30%) of the students stated that the quiz application gave a sense of honesty in doing the test; some other students (63%) expressed indifference and the rest (7%) said they cheated during the test.

From the aspect of enthusiasm, it turned out that more than half (70%) of the students expressed enthusiasm, and 30% of them stated that the test was just ordinary.

More than three-quarters of students (84%) stated that among the advantages of the Nahwu test using wondershare are more practical, easier, will help them to be more honest in doing the test, not rigorous. However there were a small number of students (16%) who stated the weaknesses of this quiz creator, including time limit, unclear Arabic writing, tired eyes, and good computer requirements as well as good computer literacy.

Regarding the effect on achievement on Nahwu using Wondershare, most students (90%) stated that the program was very helpful, only a small proportion (10%) stated that it was ordinary.

IV. CONCLUSION

Based on the analysis and discussion in the previous section, the followings can be concluded.

First of all, the procedures for making Nahwu learning evaluation using the Wondershare quiz creator involved the

following steps: preparing the learning materials, preparing the question grids; converting the question into Microsoft word or pdf; copying the questions into the wondershare quiz creator application; uploading the questions; checking the review of the question; expert evaluation review; publishing the questions both online and offline; preparing a computer or language laboratory; analysis of test results data; review and presentation of results in table form.

In the beginning there were 60 questions, but after reviewed by experts, the questions were reduced to 50.

Of the 27 Nahwu test takers using Wondershare, they generally expressed great pleasure and enthusiasm for using this software. However, various weaknesses were also identified by the participants, among others, there were no visible responses from each student to each answer, only the final score. And the number of 27 students who got a score exceeding the pass limit was 20 and the rest below the score passed at least in this course. Of the 20 who passed, only 10 people (37%) passed with B's and were allowed to write Arabic theses. This needs to be further analyzed for the cause.

Future studies interested in investigating the same topic are suggested to focus on more topics in Arabic, not just Nahwu. In addition, future researchers may consider using more sophisticated software. They can also use more participants and subjects for more comprehensive results.

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