The Analysis of a Learning Media Prototype as a Web Learning in Distance Education

Yudi Efendi, Indonesia
Hasanuddin, Indonesia

Abstract

Web-base learning program is the complementary of Printed Teaching Material (BMP) that serves and help students clarify the parts that require additional explanation or illustration. This research attempts to analize a prtotipe of web-base learning program especially for the course of *Reading II* (BING334104). Using qualitative and descrptive method, the research presented the analysis from the content expert and media expert. Beside that, the interview result from tutors of Political and Social Sciences was also presented. The research also analyzed 13 respondents' questionnaires taken from the students of English and literature program in Jakarta. All data obtained regarded to the display, content, audio video, the usability, and the navigation. The research reveals that in general the web learning prototype is good but the material should be completed and deeply discussed and so should the exercises and formative test. However, the feedback given in the exercises and formative tests are motivating even their level of difficulties still need to be evaluated. The display of this web learning prototype is not 'eye catching' and the title of this web should deal with a proper name. More than 60% respondents agreed that the program is easy to open and operate. More than 50% agreed with the interesting and cool color, readable text, useful hyperlinks, clear task orders, simple explanation, good navigation, and good video and sound. In the long run, it is expected that the program could be recommended to use by the university as an ideal program.

Keyword: Web learning, prototype, content expert, media expert

I.   INTRODUCTION

Nowadays, e-learning has been growing rapidly. E-learning is one of the learning processes through the special utilities; computer and the Internet. Many schools and universities in higher education use e-learning as a supplementary material in their teaching and learning activities while others use it as a compulsory for their course. According to [1] Zhang et al. (2004: 76) "e-learning can be defined as technology-based learning in which learning materials are delivered electronically to remote learners via a computer network." [2] Nichols (2003: 2) considers e-learning as "the use of various

Y. E. Author, is with Universitas Terbuka, Jl. Cabe Raya, Pondok Cabe, Tangerang Selatan – Banten, 15418 (corresponding author to provide phone: +628111153636; e-mail: yudiefendi@ ut.ac.id).
H. Author, is with Universitas Terbuka, Jl. Cabe Raya, Pondok Cabe, Tangerang Selatan – Banten, 15418 (corresponding author to provide phone: +628128496812; e-mail: hasanuddin-ut@ ut.ac.id)

technological tools that are either web-based, web-distributed or web-capable for the purposes of education." She also stated that online learning is education taught through the web without having printed materials or face-to-face contact.

Some learners may think that learning through the computer or the Internet might not be beneficial for some reasons, such as: lack of motivation, feedback delay, etc. In the research, Zhang's (2004) described the advantages and disadvantages learning through conventional classroom and through e-learning as described in Table 1.

	Traditional Classroom Learning	E-Learning
Advantages	Immediate feedback Being familiar to both instructors and students Motivating students Cultivation of a social community	Learner-centered and self-paced Time and location flexibility Cost-effective for learners Potentially available to global audience Unlimited access to knowledge Archival capability for knowledge reuse and sharing
Disadvantages	Instructor-centered Time and location constrains More expensive to deliver	Lack of immediate feedback in a synchronous e-learning Increase preparation time for the instructor Not comfortable to some people Potentially more frustration, anxiety, and confusion

Table 1. Zhang's table (2004, p. 76) for traditional classroom vs e-learning

Indonesia Open University or Universitas Terbuka (UT) is a higher education institution, first founded in 1984, which administers open and distance education system in Indonesia. As a distance education, UT currently has 500,000 students throughout Indonesia, even outside Indonesia, including in remote areas. Not only functions as a distance education institution, UT also functions as an Open and Distance Learning (ODL). [3] Maxwell (1995: 43) makes ODL as the following distinction:

> "Open learning is defined as a student-centered approach to education that removes all barriers to access while providing a high degree of learner autonomy. Distance education refers to a mode of delivering a course of study in which the majority of communication between teachers and students occurs non contiguously, and the two-way communication between teacher and student necessary for the educational process is technology mediated."

According to [4] Mohakud et al. (2012), distance education refers to the learning activity separated by the time and space while open learning refers to many open sources that can be used by the learners. The main characteristics of ODL are open access, flexibility in time and place, and focus on student-centered approach, etc. (Mohakud et al. 2012; [5] Esterhuizen et al. 2012).

Since UT applies an open and distance eduation, its students certainly have to familiarise themselves with the style of independent learning. Therefore, the availability of high quality learning materials is important to facilitate student's learning process. UT provides its students with the printed learning materials and non-printed learning materials. [6] Mutiara et al. (2007) stated that the use of a variety of media enables students to have various learning experiences and the diversity of their learning needs. According to [7] Knapper and Cropley (2000) the technology used in education help learner to promote active learning and provide individual learning with prospects of more learner control. The provided online learning materials are engineered to supplement and enrich the learning materials by facilitating students' comprehension the topics discussed in the printed materials through the Internet.

Research Gap
According to the research conducted by [8] Efendi and Riyanto (2010), the display, the practice, and the feedback on the program of material enrichment for the course of English for Translation (BING3312) is still not good. Therefore, the writer feel challenged to create and provide an online learning material, web-based, which serves either to enrich good quality material and provide sources of information relating to the material (useful links), and fast feedback for the exercises and formative tests. Both things are expected to motivate students to learn through the Internet.

Furthermore, the writer is now trying to develop a prototype of an online learning material completed by exercises and formative tests that are interactive. The materials, exercises, and formative tests provided refers to one of the courses at the Department of Language and Literature; the course of Reading II (BING4104). This online material is intended as an additional resource for students to comprehend the printed material well.

To make sure whether the material that is being created is in accordance with the user especially UT's students, the writer need to conduct an analysis of the learning material related to the material itself, language, exercises, formative test, and feedback. The feedback and suggestions from users will be useful to complete the learning material. Input and advice are also expected to give contribution to create an ideal web-based learning program for for UT's students. Furthermore, later the results of this research can be used as a basis for revising the existed web-based learning material or enriching the existing printed material.

II. RESEARCH METHOD

This research is designed to analyze the the prototype utilization of web learning for Reading II course (BING4104). The Instruments of this research include the display (color, text, layout, etc.), the contents (material, annotation, audio, video, exercises, tests, degree of difficulty, etc.), the structure (formatting, layout, etc.), and the access (ease of access, navigation, etc.).

The data in this research come from a primary data; interviews and questionnaires regarding to the prototype utilization of web learning for Reading II course (BING4104). The data is obtained by interviewing several UT's main office lectures and distributing questionnaires to students via e-mail. The writer will also collect the data from material and media experts through questionnaires. The data obtained is then analyzed descriptively and qualitatively with the program *SPSS for Windows Release 17*.
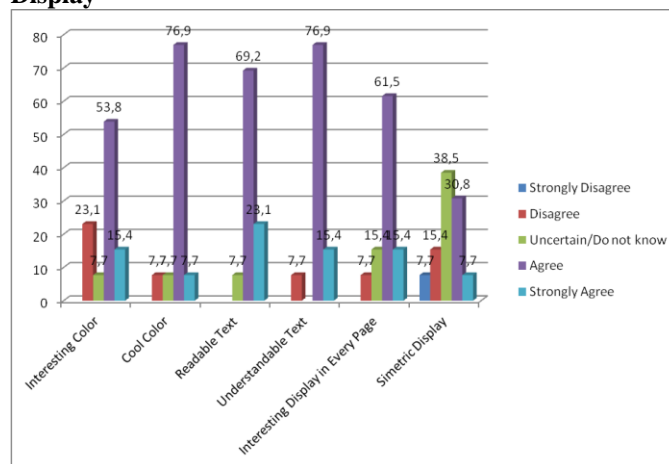
III. RESULT
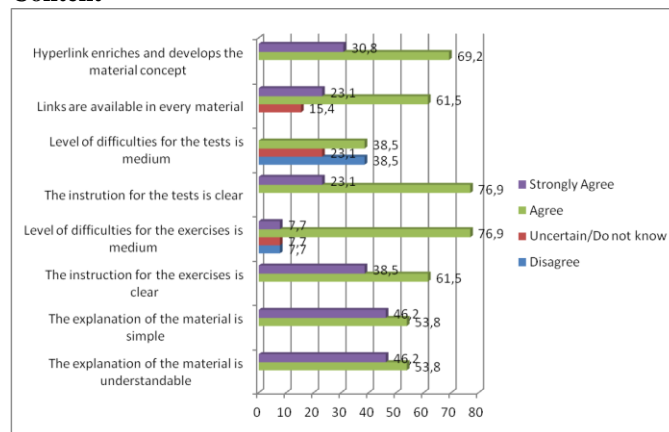
Display

Figure 1. The display

Content

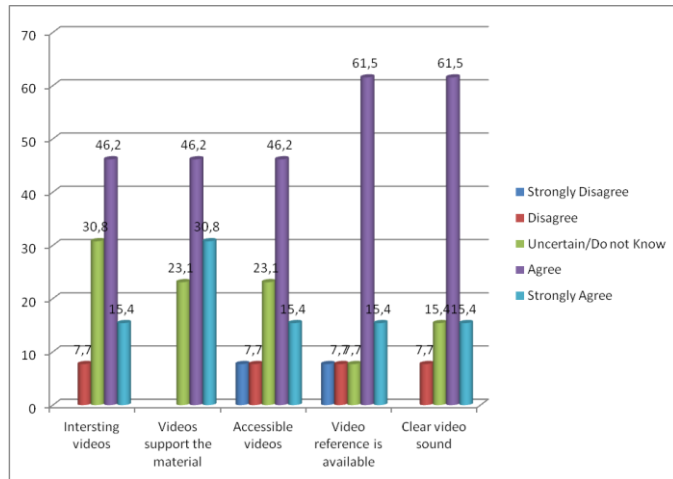
Figure 2. The content

Audio-video

Figure 3. The Audio-video
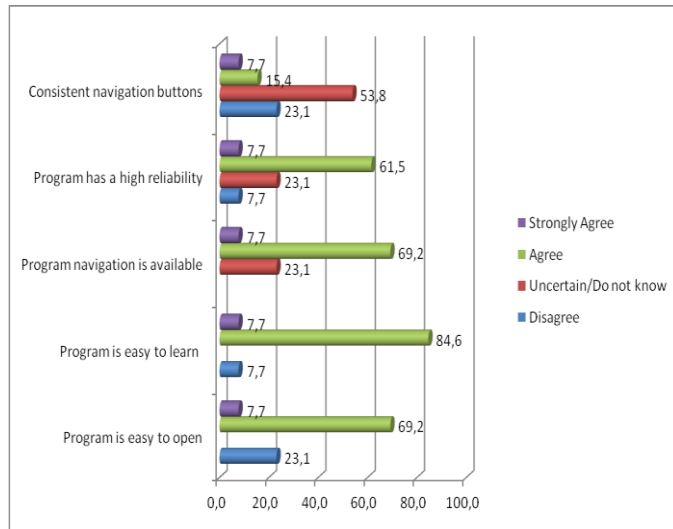
Utilization

Figure 4. The Utilization
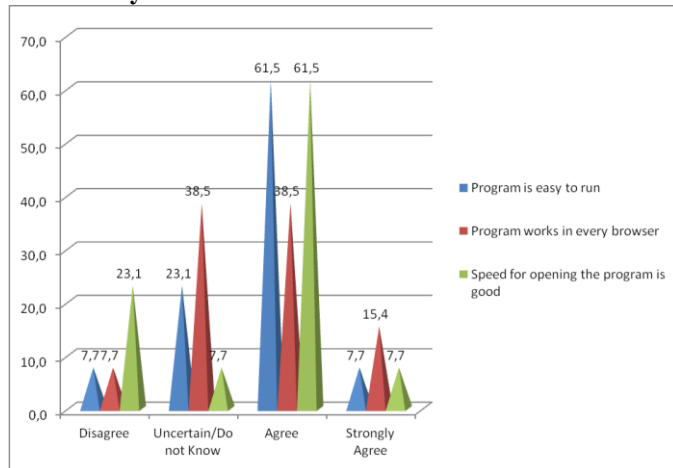
Accessiblity

Figure 5. The Accessibility

From the figures shown, from six statement given for the display, there are five statemnets answered 'agree' by participants above 50%. One statement answered 'disagree' below 50% is only the simetric display (38,5%.) as low as the level of difficulties of formative test in the program's content. For audio-video, more than 40% users agree to five statement given. Abaout 7,7% in average users diasgree with the audio video of *prototipe web supplement* and 20% in average users do not respond. More tha 50% users agree with the program utilization. Only one statemnet answered 'agree' (below 50%) which is about the program's navigation button (23,1%). For the accessiblity, more than 60% users agree thet the program is easy to access and the program has a high reliability. Only 12,8% in average users disagree with these statements.

From the table presented by experts and instructional materials, it is seen that all indicators are suitable except indicator of suitability in accordance with the training material on the module. This is because the material is less complete and less deep. From the table presented by media experts, it is seen that 15% of the indicator is very good, 66% showed good indicators, and 18% the indicator shows sufficient. A very good indicator, among others, include the evaluation of the student or the users, the material can be studied again, and the hyperlinks that enrich and expand knowledge of the material.

From the interviews of lecturers' perception, it can be recognized that the advantages of web learning make the prototype has good content, easy to access, easy to understand, etc. While broadly deficiencies outlined is a display (display) to be more interesting and still (eye-catching), renaming "Web Supplement" to be more appropriate, training in the context of complete sentences, lack of explanation and purpose of the program, the lack of the addition of feedback on training and testing along with explanations values obtained, the difficulty level of exercises and formative tests are still low, and the contents of formative tests are still limited.

References

[1] Zhang, D., Zhou, J.L., Zhou, Lina., and Nunamaker, Jr. J.F. (2004). 'Can E-Learning Replace Classroom Learning.' *Communication of the ACM*, **47**: 75-79.

[2] Nichols, M. (2003). 'A Theory for eLearning.' *Educational Technology & Society*, **6**(2): 1-10.

[3] Maxwell, L. (1995). 'Integrating Open Learning and Distance Education.' *Educational Technology*, **35**: 43-48.

[4] Mohakud, L. L., Mohapatra, R.L., and Behera, S.K. (2012). 'Encouraging Higher Distance through Open and Distance learning (ODL): Some aspects.' *Turkish Online Journal of Distance Education-TOJDE*, **13**: 359-368.

[5] Esterhuizen, Hendrik D., Ellis, S.M., and Els, C.J. (2012). 'Old Students' Perceived Computer Literacy Competencies, Expectations of Support Intention to Use and Perserverance.' *Turkish Online Journal of Distance Education-TOJDE*, **13**:76-94

[6] Mutiara, D., Zuhairi, A., and Kurniati, S. (2007). 'Designing, Developing, Producing, and Assuring the Quality of Multi-Media Learning Materials for Distance Learners: Lessons Learnt for Indonesia's Universitas Terbuka.' *Turkish Online Journal of Distance Education-TOJDE*, **8**: 95-112.

[7] Knapper, C., and Cropley, A.J. (2000). 'Life Long Learning in Higher Education.' London: Kogan Page Limited.

[8] Efendi, Y. and Riyanto, A. (2010). 'Persepsi Mahasiswa terhadap Bahan Ajar Non Cetak (BANC) Program Web Supplement Mata Kuliah Eenglish for Translation/BING3312 Program Studi D3 Penerjemahan.' (Unpublished research report).