Development Lesson Material of Web Course Centric to Enforce Students' Memory Store

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Abstract: Students, who are expected to have pedagogical competence in addition to professional competence, social competence and personal competences, are also expected not clueless. Acquiring these competencies absolutely requires adequate teaching materials. The purpose of this study is to develop the materials of Indonesia Language and Literature Learning Plan lesson course based on web centric course through the model of Jere Confrey that are qualified and effective . This study is conducted by using the approach of ISO / IEC TR 19796-1: 2005 about e-Learning System Development. Data collection techniques use validity questionnaires and students questionnaires. Data analysis is carried out by qualitative analysis. This study is expected to have valid and practical results.

Keywords: *e-learning, validity, practicality, web centric course*

1. INTRODUCTION

Education is an urgent problem along human life for its influence human's development from being unknown to be knower. Moreover, it raises human's honor, man can receive values, which any other God's creature does not receive it. Education is a process to differentiate between man and any other creature. It is to raise human's degree, transforming knowledge from a man to other man, construct human's mind, mental, spir Most educators today are familiar with the information technology world. Web-based applied learning model (web centric course) helps students more literate in the world of information technology because not all of them are well familiar with it. The number of unmet expectations and a high level of anxiety require provisioning for prospective educators in order to accelerate the learning happens in this technology as qualified as educational institution identifier. The principal awareness on ICT integration is very important to determine the success of teaching and learning process[1], Similar thing is also conveyed by Kim that ICT greatly influence learning styles and learning achievement of learners[9].

Smaldino[3] claimed that the effective use of technology and media in teaching learning process asks the teachers to have better organizing in advanced, first thinking through their objectives, then altering the everyday classroom routine as needed, and finally evaluating to determine the impact of instruction on mental abilities, feelings, values, interpersonal skills, and motor skills. However, the shift to this century increases access to digital resources will change not only how teachers function but student roles as well.

Learning paradigm change, success in the learning process is not only determined by educator factor but it is strongly influenced by active learners. This new paradigm requires the application of Students Centered Learning (SCL). Educators should be the facilitator and motivator, not the only learning source. By SCL approach, learners can develop their competencies optimally, since they have internet as the helpful source in learning. They can obtain the information without limit. Therefore, in order to achieve the learning outcomes, learners require web centric course-based teaching materials. Teacher beliefs play critical roles in technology integration[4]. Additionally, one can argue that constructivist pedagogical belief of teachers about teaching and learning are a significant factor in determining patterns of technology use in classrooms.

Web centric course-based teaching materials is one part of teaching materials (urgent matter) in the subject of Education Planning provided in a web, which has been designed by the researcher. These teaching materials are equipped with many interactive questions that must be done by the students.

The develop teaching material bases on web centric course in this research method is the answer of Rohmatullah, about their research "*Pengembangan Perangkat Pembelajaran Matematika Berbasis Pendekatan Investigasi*

Berbantuan E-Learning dengan Aplikasi Moodle pada Subpokok Bahasan Trigonometri Kelas X SMA" stated The utilization of e-learning need improvement from the web enhanceed course into web centric course[5].

   This teaching materials based on web center course, it will execute by Moodle program. Moodle (Modular Object-Oriented Dynamic Learning Environment) is a software package for internet-based learning and website with social constructionist pedagogy as it principle.(http: //kuliah.uajy.ac.id/ManualE-Learning.pdf.)

   This is done as a step to make students have better competence. Teachers then begin to recognize the teaching material that are presented in a web. To get it more varied, some materials are also delivered during the face- to-face in the classroom / learning. The enrichment teaching materials are accessed on the Internet by students. In addition, e-learning (web) was also introduced to the prospective educators to get them not left-behind the learners, who are used to exploring the virtual world. In relation to this case, this article will also discuss the responses of prospective educators of the Indonesia literature and language education department students by using web centric course-based teaching materials.

Web centric course approach is one of many e-learning models. E-learning is one form of learning by applying SCL implementation for e-learning models are self-faced. With e-learning students have the autonomy to decide when and where they work, and whether by offline or online. Moreover learners can also choose the environment that is safe and comfortable to learn. This adaptability is one of the advantages of web-based learning model. In addition, this web-based learning also adjusts the cognitive needs of learners. Regarding the mega school term, the web is able to provide universal education quality for all levels of students. Mason and Rennie state that the web can also support higher ability of the students to build and maintain the relationships of the various components of schooling resulting in a personalized form of learning (personalization of learning)[6]. Meanwhile, Facer[7]. Personalization and Digital technologies. Williams asserts that the web will lead students to create alternative traditional schooling with new values and to organize their own services learning for themselves[8]. It consequently, brings satisfaction in accordance with the expected choice, more convenient and can be controlled in its design, production and spreading.

   In many countries, the presence of the learning system through the web was taken pessimistic for fear of having a class via the internet, although currently more than 1.5 billion active learners in the world access it[9]. Pessimistic happens because today there are very few teachers who are able to implement a web-based learning for learning this kind required accuracy and less time to prepare and organize the material in the web structure.

   Web-based learning will make learners become the consumer rather than the producer of information[10]. It is because the characteristic of the web is fun and patterned to provide material carefully and systematically. The phenomenon of student as a consumer is evidenced by the percentage number. Various forms of learning activity used e-learning, which are used in this article, are in the form of individualized self-paced e-learning online. Learners can learn independently by accessing material / teaching materials online. Selwyn states that digital technology intangible web can be give a great benefit to the student as it is able to empower or improve the quality of the learning process. Besides, it can also be used as a basis for the provision of learning in society (socially situated) because it is able to manipulate the artifact, object or network. The emergence of the web to learn is seen as a manifestation of constructivist philosophy[12].

In this context, the presence of the cloud system in the lectures is not to replace the conventional lecture system, but as a variation learning which combines material delivery. Some of the materials are presented in the form of online / offline without losing the main functions of learning in the classroom[13]. Educators provide teaching materials in the form of text (text-based content) such as PDF, PPT, doc or any kind of it. While the methods used in e-learning is self-directed learning, cooperative learning, and problem based learning. Observed results. And suggestions were given in order to con- firm the experimental data to be real field emission

2. EXPERIMENTAL DETAILS

   This research is descriptive qualitative, because the data analyzed is not in the form of numbers. Although there are numeric data, but those are not dominant. The data is as a tool in analyzing qualitatively[13]. This research is the material development of ISO / IEC TR 19796-1: 2005 approach about e-Learning System Development[14]. The material development procedures are: needs analysis, analytical framework, conception / design, develop / production, implementation, learning, and evaluation / optimization (ISO / IEC TR 19796-1: 2005).

   In this study, the data collected in the form of expert validation results and user validation. To obtain relevant data, the data validity use questionnaire. Furthermore, to obtain the data of the product, it uses questionnaire technique. The data analysis technique used is qualitative technique by the steps of (1) data collection, (b) data reduction, (c) data display, and (d) the interpretation and conclusions[15]. The data was analyzed descriptively by using percentage (%) feasibility by using the following formula:

$$P\,(\%)\,\text{Feasibility} = \frac{\text{validator Score}}{\rule{3cm}{0.4pt}} \times 100\%$$

Total Score

Expected outcomes refers to the grouping (category) as follows.

Table 1 Value grouping category

No	Percentage Group (%)	Feasible Category
1	87 -100	Very Feasible
2	73-86	Feasible
3	59-72	Feasible Enough
4	45-58	Less Feasible
5	≤ 44	Not Feasible

3. RESULTS AND DISCUSSION

Web centric course-based teaching material is developed from the sillaby (RPS) which was formulated through the model of Jere Confrey [16]. As based teaching material web course centric combines not face to face and face-to-face (conventional) learning, some of the materials are delivered through the Internet, and partly through face to face in order to work complementary. In this model, the lecturer could provide clues to the students to understand course materials via the web that have been made. Students are also given references to find other sources of relevant sites that have been prepared. It is still possible if the students find other sources of relevant sites that have not been put up on the web. In face-to-face, students and lecturers would more discuss the findings of the materials that have been understood by students via internet or discuss the products they make by utilizing the materials, which are already available on the Web.

Web Course Centric which was developed by using drupol 7.9 Released program. This web consists of a variety features, namely home, profile, teaching materials, tasks, publications, and contact. Teaching materials are placed in teaching material features whereas the tasks of students are on task features, while the references or books are in publication features. These features are designed to process. It is not known yet what features will be raised, and the names of features. For example, teaching materials feature download feature, task features, publication features and book / reference features initially did not exist, based on the suggestion from the validator so these features were created. Following figure the material course with used the drupol 7.9 released program that first developed.
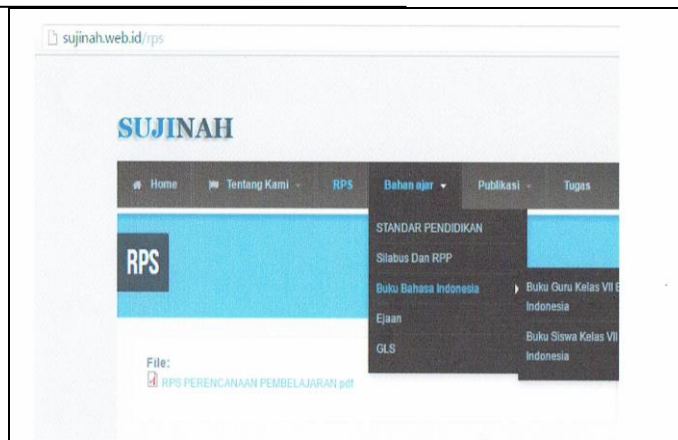

Figure 1 : e-learning using drupol 7.9 Released program (after)

After using of lesson material based web with drupol 7.9 released program, apper increase deficiency that is less interactive between teacher and students. Be side that, teacher also un flexible when he will modifikcation and add lesson material or task. Base on this, developing lesson material based web, this subject of learning plan was developed wit used moodle application. With expectation through moodle application except more flexible and more interactive also more cheep.

In the course of the preparation of these materials took matter / tasks / exercises are interactive, for the sake of it, teaching material is then developed using Moodle program.

Figure 2 : Moodle based e-learning and instruction (before)

After doing analysis of framework, which is a stage in the development of e-learning, it is known that the teaching materials that will be studied by students at the beginning of the term until the Mid-test are teaching materials, which are packed non web, and teaching materials will be studied by students after the mid test until the final test are packed in the web.

The next step is developing or designing. The step of designing e-learning begins with literature searches, formulating the learning objectives / competence courses, formulation exercises and tasks, material selection, and enters into the web. The next one is making the validation instrument of teaching materials. Validation is done by the expert of instructional materials after analyzing the results are as follows.

The results of the validation of the instrument validation are described as follows. The first validator, from sixteen items: twelve got A score (5), four received B score (4), after being incorporated in the feasibility formula, the value is 76. After being confirmed, the criteria and categories of feasibility is in the range of 73-86 which means entering into a feasible category. While the second validator, from sixteen items who got B score (4) are 14 items, and score of C (3) are two items, and there is no A (5). After they were confirmed, the feasibility formula is found percentage of 76. Similar to the first validator, number / value of 76 is in feasible category. Overall, it is concluded that the web centric course-based teaching materials instrument validation is feasible. Two suggestions / comments submitted by validators associated with the instrument deal with the incomplete and irrelevant feasibility of navigation to the assessment of competence. These inputs will be considered and will be used for improvement.

The validity of web centric course-based teaching materials described as follows. The first validator validates the teaching material using a validated instrument. The results of forty-item are: twenty-three items (23) got score of A (5), twelve (12) got score of B (4), and five (5) items got score of C (3). After the presentation by using the formula, a value of 89 found. Having confirmed the feasibility criteria and categories of devices, number 89 belongs to the category of very feasible of being in the range of 87-100 criteria. While the results of the second validator from forty (40) items are: the items that get a score of A (5) are four (4) items, score of B (4) are thirty-six (36) items. After the presentation in a way incorporated into the formula, number 82 found. Rated 82 after being confirmed by the feasibility criteria and categories of devices is included in the category of feasible because it is in the range of 73-86 criteria. From both validators, the average value is 85.5. This value is in the range of 73-86, which indicates the feasible category. Overall, the web centric course-based teaching materials is stated in feasible category after doing validity.

Table 2: validation result

Score	Assessment Aspect				
	structure	Content	navigation	Learning strategy	Assessment strategy
A	8	14	1	4	5
	57%	50%	10%	33%	33%
B	6	13	6	8	11
	43%	46%	60%	67%	67%
C	0	1	3	0	0
	0%	4%	30%	0%	0%
total Score	14	28	10	12	16

Precentage	100%	100%	100%	100%	100%

Judging from the aspects assessed, aspects of the structure that includes elements of learning objectives, competencies to be achieved, materials, preferences, outline of learning, and the results of learning scores best. Meanwhile, aspects of navigation that include consistency and clarity of learning positions, expected action / behavior, layout and typography, dialogue menus, and navigation maps score the lowest.
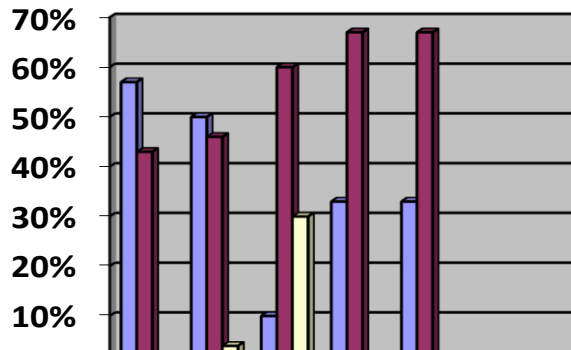

Figure 3 : Validation Result

The suggestions delivered by the validators are: 1. (library / primary reference should be selected from required libraries (not too much); (2) there is no list of libraries web address referenced; (3) the assessment of cognitive competence needs written test form; contents needs to be examined again due to the imprecise; and page views web needs to be refined again. Suggestions from the validators are considered and followed up for improving the teaching materials. Once the material revised according to the feedback from the validator the next instructional materials implemented in the learning process by using the SCL approach.

After the implementation of e-learning teaching materials (web centric course), the learners responses are as follows. Students responses are so good because by applying this web-based teaching materials, learners not only get face to face but also virtual learning. This is in line with the opinion of Rusman that learning with face to face is still needed for the forum to explain the purpose and mechanism of learning that will be passed along directly with all learners[17]. Learners need to know outcomes and competencies that will be obtained after their learning activities. The purpose and mechanism of learning as the first steps, which are crucial for the smooth process of the next course, are explained at this stage.

Related to the question whether the web-based learning is interesting or not, the learners express that it is enjoyable since learning becomes varied, and it is not monotonous by only listening to the educator / lecturer. Besides, the students are also more interested in learning. The students hope that other subjects will also use web-based teaching materials. Implementing web centric course-based teaching materials or e-learning motivates the learners to associate with the internet (web) as a means of learning. This will be the initial capital as prospective educators, so when they become educators in the future, they will not be clueless on information technology. The prospective educators will develop information technology in their teaching learning process.

According with Mason and Frank instructional with using material course based web centric course mentioned as blended learning. Blended learning is mix instructional method that combine between learning system based class (face to face) and learning besed e-learning. Blended learning is a combine from instructional approach, so blended learning is learning method that blend two or more methods in the instructional for reach objective from it process of instructional[18]. One of it example is combine learning based web and application face to face method that conducted paralely in the instructional classroom.

4. CONCLUSIONS

The results of the analysis of data in the form of data validity (validity of instruments and validity of teaching materials) and learner response data can be summarized as follows.

1. The development of web centric courses in teaching materials Lesson Planning courses by Jere Confrey models has been applied in the address: sujinah.web.id (drupol 7.9 Released) chance to http://kuliahdaring.ga/ (program Moodle).

2. The results of the validity instruments carried by two validators state that the instrument validity scored 76 means that the instrument is feasible. Two suggestions / comments from both validators are accepted and used to revise the instrument here in after the instrument used to validate web course centric teaching material.

3. The results of the validity of two validators of the teaching materials are: the first validator with a value of 89 and the second validator with a value of 82, the average value of two validators is 85.5. Value of 85.5 got after being confirmed with the criteria and device eligibility categories, value of 85.5 includes the feasible category because it is in the range of 73-86 criteria.

4. The students' responses toward the use of web course centric teaching material in learning are very good, enjoyable and memorable. They also hope that other subjects will also present the web-based learning (e-learning) form cases such as leakage from insulating layer.

For student, an e-education makes it possible to manage task and studies at the same time. The students can learn through this web any time no required with specific location and same time. With the web learning approach student s are exposed to multi systems and perspectives, as opposed to the one system fill all program.

Why with web, become better results? A number of studies have shown that if students are working in pairs or collaboratively using web or e learning to become effective. Asserted by Haughey that developing the e-learning consist of three feasiablities in the develop learning system based internet that are web course, web centric course, and web enhanced course[19]. Web course is using of internet for function for education, students dan lecturer full separated and not need face to face inteructional in class room. Entire lesson material, discussion, consultation, tasking, drill, examination and the others task of full delivery with internet. Other word, this modle using system distance learning.

Web centric course is use internet that combine between distance learning and face to face instructional (convention). Part of material course delivery through internet, and the other part trhough face to face. It fuction complementary. In this moodle, teacher can give guide/ direction to students for undestand and mastery material course through web was made. The students also gives directed for search of resources from relevan of the sites internet. In the face to face instructional, both the students and teacher more discussion linked with material that discovered and undestood through internet mentioned.

Web enhanced course is internet that merit for support and enhancing quality of lerning in the classroom. Fuctions internet is to give enrichment and communication between student and the teacher with other resources. Therefore role of teacher in this situation, required to mastery tehcniques seek for information at the internet, guiding the students search and discovery releven the site internet approporate with lesson course, presentation course with web that interesting.

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