Needs analysis in developing a contextual based on E-Learning (CBE) model in health policy analysis learning

by Reno Renaldi

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Abstract

Contextual Teaching and Learning (CTL) is a learning strategy that emphasizes the process of full student involvement to find the material being studied and relate it to real-life situations to encourage students to apply it in their lives. This study aims to determine how the needs of students for the CBE model to be developed. This study uses the Research and Development (RnD) research and development method. The development model chosen in this study is the ADDIE model which is developed in designing the learning system. The stages of the ADDIE model include analysis, design, development, implementation, evaluation. This research will produce a product in the form of e-learning, contextual model learning based on e-learning in the health policy analysis course based on the results of the needs analysis. The results of the needs analysis were carried out by distributing research questionnaires to 30 students taking health policy analysis courses at STIKes Hang Tuah Pekanbaru. Based on the results of the needs analysis in developing the CTL model for learning health policy analysis, it is known overall that 84.36% need the development of e-learning based CTL. So that this preliminary research becomes the basis for further research in developing a CTL model that suits the needs of the students themselves as users of the models used by lecturers in learning.

Keywords: Contextual Teaching and Learning (CTL), Health Policy Learning Analysis, Needs Analysi

1. Introduction

The Industrial Revolution 4.0 demands an increase in critical thinking skills in every learning process. The ability to think critically is one of the Domains of Higher Order Thinking Skills (HOTs). The ability to think critically is an active and skilled process in mastering theoretical concepts and applying them, analyzing, synthesizing, and evaluating to find answers to problems. It is expected that the ability to think critically will form a rational, open, and argumentative mindset to form professional skills according to the needs of the world of work [1].

Fulfilling the needs of the world of work is mostly done by educational institutions, both formally and non-formally. This can be seen from the efforts of educational institutions in improving the quality of graduates from various aspects such as developing learning materials according to current issues including adjusting technology-based learning models at all levels of education [2]. Vocational education is an institution that produces graduates according to the needs of the world of work. Likewise, the College of Health can also provide vocational education in a scientific group. As one example in the Health Policy Analysis course. The competence of the health policy analysis course is that students have a comprehensive ability to analyze a policy to make decisions in the health sector [3].

One aspect of the achievement of competencies in a subject is the application of an appropriate learning model. The embellishment model is the domain of the teaching-learning process to achieve the expected learning outcomes. The learning model is the domain of choice for teaching staff in implementing an effective and efficient teaching and learning process [4].

So far, the learning model used in the health policy analysis course is still general. Learning models such as lectures or discussions and searching for learning resources on the internet is among the most frequently used. Based on the results of observations conducted during the 1st semester of February-November 2018 in the health policy analysis course. Nearly 85% of this is of course very unfortunate because in the learning process, especially in this health policy analysis course, students are required to be active and reactive to the information provided by the educators should be able to ask questions so that there is learning feedback between students and educators because it will have an impact on the input and output of students during the learning process.

Teaching is a professional job, where educators provide services and the class acts as an educational training program needed to prepare students to gain better knowledge and abilities than before [5].

Also, the learning process in the health policy analysis course is still memorizing/remembering that it has not been able to have a good impact on student learning outcomes. This is evidenced by the results of learning in the odd semester of the 2017/2018 school year where only 45% of students get scores above the average and 55% get unsatisfactory scores, with a scale (C-D). An achievement like this is something that should pay attention to and need improvement.

As emphasized by [6]. Several factors influence the teaching and learning process, namely: teacher factors, students, facilities and infrastructure factors, and environmental / class organization factors. Another thing that is still a problem in the learning process is how to apply it to form a complete understanding. In the STIKes Public Health study program itself, the process of delivering health policy analysis courses ally uses the form of power points, and the internet.

Based on the above phenomena, it is necessary to improve the learning system and process in the health policy analysis course considering the importance of this course for students of the STIKes Public Health study program, especially when entering the world of work because they are required to be able to analyze a problem in health and be able to make decisions to Policy. To improve this learning process, it is necessary to adapt to the principles of 21st-century learning, one of the learning models that can be developed is the contextual learning model or Contextual Teaching and Learning (CTL).

CTL is defined as an innovative learning concept where the process can help learners connect learning with the context of their lives [7]. CTL is a forum for active learning that aims to help students connect their initial knowledge with new knowledge so that they get new knowledge from the analysis process during learning [8]. The CTL learning model can be implemented at all levels of education and the results of this study also prove that CTL is a learning model that can improve students' understanding and achievement in a learning process [9].

The times are so fast and technology that develops rapidly, especially in Information Technology, demands that the education system must adopt technology to achieve the expected results. Culture in accessing the internet has become a necessity and this has an impact on the field of education. This technology should be used optimally in the teaching and learning process for students. Internet technology provides various kinds of learning material, but sometimes the material presented cannot be justified for the truth of its content. So that it resulted in misinformation for students. Learning materials on the internet are usually published via websites or e-learning.

E-learning as a learning medium will be able to attract attention and encourage the learning motivation of students. Appropriate learning media will make it easier for students to understand. Especially to understand material concepts that are considered difficult and abstract by students. With the existence of e-learning learning, students can directly see how the learning process occurs with the existence of videos and can facilitate students' understanding through the material presented. Understanding will be considered optimal and have beneficial values if the learning process is linked or linked to the real world of students in their lives, namely

through the CTL approach.

Regarding the development of the e-learning-based CTL model, researchers have conducted observations and interviews with students and lecturers. STIKes Hang Tuah Pekanbaru. The information obtained is that e-learning has never been used in the learning process Learners day. The existence of e-learning learning model of e-learning based on e-learning that researchers developed is expected to encourage high motivation in students because learning media that are designed and developed will increase students' interest in learning more actively and get increased value from learning outcomes, especially in the eyes. Health policy analysis lectures are considered to be easily resolved through e-learning that is active, independent, interesting, fun through e-learning. The learning model plan to be developed is called Contextual Based on E-learning (CBE).

Based on the description above, to develop a CBE model, a pre-test process is carried out to perform the needs analysis required during model development. This study aims to determine how the needs of students for the CBE model to be developed.

2. Literature Review
2.1 Contextual Teaching and Learning
Contextual Teaching and Learning (CTL) is a learning strategy that emphasizes the process of full student involvement to find the material being studied and relate it to real-life situations to encourage students to apply it in their lives. In short, CTL is a concept that bridges the subject matter to better understand situations that are relevant to student life, which can help students learn more effectively) [6, 10].

2.2 Component Contextual Teaching and Learning
The main learning component of CTL consists of seven aspects, namely constructivism, questioning, inquiry, learning community, modeling, reflection, and authentic assessment. It is hoped that through contextual learning the concepts of study can be integrated into the real-life context in the hope that students can understand what they are learning better and easier. In contextual learning, the lecturer links the context within the learning framework to increase the meaning of student learning [11, 12].

2.3 Policy Analysis Course
Health Policy Analysis, consisting of 3 (three) words that contain broad dimensions or meaning, namely analysis or analysis, policy, and health. Analysis or analysis is an investigation of an event (such as an essay, act, incident, or event) to find out the true situation, the cause, or the situation [13], so that in simple terms health policy analysis can be interpreted as an investigation, study, research, and argument. To generate and transfer information about a health phenomenon that is related (relevant) to policy so that it can be used to solve health problems.

3. Method
This study uses the Research and Development (RnD) research and development method. The development model chosen in this study is the ADDIE model developed in designing the learning system [14]. The stages of the ADDIE model include analysis, design, development, implementation, evaluation. This research will produce a product in the form of e-learning, contextual model learning

based on e-learning in the health policy analysis course based on the results of the needs analysis. The results of the needs analysis were carried out by distributing research questionnaires to 30 students taking health policy analysis courses at STIKes Hang Tuah Pekanbaru. The needs analysis questionnaire consists of 15 questions designed using a Likert scale, then the results of the needs analysis are processed

univariately and presented in the form of a frequency distribution table.

4. Result and Discussion

The results of the research on the analysis of the needs for developing e-learning based CTL model in the descriptive health policy analysis course can be seen in Figure 1.
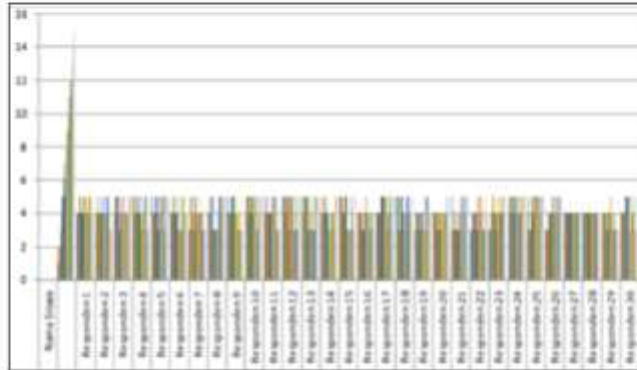

Fig 1: Descriptive Results of Needs Analysis for CTL Model Development

Based on Figure 1, it is known that almost all respondents stated that they needed the development of the CTL model in the Health Policy Analysis course. In interviews conducted with students to support quantitative data, information was obtained that the learning process of health policy analysis

has been ongoing conventionally, so it is necessary to develop a learning model so that it is easy to understand the concept of health policy analysis.

Seeing the percentage of student needs analysis results on the development of the CTL model can be seen in Figure 2.
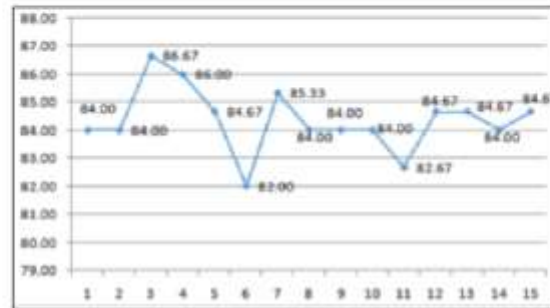

Fig 2: Percentage of Student Needs Analysis on the development of the CTL model

Based on Figure 2, it is known that the highest percentage is found in point 3, which is as many as 86.67 students who want e-learning-based health policy analysis learning. And overall the average student needs analysis for the development of the CTL model is 84.36.

The results of this study are in line with the research conducted by Bern and Erikson (2001) that the student's need for innovation in the development of learning models is getting higher, especially those supported by online learning media [15]. Sabil (2011) also stated that the characteristics as a whole describe the condition of students who are learning subjects using the CTL method. New concepts to be taught should be achieved in real life, which is commonplace for students who are also invited to obtain and analyze their data as they are guided to find an important concept. In this activity, students are encouraged to participate actively to improve their communication skills [16].

Meanwhile, Sounders mentions the characteristics of

contextual learning in the acronym REACT, namely: Relating: learning in the context of life experiences, Applying: learning when knowledge is introduced in the context of its use, Cooperating: learning through the context of interpersonal communication and sharing, Transfering: learning the use of knowledge in a new context or situation [17].

learning-based contextual model learning is based on the philosophy of constructivism which assumes that knowledge is the result of human construction. Humans construct their knowledge through their interactions with objects, phenomena, experiences, and the environment. Knowledge is considered true if that knowledge can be useful for dealing with and solving problems or phenomena accordingly [18]. According to Bern and Ericson, it can be implemented through five approaches, namely: (1) Problem Based Learning, (2) Cooperative Learning, (3) Project Based Learning, (4) Learning service (Service Learning), (5) Work-

Based Learning (Work-Based Learning) [15].

Selengkapnya tentang teks sumber iniDiperlukan teks sumber untuk mendapatkan informasi

5. Conclusion

Based on the results of the needs analysis in developing the CTL model for learning health policy analysis, it is known overall that 84.36% need the development of e-learning based CTL. So that this preliminary research becomes the basis for further research in developing a CTL model that suits the needs of the students themselves as users of the models used by lecturers in learning. For this reason, this preliminary research proves that the need for students is very high for the development of the CTL model, and further development research can be carried out according to the research product.

6. References

1. Jalinus N. Pengembangan pendidikan teknologi dan kejuruan dan hubungan dunia kerja. Pdf. Pendidikan Vokasi. 2011; 1(1):2534.
2. Joyce B, Weil M. Models of Teaching, model-model pengajaran. Terjemahan isi kedua. Yogyakarta Pustaka Pelajar, 2009.
3. Blanchard Alan. Contextual Teaching and Learning. Surabaya: Postgraduate Program of State University of Surabaya, 2001.
4. Bettye Smith P. Contextual Teaching and Learning Practices in the Family and Consumer Sciences Curriculum, 2010.
5. Sanjaya Wina. Strategi Pembelajaran Berorientasi standar proses pendidikan. Jakarta: Kencana Prenada Media Group, 2006.
6. Shodiq Abdullah. Evaluasi Pembelajaran Konsep Dasar, Teori Aplikasi, Semarang: Pustaka Rizki Putra, 2012.
7. Johnson Elaine B. Contextual Teaching and Learning MenjadikanKegiatan Belajar-Mengajar Mengasikkan dan Bermakna, Bandung: Kaifa Learning, 2011.
8. Surdin. The Effect of Contextual Teaching and Learning (CTL) Models on Learning Outcomes of Social Sciences of The Material of Forms The Face of The Earth on Class VII of Junior High School. International Journal of Education and Research. 2018; 6(3):57-64. (ISSN: 2411-5681).
9. Spooner Rivera, Browder, Baker, Salas. Teaching Emergent LiteracySkills Using Cultural Contextual Story – Based Lessons. Diambil dariResearch and Practice for Persons with Severe Disabilities. 2018; 34(3-4):102-112.
10. Satriani Intan DKK. Contextual Teaching and Learning Approach To TeachingWriting. Indonesian Journal of Applied Linguistics. 2012; 2(1):10-22.
11. Hudson Ph.D. Dan Vesta R. Whisler Ph.D. Dalam jurnal yangberjudul Contextual Teaching and Learning for Practitioners. Adult and Career Education, Valdosta State University Valdosta, GA 31602, USA, 2010.
12. Fadilah N, Nugroho AS, Fajriyah K. Keefektifan Belajar Kontekstual Teaching and Learning (CTL) Berbantu Media Piece Paper Terhadap Hasil Belajar Siswa Pada Materi Pecahan Kelas IV SD Negeri 3 Peladen Kudus. Dinamika Pendidikan. 2017; 12(2):142.
13. Arends Richard J. Learning to Teach. Boston, New York, McGraw-Hill Companies, Inc., 2004.
14. Bern Robert G. And Erickson, Patricia M. Contextual Teaching and Learning: Preparing Student for the New Economy. The Highlight Zone, 2001.
15. Sabil Husni. Penerapan Pembelajaran Contextual Teaching & Learning (CTL) Pada Materi Ruang Dimensi Tiga menggunakan Model Pembelajaran Berdasarkan Masalah (MPBM) Mahasiswa Program Studi PendidikanMatematika FKIP UNJA. Jurnal Pendidikan dan PengembanganPendidikan, 2011, 1(1).
16. Sanjaya Wina. Strategi pembelajaran berorientasi standar proses pendidikan. Jakarta: Kencana Prenada Media Group, 2006.
17. Glasersfeld E. The Concept of Equilibration in Constructivist Theory of Knowledge dlm. F. Benseler, P. M. Heijl, & W. K. Kocha (Ed). Autopiesis, Communication of Society. New York: Campus, 2000.

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