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ISI KANDUNGAN **MUKA SURAT**

COOKIE PRODUCTION PROCESS FILM AS ENTREPRENEURIAL LEARNING MEDIA IN HIGHER EDUCATION

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ABSTRACT

The problem of entrepreneurial learning in higher education is the limited learning media used in the class. Faster and more accessible ICT-based media to improve entrepreneurial practice skills of students are required. The purpose of this study is to present the development of entrepreneurial learning media in the form of cookie production process film. The research method used was research and development. It was conducted for three years; the first year was used to explore the potential and problems, create design, and validate the design. The research results on exploring the conditions and expectations of students show that students have enthusiasm to learn entrepreneurial theory, good cooperation with fellow learners and high expectation of entrepreneurial learning media. Designing film as a learning medium is to make the scenario design of the process of making a modern cookie with *mocaf* (modified cassava flour) as the main ingredient. The results of expert validity indicate that the film design is systematic from the opening, explanation of the activities and closing. In general, cookie production process film is feasible as entrepreneurial learning medium.
Keywords: entrepreneurial learning, media, film. *Mocaf*

INTRODUCTION

Cookie production process film is one of entrepreneurial learning media in the form of audio visual, whose contents describe the process of manufacturing cookie with cassava flour as the main ingredient, which has low value. Cassava flour is turned into cookies, which are more durable, delicious and well-packaged in order to increase its sale value. This learning media can help lecturers evoke students' entrepreneurial spirit, ranging from innovation to entrepreneurial skills in classroom learning activities. The form of audio visual media has several more advantages: it is practical and effective, which can be learned by students independently. The duration of the movie is only 20 minutes, which is not boring for the learners.

Entrepreneurial education can create entrepreneurs in the private sector as one of the economic activities that absorb large amount of labor and improve the income distribution. Entrepreneurship is the intellectual capital and business knowledge power is practically beneficial to maximize human, natural and environmental resources as the motor of the development of the state economy. Entrepreneurial education aims to form human as a whole (holistic), as people who have good characters, understanding and skills as entrepreneurs. Basically, entrepreneurial education can be implemented in an integrated manner with educational activities in higher education. Hence, all countries are trying to develop entrepreneurship because knowledge management creates added value by converting human capital into organized intellectual assets (Sayadi, et al., 2013). Knowledge management is based primarily on facts to achieve competitive advantage and intellectual capital, which is useful for management efficiency and ultimately enhancing the economic growth of a country. In Indonesia, food and pastry business provides many opportunities for employment in the informal private sector because capital is adjustable; consumers demand many innovative and varied food. In fact, the problem is often found in the business world is the lack of skilled manpower. If entrepreneurs cannot manage the business well, there is still lack of intellectual capital as one of the quality of human resources, so that the business product is less innovative and less competitive. Educational activities can foster creativity as a major capital in improving competitiveness to solve economic problems (Shaheen, 2010).

Entrepreneurial education development is very important to foster students' interest in entrepreneurship and start doing business after graduate from college (Manuere, et al., 2013). The objective of the curriculum of entrepreneurship course is to form students who have high entrepreneurial spirit and self-employed in work. Entrepreneurial learning activities are conducted both in theory and in practice. Entrepreneurial learning in college is an activity of teaching and learning process in the classroom; there must be harmony between the use of media, learning method and evaluation tool in learning and teaching activity. Higher education institutions need to encourage students to improve skills that concentrate on innovation (Avvisati, et al., 2013). Learning media is one component that must be met in the classroom learning to improve understanding and mastery of concepts and theories of the subject matter. The use of learning media should be tailored to the learning materials that will be delivered in the class, so the learning media will be varied; it also should be adjusted the learning methods implemented.

The problem of entrepreneurial learning which is commonly found in the classroom is educator-centered learning. According to Zebua, et al (2015), learning activity that is centered on lecturer as a center of learning activity is proved to generate graduates who are less independent. The other problems are the limited learning media; most of which is largely limited in the form of entrepreneurial books; and the lack of facilities of entrepreneurial learning media which are more authentic in the classroom. A faster and more accessible ICT-based media is needed to enhance the entrepreneurial skills of students; students require a real movie about entrepreneurship for instructional media in the classroom, for example a cookie production process film in YouTube entitled "The Way to Cook Traditional Cake in Indonesian by Dr. Ninik Sudarwati" (https://www.youtube.com/watch?v=XASGl63A-GE). The film provides information limited on how to cook cakes which are not durable; creativity and innovation is highly required then (Sudarwati, 2016).

This study presents the development of entrepreneurial learning media at the stage of preparing cookie production process film as one of 3 dimensional audio visual media that is closer to real. The media is useful as a learning tool to improve the entrepreneurial ability of students in practice and foster students' creativity in learning in the classroom.

LITERATURE REVIEW

Learning Media

Burden and Byrd (1999) define instructional media as a means of introducing learning information. Kozma (1991) described the most obvious characteristics from the aspect of technology, mechanic and electronic that determine the function, shape, and other physical characteristics. AECT (Association for Educational Communication and Technology) distinguishes six types of learning resources that can be used in the learning process:

a. Message, including curriculum (GBPP) and subjects.
b. People, including teachers, parents, experts, and so on.
c. Material, a format which is used to store instructional messages, such as course books, textbooks, modules, video programs, movies and OHT.

According to Kemp and Dayton (1985), the contributions of learning media are:

a. More standardized delivery of messages in learning and teaching activity
b. More interesting learning process
c. More interactive learning and teaching activity by applying learning theories
d. Shortened time for learning and teaching activity
e. Improved quality of learning
f. Flexible learning process (it can take place whenever and wherever as necessary)
g. Positive attitudes of students towards the learning materials, so the learning process can be improved
h. The change in teacher's role positively

Video

Video is a technology used to capture, record, process, transmit, and rearrange moving images. It usually uses celluloid film, electronic signal, or digital media. It is associated with "sight and hearing" (Diyar, 2012).

Film

Harrison and Hummell (2010) stated that animated films enrich students' experience and competence on a variety of teaching materials. Hegarty (2004) explained that with today's technological developments, animated films are able to provide stronger visual displays of various phenomena and abstract information that play a role to improve the quality of process and learning outcomes. Bogiages and Hitt (2008) added that improvement in interest, understanding, and skills in group work are part of the added value of the utilization of animated film in learning. Agina (2003) explained that the use of animated films in learning activities can improve the quality of process learning and learning outcomes.

Multimedia

Multimedia is one of the best educational techniques because it handles more than one sense simultaneously, as it handles the sense of sight & hearing. Multimedia programs provide different stimuli in their presentations which include a number of elements (Aloraini, 2005).

Beichner (1994) found that multimedia has a positive effect on the knowledge and emotions of students who study scientific subjects. Moreover, Ameen (1995) conducted research on the impact of hyper-media on students' academic achievement and attitudes toward the use of computers to teach students of the Faculty of Educational Sciences in *Minia* University. The study was conducted on 30 male and female students in third grade at the faculty; they represented different branches and specialties.

METHODOLOGY

This study used research and development approach. According to Borg and Gall (1989), development of learning technology is a learning resource, which is useful to improve the efficiency and effectiveness of learning, with the aim to solve learning problems and achieve the objectives of learning appropriately. Research development steps are as follows: Exploring potentials and problems, collecting data, designing, design validation, product trials, product revisions, product trials, product revisions, and ready-to-use products. This study is limited to exploring potential problems, collecting data, and designing film.

The first activity of development steps was exploring the potentials and problems of students in entrepreneurial learning, including: potential of entrepreneurial learning resources, potential of student interest in entrepreneurial learning, entrepreneurial learning barrier, obstacles faced by students in entrepreneurial learning, and expectation of lecturer and students about entrepreneurial learning media. The second step was collecting data about the criteria of cookie production process film as entrepreneurial learning media expected by students and lecturers. The third step was designing the product according to the expectations of students and lecturers. The fourth step was validation test, conducted by film design validator and multimedia expert; the validation was discussed by multimedia expert as well.

This study was conducted from March to May 2018. The data was collected from 50 students and 15 lecturers of STKIP PGRI. The data types included: (1) Qualitative data: Description of media that has been used in entrepreneurial learning, description of obstacles (need for entrepreneurial learning media), description of various instructional media, and description of the design of cookie production process film as entrepreneurial learning media; (2) Quantitative data: The percentage of product ratings and the percentage of criticisms and suggestions for product revisions.

RESULTS

The results of potential and problem exploration about students' answers were as follows:

1. The potential of entrepreneurial learning in terms of students: (a) Eighty percent of students had enthusiasm to learn entrepreneurial theory in the classroom; (b) sixty-five percent of students had entrepreneurial learning spirit in the classroom; (c) seventy percent of students cooperated with their peers; (d) fifteen percent were able to create something simply; (e) fifty percent of students were innovative and creative in making products; and (6) seventy percent of students were able to realize entrepreneurship title in public place.
2. Learning potential in terms of lecturer's skills: (a) Seventy percent of lecturers delivered learning materials in class theoretically; (b) sixty of lecturers improved entrepreneurial skill by practicing to produce craft; (c) fifty percent of lecturers applied entrepreneurial learning method in class

with varied method such as lecture, project in preparing business plans, presentation for actualization of student creativity.

3. Potential of learning resources in entrepreneurial learning: (a) Eighty percent of lecturers used learning media in the form of entrepreneurial books; (b) seventy percent of lecturers used learning media with entrepreneurial practices in the private sector of small businesses.
4. Obstacles faced by the students in entrepreneurial learning: (a) Eighty percent of students graduated from high school and had different family education backgrounds; (b) forty percent of students had limited business information; (c) forty percent of students doubted to start a business; (d) forty percent of students could not face the challenges in entrepreneurial training though.
5. Obstacles faced by lecturers in entrepreneurial learning: (a) Eighty percent of lecturers stated that the time provided for entrepreneurial learning in the classroom was very limited; (b) sixty percent of lecturers stated that they need more time to improve students' entrepreneurial skill; (c) fifty percent of lecturers said that practice in entrepreneurial learning activity takes a longer time with student innovation; (d) sixty percent of lecturers stated that learning resources for learning in the classroom was limited.
6. Student expectations about entrepreneurship learning media include: (a) Seventy percent of students need media that can facilitate them mastering the materials in entrepreneurial learning; (b) eighty percent of students need media in accordance with the demands of technological development; (c) eighty percent of students need practical and flexibility media which can be used at any time; (d) seventy percent of students need learning media in the form of film that describe the reality; and (e) seventy percent of students require simple, clear, concise and solid learning media.

The second step was collecting data related to the need for film-based entrepreneurship learning media. The information obtained was:

1. In entrepreneurial learning, 60% of students had the spirit of learning and entrepreneurial practice, and 30% of students were trying to create innovation in their work.
2. In entrepreneurial learning, 50% of lecturers have taught varied methods, namely lecture, discussion, and practice.
3. Sixty percent of potential learning sources were derived from internet, and 40% learning resources were derived from books.
4. Problems in learning and teaching activity were indicated by 80% of lecturers stating the limited time of entrepreneurial learning in the delivery of theory and practices.
5. Eighty percent of students expected simple and complete ICT media in accordance with the reality in business world.
6. Seventy percent of the lecturers expected entrepreneurial learning media in the form of film about cookie production process, which is short, solid, complete, and simple in order to cultivate student innovation.

In general, lecturers and students need information and technology- based entrepreneurial learning media in classroom in the form of audio visual in accordance with the reality in the world of business. The third step was designing the film in terms of film scenario, and materials. The design of the film included: Opening (presenter conveys the activities to be presented and the name of the product to be produced), the presenter explains the process of making several types of cookies, namely cassava *churros*, cheese cassava, and cassava *nastar,* the presenter explains the ingredients, cooking process, and closing. The cooking process started from preparing materials, combining the ingredients into the dough, and baking the dough. Cookie production process film in YouTube entitled " Membuat Kue Kering Inovasi Berbahan Dasar Tepung Mocaf - Media Pembelajaran KWU" (https://www.youtube.com/watch?v=4l0J9qbEgtk&t=451s). The details can be seen in Table 1.

The fourth step was validating the film to the validator in multimedia through discussion; it indicated that: (1) The flow of the film scenario is systematic, from the opening (in the form of introduction of the activities), the explanation of activities and closing; (2) the lighting of the film is appropriate; the audience can watch the movie clearly; (3) the sound of the film is clear and does not emerge a different meaning or misunderstanding; (4) the presenter's eye contact and expression is interesting. The presenter enjoys the cooking activities and faces the audience clearly. The results of validity test by the culinary expert indicated: (1) The types of cookies made are quite unique and interesting; (2) the basic ingredients (cassava) are easy to obtain and the cheap; (3) the cooking process is simple; (4) the cookies become attractive; (5) the tools and materials are simple and

affordable. In general, cookie production process film is worthy of trial as entrepreneurial learning media.
In general, those are the steps of developing entrepreneurial learning media in the form of production process film of cassava cookie. It has been prepared based on the theory of development; the feasibility of entrepreneurial learning media in higher education also has been tested.

DISCUSSION

The results of data exploration about the potentials and problems in entrepreneurial learning were identified in terms of external factors (including teaching method used by lecturer, the quality and quantity of materials given in learning and teaching activity, pattern of interaction in teaching entrepreneurial skills, learning media, technology, establishment of learning situation, and system used by school in building entrepreneurial attitude and skill) and internal factors (the fighting spirit of students in improving their entrepreneurial ability, skill, innovative and creative intelligence). It is also in accordance with the results of a research which was conducted by Zebua, et al (2015) which found that there are two factors that affect the effectiveness of entrepreneurial learning process, namely external factor, including lecturer ability in learning and teaching process, learning material, interaction pattern, learning media, technology, learning situation and system) and internal factor (students' spirit). They also found a few problems: entrepreneurial learning and teaching activity was less interesting because the method used by the lecturer was never real or authentic; it did not foster entrepreneurial spirit well; low learning motivation, which was shown by students getting bored, quickly expecting to get anything instantly, difficult to concentrate, having bad time management; while students must follow the learning and teaching activity passively and memorize all materials for the exam; and low entrepreneurial learning outcomes of students. The essential points of entrepreneurship are imagination, creativity, and novelty innovation, which are needed to develop new products (Buchholz, et al., 2015). In general, the effectiveness of entrepreneurial learning is determined by both external and internal factors. The use of instructional media and learning technology is one of the external factors that determine the success of learning which is more realistic in the learning process in the class.

Based on the results of the interview with students about entrepreneurial media, learning media in the form of cookie production process film is expected to: be a clearer form of audio visual, provide information on real skills and provide information which is highly required in general, simple, creative and innovative way. Audio visual media used in the learning and teaching activity was in accordance with the results of a research which was conducted by Ashaver, et al (2013) that the use of adequate audio visual material is needed by lecturers and students in learning process; it needs to be provided in higher education in terms of quantity and quality of learning media. Audio-visual media is very useful for lecturers and students in learning and teaching activity. In general, learning media in the form of cookie production process film is audio visual media that is practical, authentic, simple, in accordance with the demand for learning technology, as well as cooking activities such as baking cookies; it is a need for lecturers and students in entrepreneurial learning in class which is more real; and these activities are still needed by the consumers.

The benefits of audio visual media in the form of cake production process film is useful as entrepreneurial learning media in delivering theories and real examples; it is also one of the materials of knowledge skills for students in the practice of entrepreneurial learning activities in the field. The benefits of audio visual media in learning and teaching process have a purpose. Meenakshi (2013) explained that the purpose of using Information Communication Technology (ICT) in education includes: to improve various educational services and learning methods, promote equal opportunities in obtaining information, promote technology literacy, promote the use of educational media openly and improve the learning skills. It is also said that the use audio visual media as ICT in education becomes more effective with varied media, for example using internet facility and other electronic media.

In general, the development of learning media in the form of production process film (audio visual media in entrepreneurial learning) is one of the uses of ICT in education. The steps of learning media development proposed by Borg and Gall include exploration of potential and problems, data collection, designing, feasibility test, and evaluation; it has been proven to be more effective to cultivate student creativity. The developmental research is not much different from the developmental research using ADDIE method conducted by Zebua, et al (2013), covering: analysis, design, development, implementation, and evaluation.
Conclusion

Cookie production process film is one of audio visual media to help lecturer in entrepreneurial learning which has been applied in higher education; it is in accordance with some findings in the exploration of potential and problems in learning that students and lecturers really need entrepreneurial learning media that is more authentic, and production activity which is simple, short, interesting, and practical. Other findings show that the learning media is useful to embody the creativity of students in finding new product innovations through entrepreneurial learning that is more fun and attractive.

The results of the exploration of potential and issues in entrepreneurial learning indicate that there is a need for varied ICT-based entrepreneurial learning media; therefore, further researcher is suggested to conduct other developmental research on ICT media which is complementary such as in the form of brief handicraft production process film, staple food cooking process, entrepreneurial material (theory) film and others, that aim to be varied audio visual media to cultivate the creativity and innovation of new products. Audio visual media also should be adjusted to the students' need for social and cultural environment, so that it achieves maximum benefit. Therefore, audio-visual media in entrepreneurial learning is needed as one solution to overcome the limitations and problems in learning and teaching activity.

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Appendix A

Table 1
Description of Film Scenario

NO	ACTIVITY	DESCRIPTION OF FILM SCENARIO
1.	Opening	First, the presenter explains the cake that will be made from cassava flour. The local ingredient (cassava flour) is processed into innovative modern cookies: cassava *churros*, cheese cassava, and cassava *nastar*.
2.	Cooking process	Text appears: the process of making cassava *nastar* of *mocaf* (modified cassava flour). The presenter describes the compositions (basic ingredients of cassava *nastar*), demonstrates how to bake the dough, how to mould the dough, and demonstrates how to bake it. Text appears: the process of making cheese cassava. The presenter explains the ingredients of cheese cassava, demonstrates how to make the dough, how to mould the dough, and how to bake it. Text appears: the process of making cassava *churros*. The presenter explains the ingredients of cassava *churros*, demonstrates how to make the dough, how to mould the dough, and how to bake it