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PREFACE

International Seminar on Electrical, Informatics and Its Education 2013 (SEIE 2013) is a media for the dissemination of information and publication of researches from universities, researchers, teachers, and practitioners. SEIE will accommodate the dissemination of information and research on Electrical, Information Technology and Education of both.

SEIE 2013 is an international seminar organized by the Electrical Engineering Department, Faculty of Engineering, State University of Malang. This seminar is the third of SEIE first seminar which was held in 2009 and held every two years on a regular basis.

Article published, packed with international categories classified in two groups. The first group contains papers on the topic of electro and its application in education. The second group contains papers on the topic of informatics and its application in education.

The authors came from the local Indonesian and overseas including Japan, Libya, Taiwan and Vietnam. Any posts or articles that have been entered in a review by a competent reviewer.

The committees want to deliver big gratitude for your participation, and congratulation for author that the papers accepted and published SEIE 2013’s procreeding. Critics and suggestions are expected for the improvement this seminar. We hope this proceeding can be used as one of reference technology development in electrical and informatics engineering and its education.

Malang, October 5th, 2013
Chairman,

Dr. Hakkun Elmunsyah,S.T., M.T.
PREFACE FROM HEAD OF ELECTRICAL ENGINEERING
DEPARTMENT ENGINEERING FACULTY
STATE UNIVERSITY OF MALANG

International Seminar on Electrical, Informatics, and Its Education (SEIE) 2013 held after the Engineering Faculty 48th Anniversary which simultaneously of State University of Malang 59th Anniversary. SEIE 2013 is held every other year by Electrical Engineering Department, Faculty of Engineering, State University of Malang. In 2009, it was called National Seminar Electrical, Informatics, and Its Education (SNEIE) 2009. For SEIE 2013 has already included an International area and has published to some neighborhood countries as Japan, Libya, Taiwan, Vietnam, etc.

The seminar packed with international categories classified in two groups. The first group contains papers on the topic of electro and its application in education. The second group contains papers on the topic of informatics and its application in education.

Hoping this seminar would be a place of researchers and practitioners to publicize and then disseminate the results of these researches that have taken place due to the progression of sciences and education throughout Electrical Engineering and Informatics Engineering.

Malang, October 5th 2013
Head of Electrical Engineering Department

Drs. Slamet Wibawanto, M.T.
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VII
Multimedia Based Learning Entrepreneurship 
In Vocational High School (SMK)

Hasanah  
Faculty of Engineering  
State University of Makassar  
hasanahunm@yahoo.com

Abstract

Vocational schools (SMK) will reflect the quality of the Indonesian workers who need to be built to increase the competitive advantage of its human resources. Thus vocational schools play an important role in reducing unemployment in Indonesia. For that, need to continue to actualize the human resource capacity in order to compete in this globalization era. Entrepreneurial learning can be effective if directed to prepare their students have a stock of entrepreneurial skills that can be used to work independently or open their own business for a better life and more prosperous. Multimedia-based learning through entrepreneurship, creativity of students can be developed according to customer needs. With entrepreneurial-based multimedia learning, students are taught how a company can promote his company, either in the form of products and services with the presentation more visually appealing and interactive so consumers can be attracted. Multimedia is very effective to be a powerful tool for companies achieve competitive advantage. Therefore, multimedia-based learning is highly relevant entrepreneurial given to vocational students as candidates for a productive workforce.

Keywords: Multimedia, effective, entrepreneurship, creativity, interactive

I. Introduction

Vocational schools (SMK) is a type of education that prepare students to enter the workforce will be able to be a learning partner government in reducing unemployment and even generate productive human resource, if managed productively. Government Regulation No. 19 Year 2005 on National Education Standards (SNP), explained that the objectives of the vocational high school (SMK) is a priority to prepare students to enter the workforce and develop a professional attitude.

Vocational schools is an integral part of the economic sectors that contributed to the growth of the national economy should be developed quality. Quality of vocational schools will reflect the quality of the Indonesian workers who need to be built to increase the competitive advantage of its human resources. Thus vocational schools play an important role in reducing unemployment in Indonesia. For that, need to continue to actualize the human resource capacity and equipment to keep pace with economic growth in Indonesia (PSMK Strategic Plan 2010-2014).

Entrepreneurial subjects in vocational schools is normative subjects who have not received special attention from principals and teachers about the material substance of entrepreneurship development, in particular the use of multimedia as a basis for business development. Multimedia is the use of a computer to present and combine text, sound, images, animation, audio and video with the tool (tool) and connection (link) so that users can navigate, interact, work and communicate. Multimedia is often used in the world of informatics. Aside from the world of informatics, multimedia is also adopted by the gaming world, and also to create a website. Multimedia is also used in education and business. In education, multimedia is used as the medium of instruction, both in the classroom and individually or self-taught. While in the business world, multimedia is used as a medium for a company profile, product profile, even as media information kiosks and training in e-learning systems (http://id.wikipedia.org/Multimedia, access to 23/9/2013).

The development of information and communication technology very rapidly in this era of globalization, to be followed by human resource capacity to understand and follow these developments, particularly the vocational high school students, as prospective skilled workforce, are expected to master multimedia. The development of multimedia interactive nature of the development of the Internet technology. With the increasing number of internet users, the more new businesses that participate in the information technology arena. Example: sales centers based multimedia, internet provider increases, the increase in offers hardware and software improvements, and selling goods online. Therefore, this paper will discuss entrepreneurship-based multimedia learning. Multimedia is very possible to be the basis for the development of vocational school students and vocational school graduates.

II. Discussion

1. Characteristics of Vocational Education

According Djojonegoro (1998 : 37) that the characteristics of vocational education are: (a) vocational education geared to prepare students to
enter the world of work, (b) vocational education based on the "demand-driven" or the needs of the workforce, (c) focus the content of vocational education emphasis on the mastery of the knowledge, skills, attitudes and values needed workforce, (d) assessment of the success of the students actually have the "hands on" in the world of work or performance, (e) a close relationship with the world of work is the key successful vocational education, (f) a good vocational education must have a responsive and adaptable to the nature of technological progress, (g) vocational education should put more emphasis on "learning by doing" and "hands on experience", (h) vocational education requires sophisticated facilities for practical activities, (i) Vocational education requires investment and operating costs are higher than other general education.

Based on some of the characteristics mentioned above vocational education, vocational education is good that must have a responsive and adaptable to the nature of technological progress. Multimedia-based learning means that entrepreneurship is particularly relevant given the vocational high school students.

2. Principles of Vocational Education
Implementation of the principles of vocational education is an acculturation process in the formation of habits and work habits of thinking really is carried out continuously so that the training and experience that can be given efficiently and effectively to achieve the objectives of vocational education.

Vocational education will be able to effectively train someone in the habit of thinking and work as required in the work itself. According Djajonegoro (1998: 39) that the assumptions vocational education are: (1) to develop a workforce that is "marketable" is to develop the ability to perform the skills that provide usefulness as a means of production, (2) economic education, and therefore contributing to the strength of the national economy, (3) Education to serve the purpose of the economic system and therefore has social benefits, (4) Intended to prepare novice workers; (5) Geared to the needs of the workforce in the public environment, and (6)) Education vocational should be evaluated based on economic efficiency.

Assumption of efficient vocational education: (a) Preparing students for the type of work that is based on workforce needs, (b) students get jobs according to skills that have been trained.

Based on the principles and assumptions of vocational education, the entrepreneurial learning can be effective if directed to prepare their students have a stock of entrepreneurial skills that can be used to work independently or open their own business for a better life and more prosperous. Through entrepreneurship, wealth "creativity" can be transformed into the welfare of its creators. With multimedia, student creativity can be developed according to the needs of the work.

3. Basic Education Entrepreneurship
The term comes from the translation entrepreneurial entrepreneurship, which can be interpreted as "the backbone of economy", which is the nerve center of the economy or the "tailbone of economy", as controlling the economy of a nation.

According to Hisrich and Peter (1998: 8-10) that the definition of entrepreneurship is an agreement about the kind of behavior that includes: 1) Makers initiative; 2) Organization and reorganization of the socio-economic mechanisms to turn resources and situations to practical conditions; 3) Acceptance of risk or fail. Meanwhile, according to Suryana (2008: 10) that entrepreneurship is a discipline that studies the values, skills and behaviors in the face of life's challenges with the opportunity to gain a variety of risks that may be encountered. Entrepreneurship is the ability of creative, innovative basis, tips, and resources to find opportunities for success (Suryana, 2008: 2). Furthermore Zemmerer (2008: 59) says that entrepreneurship is the result of a disciplined and systematic process of applying creativity and innovation to the needs and market opportunities.

Entrepreneurship is the ability of creative, innovative basis, tips, and resources to find opportunities for success (Suryana, 2008: 2). Furthermore Zemmerer (2008: 59) says that entrepreneurship is the result of a disciplined and systematic process of applying creativity and innovation to the needs and market opportunities.

According to Nasution (2007: 4) that entrepreneurship is all things related to the attitudes, actions, and the process undertaken by the pioneering entrepreneurs, run and grow their businesses. Entrepreneurship is the way individuals and organizations create and implement ideas in new ways, responsive and proactive to the environment and the changes that occur.

With the development of the concept of entrepreneurship, Drucker (1998) defines entrepreneurship as the ability to create something new and different. That definition, not much different from that proposed by Zimmerer (1996: 51) which reveals that entrepreneurship is the process of applying creativity and innovation to solve problems and explore opportunities faced by every person in every day.

The essence of entrepreneurship is to create added value in new ways and different in order to compete. According to Zimmerer (2008: 51), the added value is created through the following ways: 1) Development of technology, 2) discovery of scientific knowledge, 3) Repair the product or service is available, 4) The discovery of different ways to produce goods and many more services with fewer resources more efficiently.

Ciputra (2008: 55) says that the main strategy for generating a prosperous future humans, who can turn dirt into gold in large quantities is through
education, by integrating entrepreneurship education into the national curriculum.

Economic growth through the growth of national and international corporate investment is not enough to provide jobs, means having to create their own jobs. According Ciputra, there are 8 reasons for the importance of entrepreneurship education, namely: (1) Entrepreneurship education in schools, will generate new entrepreneurs, rather than growing by chance; (2) Indonesian suppliers of excess job seekers and job creators shortages; (3) Entrepreneurship education should be motivate their students, in order to create jobs; (4) the biggest option for future work is to be a business owner. Small and medium sized enterprises (SMEs) are the main foundation of future economic growth; (5) can be an inspiration of entrepreneurship education and training to become entrepreneurs; (6) Entrepreneurship education is needed so inspiring and entrepreneurial skills to grow from an early age; (7) schools are educational institutions with the widest network that is trusted by the community to create change in the future, and (8) Through entrepreneurship education in schools can effectively give birth to future generations of entrepreneurs are resilient.

Of the opinions expressed by the Ciputra, the entrepreneurship education in vocational schools should be able to give birth to young entrepreneurs a strong, capable of looking for opportunities and can keep up with technology. With entrepreneurial-based multimedia learning, vocational students and vocational education graduates capable of independent and able to compete in today's information era.

4. Multimedia

a. Definition

Multimedia is the use of a computer to present and combine text, sound, images, animation, audio and video with the tool (tool) and connection (link) so that users can navigate, interact, create and communicate (http://id.wikipedia.org/Multimedia, access 09/23/2013). The development of information and communication technology has a very rapid effect on various aspects of human life. The rapid development of electronic technology and informatics, marked a change from the industrial age to the information age (global) this only happened very quickly. Multimedia usage can be implemented anywhere as long as the role requires access to media sources that require electronic information.

Multimedia computers changed the traditional dish in the form of text, into a media appeal. Acceptance of information gets better, and if prepared properly, multimedia can also be very entertaining. Multimedia also bridging role and a little difficult to reach people in receipt of the submission form standard computer into a form that is more easily acceptable and easy to use.

Multimedia has an important role in business as it is used as a tool for companies to compete. Multimedia has advantages to attract the senses and interest, as a combination of sight, sound, and movement. Therefore, highly effective multimedia become a powerful tool for companies achieve competitive advantage.

b. Multimedia in Business

Implementation within the scope of business includes multimedia presentations, training, marketing, advertising, product demos, catalog database and communications network. Voice Mail and Video Conference in the near future it will be available in many LAN (Local Area Network) and WAN (Wide Area Network). Can create multimedia promo products through an exciting, compelling ads that are easily understood by consumers. Human Resources Training can be more lively and imaginative. A mechanic can learn how to work the machine without having smeared oil. Flight attendants can learn to overcome the hijackers through a multimedia simulation. The seller can demonstrate his company's products without having to bring the original product, but still provide the same great picture. Once the importance of multimedia in business or venture. With multimedia means a company can promote either the presentation of products and services with a more interactive and visually appealing so that consumers can be attracted. Therefore, multimedia-based learning is highly relevant entrepreneurial given to vocational high school students as a potential workforce that is ready to compete in a globalized world.

III. CONCLUSION

Multimedia-based learning entrepreneurship in vocational high schools can be developed in accordance with the interests and talents of students. Also be relevant to the field of study of each student. Therefore, the design of learning entrepreneurship in such a way that SK-KD based on the existing syllabus and developed based multimedia. Multimedia has an important role in business as it is used as a tool for companies to compete. Multimedia has advantages to attract the senses and interest, as a combination of sight, sound, and movement. So highly effective multimedia, become a powerful tool for companies achieve competitive advantage.

Therefore, based on the principles of vocational education, the entrepreneurial learning can be effective if directed to prepare their students have a stock of entrepreneurial skills that can be used to work independently or open their own business for a better life and more prosperous. Multimedia-based learning through entrepreneurship, creativity of
students can be developed according to customer needs. With entrepreneurial-based multimedia learning, students are taught how a company can promote its company, either in the form of products and services with the presentation more visually appealing and interactive so consumers can be attracted. Therefore, multimedia-based learning is highly relevant entrepreneurial given to vocational students as candidates for a productive workforce.

References
Cloud computing is when the user use servers that are not stored in user's location, not owned by user, and not maintained by user, to provide the user with the programs that user use and to store and retrieve user's data. This is contrast to hosting and maintaining own server, loading and updating own software, and storing and backing up own data.

Today, the development of cloud computing is raised rapidly. There are many companies develop this model and a many kinds of cloud computing appeared. Such as Ubuntu one’s Canonical Ltd and SkyDrive’s Microsoft as cloud storage, Google apps and office web apps as cloud application, and windows azure as cloud operating system.

More important, it provide a lot of benefits for education. Nowadays, at first glance it sounds a little scary since it relies on someone other than ourselves and our own organization for services that are most likely critical to our operation. So why are schools increasingly turning to cloud computing as an alternative? Several reasons we have found why this to be the right solution for our educational system are: Saving money, Saving time, Anytime anywhere access, Reduced compatibility issues, Increased collaboration, Increased services offered, Foundation for new projects. Peace of mind. And many more.

For those in education sector. "the cloud" can seem like a nebulous and unattainable technology goal, used only by large enterprises and corporations. But the cloud has the power to drastically advance the goals of the educational system: to make it easier for institutions to empower their students to succeed while at the same time cutting costs and expanding accessibility.