C30_Haryanto_THE UTILIZATION OF MULTIMEDIA

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THE UTILIZATION OF MULTIMEDIA FOR CHARACTER BUILDING

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Abstract

Character building seems to be a topic that is not boring for discussion. It is caused by many *dis-characters* that occur in the society. Every day we are shown with information and news about dishonesty, indiscipline, fighting between students, mass cheating, and so on. Ministry of Education has made an effort to eliminate *discharacter* problems occurring in society, but the results is not optimum yet. What other efforts that should be done to eliminate the *discharacter* problems? This paper offers the utilization of multimedia to create a positive character of students. The role of multimedia is surely not the only main factor of development of students' positive character. However, it should be recognized that the utilization of multimedia in learning is able to build positive character of students directly or indirectly. The learning experience that is packed in multimedia allows its users to build an independent character, honesty, curiosity, respect diversity, and other positive characters.

Introduction

Character education becomes the interesting topic to be discussed for the last two years. It is caused by our concerns on educational praxis whose result and purpose are getting unclear these days.. Education, in the Laws no. 20 of 2003 on National Education System Chapter 3, has a purpose in developing the potential of learners in order to be a faithful and devoted person to God, noble, healthy, knowledgeable, capable, creative, independent, and becomes a democratic and accountable citizen, on contrary, in some cases we find many citizens who are not noble (corruption, drug abuse, violence), less self-contained (consumptive), irresponsible, and other cases that are opposed to national education goals.

Education in schools are powerless to overcome the *discharacter* problems (distortion characters). Every day we are shown by the information and news about the dishonesty, indiscipline, fighting between students, mass cheating, and so on. Praxis education in schools is narrowed with "teaching". Furthermore, "teaching" is narrowed again with "teaching in the classroom" and it's more narrowed with delivering the curriculum that is only oriented on achievement of narrow target of national exam (Helena Asri Sinawang, 2008). The narrowness is

only oriented to the cognitive and intellectual aspects. While the fundamental elements rooted in the moral value of education itself is forgotten. Therefore, education only produces scholastic and intellectual human, but lacks of the intact character as a person.

Learning in the classroom is merely a vehicle for "memorizing the materials", without ever touching the area of emotional intelligence. Verbalism often occurs in the classroom, the teacher dominates the learning process, students are left as a passive listener. The wealth of learning resources around the students have never been used for learning. It gives an impact on students' apathetic attitude towards various issues. The achievement of narrow frequently occurs in most of schools.

The success of education is only measured by the achievement of high scores in national exam. Unfortunately, the achievement of high scores in national exam is stained by various cases of fraud or dishonesty in several schools. Embarrassing cases that occurred in certain areas damages the joints of character building. Education that develops develop students' character becomes a religious individual, honest, tolerant, disciplined, hard-working, smart-working, creative, independent, democratic, curiosity, spirit of nationalism, patriotic, appreciate accomplishment, friendly / communicative, peace-loving, enjoys reading, care for the social life, care for the environment, and responsible, was destroyed by an attempt that simply pursues narrow target.

The ministry of national education has tried to develop a character building in schools with various types of training of character building for teachers, publication of character building teaching materials, socialization of character building in every level of education. However, the problems that should be examined more are: How is the implementation of character building in the classroom? What kind of conducive situation should be built to support character building in school? What is suitable media for the development of character building?

Based on the questions, this paper will study the utilization of multimedia for character building. The study will emphasize on what, why, and how to develop a viable multimedia learning for the implementation of character building.

The Definition of Multimedia Learning

Ivers and Baron (2002: 2) defines *"multimedia is the use of Several media to present information. Combinations may include text, graphics, animation, pictures and sound"*. Multimedian meaningful use of multiple media to present information, a combination of text, graphics, animated images, and sound, multimedia is the presentation of material by using words as well as images (Meyer, 2009: 3). Meanwhile, Philips (1997: 8) states the definition of multimedia:

"The term interactive multimedia" is a catch-all phrase to describe the new wave of computer software deals primarily That the provision of information. The multimedia components is characterized by presence of text, pictures, sound, animation and video; same or all of the which are organized into some coherent program.

Multimedia is a combination of text, art, sound, animation and video delivered using a computer or manipulation electronic equipment and other digital tools (Vaughan, 2006: 2). Roblyer (2003: 164) gives the definition of multimedia in a simple way "*multiple media or a combination of media. The media can be still pictures, sound, motion, video, animation, and / or text items combined in a product Whose purpose is to Communicate information* ". According to Agnew et al (1997: 9) multimedia refers to the five names which are the object of five names, namely:

Text - letters, numbers, and special symbols
Graphics - lines, circles, boxes and other shapes filled with shades of gray color
Images - still pictures with shades of gray or colors
Audio - voices, natural sounds, music, and sound effects
Video - pictures one after another That Appear sufficiently rapidly to give the illusion of continuous motion, without jerking or flickering

According to Murni (Bambang Warsita, 2008: 154) multimedia learning is anything that is used to distribute messages, and able to stimulate the thoughts, feelings, concerns, and willingness to learn so that the learning process occurs, has a purpose, and controlled. Reddi and Mishra said that *"the multimedia can be defined as an integration of multiple media elements (audio, video, graphics, texts, animation, etc) into one synergetic and Symbiotic whole That results in more benefits for the end user than any one of the Provide media element can individually "* (Reddi & Mishra, 2003: 4).

Definition of multimedia by Hackbarth (1996: 229):

Multimedia is suggested as meaning the use of multiple media formats for the presentation of information, including text, still or animated graphics, movie, segments, video and audio information. Computer-based interactive multimedia and hypermedia includes hypertext. Hypermedia is a computer-based system That allows interactive linking of multiple formats including text, still animated graphics, movie segments, video and audio. Allow non-linear traversal. Hypertext is a non linear organized and accessed screens of text and static diagrams, pictures and tables.

According to Dona Rubinson (1995: 1) states that:

The term multimedia to mean computer-aired instruction (CAI) or instructional presentation That combines text, graphics, video and audio, and may include interactivity options. (Interactivity is the ability of the user to determine the sequence of content flow) As an

instructional tool, it is Important to see multimedia as one option in the the vast array of instructional technology.

Based on some of the understandings given by the experts above, it can be concluded that multimedia is a combination of text, images, graphics, animation, audio and video. The delivery of multimedia is done in an interactive way, thus, it can create an interactive learning experience for participants as in their real life.

Learning experience packaged in multimedia allows the user to build the character independently. Honesty will be built in the process of learning using multimedia. Because through multimedia, the user is accustomed to taking tests individually without supervision.

The Format of Multimedia Learning

According to Kemp and Dayton (1980: 246-248), there are five forms that are usually used to describe the ways computer-assisted learning can be used, i.e. tutorials, drill and practice, problem solving, simulations, and games.

Tutorial method is a type of learning method that includes explanations, formulas, principles, charts, tables, definitions of terms, exercises and branching. In this tutorial, interaction of information and knowledge presented in very communicative way, as if there were tutors who accompanied the participants and provided guidance directly to the participants.

Drills and practice methods assume that the basic concept has been mastered by the participants and they are now ready to apply the formulas, to work with concrete cases and to explore their perception of the material. The main function of training and practicing in computer-assisted learning programs provides practice as much as possible towards the participants' ability.

Problem solving is a higher exercise compared to the drills. The tasks involving several steps and processes presented to the participants who use computers as the tools or resources to find solutions.

Simulation with real-life situations faced by participants aims to gain a global understanding of the process. Simulations can also be used to train skills, such as learning to fly an airplane or riding motorcycles or for understanding system in the economy, ecology and other disciplines.

The well-designed games can utilize of the competitive nature of the participants to motivate and enhance learning. As well as other simulations, a good learning game was hardly designed and the designer must be sure that in giving the atmosphere of the game, the integrity of the learning objectives are not lost.

The Design of Multimedia Learning

The development of multimedia encompass a variety of media objects, such as text, images, animations, sound, and video. The media components are included in the multimedia software in order that learning process can be held well. As described on the above-mentioned descriptions, that the various media object, if presented properly, can improve the quality of learning.

Text

Material in a multimedia is partially presented using text. The use of text in multimedia can not be avoided and it's still needed as one major element in the process of delivering information, although there is a variety of other more attractive media components. Besides, there are various information that is more suitable delivered using the text rather than delivered using other medias. The use of text becomes more tangible when it's combined with other medias.

Image

Material in a multimedia is partially presented in the form of images in order that the material presented becomes more apparent, rather than simply presented with the text. Moreover, image makes the material more interesting and ease the perception.

Animation

Animation is the formation of the movement of various medias or objects that varied with the movement transitions, effects, and sound that is synchronized with the movement of the animation or the animation is the show of the frames or images moving quickly to produce the impression of movement. Animation is a visual and dynamic display. Animation also refers to a process of making an object looks alive or giving a movement impression to something that is basically static. Some of the materials in this multimedia are presented with animation. The presentation of the animation is equipped with facilities to repeat the narrative if participants need it.

Multimedia animations used in this because it has several advantages, i.e.:

- Able to convey a complex concept visually and dynamically.
- Able to turn a human's fantasy into the realm of reality.
- Able to present something that is hard to explain with text and images in easier and meaningful way.

- Able to attract attention, increase motivation, and stimulate the thought in a more meaningful way so that it can reduce the burden of participants in receiving the course materials.
- Able to provide a virtual learning environment, especially to overcome the situation where the environment is actually difficult / unable to be provided, harm, or require a high cost.
- Able to facilitate and accelerate the process of explanation of the concept and it can involve more senses so that the information received can be longer in memory.

Voice (Audio)

The sound is one of the medias that is able to attract media attention. The sound can be a narrative, music, and so on. The material is presented in multimedia with voice equipped to assist in the delivery of information. Besides, the sound is also able to increase the users' motivation so that they can be more interested in following the process of delivering information.

The presentation of audio or sound is another way to explain the concept of information. For example, the narratives is a part of explanation viewed through the video. The sound can explain the characteristics of an image, such as music and sound effects. One of the sound forms that can be used in the production of multimedia is waveform audio, a digital audio file. The quality of the product depends on the sampling rate (number of samples per second). Waveform (. Wav) is a standard for Windows PCs.

Video

Video is a recording of moving images that gives the real illustration of a process of activities or events. Videos can also be used to provide a real description of small objects (bacteria, germs) that can not be seen with the naked eye. The function of video in multimedia is to provide a real illustration of the information submitted.

Video is the most complex element of multimedia because the information delivered is more communicative rather than a common picture. Although it's composed of the same elements such as graphics, sound and text, the form of video animations is different than animations.. The difference lies on its presentation. In the video, the information is presented in a whole form of the modified object so that it seems to support the illustration that looks alive.

Roles of Multimedia in Character Formation

The establishment of a positive character on students in school is not an easy thing. The process of character formation of students requires a high commitment, conducive conditions, and requires the support of adequate facilities and infrastructure. When the schools want their students being religious, honest, tolerant, disciplined, hard-working, smart-working, creative, independent, democratic, but if it is not supported by the creation of conducive conditions, positive character will be impossible can be realized. There are many factors that support the formation of a positive character, but in this case the factors are limited to the roles of multimedia in the formation of character.

In learning process, multimedia's roles are important, because multimedia is designed to complement each other so that the entire existing system to be efficient and appropriate, in which the whole is greater than the sum of its parts. The use of multimedia can be accepted in learning process on the basis of enhancing self-learning process and active participation of learning participant. Sistem multimedia juga memberikan rangsangan bagi proses pembelajaran yang berlangsung di ruang kelas -Multimedia systems also provide the stimulus for the learning process that takes place in the classroom- (Latuheru, 1988: 81).

Multimedia learning can provide answers for a form of learning that used to be traditionally have not been able to be realized, for example changing the form of text or a table quickly. It is supported by the opinion Agnew, Kellerman & Meyer (1997: 6) that:

Whereas some applications use computers merely to facilitate activities that students could perform in other ways, multimedia uses computers to help students perform activities that were previously impossible. A word processor makes a typewriter that can change and reformat pages, and spreadsheet makes a sheet squared paper that recalculates numbers. So, either just makes a function that was already possible go faster or easier. However, the links that are the key part of multimedia projects allow the users to interact with information in the completely new ways.

Interactive multimedia learning has some basic strengths, such as: (1) Mixed media: using multimedia technology, a variety of conventional media can be integrated into one type of interactive media, such as a media text (the board), audio, video, the separated one(s) will require more media, (2) User control: the technology of interactive multimedia learning allows users to browse through teaching materials, according to the abilities and background knowledge it possesses, in addition it makes the user more comfortable in learning the content of the media, repeatedly, (3) Simulation and visualization: being a special function possessed by an interactive multimedia learning, so by using the animation technology, simulation, and computer visualization, the user will get information that is more real than the abstract information. Some curricula require an understanding of complex, abstract, dynamic and microscopic processes, so by using simulation and visualization the learners will be able to develop a mental model of the cognitive aspects, (4) Different learning styles: interactive multimedia learning has the potential to accommodate users with different learning styles (Phillips, 1997: 11-12).

Basic strength of the multimedia allows the users to develop an independent character, enhance curiosity and respect for diversity. Independent character is formed because the user must individually track materials as needed. Curious character is increasing because through

multimedia the users are encouraged to seek current information. Respecting diversity character is formed as through the multimedia the differences learning styles among users are appreciated and served.

Meanwhile, according to Hackbarth interactive multimedia is favored because it has several advantages, namely flexible, self-pacing, content rich and interactive and for meeting the needs of individuals. Flexible means the opportunity to choose the contents of each subject presented, as well as variations and their placement to be accessed. Flexible use of time is also a prominent feature, so that could be suitable for everyone (Hackbarth, 1996: 228).

Freedom to choose the contents of each subject allows democratic character built. In addition, the character of the discipline can also be developed through multimedia, because users are accustomed to manage their own time to learn.

Self-pacing is servicing the speed of individual learning, which means that the speed of utilization of time is highly dependent on the capabilities and readiness of learning participants to use it. The fast learning participants will be given an opportunity to accelerate their speed of learning as optimal as possible, otherwise the slow ones also given the opportunity to repeat and learn in more time. It allows respecting diversity character for the user to be formed.

Content rich or rich in content means the content of this program is to provide enough information, even contain subject matter that are deepening and also give more details of the contents of the material prepared specifically for the learning participant who also has a special interest, or wants to learn more. The wealth of multimedia content of the program is also supported by the usage of various forms of information presentation formats that are transmitted through various media types. It can stimulate the curios character for the user.

Interactive or two-way communication means the program provides the opportunity for learning participants to respond and do various activities that can ultimately be responded back by a multimedia program with a feedback. The presence of interactivity is the most prominent feature of the multimedia program. Level of interactivity is one of the benchmarks in assessing the quality of multimedia learning programs. Two-way communication enables proactive character can be formed

Meeting the needs of individuals means meeting the needs of individuals with a variety of ways. Individual means servicing one's learning speed. It is set from the beginning that multimedia is designed and provided to meet individual interests and learning needs of learning participants. Service to individual differences allows appreciating differences character can be formed.

Henich et al (1986: 234-235) stated that computer as a learning medium has the following advantages:

Time savings, learner control, reinforcement, private learning, special needs, visual appeal, record keeping, information management, diverse experiences, consistency, effective and efficient, communication precision, and customized learning. Computers allow the participants to learn according to their abilities and speed in understanding the subject matter presented by the educator. The use of computers in the learning process makes the participants being able to

control their learning activities. Computer's ability to redisplay the information required by the user can help participants who have a slow learning speed.

Computers can be programmed to be able to provide feedback on learning outcomes and provide confirmation (reinforcement) on the achievements of participants. With the computer's ability to record the learning outcomes of the users, the computer can be programmed to check and give the results automatically. Computers can be used as a medium of learning that is individual (individual learning).

The computer is able to integrate the components of color, music, graphics, and animation. This causes the computer to be able to convey the subject matter with such a high level of realism that is used to perform learning activities that are animated. The memory capacity allows learning participants to resume learning outcomes that have been achieved before.

Referring to the explanation, it can be concluded that the use of computer-based multimedia in training and learning has benefits, which are: (1) participants can work independently according to their ability level or in small groups, (2) being more effective to explain new material that has interactive simulation; (3) the exist assessment can provide rapid feedback to the participant to determine his ability on a particular matter or particular problem so it can be used as a summative assessment, (4) using a problem-solving technique, the participant will have his own way to solve the problem with the same material with his friend. It is very useful for solving problems in the subsequent material.

It can be concluded that computer-based multimedia can make the learning participants training their ability to think critically and creatively in solving a problem individually or in groups. It is also an approach to "student-centered learning" that allows learning participant has his own mindset in achieving learning goals. On one side, the educator's role is also changed from a major player to be companion in a learning process. Multimedia also gives a new nuance to make learning becomes interactive, effective, efficient, and attractive. Computer-based learning with multimedia can also be used for independent learning and group depends on problem to be solved.

Closing

The roles of multimedia to form a positive character of the students are not the only factors of the main boosters. However, it should be recognized that the use of multimedia in learning is directly or indirectly able to build positive character of students. Learning experience that is packaged in multimedia allows the users to build characters independently. Independent character is formed because the user must individually track materials as needed. Honesty will be formed in the process of learning through multimedia, because users are accustomed to taking tests individually without supervision. Curiosity and respecting diversity can also be formed through the use of multimedia. Curious character is increasing because through multimedia the users are encouraged to seek current information. Respecting diversity character is formed as through the multimedia the differences learning styles among users are appreciated and served.

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