

Indonesia Births Characterized Generation through School Computer Based Training (CBT)

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Abstract

This paper introduces the impact of CBT using as a Social Science learning media, especially historical material in the character formation of students. There are several studies on this topic. The sample survey was conducted at SMPN 4 Surakarta, Central Java, Indonesia. The Interview List includes several questions that have been closed. Qualitative Descriptive Method with Case Study approach. Overall, most studies show the effectiveness of the CBT using includes cognitive, affective and psychomotor. In this paper, we found several facts that confirm the opinions of other researchers and provide an opportunity to be used in further research. The results show that CBT-based learning supports the success of President Joko Widodo's directive on the National Movement of Mental Revolution.

Keywords: CBT, Generation, Character, National Movement, Mental Revolution.

1. Introduction

Modern technology and information technology is very influential on the development of education. Most people in Indonesia realize the importance of new technology, especially the Internet in all life aspects including in it CBT-based schools. Modern technology provides a variety of information about everything.

Education is considered the best place to prepare a nation changing agent that will bring prosperity to others. Education institutions are no longer a place to transfer knowledge, but also a place to develop attitude, behavior, character and youth leadership. (Fathur Rokhman et al., 2014)

What is happening in our country today is a failure of the effort to strengthen good character education. Corruption, criminals, drug trafficking, promiscuity, and euphemisms are instigated by the news of progeny hoaxes, increasingly asserting the "dilapidation" of our present-born child's character. It can be concluded, we are at the point of deterioration and on the verge of destruction.

Therefore, the government through Ministry of Education and Culture assumed that the program of strengthening character education (PPK) and mental revolution, very urgent to immediately implemented from elementary school level to High School level. In fact, the publication of Presidential Regulation number 87 of 2017 which was recently signed by President Joko Widodo, aims to strengthen the character of students who have the same way with the aim of the National Curriculum (Curriculum 13 that has been renewed) began to be re-applied in schools. Hopefully, these two things can be an answer to the improvement and strengthening of the nation children's character in line with the *Pancasila*, religion, and culture of Indonesian nation.

2. Materials and Methods

The implementation of curriculum 13 in its development has undergone a revision that contains the educational strengthening program. It is expected to form the students' character to be better, responsible, and responsible. Since the application of this curriculum prioritizes the characterization and strengthening the character, the judgment of attitudes and values have a larger portion, compared with other common knowledge. The use of Computer Based Training (CBT) as a learning medium has increased over the past few decades. SMPN 4 Surakarta is a CBT-based school in Indonesia. Consistent with the new Concept shows that many schools recommend that students learn to use social media (Ito et al., 2009, Jenkins, 2006), CBT Learning is interactive teaching using computers as a medium of learning. The use of CBT is identical to the use of multimedia, such as text, photos, graphics, animation, sound, and full motion video (FMV), creating a dynamic communication environment. CBT is a technology for students benefit and it is not intrusive.

Therefore, it is important to have a clear and easy-to-follow graph that not only helps and retains students' interest in learning, transparent, shifting the focus of technology to the educational process. The CBT structure methodology uses computers as mentors and guides through various sources of learning (database), Ward and Swell (1987, p. 145) say "... allow the learner to store, manipulate and retrieve the information it has collected on its own". Thus, the power of the computer to store, retrieve, and process the information used to assist students as it passes through the 4th IAMU General Assembly, responds to related information, retrieves items as needed, summarizes statistical data, and others that may be of interest.

The flexibility is shown by the computer program at SMPN 4 Surakarta. It offers a solution to overcome difficulties, allowing teachers to learn to review and discuss the practices, methods, approaches and techniques used in the education system to have their own time, at their own convenience. In addition, Alessi and Trollip (1991, p. 3) Teachers have many routine administrative tasks, such as grading, generating tasks and handouts, writing letters, and recording resources and materials.

With the computer teachers can do or speed up such tasks so teachers have more time to work with students. The computer program can provide a highly flexible system that adapts to the abilities of different students and study fields, thus enabling students to compare, contrast and follow their own investigative path. The path is not rigid, determined by the technology and its programmers are taken interactively.

The use of CBT as a learning media can be categorized into:

2.1. The use of CBT by Students

Students at SMPN 4 Surakarta are motivated to learn, and have the necessary skills, resources and support. This resource is useful if it is well organized and cataloged. The use of computer databases is very useful in this regard. Textbooks and articles that are relevant to content, instructional design, not only cataloged in the database, but the contents are cataloged and described so that information can be quickly covered when needed.

Studying with CBT stimulates students to receive personalized learning materials through computer terminals, with interesting streaming videos. As Winer and Mothe (1987) argue, that computer learning changes the meaning of the verb "to know" from "having information stored in one's memory" to "the process of having access to information"

2.2. The use of CBT by Teacher

In today's modern era the teacher's role is developing class integration. Computers give students a high level of knowledge and understanding. According to Muirhead (1994) the emergence of very powerful desktop computers, networks, color graphics and interactive workstations has resulted in the growth of software widely used in education.

However, teachers are still suffering, preparing teaching materials, including assessing the initial state of the students including knowledge, individual characteristics, and the development of the teaching program itself as a sequence of steps to ensure that the delivery of learning materials can be optimal.

The use of database and spreadsheet programs helps teachers manage and manipulate any information with important aspects related to specific data or tasks. Graphic spreadsheet programs like Microsoft excel offers features, which makes it a potentially powerful learning tool in many classroom situations. They can act as databases; they can produce various types of graphs; they have libraries built in functions (logical, statistics, scientific, etc).

Teaching is an interactive process as well as a deliberate activity. In traditional teaching, the teacher controls the speed of knowledge delivering, which can affect students' understanding. While learning based on Computer Based Training (CBT) means to provide information Social Sciences especially for historical material with the speed that can be controlled by students. Learning with CBT media can be done individually, each student sitting in front of the keyboard and computer screen learning in their own way and at their own pace. It is important for each student to learn at their own speed clarified by Lyras (2000, p.4.4) that, "... you tend to do so only to retain a fraction of what you read and seek answers to relevant questions when needed."

Brown & Atkins, (1999) state that teaching can be considered to provide an opportunity for students to learn intellectually complex. It is socially a challenging task and a set of skills that can be gained, enhanced and expanded. Formal character education is based on both direct instruction and teaching deliberately designed to influence character development. Students get the right challenge, values, and rewards.

Lickona (1989) proposed an early character formation education that knew the rights, honored the rights, and made the right choices. While the teacher provide constant modeling of thought, speech, and moral action (Altekar, 1944; Keay, 1959).

Dunn and Wilson (1997) argue that teacher expectations about student behavior may change following participation in character education programs.

This research uses survey, interview and documentation techniques. The main instrument used is a direct question specially designed for this study and addressed to principals, Social Science subject teachers, as well as infrastructure supporting CBT-based learning. The sample population consists of Class VII students of 32 people from SMPN 4 Surakarta. The research problem shows the consequences that can be forgotten, and it is given an answer to the question of CBT-based implication schools on the Character Strengthening Education Program.

3. Results

This study aims to provide information that CBT-based learning is pro-active , it Supports the success of President JokoWidodo's directive on the National Movement of the Mental Revolution. Based on the results of surveys, interviews and documentation , SMPN 4 Surakarta has 2 Computer Lab Room, each room is available 37 sets of computers, with Internet Web Up to 50 Mega Classroom conditions are complete with CBT learning facilities, so students can make presentations by using LCD in the class.

4. Discussion and Conclusion

4.1. Discussion

Christopher and Woltzb, (2006) argue that the need for character education is evident in statistics on violence, absenteeism, drop-out, and school performance. In CBT-based learning process, it can be said that:

1. Students interested and enthusiastic follow historical learning of social scienceso it supports students to diligently attend school.
2. In CBT learning conducted in groups, fostering social soul, cooperation and sense of mutual cooperation / sense of togetherness without thinking of the differences in beliefs, ethnicities, etc.
3. Growing sense of mutual cooperation in completing the task to make students have the sense of affection, tolerance, such things can prevent the occurrence of violence among students.
4. With the spirit of school to follow CBT-based learning, it is possible to prevent the occurrence of children dropping out of school.
5. CBT-based learning can improve learning achievement because students are interested, happy and anthropic learning so it can concentrate learning.

The assumption said that most students are happy and fun to learn history by using CBT media. It supports the strengthening of character education programs. We accept the view that there are some shortcomings in the implementation of CBT-based learning, including students complaining of sick eyes after several hours in front of the computer screen. To avoid the adverse effects of CBT-based learning, there are parents who limit their children while using computers and even prohibit children from playing on the computer.

4.2. Conclusion

Education takes place continuously. CBT-based learning guarantees change and progress on itself, and others to grow as human beings with noble character (civilized man, noble virtue), as follows:

Being a generation religious (piety for God, homeland love, tolerance, respect for diversity, honesty, justice, empathy, compassion, respect, simplicity, forgiveness, humility, integrity, discipline, hard work, creative, independent, democratic, curiosity, the spirit of nationalism, appreciation of achievement, friendship / communicative, peace loving, reading, caring environment, social care, responsibility, hard work, simple, brave, caring etc.It is hoped that in the future in Indonesia there will be no students (the young generation) who are lazy to learn, lazy to school, no more students involved violence, brawl and also drugs. Therefore, in the future life of Indonesian society secure prosperous, prosperous no longer corrupt officials.

References

- Altekar, A. S. (1944). *Education in ancient India. Topics Social Sciences, Education, Organization of educational and training system. School organization.* Publisher Nand Kishore And Bros. Collection universallibrary. Contributor Osmania University. Language English. Call number 32398.
- Alessi, S. M., & Trollip, S. R. (1991). *Computer based instruction: methods and development.* Upper Saddle River, New Jersey: Prentice Hall. (2nd ed.).
- Brown, G. & Atkins, M. (1999). *Effective teaching in higher education.* London: Methuen.
- Christopher A. Wasadan J. Woltzb, ClifDrewb. (2006) *Evaluating character education programs and missing the target: A critique of existing research* a Kent State University, Educational Foundations and Special Services, 405 White Hall, Kent, OH 44242, United States b University of Utah, United States. *Educational Research Review* 1(2006) 148–156.
- Dunn, L. T., & Wilson, D. (1997). *A research report—moral classrooms: The development of character and integrity in the elementary school.* Kansas City, MO: The Teel Institute.
- Fathur Rokhman, M. Hum, Ahmad Syaifudin, Yuliaty (2014) *Character Education for Golden Generation 2045 (National Character Building for Indonesian Golden Years)* *Procedia - Social and Behavioral Sciences*, Volume 141, 25 August 2014, Pages 1161-1165
- Ito, M., Baumer, S., Bittanti, M., Boyd, D., Cody, R., & Herr-Stephenson, B. (2009). *Hanging out, messing around, and geeking out: Kids living and learning with new media.* Cambridge, MA: MIT Press.
- Lazar Stojić, (2014). *Parents Opinions Of The Impact Of Computers On The Social Behavior Of Children.* (IJCRSEE) *International Journal of Cognitive Research in Science, Engineering and Education* Vol. 2, No.1, 2014.
- Lickona, T. (1989). *Educating the moral child.* *Education Digest*, 55(1), 45–48.
- Lyras, D. (2000). *CBT-Apa yang bisa dilakukan untuk mencapai hasil pembelajaran yang sesungguhnya? CBT @ Laut 2000: Pelatihan berbasis komputer onboard (CBT)*, 11-12 Oktober, London (hlm. 4.1-4.10). London: Nautical Institute.
- Muirhead, P. (1994). *Teknologi satelit, pembelajar dan bantuan komputer dan jarak Metodologi Pendidikan: Duniabarukesempatan belajar dan pelatihan di laut.* Konferensi Internasional Kedelapan tentang Pendidikan dan Pelatihan Maritim, 4-7 Juli, Pacod` Arcos, Portugal (hlm. 11.1-11.11). Pacod` Arcos, Portugal: Escola Nautica Infante D. Henrique.
- Pemerintah (2017). *Biro Komunikasi dan Layanan Masyarakat Kemendikbud dan Tim Komunikasi: Indonesia: Kemkominfo-Humas Kemendikbud.*
- Suzana Miovska-Spaseva. (2013). *Human Mission Of Education.* (IJCRSEE) *International Journal of Cognitive Research in science, engineering and education* Vol. 1, No.1, 2013.
- Ward, R. & Sewell, D. (1987). *Seberapa miskin perangkat lunak pendidikan yang ada untuk mikrokomputer? Pembelajaran berbasis teknologi: Bacaan yang dipilih*, (hlm. 140-148). London: Kogan. 4th Majelis Umum IAMU
- Winer, L. & Mothe, J. (1987). *Computers, Education and the "Dead Shark Syndrome". Technology based learning: Selected readings*, (pp. 63-70). London: Kogan Page.
- <http://harian.analisadaily.com/opini/news/pendidikan-karakter-dimulai-sejaksd/418407/2017/09/20>
- <http://www.librarypendidikan.com/2017/05/kebijakan-dan-dinamika-perkembangan.html>
20/11/2017/17.26
- Interview Resource: 20/09/2017/11.10
Hetty Marheni, Sie Curriculum. Headmaster.
Esti Dwi Wardayati, (49 Years) Social Sciences Teachers.
Students Class VII in SMP Negeri 4 Kota Surakarta,

Table 1. Transcript Interview Use of Computer Based Training as Media Social Science Learning, History Materials.

No.	Headmaster	IPS Subject Teachers	Students
1.	Using National Curriculum	Setting up media is Appropriate Learning Program Plan '	Facilities and infrastructure CBT-based learning Complete and adequate.
2.	Computer lab 4 room, 37 units Computer.	Media in the form of LCD, Lab Top, Computers	CBT Media makes an easy learning process.
3.	Teaching based on schedule	The Wi-Fi is slow, inadequate, Power failure.	Seeing the computer screen within a certain time make sick eyes.
4.	Efforts to improve learning outcomes by joining National Olympiad and competitions.	Learning resources Google, Wikipedia, home study, and others.	Use of CBT media As needed, requires knowledge of skills and skill on CBT and interactive WEB.
5.	Web Internet Up to 50 Mega	Guiding students to make power point.	The use of CBT is accompanied other sources.
6.	By using CBT the efficiency of time, the material many can be completed in a Relatively short time.	Expect Learners, students can choose good and supportive learning resources.	Not all learners students have and can afford operates Laptop, computer, or android cellphone
7.	Complete CCTV.	Monitoring the activities of students as students open the WEB.	Learning with CBT is exciting and fun



Figure 1.
The picture of SMP (Junior High School) 4 Surakarta
Central Java, Indonesia



Figure 2.
CCTV Monitor Control SMPN 4 Surakarta



Figure 3.
Students are learning individually at Computer Laboratorium



Figure 4.
The group work students are presenting CBTprocess in the classroom.