The Challenge of Improving Special Education Quality in Digital Era

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Abstract: Digital era is a term used in the internet network technology, especially information technology. Today, the learning process is highly developed and predictably rapid; therefore, teachers should be more proficient in using digital technology because they will use it to teach the students. In education for students with special needs which is still conducted conventionally, the process of administrative, financial, academic, and learning methods need changes along with the development of information and communication technology. Therefore, the education requires ongoing innovation, technology, resources of professional educators which are digitalized.

Keywords: special education quality, students with special needs, digital era.

INTRODUCTION

Education is the empowerment of the children so that they become qualified citizens, have the ability to solve the problems faced, and are be able to compete in global life. The most important thing in education is the quality of education, i.e. education is able to create a qualified human who is smart, nasionalist, honest and anti-corruption. *The Organization for Economic Cooperation and Development/OECD identified that the characteristics of education in 21st century are thinking skill, working tools, the way working, and life* (Ananiadou & Claro, 2009). Qualified education means education in according to the era, so that children acquire knowledge for their life. By these reasons, an effort to improve the quality of education should be relevant with evolution era, including on this issues are the changes of 21st century.

In the 21st century, the world shows the changes that grow rapidly in all aspects of life. Education is one of the aspects which changes in this century. Solving the education problems of the 21st century needs some skills such as (1) creativity, (2) critical thinking, (3) communication, (4) collaboration, and (5) cellebration (Chinien & Singh, 2009; Lucas, Spencer, & Claxton, 2012; Sudira, 2012; Wagner, 2008). Those skills are essential in the process of selecting, filtering, absorbing, developing, and appliying the knowledge in solving the main problem to improve the balance between the concept and its application. Intelligence and learning skill are the main keys of the development of the capacity and capability of human. Likewise, innovation skill is an important part of the human ability in solving problems

In the role of the technology and information changes, education needs to respond the evolution of education, including special education quality. Therefore it is necessary to create the new mindset in effort to make innovation in education. The digital era in the 21st century provides the advantage or benefit for education, such as the extensive availability of sources for learning which can be accessed through the internet, making it easier for teachers and students. Teachers and students can sort out how to teach and how to learn in accordance to their needs and desire.

Information about the lastest educational innovation can be accessed quickly, so that teachers and students across the country can easily obtain information to enhance their ability. Nevertheless, the advancement of information and technology gives a negative influence, especially on the development of students. For example the information of pornography, violence, bullying, and inappropriate content for the age of the students.

Meanwhile, the students' ability in selecting and sorting information is still limited, so they tend to be easily affected by the negative impact of the information content that is not appropriate. In this case, the role of teachers and parents is needed in order to assist, guide, and supervise the students so that they are ready to face the development of digital era and put the benefit as optimal as possible for their needs.

SPECIAL EDUCATION IN INDONESIA

Education for children with special needs in Indonesia have been around since the 20th century, i.e. since the opening of the school for students with visual impairment in 1901. It was then followed by the establishment of school for children with hearing impairment and schools for children with mental disability.

Table 1. Trilling & Fadel (2009) outlines the change of paradigm as follows:

Old Paradigm	21st Century Paradigm
Teacher centered	Student centered
Direct instruction	Interactive instruction
Knowledge	Skill
Material	Process
Basic skill	Implemented skill
Fact and principal	Question and problem
Theory	Practice
Material based	Project based
Time limit	According to the needs
Competitive	Colaborative
One-size-fits-all	Personalized
Focus on class	Focus on community
Text based	Web based
Summative test	Formative evaluation
Study for next level	Study for living

After that, there was no additional schools for children with special needs until the independence of Indonesia.

The rapid development of the schools for children with special needs have occurred since the declaration of the movement of compulsory education, where every child of school age is required to attend school. Therefore, children with special needs who were previously not idetified because they were hidden by their parents or family can be raised and attended school. Since then, many schools for children with special needs were established in all border area in Indonesia.

Since the beginning of the 21st century, inclusive schools have been widely opened in Indonesia as an effort to expand the access and learning opportunities for children with special needs. The strong desire from the government of Indonesia to advance the education of children with special needs can be seen from the enactment of the Education Act No. 4 of 1950 as amended by Act No 12 of 1954 which governs the rights of special needs education. The birth of the legislation has been an evidence that there is strong commitment of the government of Indonesia to provide education to children with special needs. The principal law of education ultimately becomes the law on national education system, after having revised several times.

Entering the 21st century, special education faces the challenges related to the digital revolution on how to improve the special education quality so children with special needs can graduate and compete in a global life. On the other hand, special education is still preoccupied with the expansion of the access of children with special needs to obtain education.

IMPLEMENTATION OF DIGITAL TECHNOLOGY IN THE EDUCATION FOR CHILDREN WITH SPECIAL NEEDS

Education in general and special education are experiencing rapid and dramatic change from time to time over the period. This change was made as a response to the rapid changes in technology and information which demands education to be able to create graduates with appropriate capabilities with their era.

Associated with that, Trilling and Fadel (2009) argues that education should always move in line with the progress of time. Education must continue to dynamically move following the development of the times. In digital era, students are different from students of previous era. Children in the digital age (specially children who were born after the adoption of digital technology) tend to be more open, think aggressively, and want to gain freedom, as well as fast learning because all the information can be access easily. The changes in digital era ask for a response from the education so that education is still able to create graduates who are fit with the purpose.

The rapid development of information and communication technology raises the impact of the massive changes to the world of education from conventional education to the education that is more open. The educational process will be more two-way, competitive, multidisciplinary and more productive. Digital technology has encouraged the formation of the new teaching and learning, so that there is a new paradigm in the teaching and learning process and also in the management of education.

Thus learning nowadays is to learn about the future, so that education should be organized in line with the demands of the future and learn about the future. The learning process should grow fast and should be supported by digital technology. However, in this digital era, the integration of technology and education is needed to be able to revolutionize the process of teaching and learning. Even more, education is expected to improve the quality of education with the technology, because technology will help the appropriate learning with the needs of students.

The desire to implement digital transformation in the improvement of special education should be started with the understanding how people begin to learn in the digital age. The transformation of special education should be started with a digital transformation in enabling educators to create a new learning environment. The utilization of digital technology in improving the

quality of special education rests on the students as the digital generation, educators and education personel.

THE IMPACT IN LEARNING STYLES

The influence of the rapid use of information and communication technology in education, can be seen from the development of distance learning, the easily organized open education, cooperation between institutions (national and international) for digital library, and others. The things above are possible to be applied in special education, including Indonesia. The role of the teacher will not be replaced by technology because the teacher is needed to assist, guide and supervise students with special needs in using digital technology. They are primarily there to help students with special needs to select and sort the content information which is needed or not needed. Therefore, teachers must be able to utilize digital technology as a tool of work in order to develop a culture of learning that fosters the personality of the students. Teachers become one of the pillars in leading and supporting the creation of education quality improvement in Indonesia. Nevertheless, in this process, the teacher will face many challenges, one of whichis facing the insistence of the digital era.

Amin (2016) argues that in 21st century, the world becomes more complicated, competitive and intertwined so that students need to learn how to survive and thrive in digitalization era. Students should be equiped with problem-solving skills, creative mindset and information literacy. Therefore, teacher should be able to teach students these needed skills. This is, according to Shah (2013), a challenge faced by the teachers profesional in learning and education in a technology-intensive environment. IIn addition, teacher should be concerned that academics have to be the knowledge experts, effective listeners, and communicators as well as coaches, facilitators, mentors, problem solvers, designers, supporters, and resource co-ordinators (Lentell, 2003).

Digitization in education creates a new way of learning. Today, a book is the only reference to learn and get the material, but now it swithcs to a computer-based system. The book no longer becomes the only source of learning to support success in learning. But actually the book and the application of digital technology is a unity as a reference to learn with technology that is displayed in the form of a digital book or electronic book. This shows a change in the learning styles of students through electronic media. With the presence of digital technology as an electronic media to deliver the material, the educator is no longer the only source of knowledge. The manual has been moving to digital books to facilitate the students and teachers in the learning process because it is more practical and more interactive and also more easily accessible. This is one of the implications for teachers' professional learning and education (Tour, 2015), and also make the learner and learning transformation (Singh, 2016).

TEACHER IN DIGITAL ERA

In digital era, teachers have a new challenges in their role as a facilitator of learning. Teachers need skill which can support their role as facilitator. Sharma (2017) argues that teachers need networking skill, communication skill, thinking skill, nurturing skill and management of knowledge. Networking skills facilitate collaborative learning environment. Collaborative learning environment consists of students, researcher, government representatives, communities of practice, and other teacher. So, students would have some prior knowledge of the same curriculum that are influenced and determined based on the previous curriculum.

Teacher eager to scramble to address the impact of advanced web technologies on learning (Foroughi, 2015). Teachers need to add social media communication skill in digital era to education. Social media communication skill is one of the prominent skills which the teacher can reach out to distant expert of the learner's community to seek for the solutions to various problems in their daily lesson plans. In addition, thinking skill, such as critical thinking, problem-solving, creativity, originality and strategizing are important in learning, and also nurturing approach can help teacher focuses on the interest of the student and delivers contents of knowledge and persuading them to connect to the world. Moreover, teachers are required to be facilitators helping learners to make judgements about the quality and validity of new sources and knowledge, open-minded and critically independent professionals, active co-operators, collaborators, and mediators between learners and what they need to know, and providers to scaffold understanding (Weinberger, Fischer, & Mandl, 2002).

CONCLUSION

Education will change from time to time in line with the changing of era. The movement of this change is a logical consequence of education in the responsibility to prepare a generation that has the ability to live in their era. In this digital era, the development of students is very different from the previous generation, so they need educational services which are suitable for their era. The progress of digital technology is supposed to provide benefits to the progress, welfare and peace. Digital technologies must contribute to education, because digital technology has variety of information that can be accessed easily. The information is not

just comprehensive information, but also educational information, specially information that is useful to education field. Therefore, the digital devices should be applied well, including in education. Educators must be able to give better facilities. Thus the good guidance and supervision of technology is very helpful for the knowledge of students to be more open, creative, and innovative.

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