Literature Study: The Role of Innovation in Education in the Learning Process Teaching Children with Special Needs Using Digital Technology

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Abstract. In the world of education, required constant innovation to keep abreast of developments in various field. Technology has a positive impact nor negative. So that the negative impact can minimized, it is important to have good cooperation from various parties in using appropriate technology the goal. Innovation in education very crucial role. Innovation is needed for the use of digital technology optimally and comprehensively. Learning concept use digital technology very much needed in teaching children with special needs, because with digital technology, many things can break down as an innovation. With the technology growing as it is today, is expected can be put to good use by various parties, including teachers and all elements in the world of education.

Keywords: Innovation, Education, Digital Media, Children Special Needs.

1   Introduction

Education and innovation are intertwined and cannot be separated. Innovation Education is an effort to create new things that are intended to achieve specific goals or solve problems certain (1). The hope is that educational innovation will have a positive impact on society by developing skills in various fields such as social and economics. To succeed in innovation, it is important to have creative, critical, imaginative thinking, as well as attention to subject skills and intelligence emotional.

Various countries have realized the need for a strategy to improve innovation in education. For example, The Hungarian state has Hungarian National Education Sector Innovation System (NESIS) involving parties key to fostering innovation education (2). Singapore too Adopt STEM (Science, Technology, Engineering, Mathematics) in innovation education (3). By therefore, a strategy to develop Educational innovation must be comprehensive and maximize utilization existing potential, including progress in technology field. However, with progress technology, must also be ensured skilled human resources use it. Empowering various parties in world of education with skills which is appropriate in the digital era to be main factor of participation in life social, economic and cultural of their country now and in the future. The Digital Age

characterized by technological developments which rapidly, has changed the view on education and learning, in where the use of technology is more used (4). Educators are expected to be able maximize learning with adaptation to these changes. Training and new knowledge for teachers is very it is important that they are ready to face these changes (5).

In the midst of digital growth continues, individuals are expected with quickly adapt to the demands of will skills and technological change very massive. Likewise, teachers must demonstrate a collaborative attitude, creative, dare to take risks, and apply a learning approach thorough process to ensure learning remains optimal and focused on student needs (Rahman & Nuryana, 2019). Level of need for educational innovation indispensable for many systems good education regular education, special education, even education inclusion. Educational service facilities adapt to the needs of students studying in school, by looking at the characteristics and needs of students, teachers need to think creative and proficient in giving innovative learning services. Specifically for children with special needs receive educational services at school special and inclusive schools, services Educational innovations are given to children with special needs adjust the educational concept sustainable through the use of media digital in developing tools and innovative learning.

2   Method

This article is literature review using the method PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) which collects and analyzes research articles about the innovative use of digital technology in the teaching and learning process of children with special needs. Literature review will enable a researcher to do identification of a theory or method, developing a theory or method, identify gaps that occur between a theory with relevance in field / to a research result (6). Doing a literature review is tantamount to carrying out activities: 1) collecting data/information, 2) evaluating data, theory, information or results research, and 3) analyze the results of publications such as books, research articles or others others related to research questions that have been prepared previously.

3   Results And Discussion

3.1   Educational Innovation

Innovation in education is a process of change involves invention or development new knowledge to create or improve the system (7). This innovation relates to be a technological improvement in a wide range aspects of society, such as politics, economics, health, science, and technology itself (1). In general, innovation in education is an idea, new events, items, or methods introduced by individuals or groups person. Educational innovation process involves a series of activities to implement and disseminate innovation (8).

Continuous educational innovation progress because influenced by internal factors and human external. Internal factors involves motivation and a need for increase self-potential and fulfill life necessities. Meanwhile, factor externally associated with that change happening in the surrounding environment. Interaction between these two factors is the driving force key to creating innovation sustainable. Education plays an important role in build people who are ready to face changing times (9). Therefore, innovation in education is a must. In an effort to achieve this goal, innovation strategies are needed education, including infrastructure strategies, educational strategy, coercion strategy dam persuasion strategy (8). It is important to choose appropriate strategy needed for this strategy plays a crucial role in determine the effective outcome of an idea or implemented innovations.

Innovation in the world of education must also take advantage of technology intelligent and take advantage of existing potential to improve the learning process and educational practice (10). Educational innovation can include the use of technology, critical thinking, creative, and imaginative. Educational innovation not only includes instructional changes, however It also includes tool development and new practices, forms of organization, as well technology. To achieve success in educational innovation, is needed supporting elements such as adoption different points of view, resources unwavering human change, and supportive environment (11).

Some character of innovation education includes relative advantages, benefit to the user, compatibility with values and needs, trials of which possible, and observability (8). innovation success education is also very dependent on existing resources, included in developing the abilities of educators through various training and mentoring technical (8). Educational innovation process involves four stages, namely discovery or adaptation, development, deployment information, and adoption by individuals or groups (8). All this shows that innovation in education is a thing important and must be continuously improved to deal with change and future challenges.

3.2   Technology in Education

Innovation in education involves the use of digital technology as a key element. Introduction of new technologies in the environment Schools need to be adapted to the needs and characteristics of students (10). Many countries, such as Sweden, United States, and Norway, have integrate ICT education (Information and Communication Technology) to in the curriculum or launching initiatives to increase the use of technology digital in education (12).

Education with support Digital technology has become very important because it facilitates innovation and progress of information in process learning. Digital technology helps society, including the perpetrators education, facing the era of revolution information and communication technology (13). Educational innovation must be able includes the utilization of digital content. Cultural integration in education can encourage the emergence of new ideas and improve cognitive knowledge, career, academic achievement, and awareness social (14). Development of digital technology make a huge impact on a variety of the nation-building sector, incl education.

Technology advances enable the dissemination of information quickly and widely among society, which in turn influence education and awareness parents on children's education them (15). Use of information technology and communication has become a reform important in educational development in various walks of life (16).

3.3   Utilization of Technology in Education

The role of the teacher in learning to be the key to success, especially in digital technology development. Teachers must have the skills to deal with technological developments (17). They must be prepared with changes that occur and can convey teaching in a way interesting so that students understand more learning (15). In technology development digital, teachers can do the making learning digital content for adjust to the characteristics of students and the times (18). The use of educational games as well can help students learn creative and improve skills problem solving (19).

Even though the government has make various efforts development of digital technology in education, not all teachers can master it completely, especially for teachers who live in urban areas and rural areas (20). Need evaluation of development is carried out digital technology in agar education learning runs effectively (21). Utilization of digital technology in the world of education has an impact positive and negative. The positive impact including time and cost efficiency, facilitate access to information, and provide a richer learning experience widely to students (22-24). However, impact The negatives include changes in behavior social, ethical, and moral, and risks addiction and lazy behavior in students (23-25). Therefore, parents, teachers, and society must work together supervising and guiding the child in make positive use of technology. In addition, usage technology should be considered with well, ethics must still be upheld, and There is control over usage technology in children (23).

3.4   Assistive Technology in Concept Learning for Children with Needs Special

In the era of globalization, learning for children with special needs using tools or media responsive to the times. The tools or media in question include: various technologies, both simple ones as well as sophisticated, which can be used by children with special needs their learning process. With introducing technology to children with special needs, education can be better supported, and teachers also it will be easier in deliver learning material. In utilizing technology as a learning medium for children with special needs, it is important to consider technology selection right. This is caused by differences in characteristics between one child with special needs with others. These distinct characteristics include physical, mental, emotional, social, and intellectual. With regard to technological compatibility with characteristics individual children with special needs,

This technology can function as an effective learning tool or media and efficient, thus supporting the process optimal learning.

Application of innovative learning technology for children with needs specifically in inclusive schools and schools specifically need to adjust to characteristics and needs

of the participants students with special needs. digital media used is expected to have sustainable concept, teaching materials that innovative that digitalization needs to be creative, innovative, and sustainable includes academic skills, development of skills and skills motor skills in children with special needs. By utilizing digital technology teachers need to have deep skills operate and implementing digital media for meet innovative educational services for children with special needs.

4   Conclusion

Innovation in the world of education is a process of renewal and change its important to follow developments in various fields. The importance of educational innovation is to continuously improve its quality and can be measured at a higher level. The quality of education is closely related related to knowledge, technology, and creativity. One aspect of innovation relevant education is technology use important for the advancement of education. Utilization of technology in learning process can be done through various online platforms such as Master's Room, Quipper, Zenius, and the like. With this approach, content learning can be presented in digital form, facilitating the process learning and search for learning resources without space and time limitations.

Despite the use of technology has been accessible to many people society, efforts for equity digital technology in Indonesia is still necessary improved. To optimize technology benefits and minimize negative impact, cooperation is required from various parties. The teachers have get seminars, training, and training to increase understanding and use of technology in learning. Use of technology in educational innovation makes an impact positive and negative. Therefore, cooperation from all elements of society expected to support and contribute to various innovations digital technology-based education, including platforms like Ruang Guru, Zenius, Quipper, Pahamify and others. The government also has an important role in issuing evaluations based educational innovations digital technology to understand the extent which impact has occurred. Study more can also be done for understand more deeply the impact use of digital technology in educational innovation in Indonesia.

In inclusive education the use of tools or media for facilitate children with special needs in carrying out daily activities. Use of technology in the case of children with special needs is certainly different with the technology used by other normal students. Before This technology can be used as learning media, he passed several process stages. By using assistive technology, the hope of students can follow the lesson with easy, safe, and independent, so it can support their learning success.

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