

Quality Education for the future : Challenges and Opportunities Towards 2030

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Abstract. Quality education is a key factor in achieving sustainable development goals and preparing future generations to face global challenges. Therefore, education must be planned carefully and equip them with Higher Order Thinking Skills (HOTS). This research aims to analyze the importance of high-quality education in relation to sustainable development goals, emphasizing the difficulties faced and opportunities that can be exploited by 2030. A variety of national and international publications' literature evaluations are employed to gather data for the qualitative research approach. The results of the study indicate that by focusing on the role of education, perceptions, attitudes, and behaviors of individuals can be transformed. Additionally, education can also be a primary driver in achieving comprehensive economic and social sustainability.

Keywords: quality education, challenges, opportunities, 2030

INTRODUCTION

The World Bank stated that quality education in Indonesia today This relatively minimal, though expansion access education for public increase in a way significant. One of the cause is Not yet evenly access to education or in other words still there is gap. The role of the 2002 Johannesburg World Summit regarding development sustainable in promoting Education and Sustainable Development is very important For developed as draft key in plan its implementation (Yuliani & Hartanto, 2020).

Countries invest in education with hope that matter This will contribute to well-being period longevity and sustainability economy they. The current problem is that the needs of the world of work have changed but existing education has not undergone changes to suit the needs of the world of work. Currently, the world is changing face Industry 4.0 is really needed generation that has knowledge and abilities for face challenge technology new more complex. For respond matter this , deep field education, especially in the learning process, must designed very well so that it is meaningful and appropriate with objective as well as need student For prepare they facing the future. Learning 21st century emphasizes more big on ability student For do Skills Higher Order Thinking (HOTS) (Sugandi & Ruhimat, 2021; (Toquero, 2020; Almazova et al., 2020).

According to Stevani & Nugraheni (2024), Indonesia has capacity For proceed become a developed country in various ways field and build economy sustainable through Sustainable Development . Goals This can help Indonesia become a developed country that grows in all areas field and capable utilise idea continuity in a way successful and full. Provide education quality tall is one of the objective development sustainable. Because of education own strength For change attitudes, behavior, and perceptions society, then education can contribute to development sustainable (Lawitta et al., 2023). This is caused by education hold role important in form method views, language, character, and abilities somebody in contribute to society and state (Kayembe & Nel, 2019; Pedro et al., 2019).

With thereby study this aim For discuss importance education quality in context objective development sustainable , highlighting challenges faced as well as possible opportunities utilized going to in 2030. This research aims to analyze the importance of high-quality education in relation to sustainable development goals, emphasizing the difficulties faced and opportunities that can be exploited by 2030.

METHODS

This research is research using the literature study or literature review method. A literature review is a comprehensive overview of research that has been conducted on a specific topic to show readers what is already known about the topic and what is not yet known, to find rationale for research that has been conducted or for ideas for further research (Denney & Tewksbury, 2013). Literature studies can be obtained from various sources, including journals, books, documentation, the internet and libraries. The literature study method is a series of activities related to methods of collecting library data, reading and taking notes, and managing writing materials (Zed, 2008 in Nursalam, 2016). The type of writing used is a literature review study which focuses on writing results related to the topic or writing variables.

The data used in this research comes from the results of research that has been carried out and published in national and international online journals. In conducting this research, researchers searched for research journals published on the internet using the search engines ProQuest, PubMed, Research Gate, Google Scholar and Sciendirect Elsevier with the keywords: Challenges, Opportunities, Quality Education, Towards 2030. The data collection process was carried out by filtering based on criteria determined by the author of each journal taken. The journal collection criteria are as follows:

- 1) Year of the literature source taken from 2017 to 2024, suitability of writing keywords, relevance of writing results and discussion.
- 2) Strategy for collecting various literature journals using accredited journal sites such as

ProQuest, PubMed, Research Gate, Google Scholar and Sciendirect Elsevier.

- 3) An effective way of writing for journal settings is by entering keywords according to the title of the writing and conducting a search based on advance search by adding AND/OR notation or adding the + symbol.
- 4) Do a search based on full text
- 5) Assess the journal from the abstract whether it is based on the research objectives and carry out a critical appraisal using existing tools.

Systematically, the steps in writing a literature review are as shown in the following figure 1.

Furthermore, the data analysis technique in this research uses content analysis data analysis techniques. Data analysis begins by analyzing research results from the most relevant, relevant and quite relevant. Then by looking at the research years, starting from the most recent, and gradually going back to older years. The researcher then reads the abstract of each previous study to provide an assessment of whether the problems discussed are appropriate to those to be solved in the research. Next, note down the important and relevant parts of the research problem.

RESULTS AND DISCUSSION

The Importance of Quality Education

Well-being social is component development sustainability that relies on education. Spread knowledge together become more easy blessing technology information, the moment This become machine main force behind education reform. Education in schools and institutions has changed as consequence from appearance tool learning just helped technology like device mobile, board smart, MOOC, tablet, laptop, simulation,

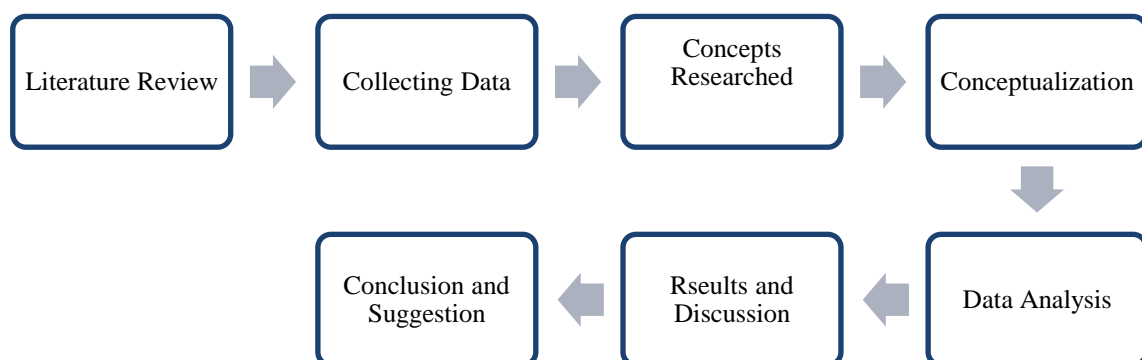


Figure 1. Flow of literature review

visualization dynamic, and virtual laboratory. One of the most economical way For educate brain child young is via the Internet of Things (IoT). This is also a effective way For utilise opportunity education best for everyone (Haleem et al., 2022).

Technology company education Keep going try create solution new For expand access education for individuals who do not can obtain facility adequate education (Subandowo, 2022). Social media use For education has develop fast. Social media Lots used by educators and students as component important in the e-learning process (Aulia et al., 2019). This is important for share information about incident latest. Apart from ability for communicate information anywhere, anytime of course, social media sites are also fantastic resource for produce opportunity network to use build activity social and possible work new (Firamadhina & Krisnani, 2021; Morina, 2019).

Sustainable Development Goals

Sustainable Development Agenda, which includes the Sustainable Development Goals (SDGs), is series objective internationally supported by UN member countries in 2015. By 2030 , 17 Sustainable Development Goals (SDGs) aim to For relieve poverty, protect environment alive , and guaranteed every living person peace and prosperity. The 17th goal the is as following (Weiland et al., 2021): 1) reduce poverty, 2) Achieve food security and optimal nutrition, end hunger, and support sustainable agriculture, 3) Encourage healthy and prosperous lifestyles in all age groups, 4) Ensure all students receive high-quality, inclusive education and support learning opportunities for life, 5) Empowering all women and girls and achieving gender equality, 6) Guaranteeing universal access to clean water and sanitation facilities, as well as their sustainable management, 7) Guaranteeing that everyone has access to modern, affordable, reliable energy, and sustainable, 8) Encourage full and productive employment, fair and sustainable economic growth, and decent work for all, 9) Develop inclusive and sustainable industrialization, encourage innovation, and build resilient infrastructure, 10) Reduce disparities both within and between countries, 11) Create strong, safe, friendly and sustainable communities and cities, 12) Ensure sustainable practices in both production and consumption, 13) Act now to mitigate the impacts of climate change, 14) Protect resources marine, oceanic and coastal areas and utilize them responsibly for long-term and

sustainable development, 15) Stop, reverse and encourage land degradation, stop the loss of biodiversity, manage forests sustainably, fight desertification, and maintain, restore and encourage the use of terrestrial ecosystems in a sustainable manner, 16) Encourage the creation of an inclusive, peaceful society for sustainable growth, guarantee everyone's access to justice, and create inclusive, efficient and accountable institutions at all levels, 17) For sustainable development, strengthen strategies implement and revive international collaboration.

Challenges and Opportunities for Education 2030

Education for Sustainable Development is concept continues developing , with Lots relevant interpretation with circumstances local and national, because he adapt with specification context political, socio-cultural, and ecological . Draft This reach confession big during Decade United Nations (UN) on Education for Sustainable Development (2004-2014) (Shulla et al., 2020).

As for the Educational Challenges Towards 2030 that is including gap access and quality education , adaptation to progress technology, development skills 21st century, funding, teacher quality, education inclusive, method assessment, and alignment with needs of the world of work (González García et al., 2020). Whereas Educational Opportunities Go To 2030 that is (Fan & Thomas, 2023). 1) Quality and accessibility education can improved through utilization technology , such as the Internet of Things (IoT), intelligence artificial (AI), and tools learning digital based. 2) More access and flexibility big possible through online and hybrid learning models , especially during crisis like pandemic moment. 3) Use technique teaching up to date like learning based problems , learning based projects , and learning collaborative can increase understanding and involvement student. Therefore, education plays an important role in achieving sustainable development goals and better equipping future generations to face the future by helping them overcome these obstacles and take advantage of existing opportunities.

CONCLUSION

The current education system still faces various challenges, including gaps in access and quality of education, adaptation to technological advances, development of 21st century skills, funding, teacher quality, inclusive education, assessment

methods, and alignment with the needs of the world of work. However, various opportunities also emerge to overcome these challenges, including the integration of technology in learning, online and hybrid learning models, global partnerships, dynamics of curriculum development, improving teacher skills, implementing Education for Sustainable Development, innovation in learning methods, and increasing community participation.

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