

Transformation of Education to Welcome the Golden Generation of Indonesia 2045

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Abstract: The Golden Indonesia 2045 vision is driving Indonesia's transformation into a developed nation. In order to achieve this goal, education - the primary pillar of human development - is essential. Nonetheless, a number of issues still plague Indonesia's educational system, including insufficient infrastructure, irrelevant curricula, and inconsistent teacher quality. In order to create a golden generation that is capable, bright, and morally upright, this study attempts to develop a complete education transformation approach. This study identifies a number of crucial elements that must be taken into account in education transformation through literature reviews and policy analysis, including the creation of a competency-based curriculum, the application of efficient learning technologies, raising the caliber of teachers, and extending equitable access to education. This report also emphasizes how crucial it is for communities, schools, the government, and the commercial sector to work together to support educational transformation. It is anticipated that the findings of this study would aid in the creation of improved educational policy in Indonesia. This study also comes to the conclusion that enhancing teacher quality, utilizing technology, and cultivating 21st century capabilities must be the main goals of educational change. The secret to a successful transformation is competency-oriented evaluation, active learning strategies, and a pertinent curriculum. This report offers policy suggestions that can help Indonesia Emas 2045 achieve its goals, specifically by boosting educational investment, enhancing collaboration between the government, educational institutions, and communities, and promoting educational innovation.

Keywords: Transformation, Education, Generation, Indonesia, Golden

A. Introduction

Indonesia is transforming into a developed country with the vision of Indonesia Emas 2045. Education as the main pillar of human development plays a crucial role in realizing this vision. However, the education system in Indonesia still faces various challenges, such as the uneven quality of teachers, a curriculum that is less relevant to the needs of the times, and inadequate infrastructure (Ansori, 2021; Fahraini & Almaliki, 2023). Indonesia is transforming into a developed country with the vision of Indonesia Emas 2045. Education as the main pillar of human development plays a crucial role in realizing this vision. However, the education system in Indonesia still faces various challenges, such as

the uneven quality of teachers, a curriculum that is less relevant to the needs of the times, and inadequate infrastructure (Alkaf, 2024; Toyib & Herachwati, 2024). Education, as the foundation of human resource development, plays a crucial role in producing a golden generation capable of facing future challenges. Therefore, this article discusses in depth the educational transformation needed to produce a superior, innovative, and characterful generation of Indonesia.

Rapid technological developments and digital disruption have drastically changed the world landscape. Indonesia is not immune from the influence of this change. In the midst of this disruption, education is faced with increasingly complex challenges (Alzub, 2023; Narula & Sabharwal, 2024). However, on the other hand, this change also opens up great opportunities for education to transform to become more relevant, effective, and efficient. The article examines the challenges and opportunities faced by Indonesian education in its efforts to create the golden generation of 2045.

The Golden Generation of Indonesia 2045 is described as a generation that has global competence, strong character, and a high entrepreneurial spirit. To produce such a generation, an education system is needed that is able to develop students' potential to the maximum (Arraniri et al., 2021; Sofiyana et al., 2021; Zakky & Almubaroq, n.d.). In this research study, the researcher elaborates the concept of the golden generation of 2045 and formulates the educational transformation strategy needed to realize it.

In principle, Indonesia has a big goal, namely the Sustainable Development Goals (SDGs), this is a global agenda set by the United Nations (UN) as a joint effort to overcome various world challenges, such as poverty, inequality, climate change, and environmental degradation (Ramli, 2021).

The Sustainable Development Goals have become a global agenda that aims to create a better future for all. Quality education is one of the main goals of the SDGs (Permatasari et al., 2021). This article will discuss the contribution of educational transformation in achieving the SDGs, especially in the context of Indonesian development. Based on (Gulo, 2022) The main goal of the SDGs is to create a better and more sustainable future for all. The SDGs consist of 17 interrelated goals that cover various aspects of life, from poverty alleviation to environmental protection.

Educational transformation is very crucial because Indonesia is at a turning point in history. The Vision of Golden Indonesia 2045 demands fundamental changes, and education as the foundation of human development is the main key. The main background of this study is 1) Rapid Technological Development, 2) Globalization and International Competition, 3) Demographic Change, 4) Current Educational Challenges 5) Vision of Golden Indonesia 2045. Meanwhile, the problems in this study, based on this background, can be identified in educational transformation, including: a) Difficulty adapting to change, b) Digital divide, c) Lack of student learning motivation, d) Uneven quality of teachers. The objectives of Educational Transformation; a) Preparing the future generation,

b) Improving the quality of education, c) Realizing equal education, d) Increasing the relevance of education to the world of work.

This is in line with (Jaya et al., 2023; Mohamed Hashim et al., 2022; Nugraha et al., 2021) educational transformation is a must in facing the rapid changes of the times. Efforts made in educational transformation must be comprehensive and involve all stakeholders, from the government, educators, students, parents, to the wider community. The ultimate goal of educational transformation is to create a quality, relevant, and equitable education system for all Indonesian people.

Based on this background, educational transformation to welcome the generation of Golden Indonesia 2045, needs to be studied more deeply for research because educational transformation is the main key in realizing the vision of Golden Indonesia 2045. Given the challenges currently faced, such as gaps in access, curriculum relevance, and uneven teacher quality, fundamental changes are needed in our education system.

B. Methods

This study uses exploratory and descriptive methods; in other words, the purpose of this study is to explore, understand, and describe comprehensively how educational transformation can help create the Golden Indonesia generation of 2045. This study collects data from various relevant sources, such as Google Scholar, JSTOR, ERIC, and so on. This study focuses on fairly broad concepts about educational transformation to welcome the Golden Indonesia generation of 2045.

C. Results and Discussion

The Vision of Golden Indonesia 2045 describes Indonesia's ideals of becoming an advanced, independent, and globally competitive country. To achieve this vision, quality and competitive human resources are needed. Education as the foundation of human development plays a very crucial role. However, the education system in Indonesia currently still faces a number of challenges, based on research results (Magfiroh & Nugraheni, 2024; Shaturaev, 2021c; Sukmayadi & Yahya, 2020; Susianita & Riani, 2024) These challenges are such as:

1. Unequal quality of education: Access and quality of education still varies between urban and rural areas, as well as between public and private schools.
2. Less relevant curriculum: The existing curriculum is not fully capable of equipping students with the skills needed in the 21st century, such as critical, creative and collaborative thinking.
3. Educational technology is not yet optimal: The use of technology in the learning process is still limited and uneven.
4. Student character is not yet optimal: Character values such as integrity, responsibility, and mutual cooperation need to be continuously strengthened.

Based on the problems stated in the introduction, several solutions are needed to overcome these problems, including:

1. Difficulty adapting to change: Rapid changes in the world of work require more flexible curriculum adjustments and learning methods (Sartini et al., 2024).
2. Digital divide: Not all students have equal access to information and communication technology, thus widening the learning gap. (Paling et al., 2024).
3. Lack of student learning motivation: Student learning motivation is often low due to the lack of relevance between the subject matter and real life (Nurhayati & Lahagu, 2024).
4. Uneven quality of teachers: The varying quality of teachers in each region affects the effectiveness of the learning process. (Sariwardani, 2023).

Educational transformation aims to address these issues and create a more quality, relevant and inclusive education system. The main objective of educational transformation is based on the results of the study (N. D. Lestari & Yulaini, 2024; R. D. Lestari, 2021; Rosani et al., 2023) yaitu;

1. Producing a golden generation: Producing graduates who have global competence, strong character, and a high entrepreneurial spirit.
2. Improving the quality of learning: Improving the effectiveness of the learning process through the use of technology, developing relevant curricula, and improving teacher quality.
3. Ensure equal access to education: Ensure that all students have equal opportunities to receive quality education, regardless of socio-economic background.
4. Developing national character: Forming a young generation that has Pancasila values and strong character.
5. Preparing human resources to face the future: Equipping students with the skills needed in the digital era and industry 4.0.

Based on the study, it can be said that transformation, there are fundamental changes that must be made in the education system. This is not just a small improvement, but a comprehensive and profound change. Education focuses on how all sectors of education, all aspects of education, from curriculum, learning methods, to the role of teachers and students, will become the object of study. The Golden Generation of Indonesia 2045 where the ultimate goal of education transformation is to produce a quality generation, able to compete at the global level, and bring Indonesia to glory in 2045. In short, education transformation aims to create an education system that is able to produce graduates who are ready to face future challenges and contribute to national development.

Rapid Technological Development is one of the downstream of educational transformation in the form of; a) Digital disruption: The emergence of new technologies such as artificial intelligence, big data, and the internet of things is changing the way we learn and work. b) Demand for new skills: The world of work demands graduates who have 21st century skills, such as critical thinking, creativity, and the ability to collaborate. c) Distance education: accelerating the adoption of online learning, demanding a more flexible adaptation of the education system (Pasaribu & Widjaja, 2021; Sinambela et al., 2023).

In addition, the downstream of educational transformation is in the form of globalization and international competition; a) Tight competition: Indonesia must compete with other countries in competing for quality human resources. b) The importance of global mobility: Graduates are expected to have the ability to compete in the international job market. c) International cooperation: Education must be able to prepare a generation that is able to collaborate with people from various countries (Dewi & Alam, 2020).

Then the downstream of educational transformation is in the form of demographic changes; a) Demographic bonus: Indonesia is experiencing a demographic bonus in the coming years. This is a great opportunity to increase productivity and innovation, but also a challenge in terms of providing jobs. b) Diversity: Indonesia has high cultural and linguistic diversity. Education must be able to accommodate this diversity (Baker, 2020; Savira, 2023).

Based on the study of the challenges of Education Today, namely; a) Teacher quality: There are still many teachers who do not have adequate competence. b) Curriculum: The curriculum is often considered too dense and less relevant to the needs of the world of work. c) Infrastructure: Many schools in remote areas still lack adequate facilities. d) Equity: The gap in access to education between urban and rural areas is still quite large (Isma et al., 2023; Kawuryan et al., 2021; Yusuf, 2024).

Indonesia has a vision of Golden Indonesia 2045 which it wants to realize, this is in line with opinions and studies (Hidayat, 2021; A. A. Maisaroh & Untari, 2024) (Victoria & Maria, 2023) namely; a) Quality human resources: Indonesia needs superior, innovative, and characterful human resources to achieve the vision. b) A just and prosperous society: Education must be able to reduce social disparities and improve people's welfare. c) An independent and competitive country: Education must be able to produce graduates who are able to compete at the global level.

The Main Objectives of Education Transformation based on the study are; a) Preparing the future generation: Producing graduates who have the competencies needed in the 21st century. b) Improving the quality of education: Improving the quality of learning and student learning outcomes. c) Realizing equal education: Ensuring access to quality education for all citizens. d) Increasing the relevance of education to the world of work: Producing graduates who are ready to work and able to contribute to national development (Puspa et al., 2023; Victoria & Maria, 2023).

In addition, Indonesia has also committed to achieving the Sustainable Development Goals (SDGs), especially in the education sector. The Indonesian government has prepared a national action plan to achieve all SDGs by 2030. This is in line with (Halimatussadiah, 2020) stated that several efforts that had been made included integrating SDGs into national development planning, increasing public awareness of SDGs, and involving various stakeholders in efforts to achieve SDGs.

Based on the studies that have been discussed, Indonesia's commitment to achieving the SDGs, especially in the education sector, is a strategic step in realizing the vision of Golden Indonesia 2045. The integration of the SDGs into national development planning shows that the government is aware of the importance of education as a foundation for human development and the key to achieving other SDGs goals.

Education Becomes the Main Focus in the SDGs because; a) Human Capital: Education is a long-term investment in the development of quality human resources. b) Equality: Quality and equitable education can reduce social and economic disparities. c) Economic Growth: An educated workforce will drive sustainable economic growth. d) Empowerment: Education empowers individuals to make better decisions and actively participate in development.

1. The Indonesian Government's Efforts in Achieving SDGs in the Education Sector, namely by; Integration of SDGs in Planning: SDGs have been integrated into various development planning documents, such as the National Medium-Term Development Plan (RPJMN) and Regional Development Plans (RPD). This ensures that educational development efforts are in line with the goals of the SDGs (Leontinus, 2022).
2. Increasing Access: The government has made efforts to increase access to education for all levels of society, including communities in remote areas, through programs such as free schools, educational cost assistance, and development of educational infrastructure. (Mustofa et al., 2023).
3. Quality Improvement: Efforts to improve the quality of education are carried out in various ways, such as developing relevant curricula, teacher training, and utilizing technology in learning (Efendi & Sholeh, 2023).
4. Partnership: The government collaborates with various stakeholders, such as non-governmental organizations (NGOs), the business world, and civil society, to achieve the SDGs in the education sector (Arifin & Satiadharma, 2023).
5. Socialization Campaign: The government is actively conducting a socialization campaign about SDGs to increase public awareness of the importance of education in achieving sustainable development (Delliana & Latabulo, 2024).

Even though many efforts have been made, it turns out that there are still several challenges that need to be overcome in achieving the SDGs in the education sector based on (Septiani et al., 2022) among others:

1. Inequality: The quality of education is still uneven between urban and rural areas, as well as between state and private schools.
2. Curriculum Relevance: The education curriculum is not yet fully relevant to the needs of the world of work and current developments.
3. Teacher Quality: Teacher quality still needs to be improved through more intensive and sustainable training programs.
4. Financing: The budget for education still needs to be increased to meet the increasing needs.

Several opportunities on the other hand that can be utilized to accelerate the achievement of SDGs in the education sector include:

1. Technological Development: Information and communication technology can be utilized to improve access and quality of learning.
2. Community Participation: Community involvement in education management can improve the quality of education and accountability.
3. International Cooperation: Cooperation with other countries can provide the best learning and additional resources (Thamrin, 2020).

Indonesia's commitment to achieving SDGs in the education sector is the right step. However, to achieve these goals requires more consistent and integrated efforts from all stakeholders. By overcoming challenges and utilizing existing opportunities, Indonesia can create a quality golden generation that is able to face future challenges.

Based on the understanding that has been discussed, several important points of study in the research that will be discussed next are;

1. Current State of Education:

- a. Current Challenges and Problems in Indonesian Education, Indonesia still faces a number of challenges in the education sector based on (Rafsanjani & Rozaq, 2024) (Jhon et al., 2021) among them:
 - 1) Unequal Quality of Education: The quality of education in urban and rural areas, as well as between public and private schools, is still very unequal. Access to learning facilities, technology, and quality teachers is still unequal.
 - 2) Curriculum Relevance: The existing curriculum is often considered less relevant to the needs of the world of work and the development of the times. The subject matter taught has not been fully able to equip students with the skills needed in the 21st century.
 - 3) Teacher Quality: Teacher quality is one of the important factors in improving the quality of education. However, there are still many teachers who do not have adequate competence, especially in remote areas.
 - 4) Educational Facilities: Many schools, especially in remote areas, still lack adequate learning facilities, such as libraries, laboratories, and comfortable classrooms.
 - 5) School Dropout Rate: The school dropout rate is still quite high, especially among students from underprivileged families.
 - 6) Low Interest in Reading: Indonesian students' interest in reading is still low, which has an impact on their critical and analytical thinking skills.
 - 7) Educational Technology: The use of technology in learning is not yet optimal. Many schools do not have adequate internet access and teachers who are skilled in utilizing technology.
 - 8) Cost of Education: High cost of education is a burden for low-income families and is often one of the causes of dropping out of school.
- b. Condition of Indonesian Education Compared to Other Countries.

When compared to other countries, especially developed countries, the quality of education in Indonesia is still lagging behind. This can be seen from the results of various international surveys such as the Programme for International Student Assessment (PISA) which shows that the ability of Indonesian students in reading, mathematics, and science is still below the average for OECD countries. Several factors that cause differences based on studies (Shaturaev, 2021d, 2021b) among others:

- 1) Education Budget: The budget allocated for education in Indonesia is still relatively small compared to other countries.
 - 2) Teacher Quality: The quality of teachers in Indonesia still needs to be improved, especially in terms of pedagogical competence and professionalism.
 - 3) Curriculum: The education curriculum in Indonesia is often considered too dense and not flexible enough.
 - 4) Educational Infrastructure: Educational facilities in Indonesia are not evenly distributed and there is still much that needs to be improved.
- c. Factors that Influence the Quality of Education in Indonesia, several factors that influence the quality of education in Indonesia based on studies (Hidayah, 2022; Warisno, 2022) is:
- 1) Internal Factors: Teacher quality, Curriculum, Learning methods, Student motivation, and Learning environment.
 - 2) External Factors: Government policies, Education budget, Socio-economic conditions, Community culture and Technology.

2. The Concept of the Golden Generation 2045:

- a. What is meant by the golden generation is

The Golden Generation 2045 is a vision and hope of Indonesia to have a young generation that is qualified, competent, and highly competitive in 2045, when Indonesia celebrates 100 years of independence. This generation is expected to be the main pillar in building Indonesia into an advanced and prosperous country. The concept of the Golden Generation refers to the great potential possessed by the young generation of Indonesia, especially with the demographic bonus, which is a period in which the number of productive age population is greater than the non-productive age population (Kartikasari, 2024).

- b. Qualities that the Golden Generation Must Have

The Golden Generation is expected to have various qualities based on (Listyaningsih et al., 2021)(Budiarto & Salsabila, 2022) among others:

- 1) Intelligence: Not only intellectual intelligence, but also emotional, spiritual, and social intelligence. They are expected to be able to think critically, creatively, and innovatively.
- 2) Skills: Have skills that are relevant to the world of work, such as the ability to communicate, collaborate and solve problems.
- 3) Character: Have strong character, such as integrity, discipline, sense of responsibility, and spirit of mutual cooperation.
- 4) Health: Have a healthy physical and mental condition to be able to contribute optimally to the nation and state.

- 5) Global Mindset: Having a broad view of the world and being able to adapt to rapid changes.

c. The Role of Education in Forming the Golden Generation

Education has a very crucial role in forming the Golden Generation, quality education based on (Nuryana et al., 2020; Sembiring, 2022) can:

- 1) Develop Potential: Education helps students develop their potential optimally, both in terms of cognitive, affective, and psychomotor.
- 2) Instilling Values: Education instills noble values such as nationalism, tolerance, and mutual cooperation.
- 3) Providing Skills: Education provides students with the skills needed in the world of work, such as critical thinking, communication, and technology skills.
- 4) Forming Character: Education forms students' character into individuals who are independent, responsible and have integrity.
- 5) Preparing for the Future: Education prepares students to face future challenges, such as technological change and globalization.

3. **Direction of Educational Transformation:**

The Most Relevant Educational Transformation to Indonesia's Needs. The current educational transformation in Indonesia needs to be directed at several main things based on (Harmathilda et al., 2024; Sutanto, 2024) that is:

- 1) Focus on Competence: Education should be more oriented towards developing student competencies, such as critical thinking, creativity, communication, and collaboration skills. This is in line with the demands of the increasingly complex and dynamic world of work.
- 2) Relevance to the World of Work: The curriculum must be designed to be more relevant to the needs of the world of work. Students must be equipped with knowledge and skills that enable them to adapt to rapid changes.
- 3) Utilization of Technology: Integration of technology in learning is very important to increase the effectiveness and efficiency of the teaching and learning process.
- 4) Student-Centered Learning: Learning should be more student-centered, by providing opportunities for students to be actively involved in the learning process.
- 5) Character Education: Character education must be an integral part of the curriculum to form a generation with noble morals and responsibility.
- 6) Justice and Equality: Education must ensure equal access for all students, regardless of socio-economic background.

a. Changes that must be made in the Curriculum, Learning Methods, and Evaluation System based on (Lembong et al., 2023) (Rani et al., 2023) among others;

1) Curriculum:

- a) Flexibility: The curriculum should be more flexible and allow for adjustments according to local needs and student interests.
- b) Competency Based: The curriculum should focus more on developing student competencies rather than just on mastering the material.
- c) Integration with the World of Work: The curriculum must be integrated with the world of work, for example through internship programs or problem-based projects.

2) Learning Methods:

- a) Active Learning: Learning methods should be more active, such as group discussions, projects, and problem-based learning.
- b) Differentiated Learning: Learning must be adapted to the learning style and abilities of each student.
- c) Utilization of Technology: Technology must be utilized to create an interactive and engaging learning environment.

3) Evaluation System:

- a) Competency Based Evaluation: Evaluation should focus more on assessing student competencies rather than just memorization.
- b) Continuous Evaluation: Evaluation must be carried out continuously to monitor student learning progress.
- c) Diversified Evaluation: Evaluation should use various forms, such as written tests, projects, presentations, and portfolios.

The Role of Technology in Supporting Educational Transformation Technology has a very important role in supporting educational transformation, the use of technology in education based on (Sudarmo et al., 2021) (Oliveira & De Souza, 2022) among others:

- 1) E-learning: Online learning can provide flexibility for students to learn anywhere and anytime.
- 2) Learning Management System (LMS): LMS can be used to manage the learning process, such as providing learning materials, assignments, and feedback.
- 3) Educational Applications: There are many educational applications that can be used to enrich the learning process, such as simulation applications, educational games, and digital encyclopedias.
- 4) Educational Social Networks: Educational social networks can be used to facilitate collaboration between students, teachers, and parents.

Educational transformation is a complex process and requires commitment from all parties. In addition to changes in the curriculum, learning methods, and evaluation, support is also needed from the government, schools, teachers, parents, and society as a whole. With the right use of technology, education can be more effective, efficient, and interesting for students.

4. Supporting and Inhibiting Factors of Transformation:

a. Supporting Factors for the Success of Educational Transformation

Selain kebijakan pemerintah, dukungan masyarakat, dan ketersediaan anggaran, terdapat beberapa faktor lain yang dapat mendukung keberhasilan transformasi pendidikan, berdasarkan (Yudiawan et al., 2021) (Shaturaev, 2021a) that is:

- 1) Educator Commitment: Active involvement of teachers and other education personnel in the transformation process is very important. Teachers who have high commitment will be more adaptable to changes and implement new learning methods.
- 2) Community involvement: In addition to support, active community involvement in the education process, for example as supervisors or volunteers, can accelerate the achievement of transformation goals.

- 3) Utilization of Technology: Appropriate use of information and communication technology can facilitate access to information, improve the quality of learning, and accelerate the transformation process.
- 4) Periodic Evaluation: Conducting periodic evaluations of the transformation process helps identify obstacles encountered and make necessary improvements.
- 5) Partnerships with various parties: Collaboration with various parties, such as universities, non-governmental organizations, and the business world, can expand reach and enrich resources in the transformation process.
- 6) Research and Development: Continuous research into best practices in education can provide a strong foundation for innovation and improvement.

b. Factors Inhibiting Educational Transformation

Apart from bureaucracy, resistance to change, and unequal access, there are several inhibiting factors based on (Saputra & Setiawan, 2024; Triarsuci et al., 2024) others are:

- 1) Lack of Human Resources: Lack of qualified teachers and the number of teachers not being balanced with the number of students can hinder an effective learning process.
- 2) Inadequate Infrastructure: Damaged school buildings, limited learning facilities, and difficult internet access can hinder the teaching and learning process.
- 3) Lack of Financial Support: Limited budget for education can hamper the implementation of transformation programs.
- 4) Differences in Perception: Differences in perception between policy makers, educators, parents, and students regarding the goals and direction of transformation can hinder the change process.
- 5) Organizational Culture: An organizational culture that is rigid and less open to change can hinder the implementation of innovation in education.

Based on this, the researcher discussed further how to overcome these obstacles, comprehensive and sustainable efforts are needed, including:

- a. Increasing Educator Capacity: Through ongoing training and professional development programs.
- b. Improvement of Facilities and Infrastructure: By allocating sufficient budget for the improvement and development of educational facilities.
- c. Increasing Community Participation: Through socialization and empowerment of the community to be more actively involved in the education process.
- d. Strengthening Coordination and Collaboration: Building good coordination between the central and regional governments, and involving various stakeholders in the transformation process.
- e. Periodic evaluation and monitoring: Conduct periodic evaluations to measure the success of the transformation program and make necessary improvements.

5. Policy Implications:

a. Education Policies That Need to be Created or Revised

To support educational transformation, several policies need to be created or revised based on (Anggraena et al., 2022; Hattarina et al., 2022; Pramana et al., 2021) is:

- 1) Curriculum Policy:

- a) Flexibility: Giving schools greater autonomy in developing a curriculum that suits student characteristics and local needs.
- b) Competency-Based: Changing the focus of the curriculum from memorizing material to developing student competencies, such as critical, creative, and collaborative thinking.
- c) Integration with the World of Work: Establishing cooperation with the business world and industry to align the curriculum with the needs of the job market.
- 2) Learning Policy:
 - a) Utilization of Technology: Providing adequate technology infrastructure in schools and encouraging the use of technology in learning.
 - b) Differentiated Learning: Providing opportunities for students to learn in different ways according to their individual learning styles.
 - c) Project Based Learning: Encourages more active learning through real-life relevant projects.
- 3) Teacher Development Policy:
 - a) Continuous Training: Providing continuous training programs for teachers to improve pedagogical competence and professionalism.
 - b) Teacher Certification: Tighten teacher certification requirements and provide incentives for qualified teachers.
- 4) Funding Policy:
 - a) Sufficient Budget Allocation: Increase budget allocation for education, especially for areas that still lack.
 - b) Transparency in Budget Use: Increasing transparency in the use of the education budget to prevent corruption.
- 5) Evaluation Policy:
 - a) Competency-Based Evaluation: Changing the evaluation system from one that focuses on memorization to a more holistic assessment, which includes critical thinking skills, creativity, and social skills.
 - b) Continuous Evaluation: Conducting periodic evaluations to monitor student progress and the effectiveness of educational programs.
- b. How to Ensure Education Policy Can Be Implemented Effectively
In order for education policy to be implemented effectively, several steps are required based on (Bandur et al., 2022; Pratikno et al., 2022) among others:
 - 1) Participation of All Stakeholders: Involving all stakeholders in the process of planning, implementing, and evaluating policies, such as government, schools, teachers, parents, and the community.
 - 2) Adequate Socialization: Conduct intensive socialization to all related parties regarding the objectives and benefits of the policies made.
 - 3) Provision of Sufficient Resources: Ensuring the availability of adequate resources, both in the form of budget, infrastructure, and human resources.
 - 4) Periodic Monitoring and Evaluation: Conduct periodic monitoring and evaluation to identify obstacles encountered and make necessary improvements.
 - 5) Accountability: Establish accountability mechanisms for all parties involved in policy implementation.

- 6) Flexibility: Providing space to adjust policies according to conditions and needs in the field.
- 7) Impact Evaluation: Conducting long-term impact evaluations of policies that have been implemented to see their effectiveness.

Implementing the right policies and making consistent efforts, it is hoped that the transformation of education in Indonesia can run successfully and produce a quality young generation. Based on research studies on how to design a curriculum that is relevant to the needs of the world of work and technological developments where the role of technology, increasing teacher competence, and community involvement in educational transformation:

1. The Role of Technology in Improving the Quality of Learning and Access to Education. Technology has a very crucial role in improving the quality of learning and access to education. Some ways that can be done based on (Lailia et al., 2023; Said, 2023; Tanjung, 2020) among others:

- a. Online Learning: Online learning (e-learning) platforms allow students to learn anytime and anywhere, and access a wider variety of learning materials.
- b. Educational Applications: Interactive and interesting educational applications can increase students' learning motivation.
- c. Data Analytics: Data obtained from the learning platform can be used to analyze student progress and adjust learning according to individual needs.
- d. Virtual Collaboration: Technology allows students and teachers to collaborate virtually, for example through online discussion forums or team-based projects.
- e. Access to Information: The Internet provides easy access to various sources of information, so that students can learn independently and develop critical thinking skills.

2. The Most Effective Strategy to Improve Teacher Competence

To improve teacher competence, several strategies can be applied based on (Jayadih et al., 2024; Kusumah & Alawiyah, 2021; M. Maisaroh et al., 2024) among others:

- a. Continuous Training: Providing continuous training programs to improve teachers' pedagogical knowledge and skills.
- b. Mentoring and Coaching: Providing assistance to teachers by more experienced mentors.
- c. Learning Community: Forming a teacher learning community to share experiences and knowledge.
- d. Incentives: Provide incentives for teachers who actively participate in training and show improved performance.
- e. Utilization of Technology: Utilizing technology to facilitate teacher access to learning resources and improve their ability to manage classes online.

3. How to Involve the Community in the Education Transformation Process and Success Indicators

Involving the community in the educational transformation process is very important to achieve success, there are several ways that can be done based on (S. Lestari, 2020; Sulaeni, 2024) is:

- a. Socialization: Conducting socialization to the community regarding the importance of educational transformation and its benefits for children.
- b. School Committee: Form a school committee that involves parents of students and community leaders to participate in decision-making regarding children's education.
- c. Collaboration with Community Organizations: Collaborate with community organizations, such as NGOs or professional organizations, to develop innovative educational programs.
- d. Partnership Program: Building partnerships with the business world to provide support in the form of resources, expertise, and internship opportunities for students.

Based on this, researchers have their own studies on designing a curriculum that is relevant to the needs of the world of work and technological developments requires a comprehensive approach. An in-depth analysis of the needs of the world of work and technological developments is a crucial first step.

This is in line with (Fakhri, 2023; Siregar et al., 2024) A good curriculum should focus on developing student competencies, such as critical thinking, creativity, and digital skills. Flexibility is key to keeping the curriculum relevant to changing times. Integration with the real world through relevant projects makes learning more meaningful for students.

Finally, the use of technology as a learning aid enriches the teaching and learning process and increases the effectiveness of learning (Rosa et al., 2024). Thus, a relevant curriculum must be based on needs analysis, focus on competency development, be flexible, integrated with the real world, and utilize technology.

Based on the researcher's study, indicators of the success of educational transformation can be seen from various interrelated aspects. The increase in student achievement reflected in national exam scores, international survey results, and achievements in competitions shows that the learning process has been effective and produced quality graduates. The increase in students' interest in learning, marked by more regular attendance, active participation, and high interest in reading, is an indication that learning has become more interesting and relevant for students.

This is in line with the opinion that improving teacher competency through performance evaluation, utilization of technology, and participation in professional development are the keys to creating an effective and innovative learning environment. Active community involvement in school activities, the formation of school committees, and support for education programs indicate that the community is aware of the importance of education and plays an active role in supporting the transformation process (Guggemos & Seufert, 2021; Hennessy et al., 2022; Sancar et al., 2021).

The relevance to the world of work, as seen from the increasing number of graduates who are ready to work and get jobs that match their qualifications, is proof that education has succeeded in producing graduates who are ready to face the challenges of the world of work.

Based on this, the success of educational transformation is marked by increased student achievement, interest in learning, teacher competence, community involvement, and relevance to the world of work.

D. Conclusion

This study underlines the importance of educational transformation in realizing the vision of Golden Indonesia 2045. Challenges such as uneven quality of education, irrelevant curriculum, and lack of utilization of technology require fundamental changes in the education system. Educational transformation aims to produce a golden generation that is qualified, competitive, and able to face future challenges. Educational transformation is a complex process and requires commitment from all parties. With consistent and integrated efforts, Indonesia can realize the vision of Golden Indonesia 2045 and produce a young generation that is qualified, innovative, and able to compete globally, Implikasi;

1. Education Policy: There needs to be a comprehensive revision of education policy, starting from curriculum, learning methods, to evaluation systems. Policies must be more flexible, relevant to the world of work, and oriented towards developing student competencies.
2. Utilization of Technology: Integration of technology in learning must be a priority. The government needs to provide adequate infrastructure and provide training to teachers to utilize technology effectively.
3. Improving Teacher Quality: Teacher quality is a key factor in the success of educational transformation. Continuous efforts are needed to improve teacher competency through training and professional development.
4. Community Involvement: The community must be actively involved in the educational transformation process, both as supervisors and working partners.
5. Partnership: Cooperation between government, schools, communities, the business world and international institutions is very important to accelerate the achievement of transformation goals.

Suggestion;

1. Strengthening the Foundation of Education: a) Significantly increase the education budget. b) Build adequate education infrastructure throughout the region. c) Recruit and develop quality teachers.
2. Reforming the Curriculum: a) Developing a curriculum that is relevant to the needs of the world of work and technological developments. b) Encouraging active and student-centered learning. c) Integrating character education into the curriculum.

3. Encourage the Use of Technology: a) Build adequate technology infrastructure in schools. b) Train teachers in the use of learning technology. c) Develop quality digital learning content.
4. Strengthening Partnerships: a) Building strong partnerships between government, schools, businesses, and communities. b) Utilizing private sector potential in education development.
5. Periodic Evaluation: a) Conduct periodic evaluations of the implementation of the education transformation program. b) Use the evaluation results to make improvements and refinements.

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