

## Learning Strategies In The Digital Age

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### **Abstract**

*This research is at odds with the rapid development of information technology in the digital age, which has a direct impact on today's education world. Education must be able to respond to the dynamism of the development of existing information technology. Especially in the implementation of effective strategies to be applied as a form of self-adaptation to integrate and implement information technology into the learning process in the educational environment. The strategy needed must be able to improve the quality of learning processes and learning outcomes much better. The strategy is creative and innovative so that it can stimulate the motivation and interest of students, in addition to also to support the plan, process and learning results, so it can improve education quality in the digital age.*

*This research uses the method of literature study. The step of the literature research method is to determine the subject of writing and then set it into a problem formula, before jumping into the field to gather the necessary data. The aim of this research is to expose a wide range of learning strategies in the digital age that should be an effective alternative to being used to improve the quality of education in the global era. Where the development of information technology brings many positive traps, but also not a few have a negative impact on the students.*

*The research results of the learning strategy in the digital age explain that there are several strategies that can be used to improve the quality of education in the Digital Age by educators such as teachers and lecturers by using existing information technology.*

**Keywords:** Strategy, Learning, Digital Age

### **A. Introduction**

Every second of time that accompanies Indonesia's struggle to make a change, this cannot be dismissed from the collaboration of the young generation with the adult generation. The adult generation has a myriad of experiences and the young generation has myriads of ideas about the future. The digital age becomes a strategic opportunity and a dangerous threat when not ready for change. Changes in society's lifestyle and culture have shifted as well as the function of print media into digital media. Any change that develops will give rise to new discoveries capable of providing facility or even dangerous threats. For that there is something

to be observed behind the facilities acquired today, which will surely also be born new problems with new solutions and thinking anyway. The challenge is the importance of developing digital-age learning strategies.

Those changes have changed the way the learning world looks and practices today. The development of education in the digital age enables students to acquire abundant knowledge quickly and easily. The transformation of education in the digital age requires educators to have the ability to integrate information and communication technology into the learning process. Learning in today's digital age is no longer centered on an educator, Learning today must be centered upon the student. Because digital learning requires readiness in the learning process and educators must be able to communicate interactively using information and communication technologies that are evolving rapidly today through the Internet network, smartphones with their applications and so on, with the aim that with the presence of digital age learning strategies, the quality of learning in the digital era will be better as well as improve the national quality of education<sup>1</sup>.

## **B. Methods**

The method used in this research is the qualitative method, which is chosen because its elaborative nature can easily help researchers to dig deeper information related to a research topic. Qualitative research is a method of research based on the philosophy of postpositivism used to study objects in which researchers are key instruments<sup>2</sup>. This research uses a type of library research that uses a method of data collection using facilities available at the centre such as books, magazines, documents, historical records, or purely librarian research related to the subject of research. Documentation is a technique for obtaining information directly from the research site, among other things relevant books, regulations, reports of activities, photos, documentaries, important data from a

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<sup>1</sup> Taufiq Nur Azis, "Strategi Pembelajaran Era Digital", Annual Conference on Islamic Education and Social Sains, Vol. 1 No. 2 (2019), hlm. 308.

<sup>2</sup> Sugiyono, *Memahami Penelitian Kualitatif* (Bandung: Alfabeta, 2005), hlm. 3.

research perspective<sup>3</sup>. The data taken in this study comes from various sources and results of research related to the case being investigated. Data analysis is done by means of data reduction, data presentation, and drawing conclusions<sup>4</sup>.

### C. Literatur review

#### Strategy

The word "strategist" comes from the Greek words "stratos" (military) and "ag" (leader), which means the art or science of being a general. Strategy is defined as a plan to allocate and distribute military material and force at a specific location to a specific goal<sup>5</sup>. According to David, a strategy is a cohesive, comprehensive, and integrated plan that links a company's strategic advantage to environmental issues. A strategy is usually defined as a general line of action to be taken to a set goal. However, in the context of teaching learning activities, strategies can be defined as patterns of activities carried out by teachers to a set goal<sup>6</sup>.

#### Education

The process of student participants interacting with educators and learning resources in a learning environment called learning<sup>7</sup>. Learning is the help given by the teacher to facilitate the student to acquire information, master skills and habits, develop attitudes and self-confidence. Someone's been learning all their lives, and it can happen anytime or anywhere. Although having different implications, learning and teaching have the same meaning. According to Gagne and Briggs quoted by Siti Nurhasanah dkk, learning is a system created to support the internal learning process of the student. It consists of a series of experiences planned and organized to influence and facilitate the process<sup>8</sup>. "The learning process in the educational unit is organized interactively, inspiring, entertaining, challenging, motivating the student to participate actively, as well as providing sufficient space

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<sup>3</sup> Sudaryono, *Metode Penelitian Pendidikan* (Jakarta: Kencana, 2016), hlm. 90.

<sup>4</sup> Matthew B. Milles, Michael Huberman, and Johnny Saldana, *Qualitative Data Analysis: A Methods Sourcebook*, Cet. 3 (America: Sage Publication, 2014).

<sup>5</sup> Fandy Tjiptono, *Strategi Pemasaran* (Yogyakarta: CV. Andi Offset, 2008).

<sup>6</sup> David, *Manajemen Strategi Konsep* (Jakarta: Salemba Empat, 2004).

<sup>7</sup> UU No 20 tahun 2003 BAB I Pasal 1 ayat 20.

<sup>8</sup> Agus Jayadi et al., "Buku Strategi Pembelajaran," *Cv. Reka Karya Amerta* (Jakarta Timur: Edu Pustaka, 2019), hlm. 3.

for initiative, creativity, and independence according to the talent, interests, and physical and psychological development of the student participant,” according to government regulations on national educational standards<sup>9</sup>.

A learning strategy is a plan of action, or set of actions, that incorporates the use of multiple resources and approaches in the learning process. Learning strategy is an action plan that consists of a series of tasks that involve applying different techniques and abilities to learning. It involves a new action plan when the procedure for writing a work plan is not achieved. The second approach is tailored to a specific purpose. In other words, reaching a goal is the direction in which all decision-making techniques are directed. As a result, this goal was achieved through the development of learning measures as well as the use of many learning facilities and resources.

### **Digital Age**

The digital age is a technological advance that is accelerating with the evolution of the age. Technology is not a rare tool to find. Almost all activities related to education, culture, sports, economics, social and politics regularly use technological advances to facilitate the implementation of activities as well as solving common problems. In today's digital age, there are many things that have a significant impact on society, both positive and negative. Although the positive impact is so much like facilitating the search for information, entertainment, and knowledge, the negative impact is also directly related to one's behavior and karma system, which tends to mimic poor Western cultures, even if they are able to adopt practices that are often contrary to the culture of selfishness. The responsibilities of learners are still not well formed in the current digital age.

One example of disciplinary inadmissibility is the absence of students in time, lack of readiness to study in class, failure to complete tasks on time, and low enthusiasm for learning. Irresponsible students will develop negative behaviors such as lazy schoolwork, lack focus on learning, and eventually override responsibility to others. This is due to the student's tendency to play social media, like online games, which causes them to spend time sleeping every day.

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<sup>9</sup> Peraturan Pemerintah No. 19 tahun 2005 Bab IV pasal 19 ayat 1.

Students can use a variety of communication tools to meet their needs in today's digital age. They can get information quickly, talk in person, and make video calls. However, in the current situation, external factors also have a major influence on the poor mentality of pupils such as the many Western cultures that have entered without being screened in advance, so it is difficult to maintain the educational attitude of the pupils towards their teachers. Even some pupils are disrespectful to their parents by calling them by their real name, and today's pupils' clothing style is western, which does not fit the Indonesian culture<sup>10</sup>.

#### **D. Results**

Today's science evolves with the advances of information and technology. One condition for raising the standard of education to a level that can compete with other industrialized countries is the presence of qualified and experienced educators. According to Kartilawati and Mawaddatan Warohmah, teachers must have various competencies and skills to perform their duties; this is a prerequisite of the teaching profession<sup>11</sup>. Teachers should always strive to improve and update their knowledge. According to Wartomo quoted by Darwin Effendi, the competence of educators should be focused on the advances of information and communication technology as well as contemporary digital society. The aim of education in Indonesia today is to instill understanding in the next generation of scientists, not just the memory of facts. It is necessary for the student to understand technology and be able to use it to learn. In Indonesia, where textbooks have long been the norm, digital items like e-books are starting to take their place in the classroom<sup>12</sup>. Here are some effective learning strategies in the digital age:

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<sup>10</sup> Sunandari, Andi Salsha Maharani, Nartika, Citra Yulianti, Arsy Esasaputra, "Perkembangan Era Digital terhadap Pentingnya Pendidikan Karakter Anak Sekolah Dasar", *Journal on Education*, Volume 05, No. 04, ( Mei Agustus 2023), hlm. 12007

<sup>11</sup> Kartilawati and Mawaddatan Warohmah, "Profesionalisme Guru Pendidikan Agama Islam Di Era Teknologi Informasi Dan Komunikasi," *Ta'dib XIX*, no. 143–168 (2014), hlm. 143-168.

<sup>12</sup> Darwin Effendi and Achmad Wahidy, "Pemanfaatan Teknologi Dalam Proses Pembelajaran Menuju Pembelajaran Abad 21," *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang*, 2019, hlm. 125–29.

## 1. The use of technology

As teachers we also have to learn technology in doing learning. Since learning nowadays is no longer done conventionally, teachers deliver material, then students listen, but students are also invited to think critically. Blended learning is one of the learning methods that can be used in the development of this technology.

The concept of Blended Learning is basically a hybrid of excellent in-person and virtual learning. Blending learning introduces various forms of media for dialogue between teachers and students, besides it also integrates several delivery techniques, teaching models, and learning styles. In addition to combining personal and virtual instruction, mixed learning also includes social involvement. The school calendar would be flexible if the institute offered a mixed learning program, allowing Students to combine academic and extracurricular activities. In addition to reducing education costs, mixed learning can improve student performance by leveraging online environments in addition to traditional classroom settings<sup>13</sup>.

Mixed learning is characterized by the following: 1) learning that combines a variety of technology-based media, educational models, delivery methods, and learning styles; 2) self-learning, online and personal instruction; 3) learning that is reinforced by an efficient combination of delivery, teaching and learning style; and 4) parents and teachers play equally important roles, with parents acting as supporters and educators as facilitators.

## 2. Project-based learning (PBL)

Project-based learning (PBL) is an active type of learning that seeks to associate technology with everyday problems of students or with school projects. Project-based learning is a great way to generate a learning experience that is more attractive to the student and more profitable, where project-based Learning encourages the student to be more active. According to the Great Dictionary of Indonesian Language states that "a project is a plan of work with specific

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<sup>13</sup> Taufiq Nur Azis, "Strategi Pembelajaran Era Digital", Annual Conference on Islamic Education and Social Sains, Vol. 1 No. 2 (2019), hlm. 309-310.

objectives and with a fixed completion time. Project-based learning is a learning strategy that empowers learners to acquire new knowledge and understanding based on their experience through various presentations.

Project-based learning method is a systematic learning approach that involves the student in acquiring scientific knowledge, knowledge and skills through the process of researching real problems and making a variety of carefully designed works. Learning is when students work on projects that help solve environmental or community problems. Based on this, it can be concluded that project-based learning is a model that emphasizes in the student to be able to learn independently by solving problems that can produce a real project or work<sup>14</sup>.

### 3. Collaborative learning

Collaborative learning is crucial in today's educational model. This means that the learning process will be better with collaboration, which will enable optimal outcomes to meet the needs of today's digital age. Collaborative learning occurs when students and students work together to create works, understand each other, or find solutions to problems. Collaborative learning is a form of exchange between two or more pupils designed to improve the achievement of learning goals. Collaborative learning itself is sometimes the same as cooperative learning but has fundamentally different definitions. The underlying principle of collaborative learning is mutual learning, and sharing knowledge so that from the learning activity with this model no student leaves alone, and no learner is left alone. According to Sato, collaborative learning is a technique that allows students to acquire knowledge from each other<sup>15</sup>.

According to Ali Mustadi, collaborative learning is the right approach to teaching characters from an early age as it can foster positive values such as: (1) encourage the sense of responsibility and independence of each student; (2) encourage hard work and a strong curiosity to solve problems together; (3) increase the courage

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<sup>14</sup> Meidiani Elsandra Pratiwi, Dewi Salma Prawiladilaga, Kunto Imbar Nursetyo, "Pemanfaatan Prinsip Personalisasi Belajar dalam Pembelajaran Daring pada Mata Kuliah Designing ELearning", *Jurnal Pembelajaran Inovatif*, Vol. 05. No. 01, (2022), hlm. 57.

<sup>15</sup> M, Sato, "Mereformasi Sekolah: Konsep dan Praktik Komunitas Belajar", (Terjemahan Fatmawati Djafri), Tokyo: Pelita, 2012, hlm. 22-29.

and confidence of the student to express their opinions and ideas; (4) encourage creativity in building and adding knowledge and experience; (5) encourage a spirit of cooperation and a sense of community among the student participants; and (6) encourage compassion and tolerance with other student participants. Collaborative learning promotes the self-esteem of the student as a productive student who understands what it means to learn with others<sup>16</sup>.

#### 4. Personalized Learning

Personalized Learning is a learning approach in which learning materials and strategies are tailored to the needs and abilities of each student. This method aims to help the learners accelerate their learning process and reach their best potential. In conventional classes, teachers can provide personalization to learners, which we can see from learning interactions, the freedom given in terms of recording, completing tasks, making tasks and other things, within learning activities which require interaction and personalization in order to learning goals. Personalization, also known as a touch of personalization, is necessary to make learning effective and meaningful for each individual. The greatest benefit of learning personalization is that interactions become easier to present by just presenting the right information, media, and flow that is desired or tailored to the learning preferences of the learners. It should not be in the delivery of content within the personality of learning by hitting the media and its methods, as it can cause learning difficulties for the student<sup>17</sup>.

#### 5. Development of digital skills

Digital skills have become an important component in a person's success and educational progress. Digital skills include a variety of skills, such as digital literacy, programming, data analysis, online collaboration, and data security. These skills are not only essential to working in an increasingly sophisticated

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<sup>16</sup> Mei Wahyuni Dan Ali Mustadi, "Pengembangan Perangkat Pembelajaran Collaborative Learning Berbasis Kearifan Lokal Untuk Meningkatkan Karakter kreatif Dan Bersahabat", *Jurnal Pendidikan Karakter*, 2014, hlm. 26.

<sup>17</sup> Gamar Al Haddar, "Pengembangan Keterampilan Digital melalui Pembelajaran Daring : Sebuah Eksplorasi Dampak", *Jurnal Pendidikan West Science*, Vol. 01, No. 08, (2023), hlm. 556 – 557.



world of work, but also play an important role in building digital citizenship and enabling them to participate actively in the modern world. The rapid evolution of technology has led to a paradigm shift in the way individuals interact with information, serving each other.

Digital skills have become an integral part of everyday life, affecting the way individuals communicate, work, and access resources. In response to this digital transformation, educational institutions, governments, and organizations have realised the urgent need to equip individuals with the competences needed to navigate the digital landscape effectively. Strong digital skills are increasingly needed as societies become increasingly dependent on technology. Digital skills include a range of skills, including basic digital literacy and understanding of digital tools and navigation, as well as specialized skills such as programming, data analysis, and cybersecurity. Improving employability and staying involved in the digital world requires these skills. As technology develops, the demand for individuals with strong digital skills will continue to rise. Therefore, it is vital for educational institutions, governments, and to prioritize training and development of digital skills.

6. Online-based evaluation With the advent of information technology, learning evaluation methods have changed from paper (paper) tests to electronic tests. (online). The following application for learning evaluation using online media.

a. Google Form

The evaluation process is never independent of learning activities. So, evaluation is crucial to knowing the student's aptitude and how well the lecturer delivered the learning material. It's very difficult for teachers to stay creative in today's digital age. People innovate to get convenience and something new. Changes in the learning evaluation process, for example, must be continuously pursued. The replacement of paper examinations with digital-based examinations marked the

change. A digital-based test can use Google Forms is a Google product that can be used to create online learning examinations or evaluations<sup>18</sup>.

#### b. Quizizz

The Quizizz app is one of the most popular assessment tools for measuring the ability of the student. By using the right techniques to create and validate questions and adapt them to learning purposes, teachers can make sure that Quizizz is a useful, reliable, and valuable assessment tool to measure the student's learning outcomes. Quizizz has many features that make learning more interesting and interactive. Therefore, using Quizizz as an alternative evaluation tool enables you to evaluate the learning outcomes of your students and provide direct feedback to them<sup>19</sup>.

Use Quizizz for online evaluation has proven to be effective in improving your learning outcome. However, the success of Quizizz is determined by a number of factors, including the quality of the topic, the suitability with the learning objectives, and the consistency of the evaluation. Therefore it is important to ensure that the question has a high quality and is in line with the aim of learning to determine the validity and reliability of the results.

### E. Discussion

It can be seen from the analysis of the literature that has been presented above that to improve the quality of learning for students in the educational environment must have a matured learning strategy and adapt to the developments of an era that is constantly changing, where learning is still traditional towards the development of this increasingly modern era, especially in the digital era today.

The strategy of the Digital era must be more promoted in a way:

1) maximize the use of Technology such as a. learning that combines a variety of technology-based media, educational models, delivery methods, and learning styles, b. self-learning, online and personal instruction, c. learning reinforced by

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<sup>18</sup> Taufiq Nur Aziz, "Strategi Pembelajaran Era Digital", *Annual Conference on Islamic Education and Social Sains*, Vol. 1 No. 2, (2019), hlm. 315.

<sup>19</sup> Putri Rahmawati, "Analisis Penggunaan Aplikasi Quizizz Dalam Evaluasi Pembelajaran Online", *Bintang : Jurnal Pendidikan dan Sains*, Vol. 5, No. 3 (2023), hlm. 20-27.

an efficient combination of delivery, teaching and learning style; and d. parents and teachers play the same important role, with parents acting as supporters and educators as facilitators.

2) Implement more project-based learning to give more opportunities to learners to learn independently by solving existing problems so as to produce a real project or work that is beneficial to the development of interests, talents and potential of each pupil.

3) Conduct collaborative learning for pupils, because in such collaborative exhibitions can encourage pupils in training. a. sense of responsibility and independence of every pupil, b. hard work and strong curiosity to solve problems together, c. courage and confidence of pupils to express their opinions and ideas, d. encourage creativity in building and adding knowledge and experience, e. spirit of cooperation and a sense of community among pupil participants, f. compassion and tolerance with other pupils.

4) Implement the Learning Personalization which aims to help the Students accelerate their learning process and their best potential, because with this learning personalization an educator will better know to what extent the interests, talents and abilities of each individual can be later seen what the learning is like and what material content is like that corresponds to each individual.

5) Developing digital skills to students who adapt to educational facilities by seeing opportunities – opportunities in today's digital age, Digital skills are essential because the future of most jobs in the world of work and society is not apart from digital technology, so digital skills are vital to improve employment ability and ensure active involvement in the digital world. As technology develops, the demand for individuals with strong digital skills will continue to increase.

6) Conducting online based evaluation to facilitate the implementation of evaluation in learning, online based assessment to replace manual evaluation with

paper will definitely affect the effectiveness in evaluating the student himself more thoroughly and efficiently and can save a teacher time.

## **F. Conclusion**

The learning strategy in the digital age explains that there are several strategies that can be used to improve the quality of education in the Digital Age by educators, by leveraging existing information technology. Such as the use of Technology, project-based learning, collaborative learning, personalization of learning, development of digital skills, as well as conducting an evaluation which all six of these things are done by taking advantage of the development of information technology in the rapidly evolving digital age today, by maximizing things – what has been shown will be better and more dynamic quality of the student in accordance with the change – the changes that will occur in the future, learners will be more relevant to the learning style, learning materials and learning objectives that are not only useful today but also for the future of the learners of the digital era.

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