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#### **Research Article**

# The Role of Digitalization in the Establishment of Student Character in Primary Schools

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#### ABSTRACT

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In the era of advances in information and communication technology, information that was previously in analog form has shifted to digital format. This transformation takes advantage of advances in digital technology which allows information to be accessed and transmitted via devices and internet networks. The growth of this technology has penetrated various sectors of life and has become a basic need for every individual in society. Education is one sector that is experiencing significant transformation as a result of this innovation. Character education is an important element in the teaching and learning process, where various parties are involved in efforts to achieve positive goals and guide the younger generation to face future challenges. The principles of character education are integrated and manifested in the learning process, forming students who have integrity and strong social abilities. Teachers have a central role in shaping the character of students in elementary schools. They act as examples and role models for students, becoming models for children to follow. This literature research aims to examine the impact of digitalization in shaping the character of students in elementary schools and the role of educators in this process, by utilizing available digital technology tools.

Keywords: Role of Digitization, Character, Students

# **INTRODUCTION**

Entering the digital era, education has become a concern in various circles. The development of digital-based technology has made an important contribution to the realm of education, but also requires the development of students' values and personalities in accordance with these developments. Even though advances in digitalization have had a positive impact in forming individuals who are intelligent and have good character, some people feel that character education for the younger generation is not receiving serious attention. The negative impact caused by digitalization can be seen in issues related to the personality of the younger generation. Some of these issues include increasing cases of crime, drug abuse, and acts of violence among students. This reflects that there are challenges in managing the negative impact of digitalization on the formation of students' character[1].

Improving education is crucial for strengthening the social dimension in various aspects of human life. Through the application of digitalized character education, humans can gain deeper knowledge. Education is the main focus in strengthening the knowledge base of the Indonesian nation, with the aim of creating educated and insightful individuals, thereby producing intelligent and quality human resources. Besides that, the rapid development of digital-based information and communication technology has changed the paradigm of information delivery from analog to digital. This process relies on digital technology that facilitates access and delivery of information via devices and internet networks. This technological progress has become apparent in almost all areas of life, and has become a basic need for every individual, including in the context of education. In general, technology is understood as the result of the conversion of knowledge into products, processes, services and organizational structures that produce real, ready-to-use entities [2].

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#### **Research Article**

It is important for educators that basic education be a top priority in shaping the behavior and outlook of students, who have a tendency to quickly respond to the concepts and ideas taught by educators. The responsibilities of educators at the elementary school level include efforts to help students explore their potential so that it is in line with their aspirations and desired abilities. As the initial stage in basic education, elementary schools have a crucial role in forming a strong foundation for higher levels of education. The goal is to provide graduates with an adequate foundation of skills and basic knowledge, including the ability to process strategically. Current educational programs need to focus on student development with greater emphasis on the learning process [2].

The learning process in educational institutions is carried out through an interactive, inspiring approach, full of challenges, exciting, and able to motivate all students to actively participate. In addition, providing adequate space for initiative, potential and independent abilities that are parallel to students' talents, motivation and physical and mental development. Character formation is not only the responsibility of parents, but it is also the teacher's job to provide role models and examples of positive behavior to students. If teachers fail to provide good models, students tend to imitate the behavior they witness. The process of forming students' character and morality will not immediately develop well, because it is influenced by the school environment, family, friends and the surrounding community. Hence, to prevent behavioral problems among students, special attention from teachers and parents is essential. Everything from the way you speak, manners, discipline, responsibility, interactions with peers, and other things must be paid careful attention [2].

Character education refers to human activities aimed at directing the development of future generations. The principles of character education include structured efforts to guide certain values to be internalized in the learning process, so that these values become an integral part of the students' personalities, encouraging them to adopt positive attitudes and actions. The role of the teacher is very crucial as a model and example for students, considering that they tend to imitate the actions and behavior presented by the teacher [3].

Character education according to is a system of instilling character values in school members, including the components of knowledge, ability and action to apply these values towards God Almighty, oneself and the environment, with the aim of becoming a better person [3]. This understanding provides encouragement for schools to implement character education in the learning process, with the hope of producing a quality generation. Character education has great significance in the 21st era, due to the various moral challenges faced by parents, teenagers, and even children. There are many young generations who show deficiencies in respectable attitudes such as ethics, friendliness, tolerance, humility, social solidarity, and the like. The presence of declining moral behavior in the younger generation has sparked concern from various segments of society. This is why the government's steps in implementing character education are considered a very appropriate step. The concept of character adopted involves three interacting elements, namely understanding moral values, emotions related to morality, and real actions in the moral realm. Strong character involves deep understanding, determination to practice virtue, and the application of positive practices in thinking, feeling, and behavior [4].

This situation requires support from teachers and parents to overcome misunderstandings in lesson material and increase students' and parents' enthusiasm for learning in facing learning challenges in the current era. The need to take an individual approach to each student, either through social media platforms or by making direct home visits, aims to provide support and motivation so that students remain enthusiastic and full of enthusiasm in every learning activity held by the school. This is done with the aim that character values can continue to be implemented optimally in children [5].

This literature study aims to explore understanding of the role of digitalization in shaping student character at the elementary school level and how educators contribute to this process. In the current era of basic education, digitalization has become a significant factor that shapes the character of students, and this research will analyze the impact of digital technology on their character. The research focus also focuses on the role of educators, who act as teachers and role models for students in facing changes induced by digitalization. With this research, it is hoped that valuable information and views will be found to support positive character development in students at the elementary school level in this digital era.

# METHODS AND METHODOLOGY

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The methodology for preparing this article adopts a literature review and descriptive approach. A literature review approach was used to collect information regarding the role of digitalization in shaping student character at the elementary school level. References relevant to this topic, including Permendiknas, character education materials, literature on character in elementary schools, and articles related to digitalization in elementary schools, are the main references in this writing. Through a literature review approach, the author explores information and insights about the impact of digitalization on the character formation of students in elementary schools.

A descriptive approach is used to detail the results of the literature review and explain how digitalization affects student character. In developing this article, the author applies methodological principles such as the relationship between interpretation, induction, and deduction to propose strong arguments and conclusions based on the references referred to in the research.

#### RESULTS

The Role of Digitalization in the Formation of Student Character in Elementary Schools.

As time goes by, all aspects of life experience rapid development, including in the social, cultural, economic, arts and Information and Communication Technology (ICT) domains. Nowadays, the most significant progress occurs in the digital-based ICT realm. ICT includes two main components, namely information technology related to the process, management and transfer of information between various media, and communication technology. ICT progress has spread to various segments of society, from children at elementary school level to adults. The influence of ICT has covered various aspects of life, including the learning process at school. This results in variations and the importance of the learning process for students to recognize and utilize ICT technology in the context of classroom learning [6].

Technology has provided much convenience in work tasks and daily activities, as well as providing various forms of entertainment for those who need it. Along with the rapid development of Information and Communication Technology (ICT), there have been five changes in learning methods, namely: (1) a shift from practice to performance, where students not only practice but can also demonstrate their abilities directly; (2) moving from the physical classroom to the flexibility of learning at a convenient place and time, allowing students to learn outside the confines of the traditional classroom; (3) moving from in-class learning to "online" learning or via digital platforms; (4) shifting the focus from dependence on physical facilities to being connected to the network; and (5) changing from a learning model based on a certain schedule to real-time learning, tailored to needs. Apart from that, communication also plays an important role in education. Through various applications and wide access, we can observe how students' character develops through the use of technology and interaction on various digital platforms [7].

Of course, the implementation of digital-based learning at the elementary school level can be realized by utilizing various communication media such as telephone, computer, internet and electronic mail in developing learning models and methods. Interaction between teachers and students is not only limited to face-to-face meetings, but can also be realized through these tools. So that the learning approach in elementary schools can provide good value and quality, teachers need an understanding of the optimal way to apply and utilize Information and Communication Technology (ICT) in shaping student character, both in the preparation stage and during the learning process. Review of Information and Communication Technology (ICT) refers to research or analysis that discusses elements related to the growth and use of ICT [8].

Information technology is defined as the result of combining computers with high-speed communication channels that enable the transfer of data, voice and video. This definition illustrates that information technology consists of two main elements, namely computer technology and communication technology. Computer technology involves various devices and systems related to computers, while communications technology refers to communication devices that enable interaction over a distance, such as telephone, fax, and television. There are also various other definitions of information technology that have been proposed [9].

In his perspective, information technology is defined as the discipline needed to organize information so that it can be accessed easily and accurately. This information technology discipline involves procedures and methods aimed at storing and managing information efficiently and effectively. Apart from that, according to this view, information technology has a significant role in managing information to achieve these goals [10].

2025, 10(43s) e-ISSN: 2468-4376

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## **Research Article**

Information is defined as data that has been processed and can be stored in various forms such as text, audio, or visuals, including static or moving images. Information technology allows the management and delivery of information in the form of knowledge itself. The amount of information also affects the complexity of the method or steps used to store it. Therefore, information technology functions as a discipline that aims to manage information so that it is easily accessible again. In its implementation, information technology uses computers as a tool for processing information and communication technology as a means for sending information over long distances. Grouping children into various age groups in the learning process has a positive impact in the social aspect. This encourages greater interest and cooperation among children. Parenting children in mixed age groups has similarities to family care, which not only protects siblings from feeling alone, but also creates a comfortable and safe environment for the development of younger children. In addition, mixed age groups allow children to be more tolerant of differences in the ages and developmental levels of other children, compared to grouping by age alone.

In the context of digital-based learning, students have broad access to interesting learning resources, which in turn stimulate creativity and innovation. This also helps in instilling character values both in face-to-face learning and online learning. The communication process also has a key role in shaping children's character in the family environment. Communication through speaking, physical expression, tone of voice, and actions all contribute to the formation of self-expectations, emotional expression, and mutual understanding. A child's character is often influenced by the dominant content and communication style in the surrounding environment, especially in interactions between pa rents and children at home [11].

Developing character aspects in education, especially in children, cannot be done with the same approach as conveying knowledge. The process of forming character requires continuous efforts and the creation of a supportive environment in various situations, including in the family, school, community and mass media [12].

This situation indicates that many elements influence individual behavior and morals, including the influence of mass media, especially the internet as an interactive forum. In the current information era, character education has great significance in efforts to produce individuals who are qualified, dignified and have noble morals. Therefore, the role of mass media, especially the internet, in shaping character formation has a relevance that cannot be ignored. The use of the internet in an educational context needs to be carefully regulated and monitored to ensure that children's morals at the elementary level are maintained. The implementation of the internet in education should be carried out with careful planning, good implementation and careful evaluation so that it can provide maximum contribution in developing the full potential of Indonesian citizens, as previously explained [13].

So that the use of the internet continues to have a positive impact in shaping the character of students, increasing intellectual intelligence, and empowering educators and related educational staff, it is necessary to apply the following principles:

- a) When utilizing the internet in the educational process, it is necessary to pay attention to the characteristics of students, educators and educational staff in all decisions related to internet technology.
- b) Internet use should be planned to arouse user interest and motivation in using it for personal growth, including in intellectual, spiritual, social and physical aspects.
- c) Use of the internet should stimulate awareness and belief in the significance of direct contact with fellow humans (through face-to-face), social and cultural environments (such as meetings, museums, historical locations), and nature (through exploration) in order to maintain social values, diversity art and culture, as well as respecting natural beauty as a gift from the Almighty Creator.
- d) In using the internet, it is important to ensure that the target group still has the ability to appreciate simple communication technology and learning processes that do not involve the internet, so that they can still develop their students' potential in a balanced manner.
- e) The use of the internet needs to encourage individuals to develop creativity and innovation, so that they do not just become consumers of information originating from the internet.

The process of character building through the internet approach will be effective if it gets support and participation from various related entities, especially families, educational institutions, government and society [14].

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#### DISCUSSION

The role of the family plays a very vital role in shaping a child's character, and if the family fails to carry out the task of character education, efforts to improve by other institutions, including schools, will be difficult. Therefore, every family must have an awareness of how national character is very dependent on the character education distributed to children in the home environment. In facing the presence of the internet, introducing children to internet use is not a simple thing, especially for parents who may not be familiar with technology (less skilled in technology) [15].

Many children also learn and get to know the internet independently through interactions with their friends. The solution is to infuse good moral values. Teaching moral values through religious activities such as prayer and recitation of the Koran is much more effective than simply trying to protect computer devices or internet access. As a parent or community member, it is important to understand strategies to maintain safety when children access the internet at home. First of all, place the computer in a public area and choose a type of device that is safe for use by children, such as a PC which is preferred over a laptop or a device such as a tablet or smartphone. Take time to surf the internet together with your children and choose sites that are age-appropriate. Teach children not to reveal personal information such as pictures, email addresses, home addresses, or telephone numbers to other internet users. Parents should also monitor the sites their children access and ensure that only useful sites are allowed. If there is a suspicious site address, immediately check it and provide an explanation to the child concerned. The success of families in teaching character values to children will support the efforts of other institutions outside the family, including schools, in strengthening this. This failure can have an impact on the development of children and individuals in society who lack good character. Therefore, every family must realize that national character depends on the character education provided to the children in their family, especially through the use of the internet with a safe approach [16].

The Role of Teachers in Forming Student Character in Elementary Schools.

Character, as the core of the educational process which aims to produce a generation with good morals, has not received adequate attention due to teacher limitations, especially in choosing appropriate character values. Teachers tend to focus more on teaching activities and assessing students' cognitive aspects rather than paying attention to students' character development. The practice of assessing learning outcomes in schools, especially at the basic education level, generally only measures students' knowledge through class rankings and test results. However, the combination of knowledge and character (affective dimension) will improve the quality of students in the classroom. Even though all educators are aware of the cognitive, affective and psychomotor dimensions of behavior, in reality, these aspects still do not receive adequate attention, especially in the context of student assessment [17].

The role of teachers has great significance in determining educational success. As professionals, teachers are expected to be able to produce superior graduates. In the learning process, the teacher's duties include stimulating, directing, and providing a learning environment for students to achieve learning targets. Teachers are responsible for supervising all activities in the classroom with the aim of supporting student growth. In an educational capacity, teachers need to provide instructions and motivation to achieve learning goals, both in the short and long term. As mentors, teachers provide personal assistance to each individual to understand themselves and the direction needed to adapt to the school environment optimally. For example, a teacher should be a good role model for his students, including behavior, personality, language and other things [18].

The teacher's role as an educator is manifested in various aspects of the learning process, including character formation. During classroom teaching activities, teachers plan the learning process by focusing on goals and achieving student learning outcomes. Teachers have a responsibility for the success of students' learning efforts. In addition, teachers enrich students' moral education by providing motivation during the learning process to increase their interest in learning. At the beginning of each session, the teacher greets the students, prays together, and takes the student attendance list. The teacher also monitors the cleanliness of the learning environment, and if necessary, the teacher invites students to clean the classroom first so that the learning environment becomes more comfortable. Teachers teach students about the importance of observing and caring for the environment around them. In addition, teachers impose consequences on students who arrive late so that they understand and avoid such actions in the future. In the learning process, the teacher gives responsibility to students in carrying out assignments and providing

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#### **Research Article**

corrections. When there is a group assignment, the teacher gives confidence to students to choose a leader in each group, so that students learn cooperation and reduce egos in the group. Teachers also teach about problem solving and solving strategies given to students [19].

Teachers educate students about the importance of discipline in various aspects of life, including the use of social media. In addition, the teacher presents lesson material in line with the learning program that has been prepared, with the aim of facilitating students' understanding of the material. Teachers also assess students to measure the level of success in the learning process. Teachers can be likened to mentors on an educational journey, who, based on their personal knowledge and experience, are responsible for the smooth development of students during their learning journey. This travel concept covers all areas of life, both inside and outside the classroom. Apart from providing face-to-face teaching, teachers also monitor students' behavior in class and sometimes ask questions and guide them in overcoming problems during learning. With patience, the teacher guides students who find it difficult to understand the learning material and sometimes explains it again if possible. Teachers not only deliver lessons, but also provide criticism or warnings to students who lack focus when the teacher is teaching in front of the class [20].

Teachers and schools need to provide proper training to students regarding internet use. One strategy that can be implemented is to combine the learning process and assignments with the use of the internet. Students should be directed to utilize internet sites that have educational value and support their learning process. Therefore, teachers must have sufficient understanding of the internet, including recognizing educational sites that can arouse students' interest in learning. When students are proficient in using blogs and utilizing the internet, schools can hold competitions for students who are active in creating works, such as writing poetry, short stories, journals, and sharing photos via social networking sites, blogs, and other online platforms. This can be seen as a form of appreciation for students' creative efforts and also provides encouragement for them to continue to innovate and use the internet positively. Apart from that, teachers also need to provide guidance to students in doing online practice questions provided on internet sites. This step aims to optimize internet technology as a tool in the learning process [21].

Therefore, students will have a good example from teachers in using the internet responsibly in the school environment. This will trigger students' motivation to follow and implement healthy internet usage patterns with positive principles. This positive principle can be formed through learning about culture and character which is consistently provided by teachers. In using the internet, the essence of shame and strict rules must be instilled in students so that they do not fall into inappropriate content, commit acts of plagiarism, or spend excessive time in entertaining online games. If attention is not given, students may just become a generation of game consumers, rather than creators. In fact, innovative educational content creators are really needed for the progress of education in this country. In the internet learning process, students must be invited to not only act as passive consumers, but also as active initiators who are able to design useful innovative programs. For example, introducing the value of honesty can be carried out by teachers. They need to be able to instill the principles of honesty in students, such as communicating honestly in all situations and acting fairly. Social media platforms such as Facebook, which are currently trending, can be a tool for teaching and monitoring the values of honesty, both for children and adults [22].

The honest behavior and words used by students are easily visible when they interact on Facebook with their teachers. Therefore, the Facebook platform can be used as a tool to strengthen communication between teachers and students. Through Facebook, teachers can initiate dialogue or discussions with students, thereby creating a constructive communicative relationship between the two. This positive communicative relationship will improve the quality of interaction in the teaching and learning process, encourage the achievement of learning targets more efficiently, and guide the development of student behavior and attitudes in a more positive direction. Apart from that, the internet can also be used as a means to cultivate other character values, for example reading habits. The internet can be used as a medium to stimulate a reading culture through educational materials produced by teachers through blogs or school websites. This is different from media such as television which is only for viewing or radio which is only for hearing. By reviving the enthusiasm for reading through educational content, teachers have the opportunity to have a positive impact on interest in reading and the overall quality of education [23].

2025, 10(43s) e-ISSN: 2468-4376

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#### **Research Article**

In circumstances like this, it is hoped that educators have good writing skills and are able to inspire students to feel interested in reading. Teaching materials or educational content can be uploaded to the MOODLE application server or a blog platform based on a Content Management System, and then accessed by students [24].

Teachers have the opportunity to innovate by creating their own learning materials in this environment. They also have the ability to design online tests or evaluations. It is hoped that students will be able to use the internet wisely, disseminate accurate information, and share interesting experiences through their personal blogs. As a result, students can spread messages to many people and improve their language skills. All the elements above must be integrated in internet-based character education. The use of the internet should be directed at implementing the underlying character principles, and used optimally so that the current generation can develop their creative powers well [25].

#### **CONCLUSION**

From the explanation above, the researcher concluded that in their role as educators, teachers need to make more intensive efforts to provide positive encouragement to students so that they use social media wisely and optimize their potential through appropriate use of digital media, both in the learning process and in learning. everyday life. Teachers also need to have the ability to attract students' interest so that they focus more on learning and create digital innovation in the learning process so that students are more proactive and creative in developing their talents. As supervisors, teachers must be able to present learning and assessments effectively so that the learning process becomes meaningful and improves the quality of technology-based learning. For example, teachers are not only role models in action, but also in language and the way they handle and overcome problems. Teachers must also be able to make decisions that can be role models for students.

# **Acknowledgement:**

The hope is that researchers in the future can carry out a more holistic study regarding the role of digitalization in shaping the character of students at the elementary school level, with a different approach to their observations.

## **Conflict of Interest:**

no conflicts in research

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## REFERENCES

- [1] Chairiyah, "Pendidikan Karakter dalam Dunia Pendidikan The Education Character in Education World," Pendidik. Karakter Dalam Dunia Pendidik., vol. 4, no. 1, pp. 42–51, 2017.
- [2] G. Burrell and G. Morgan, Sociological Paradigms and Organisational Analysis. Routledge, 2017. doi: 10.4324/9781315242804.
- [3] M. Fahmi, E. Sarilita, and G. Wilar, "Building Resilient Communities: Rapid Response to a Crisis through Nusantara Module's Character Education and Social Contribution Initiative," Sustainability, vol. 15, no. 18, p. 13300, Sep. 2023, doi: 10.3390/su151813300.
- [4] B. D. Saputra, M. Murdiono, and E. Tohani, "Nationalism education in elementary school: A systematic literature review," Int. J. Eval. Res. Educ., vol. 12, no. 2, p. 739, Jun. 2023, doi: 10.11591/ijere.v12i2.24609.
- [5] J.-P. Fischer and C. Luxembourger, "A Synoptic and Theoretical Account of Character (Digits and Capital Letters) Reversal in Writings by Typically Developing Children," Educ. Sci., vol. 8, no. 3, p. 137, Sep. 2018, doi: 10.3390/educsci8030137.
- [6] N. Poyda-Nosyk, V. Borkovska, R. Bacho, G. Loskorikh, V. Hanusych, and R. Cherkes, "The role of digitalization of transfer pricing in the company's management accounting system," Int. J. Appl. Econ. Financ. Account., vol. 17, no. 1, pp. 176–185, Aug. 2023, doi: 10.33094/ijaefa.v17i1.1096.

2025, 10(43s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

#### **Research Article**

- [7] M. F. Ahmad, C. S. Wei, A. N. A. Ahmad, N. A. A. Rahman, and M. N. M. Nawi, "The impact of industrial revolution 4.0 (IR4.0) towards total quality management (TQM) practices in automotive industry," 2023, p. 070004. doi: 10.1063/5.0143154.
- [8] O. P. Agboola, F. M. Bashir, Y. A. Dodo, M. A. S. Mohamed, and I. S. R. Alsadun, "The influence of information and communication technology (ICT) on stakeholders' involvement and smart urban sustainability," Environ. Adv., vol. 13, no. July, p. 100431, 2023, doi: 10.1016/j.envadv.2023.100431.
- [9] F.-H. Hsu, I.-H. Lin, H.-C. Yeh, and N.-S. Chen, "Effect of Socratic Reflection Prompts via video-based learning system on elementary school students' critical thinking skills," Comput. Educ., vol. 183, p. 104497, Jul. 2022, doi: 10.1016/j.compedu.2022.104497.
- [10] S. Yadav, A. Samadhiya, A. Kumar, A. Majumdar, J. A. Garza-Reyes, and S. Luthra, "Achieving the sustainable development goals through net zero emissions: Innovation-driven strategies for transitioning from incremental to radical lean, green and digital technologies," Resour. Conserv. Recycl., vol. 197, p. 107094, Oct. 2023, doi: 10.1016/j.resconrec.2023.107094.
- [11] Z. Huang, M. Fey, C. Liu, E. Beysel, X. Xu, and C. Brecher, "Hybrid learning-based digital twin for manufacturing process: Modeling framework and implementation," Robot. Comput. Integr. Manuf., vol. 82, p. 102545, Aug. 2023, doi: 10.1016/j.rcim.2023.102545.
- [12] W. Birhan, G. Shiferaw, A. Amsalu, M. Tamiru, and H. Tiruye, "Exploring the context of teaching character education to children in preprimary and primary schools," Soc. Sci. Humanit. Open, vol. 4, no. 1, p. 100171, 2021, doi: 10.1016/j.ssaho.2021.100171.
- [13] Y. Bu, J. Parkinson, and P. Thaichon, "Influencer marketing: Homophily, customer value co-creation behaviour and purchase intention," J. Retail. Consum. Serv., vol. 66, p. 102904, May 2022, doi: 10.1016/j.jretconser.2021.102904.
- [14] B. Brown et al., "Cognition and dementia with Raymond and Brain: Curriculum development and evaluation using interactive animated flipped-classroom modules to impact nursing students' attitude toward dementia care," Nurse Educ. Pract., vol. 71, p. 103696, Aug. 2023, doi: 10.1016/j.nepr.2023.103696.
- [15] M. Burles and J. M. G. Bally, "The chip in a perfect piece of pottery': An ethnographic study of parents' online narratives when a child has cancer," SSM Qual. Res. Heal., vol. 2, p. 100139, Dec. 2022, doi: 10.1016/j.ssmqr.2022.100139.
- [16] C. V. Helliar, B. Lowies, I. G. A. Suryawathy, R. Whait, and K. Lushington, "The genre of banking financial product information: The characters, the setting, the plot and the story," Br. Account. Rev., vol. 54, no. 5, p. 101131, Sep. 2022, doi: 10.1016/j.bar.2022.101131.
- [17] D. Baidoo-Anu, D. Asamoah, and A. Adusei, "Teachers' beliefs and attitudes towards students' self assessment: A latent profile analysis," Int. J. Educ. Res. Open, vol. 5, no. August, p. 100275, 2023, doi: 10.1016/j.ijedro.2023.100275.
- [18] F. Rokhman, M. Hum, A. Syaifudin, and Yuliati, "Character Education for Golden Generation 2045 (National Character Building for Indonesian Golden Years)," Procedia Soc. Behav. Sci., vol. 141, pp. 1161–1165, Aug. 2014, doi: 10.1016/j.sbspro.2014.05.197.
- [19] A. Kaya and B. Dönmez, "An evaluation of the classroom management approaches of the class teachers implementing 'Constructivist Learning Approach," Procedia Soc. Behav. Sci., vol. 1, no. 1, pp. 575–583, 2009, doi: 10.1016/j.sbspro.2009.01.104.
- [20] P. G. Fitchett and S. B. Moore, "Democratizing social studies teacher education through mediated field experiences and practice-based teacher education," J. Soc. Stud. Res., vol. 46, no. 3, pp. 169–184, Jul. 2022, doi: 10.1016/j.jssr.2021.09.005.
- [21] S. Geven, Ø. N. Wiborg, R. E. Fish, and H. G. van de Werfhorst, "How teachers form educational expectations for students: A comparative factorial survey experiment in three institutional contexts," Soc. Sci. Res., vol. 100, p. 102599, Nov. 2021, doi: 10.1016/j.ssresearch.2021.102599.
- [22] J. Helm and R. M. Jones, "Practice Paper of the Academy of Nutrition and Dietetics: Social Media and the Dietetics Practitioner: Opportunities, Challenges, and Best Practices," J. Acad. Nutr. Diet., vol. 116, no. 11, pp. 1825–1835, Nov. 2016, doi: 10.1016/j.jand.2016.09.003.
- [23] J. A. Hauge, "Mergers and acquisitions in radio and television broadcasting: Consistent goals and adaptive regulation," Util. Policy, vol. 31, pp. 133–142, Dec. 2014, doi: 10.1016/j.jup.2014.10.006.

2025, 10(43s) e-ISSN: 2468-4376

https://www.jisem-journal.com/

## **Research Article**

- [24] E. Kim, H. Park, and J. Jang, "Development of a Class Model for Improving Creative Collaboration Based on the Online Learning System (Moodle) in Korea," J. Open Innov. Technol. Mark. Complex., vol. 5, no. 3, p. 67, Sep. 2019, doi: 10.3390/joitmc5030067.
- [25] R. Radu, M. C. Kettemann, T. Meyer, and J. Shahin, "Normfare: Norm entrepreneurship in internet governance," Telecomm. Policy, vol. 45, no. 6, p. 102148, Jul. 2021, doi: 10.1016/j.telpol.2021.102148.
- [26] J. U. Duncombe, "Infrared navigation—Part I: An assessment of feasibility," IEEE Trans. Electron Devices, vol. ED-11, pp. 34-39, Jan. 1959.