

Implementation of Character Education in Madrasah Aliyah in Era 5.0

Elyakim Nova Supriyedi Patty ¹ , Sunardin ² , Sutrisno ³ , Darul Ilmi ⁴ 

¹ Univeristas Bumigora, Indonesia

² Sekolah Tinggi Agama Islam Al-Hikmah Jakarta, Indonesia

³ Institut Agama Islam Daar Al-Ulum Asahan, Indonesia

⁴ Universitas Islam Negeri Bukittinggi, Indonesia

ABSTRACT

Background. The 5.0 era generation is a generation that has developed knowledge of Information and Communication Technology (ICT). Some of the skills that students must have are: Productive thinking, innovative, artistic, mastery of communication and mastery of cooperation. Strengthening character education certainly needs to be realized, this aims to instill moral traits (ethical character) which makes morals an individual characteristic.

Purpose. The aim of this research is to understand the outline and system for determining character education for students at Madrasah Aliyah. Apart from that, this research also aims to explain to students what character education looks like in passing through the 5.0 education era.

Method. The method used is a quantitative survey model, a survey using online-based Google Form and in-depth interviews with students.

Results. The results of the research can explain that the implementation of character education is actually very important to equip students for the future. Character education is implemented with a system that utilizes information technology available in schools, so that morals can be formed and at the same time can also develop mastery of skills in the field of ICT, think productively, innovatively and can be achieved by students in the future in the 5.0 era.

Conclusion. Research limitations that is, researchers cannot explain the overall implementation of character education for students at Madrasah Aliyah in depth and effectively. Researchers hope that future research can handle the implementation of character education for Madrasah Aliyah students in the 5.0 era well and more thoroughly.

KEYWORDS

Character, Generation 5.0, Technology

Citation: Patty, S, N, E., Sunardin, Sunardin & Sutrisno, Sutrisno & Ilmi, D. (2024). Implementation of Character Education in Madrasah Aliyah in Era 5.0. *Journal Emerging Technologies in Education*, 2(3), 259–274. <https://doi.org/10.70177/ijen.v2i2.1072>

Correspondence:

Elyakim Nova Supriyedi Patty,
elyakim@universitasbumigora.ac.id

Received: June 18, 2024

Accepted: June 28, 2024

Published: June 28, 2024



INTRODUCTION

Talking about education is a shared responsibility because education can create personality in humans to make them better people (Bogdanov & Rychkova, 2019; Burbienė & Mazolevskienė, 2019; Scripcariu et al., 2020). Education in this current era is experiencing a blurry image because there is a phenomenon that is polluting education, such as the discovery of bullying, bullying, intolerance between religious communities and also the discovery of various cases in the world of education, such as cases of sexual abuse by several groups of academic teachers and.

lecturers in schools. and also in several universities as well as plagiarism cases that are currently being shown to the world of education(Andoni et al., 2019; Monteiro et al., 2019). In the world of education, this phenomenon shows that the character education that is being discussed in the academic field is just a slogan, so there are often various cases that are shown to the general public.(James et al., 2018). Education is very important for today's generation of children because the influence of technology is very influential in children's school education. So teachers and parents play a big role in instilling character values in children.

The aim of education is to form a character that is manifested in essential unity with a person's behavior and attitudes(Head & Pryiomka, 2020; Nuryanti et al., 2020; Yosep Belen Keban, 2022). Character becomes a title that trumps ongoing, ever-changing experience. From this character, the stability of a person's personality can be seen(Denning & Hodges, 2022; Ligus et al., 2021). The formation of character or character is a common thing in education. The formation of character or character is a very common goal in teaching and character education in schools(Battaly, 2008; Peterson, 2020). Character education is an effort that is calculated to help students learn the values of life globally, both in relation to God, humans and also the surrounding environment.(Cheng et al., 2020; Vos et al., 2020). The values of character education are religious values, honesty, tolerance, discipline, hard work, creative, innovative, big-hearted, independent, democratic, national spirit, curiosity, love of the country, communicative, love of peace, and care for social environment(Kossek et al., 2019). Education will shape a person's character very well, if it is carried out and studied well and is very well introduced to students at school. And it starts to be instilled from small things such as speaking good words when talking to teachers.

The era of society 5.0 is a plan for social life that is focused on humans (human-centered) and also on technology (technology based).(Fleming et al., 2020; Kong et al., 2020; "Self Driving and Self Diagnosing," 2018). Humans who live in the era of society 5.0 must utilize and use various existing explanations and then create and apply them in life. Era 5.0 is where society needs all needs that are specialized and realized by providing the products and facilities needed in sufficient quantities to the people who need them when they need them, and where everyone can receive high-quality freedom and a comfortable and fulfilling life. with spirit(Afgan et al., 2018; T.-C. Wang et al., 2018). Society in the 5.0 era is an information society that is built on society 4.0, whose aim is to create a prosperous underprivileged society. Era 5.0 is a human-centered society that balances economic progress with social problems through a system of updating cyberspace and physical space.. Generation 5.0 is currently existing where humans are very familiar with technology and its developments. This generation must be able and agile in mastering this technology, because as time goes by, technological developments are also increasingly rapid. Education in the current era is very rapid, progress in the field of technology is no longer only felt by adults, starting from kindergarten children can already feel the results of today's technological developments. Moreover, technology is widely used in the world of education, as a means and infrastructure for interaction between educators and students.

Character education for today's successors is really needed, because today is entering the 5.0 era. In the 5.0 era, all objects use technology(Ahn & Davis, 2020; Carmichael & McDonough, 2019; Lapsley & Chaloner, 2020). Today's generation cannot escape a life filled with technology such as teaching and learning activities, social activities, the economy, and so on. And with today's technology, all information can be known, such as a disaster that occurred in an area(Elbay et al., 2020; Kishore et al., 2018; Shugar et al., 2021). The younger generation are children who are at a productive age point in doing something that results in something positive and has a good impact on themselves and the surrounding environment.(Ben-Eliyahu et al., 2018). The millennial generation

and education are two different things, but they have a relationship that can influence each other (Bollani et al., 2019). Nowadays, the millennial generation has its own obstacles to face the era of the digital industrial revolution. The digital revolution experienced a peak with the birth of digital technology which had a very strong impact on human life in the world.

In the current century, it is proven by the use of technology and communication in all aspects of life, including in the educational environment, which has received serious attention from the government (Hu et al., 2020; Usman et al., 2020; Venezuelan & Ausman, 2019). The progress of this era has certainly brought big impacts and changes to the world of education, but this cannot improve the quality of education by itself. An educational institution that is required to handle or prepare students to enter the current century. This century is an age of knowledge where everything and anything is spread out and can be accessed anytime and anywhere. The consequences of this development are very worrying because of the straightening of students' character values that live and deceive in reality so far. This is a very serious concern nowadays, especially for teenagers who are entering the Madrasah Aliyah education level in the 5.0 era. ("[No Title Found]," nd; Pulimeno et al., 2020). In this era, the reality of life is being shown by various conflicts or problems that are being displayed in life together. And also in this current era it has been shown that a person's morals or character can be very quickly influenced by technology which is increasingly developing day by day, so that students who are too closely following technological developments can be influenced by their behavior both towards friends, teachers and even their own parents.

With this technology, everything that is done or carried out becomes easier and easier to do (Ullah et al., 2019; Zadobrischi et al., 2020; Zhou et al., 2020). Because this technology is getting more and more sophisticated and can defeat the role of humans in this world. However, the solution to this problem is to form a good character in students in the 5.0 era, so that students can balance technological knowledge with one's character or morals. (Al-Emran et al., 2018; Ali & Alharbi, 2020). So to form a good character in students at Madrasah Aliyah in er 5.0 is by strengthening the instillation of character education values in students. This technology also has positive and negative impacts on the younger generation, especially students in Madrasah Aliyah, depending on the student how he/she deals with it. (Baiden et al., 2019; Istiyono et al., 2020). As the younger generation, students must also accept technological advances in a positive way. A positive way is to consider everything that is available in this technology.

Based on the results of relevant research related to this study conducted by Mohammad Sukarno, in 2020 in his article entitled Strengthening Character Education in the Era of Society 5.0 he said that character education is something that is essential in order to shape the personality or character of students. (Chen et al., 2020; Genchi et al., 2020; Xie & Zhu, 2020). Something that can be done to strengthen character education is by consolidating both teachers, parents and other groups with the aim of reaching the 5.0 era generation. Through global and future forms of learning, it is hoped that recommendations can be made very well (Santomauro et al., 2021; G. Wang et al., 2018). Character education can also be interpreted as education that fosters noble character from students who already have knowledge, feel that knowledge, and demonstrate these moral values. Character education also really helps students make civilized choices in interacting with fellow humans and in interacting with God.

The researchers' reason for using this title is because they see many problems with the decline in the application of character to students in the current 5.0 era. Where students interact more often with technology than with the people around them. This will lead to a decline in character education in the current era of society, where character is no longer the main thing in a life environment. For this reason, researchers want to develop the application of character education in this increasingly

sophisticated era. Because in essence the most important thing that a student must have is good character and manners. Apart from that, technological developments can also help to implement character in students, by showing media that provides elements that are very educational in positive terms. In this way, students will be more observant in implementing character education in the current 5.0 era.

RESEARCH METHODOLOGY

This type of research is research using a quantitative survey model method, using online-based Google forms and in-depth interviews with students (Hussain et al., 2020; Radic et al., 2020). Quantitative method research is a process of discovering knowledge by using data in the form of angka as a tool to find out information about what is being researched. Researchers try to understand and explain the understanding obtained from the survey process between researchers and the subjects who will be interviewed. Researchers use analysis from sources so that researchers can understand what actually happened (Lunn et al., 2019). By utilizing the basic theoretical basis that is owned, researchers can focus more on the truth that occurs in the target field. This research did not provide detailed questions, but the questions given to the subjects were general questions first, after this was done, the subjects were provoked to talk as a whole.

This method has a deductive thinking pattern, by understanding a phenomenon by using general concepts to explain specific phenomena. Furthermore, in quantitative methods it is hoped that researchers can find clues to the problem in depth and comprehensively. The purpose of this research is to find the results of the research process carried out by means of interviews so that researchers can get clear information in their observations. (Chen et al., 2020; Santesso et al., 2020). In this method, researchers use data analysis techniques using numbers and quantities in their research. Researchers use it online directly with Google form and WhatsApp. This technique was chosen because researchers get more accurate and more concrete information about subjects who directly experience the process.

This survey method uses analytical techniques used, namely statistical techniques or data collection methods using diagrams. Data analysis techniques are a data processing process that includes examining, processing and modeling data, which is useful as a basis for drawing conclusions. This technique was chosen because in processing this technique the data can become relevant information using numbers that are easy to understand when presented to people to find solutions to the problems to be studied. From the technique used, arguments were obtained from respondents based on survey results by asking several questions related to the problem. The results of the survey can be viewed from the background of the respondents, who consist of several students who received the implementation of character education in the current 5.0 era.

In this research, there needs to be an observation carried out by the researcher, namely in order to get a realistic picture of characters and humans so that they can understand the problems that simply occur. Capturing the truth cannot only be done by researching one subject, but it is also necessary to approach many people, because each person has a different view, so they cannot capture the truth in detail. Thus, in research the data received is data analysis, this is what causes the research results obtained from research results using quantitative methods to have the possibility of experiencing changes. Thus, in this study, researchers conducted a survey by providing online questionnaires to respondents for data collection, by asking questions related to the implementation of character education in the 5.0 era.

RESULTS AND DISCUSSION

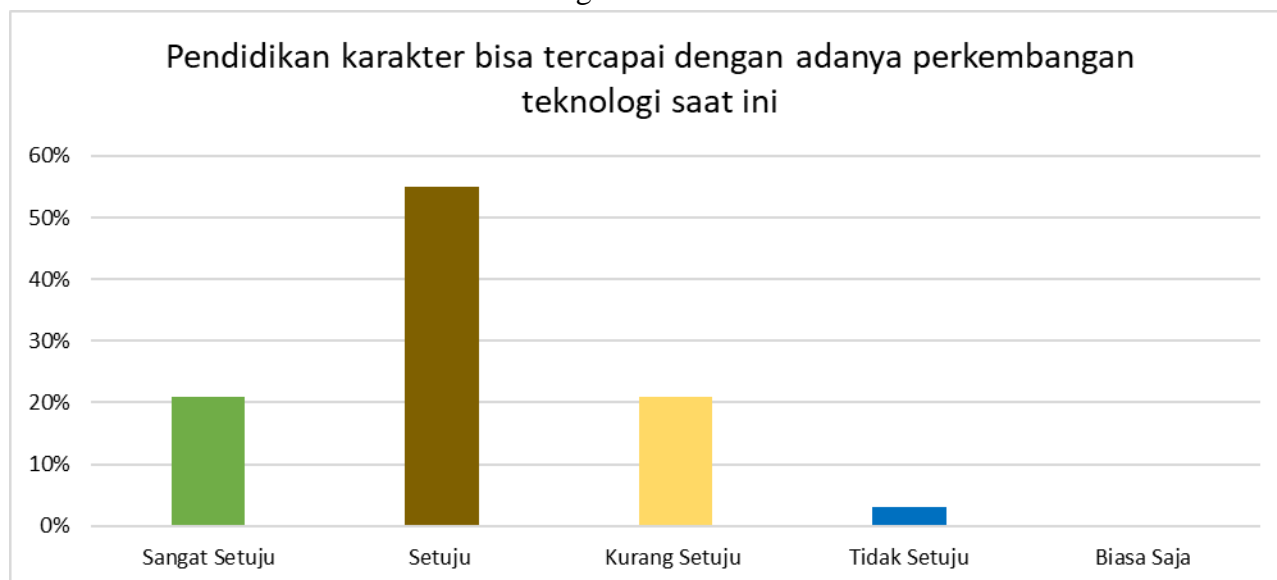
From the results of research through in-depth interviews with students via Google Form, it is clear that the implementation of character education in schools in the 5.0 era can be carried out well and completely. By recommending the creation of media in learning for a student's character education. The target of developing character education for students, especially at the Madrasah Aliyah level, is so that students can get used to having good attitudes such as discipline, religion, responsibility, and many others, and by implementing character education from an early age, when students enter society they will also can have attitudes and behavior that describe a person with good and noble character. Character education is a method or path used to shape and create the character of students so that students can maintain or implement life values from a perspective in their lives. In order to achieve this goal, it really needs to be done chronically to create good character from an early age within the values of character education.

As with the development of students to have intelligence, personality and noble morals, which is contained in the National Education System Law no. 20 of 2003. A very important point from the things above is the formation of intelligent and characterful people. Instilling character values in students can be done directly by approaching students, so that teachers can find out what the students' character and personality are like. However, something that is most important and very influential in determining character education for students is teaching and guidance from the family environment. With good basic character education from the family environment, the character of students at school will look good too. Because students have been taught character education from their family environment. Dealing with the conditions of this contemporary world, namely in the era of society 5.0, of course life capacity is very necessary. The 5.0 era aims to create or give birth to a super intelligent generation who can utilize the technology and information currently available to improve the welfare of life.

The super intelligent generation in this era also has to think critically about changes and various life events that occur both in cyberspace and in the real world. The presence of telecommunications and information media often creates a private space, making us in this century trapped in individual attitudes. With its influence so fast and strong, the role of educators is very important in instilling character education from an early age. In order to create a harmonious educational life situation, it is necessary for education to shape the character of students, so that they can act, behave in accordance with the values or norms of life that apply both in the school, social and family environments. And if in this era it is not balanced with good and correct character education, it will create various kinds of problems and crimes that are based on very sophisticated intelligence and technology. Therefore, it is not only at the education level that must determine character values in students, but also at other levels such as the family environment, TPA/MDA, and also the community environment.

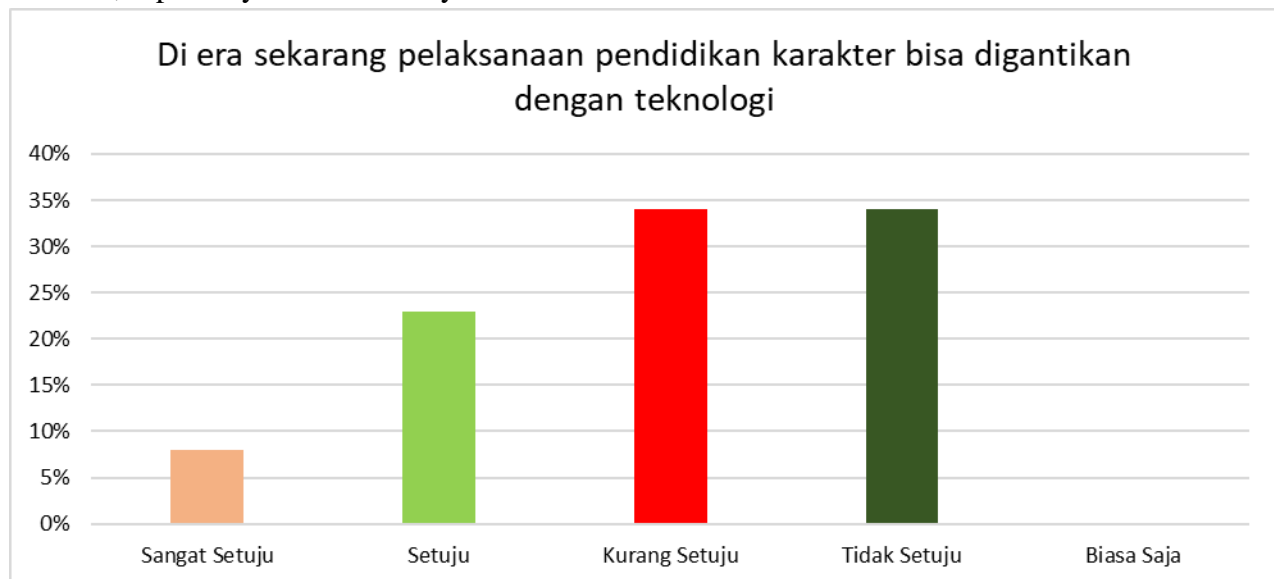


Based on the results of the diagram above, it can be seen how respondents think that developments in the 5.0 era have a great influence on student character education. Where many respondents chose different answers, some chose strongly agree, agree and disagree. The research carried out by researchers was via an online survey using a Google form with 63 people responding and many of them agreed that developments in the 5.0 era had a big influence on students' character education. In obtaining this data, 22 students chose to strongly agree, 40 students chose to agree, and 1 student chose to disagree. From the results of the data collection, it was found that many students agreed if seen from the graph above. It is true that developments in the current 5.0 era have a big influence on a student's character education, therefore educators need to overcome this so that in this era students' morals can survive with good character.

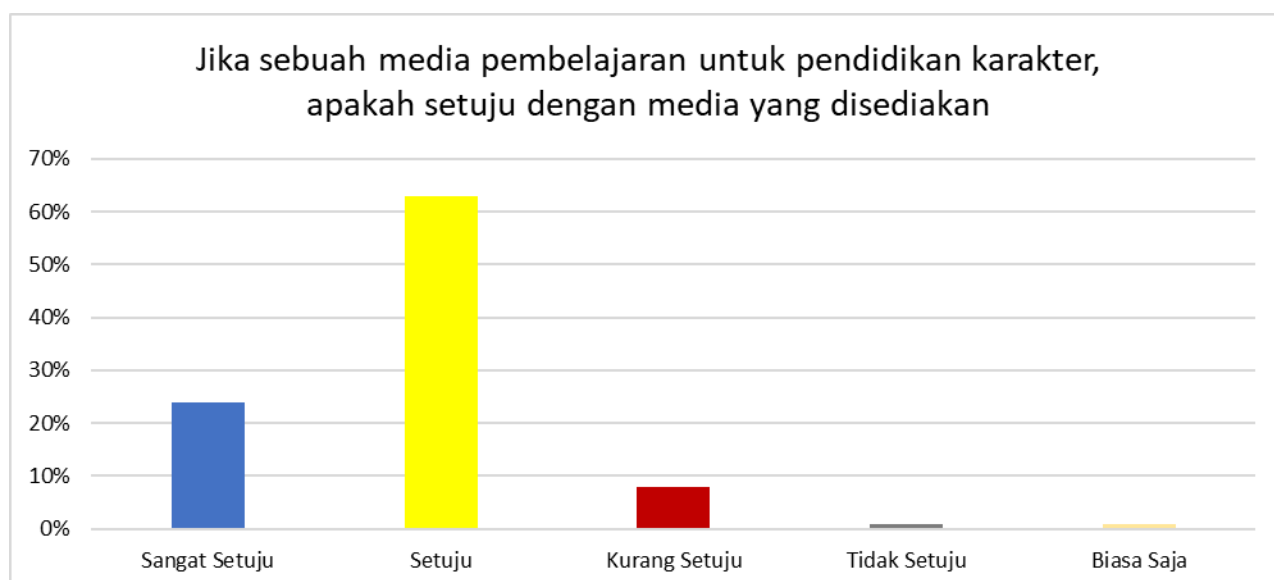


Based on the results of the answers seen in the graph above, it can be seen that many students choose to agree that character education can be achieved with technological developments. From this graph it can be seen that with current technological developments character education in schools will also be achieved thoroughly. Therefore, if the teacher's role in teaching character to students is studied in depth, then developing technology will not be able to influence students' behavior and character. It can be seen that a total of 63 people filled out the questionnaire, of which 13 people strongly agreed, 36 people agreed, 13 people disagreed, and 1 student disagreed. From this it can be seen that many students agree that character education can be achieved with

technological developments and there are also students who disagree, perhaps this can be a note for teachers, especially Madrasah Aliyah teachers.

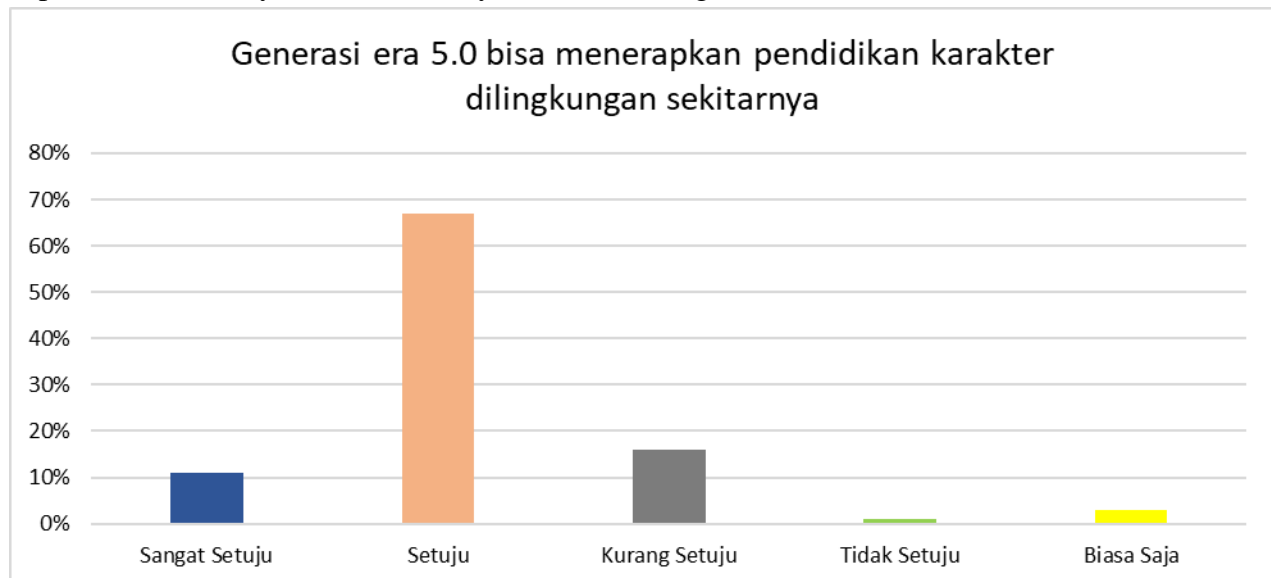


Based on the results from respondents seen from the graph above, many students gave answers that disagreed and disagreed if the implementation of character education could be replaced by current technology. Here it can be seen that there are 22 students who disagree, 21 students disagree, 15 students agree and 5 students strongly agree. Here it can be seen that students are more likely to disagree, because it is true that a person's morals or character cannot be shaped as well as possible by technology. Therefore, the role of teachers is to instill character values in students at school, because with the increasing development of technology, educators are not prepared to face developments in the times that are more dominant in technological development. Because the role of a teacher or educator is to educate as best as possible so that their children can have good morals and character, and also teachers must master technology beyond their students' knowledge.



Based on the results of the respondents, it can be seen from the graph above that very many students choose to agree with the need for learning media for character education. With the existence of a media for character education, students will be more attracted and interested in studying character at school. Because in the 5.0 era, students are more interested and like to see the media directly in front of their eyes and will more quickly understand what they are learning

because media can make it easier for a student to understand. There were 41 students who chose to agree out of 63 people who filled out the questionnaire. Here it can be concluded that the role of technology based on learning media is very useful in character education for students. Because with this media, character values will be further instilled in children and children can also be shown and expressed when they are in the family and surrounding environment.

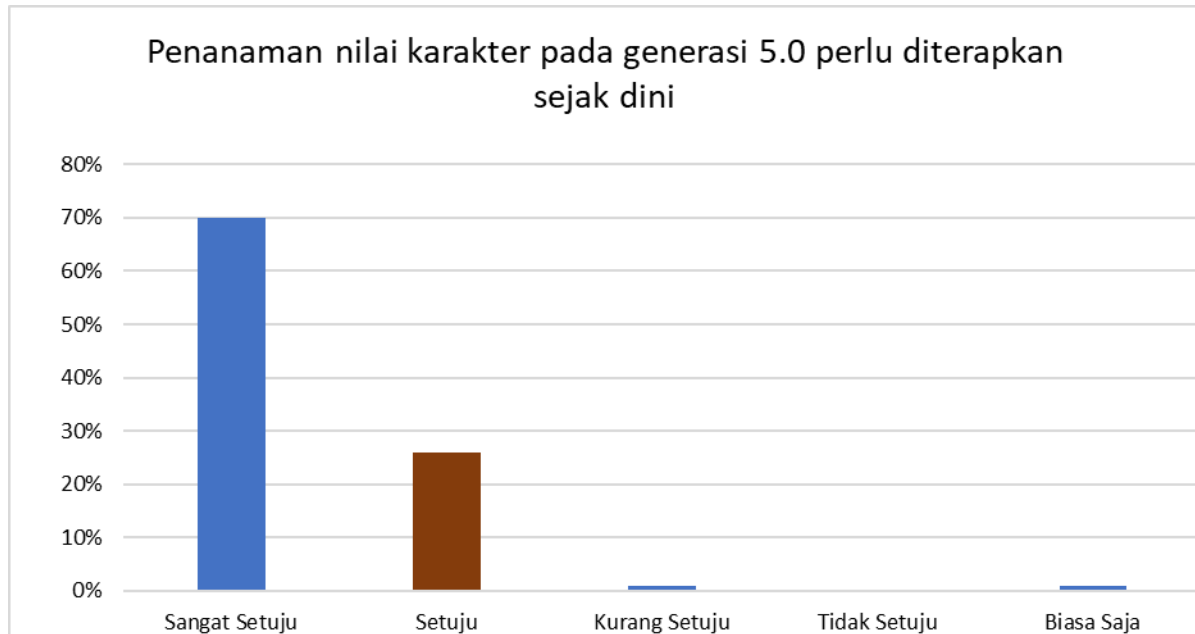


Based on the results of the graph above, many respondents agreed that the generation in the 5.0 era could implement character education in the surrounding environment. Because as has been explained in some of the material above, students are taught to be able to also apply character education to their surrounding environment as taught in school. For this reason, schools, especially the role of an educator, must also apply it persistently and provide students with character education. So that students can also apply what has been taught, in the surrounding environment, such as small things in their circle of friends, so that they can build good friendships with their peers and with good character and can also be imitated by other environments. For example, they are taught how to interact and communicate well and speak kind words to students. And in this way students can show that they have implemented the education taught by their teacher.



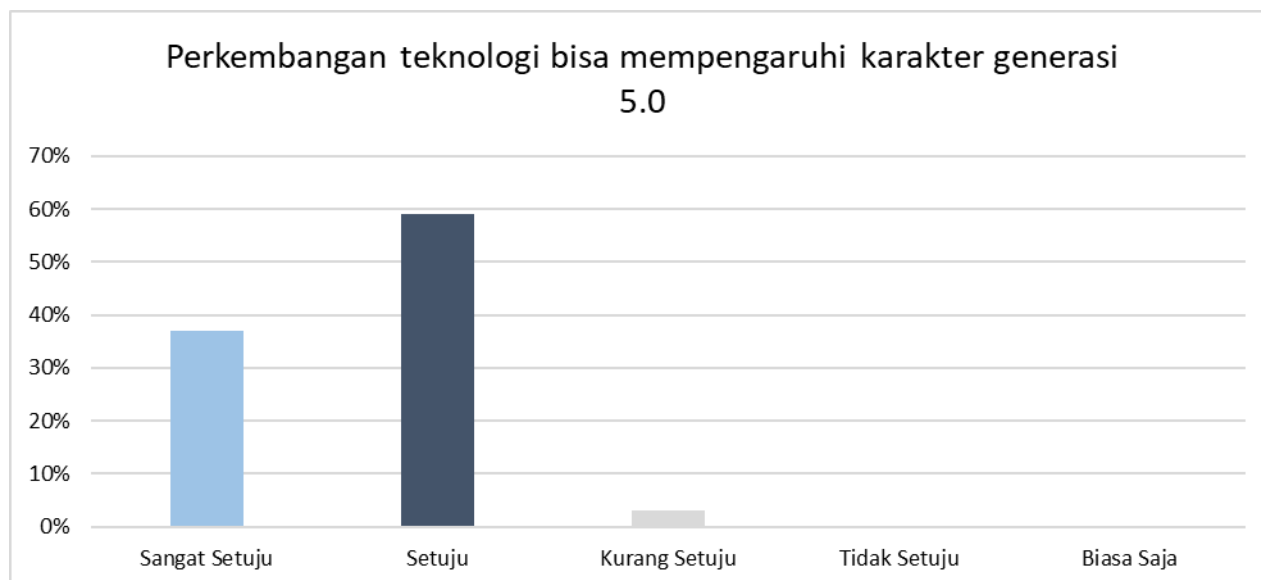
Based on the results from the graph above, it can be seen that many respondents strongly agree that character cultivation cannot only be taught in schools. There were 33 students who chose to strongly agree, which from this can be seen that it is true that character education is not only

applied in the school environment, but also really needs teachings from the surrounding environment. Like the most important thing is from the family environment. Here students can get pure character education from the teachings of their parents as the basis for their education. For example, parents teach children to always be filial to their parents and respect people older than themselves. By applying this to children from an early age, the child will get used to what has been

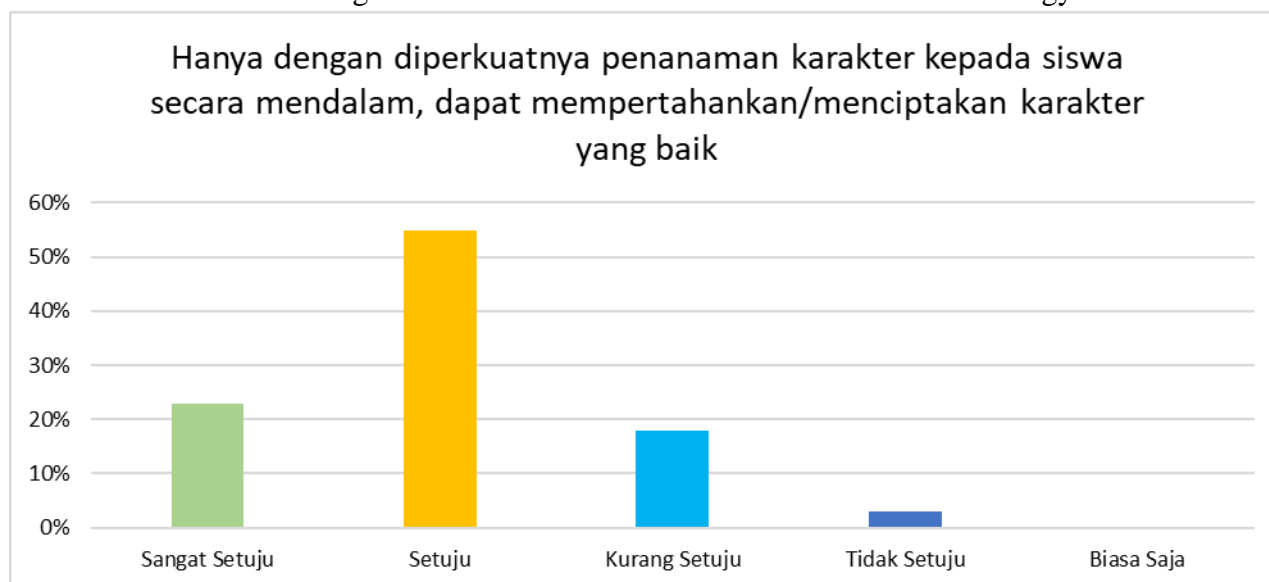


taught and it will be attached to his soul until he grows into an adult and even old age.

Based on the results of the graph shown above, it can be seen that many students and parents strongly agree that it is important and necessary to implement character development in the current 5.0 era.. This character education from an early age will continue to stick and will create a generation with good character. Because it is the initial education that students receive both in the school environment when they are at the kindergarten education level and in the family environment. Early childhood is a time of preparation for real schooling, therefore building good character at an early age is a very important thing to do. Forming character education from an early age is very necessary so that children have a strong mentality when facing various obstacles, changes and certain situations in the future. The aim of forming character education for children at an early age is to form a good personality in children so that when they become adults they can be implemented as individuals who can provide benefits to fellow humans and their environment.

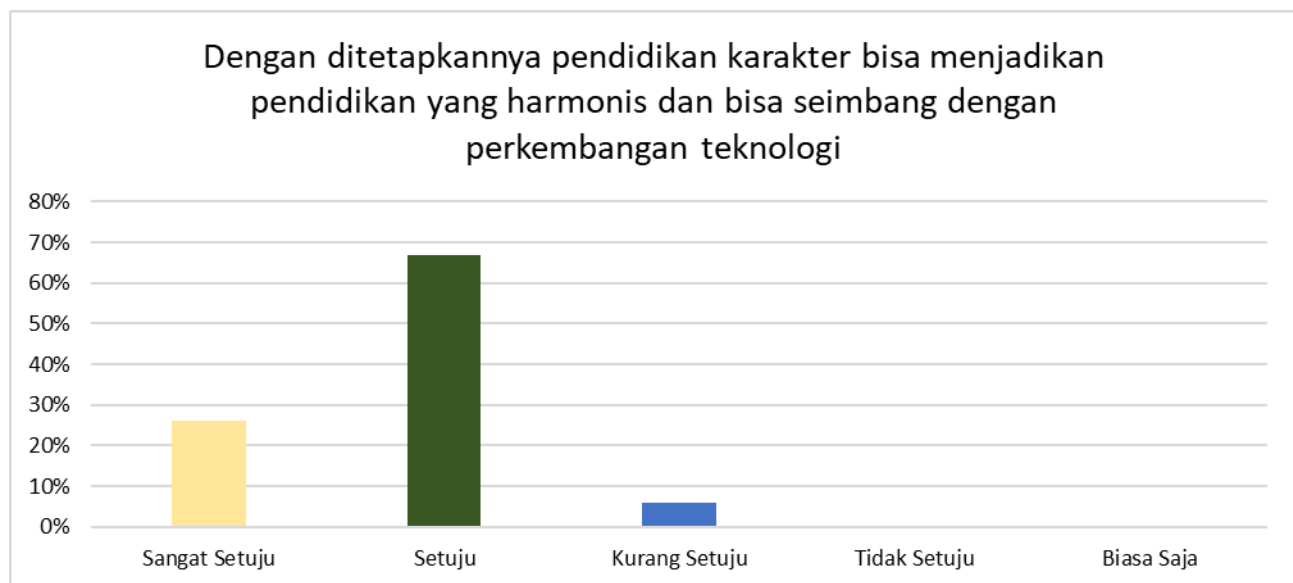


Based on the graphic results above, technological developments can influence the character of generation 5.0, many student respondents chose to agree that technology has a big influence on a person's attitude or character. Because basically it is true that when students use technology incorrectly it will have a bad impact on their life in the future. Therefore, careful control is needed from teachers and parents so that students do not fall into the misuse of technology in this era. This can be obtained from schools, for example when in the school environment students are expected to turn off their cellphones during the teaching and learning process, this can create character values in students starting from small things like that. So, schools must also monitor students' use of technology so that it does not affect the formation of students' character. Here it can be seen that the impact and influence of technology on the 5.0 generation does have an influence because this can also occur due to a lack of guidance and limitations on excessive use of technology.



From the graph above, it can be seen that strengthening the in-depth cultivation of character in students can maintain or create good character. Here it can be seen that many students agree that deeply instilling character values can create good character. Researchers can use this as a guideline that the role of teachers is very important in cultivating a student's character, and teachers must be persistent in implementing character education to students. Another thing from that, there are also other opinions that do not agree that character cultivation can be maintained only by in-depth cultivation. Maybe some of the respondents think they don't agree or disagree because there are

other things or ways that can be done so that character development can be realized more effectively for students. Planting here must also involve cooperation between all the environments around the student.



Based on the results seen from the graph above, it can be explained that by establishing character education, it can create an education that is harmonious and can be balanced with technological developments. Many student respondents chose to agree, because in this era everything they do will never escape technology. Because technology can help in many ways that are needed. For example, when a teacher wants to display media in the form of a video, the teacher needs technology that can make students more interested in the learning. However, teachers are not only fixated on technology, but character cultivation must be done with a direct approach and demonstrated clearly to students, especially students who are at the Mdrasah Aliyah level. Because students at this level are looking for their identity from adolescence to early adulthood. So it must be determined in depth by teachers at school. Teachers who play a role in Madrasah Aliyah schools must be able to approach and investigate what kind of character the student has. When you know what the basic forms of student character are, it will be easier for a teacher to instill character values in students.

With technology, it is possible to build character education in an effective way and also requires support and participation from various parties connected to students, especially the role of family, school, government and society. From the survey results above, it can be concluded that the implementation of character education for Madrasah Aliyah students in the 5.0 era can be carried out well. Educators are also required to be able to instill in detail and with information that is easy for students to understand. The way teachers model this for students is by taking an in-depth approach to students and also by providing good examples, controlling and supervising the progress of the student's education. And also with technology it can make it easier for students to understand the material by using media that is easy to understand and more interesting. Therefore, the role of technology in the 5.0 era is also very helpful in instilling character education in students, especially at the Madrasah Aliyah level.

The importance of character education in the 5.0 era is because in this increasingly mature era, various kinds of social, educational and economic problems are found that occur in life. The important role of character education is to formulate character education as a reference for humans to show relationships between individuals with various dimensions, both from within and from outside themselves, so that the individual can experience freedom and also be increasingly

responsible for all growth. itself is based on moral values that respect fellow human beings. This character education is also a planned effort to make it easier for students to understand the values of life globally, whether they relate to God, humans or the environment. And also in this character education, several values can be applied, namely religious values, independence, discipline, responsibility, caring for the environment, and communicativeness.

With the importance of implementing character in this 5.0 era, namely with so many obstacles and tests from technological sophistication, it is hoped that character education can build character in the nation's future generations so that it brings and also forms a very positive impact on the spiritual, emotional and personality development of students. . Quality and a strong mentality or morals, morals and manners is a special personality which becomes an encouragement or driving force and also differentiates individuals from other individuals. And with the sophistication of technology, society's generation can be said to have character if it has succeeded in accepting the values and beliefs desired by students and also uses them as a moral force in life. The importance of character education will become a fortress, where digital technology is very important for the survival of the nation's future, but if it cannot be used wisely it can also bring down morals and character, especially for teenagers at the Madrasah Aliyah school level, where teenagers cannot yet fully possess cognitive abilities.

This character education will also be a bulwark against the entry of cultures that do not conform to state norms. In this way, students must be trained and taught from an early age so that their qualities, mental strength and morals are formed to become the foundation for a strong character and not fall into negative currents in the era of society. This character education has a very high purpose compared to moral education, because this character education plays a very important role in instilling character or habits in students in knowing things that are good to apply in everyday life, especially for themselves. The way to implement this character education is comprehensive and holistic. When character education is applied in the school environment, it can be implemented through learning, example, strengthening and habituation. And the most important thing is to instill character education to ensure that the current generation has a good personality in their lives and also to form strong student characters.

CONCLUSION

The implementation of character education at Madrasah Aliyah in the 5.0 era is an effort that can be calculated to help students learn the values of life globally, both in relation to God, humans and also the environment around them. Character education in the 5.0 era is very important, because religious, nationalist, independence, mutual cooperation and integration values have a very important role and must be considered in depth so that the teacher's goal of creating good character can be realized successfully. It is very important for character education to be taught within the family, community and in formal institutions, namely at school. In this era, students are required to be able to balance the use of technology and the application of character in behavior. However, if in this era it is not balanced with good and correct character education, various crimes will arise that arise on the basis of very sophisticated technological intelligence.

In accordance with the title of the research above, the implementation of character education for students in the 5.0 era can be implemented well and correctly, also with special guidance and application. And the need for special training in developing good morals that can be applied in everyday life. The aim of this research is to find out how to implement character education in the 5.0 era. The analytical technique used is data analysis by conducting a survey method or creating a questionnaire which is useful for collecting data related to the theme of this

research using 63 people's perspectives, especially students at the Madrasah Aliyah education level who are related to this matter. In this way, it can be concluded based on the results of research using a Google Form survey, showing that character education can be applied well to Madrasah Aliyah students in the 5.0 era.

SUGGESTION

As the results of research and surveys conducted by researchers regarding the implementation of character education in Madrasah Aliyah in the 5.0 era. Here the researcher realizes that he is only conducting research at the Madrasah Aliyah level of education, but the researcher hopes that the application of character to students in the 5.0 era can be applied to all other levels of education, not just at the Madrasah Aliyah level, because this character education really needs to be applied to all students so that creating a generation with good morals and character. And students should not be too influenced by technological developments which are becoming more sophisticated day by day and can have a negative impact on student development. Researchers hope that future research can apply more interesting things and can conduct research directly with students.

THANK-YOU NOTE

The researcher expressed a big thank you to several students at Madrasah Aliyah, who had participated in conducting the survey by completing an online questionnaire and answering several questions. In this regard, researchers can conduct research by processing the results or data obtained from respondents in writing this article. And especially to Lecturer Adam Maudinillah who has helped and monitored the development of this article.

REFERENCES

- Afgan, E., Baker, D., Batut, B., van den Beek, M., Bouvier, D., Čech, M., Chilton, J., Clements, D., Coraor, N., Grüning, B.A., Guerler, A., Hillman-Jackson, J., Hiltemann, S., Jalili, V., Rasche, H., Soranzo, N., Goecks, J., Taylor, J., Nekrutenko, A., & Blankenberg, D. (2018). The Galaxy platform for accessible, reproducible and collaborative biomedical analyses: 2018 update. *Nucleic Acids Research*, 46(W1), W537–W544. <https://doi.org/10.1093/nar/gky379>
- Ahn, M.Y., & Davis, H.H. (2020). Four domains of students' sense of belonging to university. *Studies in Higher Education*, 45(3), 622–634. <https://doi.org/10.1080/03075079.2018.1564902>
- Al-Emran, M., Mezhyuev, V., & Kamaludin, A. (2018). Technology Acceptance Model in M-learning context: A systematic review. *Computers & Education*, 125, 389–412. <https://doi.org/10.1016/j.compedu.2018.06.008>
- Ali, I., & Alharbi, OML (2020). COVID-19: Disease, management, treatment, and social impact. *Science of The Total Environment*, 728, 138861. <https://doi.org/10.1016/j.scitotenv.2020.138861>
- Andoni, M., Robu, V., Flynn, D., Abram, S., Geach, D., Jenkins, D., McCallum, P., & Peacock, A. (2019). Blockchain technology in the energy sector: A systematic review of challenges and opportunities. *Renewable and Sustainable Energy Reviews*, 100, 143–174. <https://doi.org/10.1016/j.rser.2018.10.014>
- Baiden, P., Kuire, V.Z., Shrestha, N., Tonui, B.C., Dako-Gyeke, M., & Peters, K.K. (2019). Bullying victimization as a predictor of suicidal ideation and suicide attempt among senior high school students in Ghana: Results from the 2012 Ghana Global School-Based Health Survey. *Journal of School Violence*, 18(2), 300–317. <https://doi.org/10.1080/15388220.2018.1486200>

- Battaly, H. (2008). Virtue Epistemology. *Philosophy Compass*, 3(4), 639–663. <https://doi.org/10.1111/j.1747-9991.2008.00146.x>
- Ben-Eliyahu, A., Moore, D., Dorph, R., & Schunn, C. D. (2018). Investigating the multidimensionality of engagement: Affective, behavioral, and cognitive engagement across science activities and contexts. *Contemporary Educational Psychology*, 53, 87–105. <https://doi.org/10.1016/j.cedpsych.2018.01.002>
- Bogdanov, I., & Rychkova, N. (2019). EFFECT OF EMOTIONAL STATUS AND PERSONALITY TRAITS ON PHYSICAL PREPAREDNESS IN YOUNG PEOPLE. *Human Sports Medicine*, 19(1), 80–85. <https://doi.org/10.14529/hsm190111>
- Bollani, L., Bonadonna, A., & Peira, G. (2019). The Millennials' Concept of Sustainability in the Food Sector. *Sustainability*, 11(10), 2984. <https://doi.org/10.3390/su11102984>
- Burbienė, A., & Mazolevskienė, A. (2019). Tėvų edukacija vaikų kūrybiškumui ugdyti šeimoje. *Pedagogy*, 132(4), 115–129. <https://doi.org/10.15823/p.2018.132.7>
- Carmichael, C.E., & McDonough, M.H. (2019). Community Stories: Explaining Resistance to Street Tree-Planting Programs in Detroit, Michigan, USA. *Society & Natural Resources*, 32(5), 588–605. <https://doi.org/10.1080/08941920.2018.1550229>
- Chen, J., Qi, T., Liu, L., Ling, Y., Qian, Z., Li, T., Li, F., Xu, Q., Zhang, Y., Xu, S., Song, Z., Zeng, Y., Shen, Y., Shi, Y., Zhu, T., & Lu, H. (2020). Clinical progression of patients with COVID-19 in Shanghai, China. *Journal of Infection*, 80(5), e1–e6. <https://doi.org/10.1016/j.jinf.2020.03.004>
- Cheng, F., Luo, H., & Colosi, L.M. (2020). Slow pyrolysis as a platform for negative emissions technology: An integration of machine learning models, life cycle assessment, and economic analysis. *Energy Conversion and Management*, 223, 113258. <https://doi.org/10.1016/j.enconman.2020.113258>
- Denning, K. R., & Hodges, S. D. (2022). When Polarization Triggers Out-Group “Counter-Projection” Across the Political Divide. *Personality and Social Psychology Bulletin*, 48(4), 638–656. <https://doi.org/10.1177/01461672211021211>
- Elbay, R.Y., Kurtulmuş, A., Arpacıoğlu, S., & Karadere, E. (2020). Depression, anxiety, stress levels of physicians and associated factors in Covid-19 pandemics. *Psychiatry Research*, 290, 113130. <https://doi.org/10.1016/j.psychres.2020.113130>
- Fleming, G. A., Petrie, J. R., Bergenstal, R. M., Holl, R. W., Peters, A. L., & Heinemann, L. (2020). Diabetes Digital App Technology: Benefits, Challenges, and Recommendations. A Consensus Report by the European Association for the Study of Diabetes (EASD) and the American Diabetes Association (ADA) Diabetes Technology Working Group. *Diabetes Care*, 43(1), 250–260. <https://doi.org/10.2337/dci19-0062>
- Genchi, G., Sinicropi, M.S., Lauria, G., Carocci, A., & Catalano, A. (2020). The Effects of Cadmium Toxicity. *International Journal of Environmental Research and Public Health*, 17(11), 3782. <https://doi.org/10.3390/ijerph17113782>
- Head, J.C., & Pryiomka, K. (2020). Accounting for mediatization in the era of individualized consequential accountability. *Journal of Education Policy*, 35(3), 421–440. <https://doi.org/10.1080/02680939.2019.1566578>
- Hu, H., Zhao, X., & Tan, F. (2020). Research on the Status and Impact of Underage Girls' Arranged Marriage through Computer Collection and Analysis: -Indonesia's poor areas as an example. 2020 International Conference on Artificial Intelligence and Education (ICAIE), 168–171. <https://doi.org/10.1109/ICAIE50891.2020.00046>
- Hussain, T., Muhammad, K., Ullah, A., Cao, Z., Baik, S. W., & de Albuquerque, VHC (2020). Cloud-Assisted Multiview Video Summarization Using CNN and Bidirectional LSTM. *IEEE Transactions on Industrial Informatics*, 16(1), 77–86. <https://doi.org/10.1109/TII.2019.2929228>
- Istiyono, E., Sunu, W., Setiawan, R., & Megawati, I. (2020). Developing of Computerized Adaptive Testing to Measure Physics Higher Order Thinking Skills of Senior High School Students

- and its Feasibility of Use. *European Journal of Educational Research*, 9(1), 91–101. <https://doi.org/10.12973/eu-jer.9.1.91>
- James, SL, Abate, D., Abate, KH, Abay, SM, Abbafati, C., Abbasi, N., Abbastabar, H., Abd-Allah, F., Abdela, J., Abdelalim, A., Abdollahpour, I., Abdulkader, RS, Abebe, Z., Abera, SF, Abil, OZ, Abraha, HN, Abu-Raddad, LJ, Abu-Rmeileh, NME, Accrombessi, MMK, ... Murray, CJL (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 392(10159), 1789–1858. [https://doi.org/10.1016/S0140-6736\(18\)32279-7](https://doi.org/10.1016/S0140-6736(18)32279-7)
- Kishore, N., Marqués, D., Mahmud, A., Kiang, MV, Rodriguez, I., Fuller, A., Ebner, P., Sorensen, C., Racy, F., Lemery, J., Maas, L., Leaning, J., Irizarry, R.A., Balsari, S., & Buckee, CO (2018). Mortality in Puerto Rico after Hurricane Maria. *New England Journal of Medicine*, 379(2), 162–170. <https://doi.org/10.1056/NEJMs1803972>
- Kong, F., Jia, Y., & Ghovanloo, M. (2020). Preliminary Assessment of a Novel Intraoral-Tongue Operated Assistive Technology with Computer Interface. 2020 IEEE 63rd International Midwest Symposium on Circuits and Systems (MWSCAS), 297–300. <https://doi.org/10.1109/MWSCAS48704.2020.9184522>
- Kossek, EE, Thompson, RJ, Lawson, KM, Bodner, T., Perrigino, MB, Hammer, LB, Buxton, OM, Almeida, DM, Moen, P., Hurtado, DA, Wipfli, B., Berkman, LF, & Bray, J. W. (2019). Caring for the elderly at work and home: Can a randomized organizational intervention improve psychological health? *Journal of Occupational Health Psychology*, 24(1), 36–54. <https://doi.org/10.1037/ocp0000104>
- Lapsley, D., & Chaloner, D. (2020). Post-truth and science identity: A virtue-based approach to science education. *Educational Psychologist*, 55(3), 132–143. <https://doi.org/10.1080/00461520.2020.1778480>
- Ligus, K., Fritzson, E., Hennessy, E.A., Acabchuk, R.L., & Bellizzi, K. (2021). Disruptions in the management and care of university students with preexisting mental health conditions during the COVID-19 pandemic. *Translational Behavioral Medicine*, 11(3), 802–807. <https://doi.org/10.1093/tbm/ibab020>
- Lunn, M.R., Lubensky, M., Hunt, C., Flentje, A., Capriotti, M.R., Sooksaman, C., Harnett, T., Currie, D., Neal, C., & Obedin-Maliver, J. (2019). A digital health research platform for community engagement, recruitment, and retention of sexual and gender minority adults in a national longitudinal cohort study—The PRIDE Study. *Journal of the American Medical Informatics Association*, 26(8–9), 737–748. <https://doi.org/10.1093/jamia/ocz082>
- Monteiro, C.A., Cannon, G., Levy, R.B., Moubarac, J.-C., Louzada, M.L., Rauber, F., Khandpur, N., Cediell, G., Neri, D., Martinez-Steele, E., Baraldi, L.G., & Jaime, P.C. (2019). Ultra-processed foods: What they are and how to identify them. *Public Health Nutrition*, 22(5), 936–941. <https://doi.org/10.1017/S1368980018003762>
- [No title found]. (nd). *Journal of Physical Education and Sport*, 2018(2).
- Nuryanti, L., Darmawan, D., & Hufad, A. (2020). The Implementation Model of Character Building in Curriculum 2013 Through The Scout Movement as A Required Extracurricular in Primary and Secondary Education. *Advances in Science, Technology and Engineering Systems Journal*, 5(1), 361–367. <https://doi.org/10.25046/aj050146>
- Peterson, A. (2020). Character education, the individual and the political. *Journal of Moral Education*, 49(2), 143–157. <https://doi.org/10.1080/03057240.2019.1653270>
- Pulimeno, M., Piscitelli, P., Colazzo, S., Colao, A., & Miani, A. (2020). School as an ideal setting to promote health and wellbeing among young people. *Health Promotion Perspectives*, 10(4), 316–324. <https://doi.org/10.34172/hpp.2020.50>
- Radic, A., Law, R., Lück, M., Kang, H., Ariza-Montes, A., Arjona-Fuentes, J.M., & Han, H. (2020). Apocalypse Now or Overreaction to Coronavirus: The Global Cruise Tourism Industry Crisis. *Sustainability*, 12(17), 6968. <https://doi.org/10.3390/su12176968>

- Santesso, N., Glenton, C., Dahm, P., Garner, P., Akl, E.A., Alper, B., Brignardello-Petersen, R., Carrasco-Labra, A., De Beer, H., Hultcrantz, M., Kuijpers, T., Meerpohl, J., Morgan, R., Mustafa, R., Skoetz, N., Sultan, S., Wiysonge, C., Guyatt, G., & Schünemann, H.J. (2020). GRADE guidelines 26: Informative statements to communicate the findings of systematic reviews of interventions. *Journal of Clinical Epidemiology*, 119, 126–135. <https://doi.org/10.1016/j.jclinepi.2019.10.014>
- Santomauro, D.F., Mantilla Herrera, A.M., Shadid, J., Zheng, P., Ashbaugh, C., Pigott, D.M., Abbafati, C., Adolph, C., Amlag, J.O., Aravkin, A.Y., Bang-Jensen, B.L., Bertolacci, G.J., Bloom, S.S., Castellano, R., Castro, E., Chakrabarti, S., Chattopadhyay, J., Cogen, R.M., Collins, J.K., ... Ferrari, A.J. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet*, 398(10312), 1700–1712. [https://doi.org/10.1016/S0140-6736\(21\)02143-7](https://doi.org/10.1016/S0140-6736(21)02143-7)
- Scripcariu, L., Matasaru, P.-D., & Mocanu, F. (2020). Smart School Application Scenario. 2020 International Conference and Exposition on Electrical And Power Engineering (EPE), 185–188. <https://doi.org/10.1109/EPE50722.2020.9305654>
- Self Driving and Self Diagnosing: With Emerging Technology, Your Car May Soon Serve Not Only as a Personal Chauffeur and Entertainment Center but as a Health Advisor Too. (2018). *IEEE Pulse*, 9(4), 4–7. <https://doi.org/10.1109/MPUL.2018.2833066>
- Sen, C.K., Gordillo, G.M., Roy, S., Kirsner, R., Lambert, L., Hunt, T.K., Gottrup, F., Gurtner, G.C., & Longaker, M.T. (2009). Human skin wounds: A major and snowballing threat to public health and the economy. *Wound Repair and Regeneration*, 17(6), 763–771. <https://doi.org/10.1111/j.1524-475X.2009.00543.x>
- Shugar, D.H., Jacquemart, M., Shean, D., Bhushan, S., Upadhyay, K., Sattar, A., Schwanghart, W., McBride, S., de Vries, M.V.W., Mergili, M., Emmer, A., Deschamps-Berger, C., McDonnell, M., Bhambri, R., Allen, S., Berthier, E., Carrivick, J.L., Clague, J.J., Dokukin, M., ... Westoby, M.J. (2021). A massive rock and ice avalanche caused the 2021 disaster at Chamoli, Indian Himalayas. *Science*, 373(6552), 300–306. <https://doi.org/10.1126/science.abh4455>
- Ullah, H., Gopalakrishnan Nair, N., Moore, A., Nugent, C., Muschamp, P., & Cuevas, M. (2019). 5G Communication: An Overview of Vehicle-to-Everything, Drones, and Healthcare Use-Cases. *IEEE Access*, 7, 37251–37268. <https://doi.org/10.1109/ACCESS.2019.2905347>
- Usman, I.M., Ssempijja, F., Ssebuufu, R., Lemuel, A.M., Archibong, V.B., Ayikobua, E.T., Aruwa, J.O., Kembabazi, S., Kegoye, E.S., Ayuba, J.T., Okeniran, O.S., Echoru, I., Adeoye, A., Mujinya, R., Nankya, V., & Kasozi, K.I. (2020). Community Drivers Affecting Adherence to WHO Guidelines Against COVID-19 Amongst Rural Ugandan Market Vendors. *Frontiers in Public Health*, 8, 340. <https://doi.org/10.3389/fpubh.2020.00340>
- Venezuelan, A., & Ausman, J. (2019). The devastating Venezuelan crisis. *Surgical Neurology International*, 10, 145. https://doi.org/10.25259/SNI_342_2019
- Vos, T., Lim, S.S., Abbafati, C., Abbas, K.M., Abbasi, M., Abbasifard, M., Abbasi-Kangevari, M., Abbastabar, H., Abd-Allah, F., Abdelalim, A., Abdollahi, M., Abdollahpour, I., Abolhassani, H., Aboyans, V., Abrams, E.M., Abreu, L.G., Abrigo, M.R.M., Abu-Raddad, L.J., Abushouk, A.I., ... Murray, C.J.L. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1204–1222. [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9)
- Wang, G., Yuan, Y., Chen, X., Li, J., & Zhou, X. (2018). Learning Discriminative Features with Multiple Granularities for Person Re-Identification. *Proceedings of the 26th ACM International Conference on Multimedia*, 274–282. <https://doi.org/10.1145/3240508.3240552>
- Wang, T.-C., Liu, M.-Y., Zhu, J.-Y., Tao, A., Kautz, J., & Catanzaro, B. (2018). High-Resolution Image Synthesis and Semantic Manipulation with Conditional GANs. 2018 IEEE/CVF

- Conference on Computer Vision and Pattern Recognition, 8798–8807. <https://doi.org/10.1109/CVPR.2018.00917>
- Xie, J., & Zhu, Y. (2020). Association between ambient temperature and COVID-19 infection in 122 cities from China. *Science of The Total Environment*, 724, 138201. <https://doi.org/10.1016/j.scitotenv.2020.138201>
- Yosep Belen Keban. (2022). THE IMPORTANCE OF CHARACTER EDUCATION IN THE ERA OF SOCIETY 5.0. *REINHA JOURNAL*, 13(1), 56–67. <https://doi.org/10.56358/ejr.v13i1.123>
- Zadobrischi, E., Cosovanu, L.-M., & Dimian, M. (2020). Traffic Flow Density Model and Dynamic Traffic Congestion Model Simulation Based on Practice Case with Vehicle Network and System Traffic Intelligent Communication. *Symmetry*, 12(7), 1172. <https://doi.org/10.3390/sym12071172>
- Zhou, H., Xu, W., Chen, J., & Wang, W. (2020). Evolutionary V2X Technologies Toward the Internet of Vehicles: Challenges and Opportunities. *Proceedings of the IEEE*, 108(2), 308–323. <https://doi.org/10.1109/JPROC.2019.2961937>

Copyright Holder :

© Elyakim Nova Supriyedi Patty et al. (2024)

First Publication Right :

© International Journal of Educational Narratives

This article is under:

