

# ISLAMIC EDUCATION AND CHARACTER BUILDING IN THE 4.0 INDUSTRIAL REVOLUTION

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## Abstract

This article describes the concept of Islamic education, in which case the emphasis is on the implementation of Islamic religious education. The implementation of Islamic religious education itself is an effort to instill the values of Islamic aqeedah to every student as an effort to create a generation of Muslims who can and are able to live and believe in every truth in the teachings of Islam itself. This article uses a literature review method with content analysis design. Students are willing to practice the values of Islamic teachings at any time, whenever, and wherever the teachings of Islam want to be conveyed are the problems of Islamic education should not be taken for granted so that Islamic education can compete and become educational goals that are achieved. The application of Islamic education in the industrial revolution 4.0 era is very important in developing the quality of children's potential, both in mastering science and technology as well as in terms of character, attitude and appreciation, and practice of religious teachings.

Keywords: Implementation, Islamic Education, Revolution 4.0, Character Education

## Abstrak

Artikel ini mendeskripsikan tentang konsep pendidikan Islam dalam hal ini yang menjadi titik tekannya adalah tentang implementasi pendidikan agama Islam. Implementasi pendidikan agama Islam itu sendiri merupakan suatu upaya menanamkan nilai-nilai aqidah Islam kepada setiap anak didik sebagai upaya untuk mencetak generasi Islam yang dapat dan mampu menghayati serta meyakini setiap kebenaran di dalam ajaran Islam itu sendiri. Artikel ini menggunakan metode literature review dengan desain content analisis. Anak didik bersedia mengamalkan nilai nilai ajaran Islam setiap waktu, kapanpun dan di manapun berada ajaran Islam yang ingin di sampaikan adalah permasalahan pendidikan Islam tidak boleh di pandang biasa agar pendidikan Islam mampu bersaing dan menjadi cita-cita pendidikan yang tercapai. Penerapan pendidikan Islam di era revolus industri 4.0 ini sangat penting dalam pengembangan kualitas potensi anak, baik dalam penguasaan ilmu pengetahuan dan teknologi maupun dalam hal karakter, sikap dan penghayatan serta pengamalan ajaran agama.

Kata Kunci: Implementasi, Pendidikan Islam, Revolusi 4.0, Pendidikan Karakter.

#### **INTRODUCTION**

Industrial revolution 4.0 has become part of human life, wherein every activity we are required to be all technological, with increasingly sophisticated technology it can simplify and accelerate human activities.<sup>1</sup> As explained by the KBBI, the Industrial Revolution consists of two words, namely Revolution and Industry. The revolution means rapid change, while Industry is defined as an effort to implement the production process. When combined the two means a change in the production process that takes place quickly.<sup>2</sup>

The industrial revolution is marked by the presence of four things, namely supercomputers, artificial intelligence, cyber systems, and manufacturing collaboration.<sup>3</sup> Thus, it takes "Critical thinking and problem-solving skills, communication and collaborative skills, creative thinking skills and innovation, information, and communication technology literacy, contextual learning skills, information, and media literacy", to be able to balance the presence of the four things above.<sup>4</sup>

Nowadays, even education has utilized technology in every aspect, especially in learning. Many changes have emerged and technological innovations have occurred in the fields of economy, trade, and education. Education in the industrial revolution era is closely related to information technology, so it is hoped that an educator will be able to recognize and control the information technology so that students easily understand these innovations.<sup>5</sup>

The rapid development of information and technology cannot be avoided and is an important part of education and learning. The limitations of existing facilities and infrastructure in schools are no longer an obstacle, let alone hinder creativity and innovation in learning.<sup>6</sup> All problems related to learning facilities can be solved by mastering methods and media. Learning innovation 4.0 can be done in various ways, such as applying the following learning innovation methods: Multimethod, Internet, Experience, Experiment, Creativity.<sup>7</sup>

With the increasingly sophisticated technology, we cannot deny that apart from the many benefits, there are also negative impacts on existing values, such as shifting religious values, cultural values, and formal juridical values.<sup>8</sup> Therefore, the world of education needs to

<sup>&</sup>lt;sup>1</sup> Haidir Haidir, Muhammad Arizki, and Miftah Fariz, "An Innovation of Islamic Religious Education in The Era of The Industrial Revolution 4.0 in Elementary School," *Nazhruna: Jurnal Pendidikan Islam* 4, no. 3 (November 9, 2021): 720–34, https://doi.org/10.31538/nzh.v4i3.1688.

<sup>&</sup>lt;sup>2</sup> Asfiati, Redesign Pembelajaran Pendidikan Agama Islam Menuju Revolusi Industri 4.0 (Jakarta: Prenada Media: Kencana, 2020).

<sup>&</sup>lt;sup>3</sup> Mulyadi Muhamad Arif, "Madrasah Ibtidaiyah Transformation Based on Pesantren in the Era of Industrial Revolution 4.0," *Psychology and Education Journal* 57, no. 8 (2020): 420–35, https://doi.org/10.17762/pae.v57i8.759.

<sup>&</sup>lt;sup>4</sup> Ahmad Sabri, Pendidikan Islam Menyongsong Era Industri 4.0 (Deepublish (Grup Penerbitan CV BUDI UTAMA), 2020).

<sup>&</sup>lt;sup>5</sup> Devy Habibi Muhammad, "Implementasi Pendidikan Humanisme Religiusitas Dalam Pendidikan Pendidikan Agama Islam Di Era Revolusi Industri 4.0," *Edumaspul: Jurnal Pendidikan* 4, no. 2 (October 28, 2020): 122–31, https://doi.org/10.33487/edumaspul.v4i2.581.

<sup>&</sup>lt;sup>6</sup> Abdul Azis, Reem Abou-Samra, and Andika Aprilianto, "Online Assessment of Islamic Religious Education Learning," *Tafkir: Interdisciplinary Journal of Islamic Education* 3, no. 1 (January 29, 2022): 60–76, https://doi.org/10.31538/tijie.v3i1.114.

<sup>&</sup>lt;sup>7</sup> Umigiarini Pangestu and Dedy Hermanto Karwan, "The Role of The Principal to Increase Teacher Innovation and Creativity during the Pandemic," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 6, no. 2 (July 22, 2021): 251–66, https://doi.org/10.31538/ndh.v6i2.1432.

<sup>&</sup>lt;sup>8</sup> Indianto Dimas, "Pendidikan Agama Islam Dalam Revolusi Industri 4.0.," *PROSIDING SEMINAR* NASIONAL PRODI PAI UMP, 2019, http://digital.library.ump.ac.id/254/.

equip students with noble values, especially Islamic values. To face the era of the industrial revolution 4.0, teachers need to prepare several things First, including the preparation of a more innovative learning system. Second, is the reconstruction of adaptive and responsive educational institutional policies. Third, preparation of responsive, adaptive, and reliable human resources. Fourth, Rejuvenation of infrastructure and development of education, research, and innovation infrastructure.<sup>9</sup>

## **Industrial Revolution Era 4.0**

Industrial revolution 4.0 has become part of human life, wherein every activity we are required to be all technological, with increasingly sophisticated technology it can simplify and accelerate human activities. As explained by the KBBI, the Industrial Revolution consists of two words, namely Revolution and Industry. The revolution means rapid change, while Industry is defined as an effort to implement the production process. When combined the two means a change in the production process that takes place quickly.<sup>10</sup>

This industrial revolution is also running from time to time. The Industrial Revolution was first introduced by Friedrich Engels and Louis-Auguste Blanqui in the mid-19th century. This last decade can be called entering the fourth phase 4.0. The change from phase to phase gives an articulate difference in terms of usability. The first phase (1.0) revolves around the discovery of machines that emphasize (stressing) the mechanization of production. The second phase (2.0) has moved on to the mass production stage which is integrated with quality control and standardization. The third phase (3.0) enters the stage of mass uniformity which is based on computerized integration. The fourth phase (4.0) has brought the digitalization and automation of the internet blending with manufacturing.<sup>11</sup>

The Industrial Revolution Era 4.0, also known as the cyber era or the era without boundaries and boundaries of space and time, stimulates and fosters scientific-technological progress that results in the creation of smart machines, autonomous robots, and even Artificial Intelligence (AI). This era provides many new opportunities in all fields and at the same time gives birth to complex and difficult challenges. So that it demands the quality of human resources who master science and can also solve problems in people's lives.<sup>12</sup>

The Industrial Revolution 4.0 has the potential to increase global income levels and improve the quality of life for people around the world, will result in low and competitive prices, increase efficiency and productivity, lower transportation and communication costs, increase the effectiveness of global logistics and supply chains, reduce trade costs, will open up new markets and encourage economic growth.<sup>13</sup>

The industrial revolution 4.0 emphasizes digitalization. all things related to production can be more effective. For example, we use Google Drive as an "engine" to store data in the cloud. Technology that utilizes big data, such as that used by Gojek, Tokopedia, and others.

<sup>&</sup>lt;sup>9</sup> Ifham Choli, "Pendidikan Agama Islam Dan Industri 4.0," *Tahdzib Al-Akhlaq: Jurnal Pendidikan Islam* 3, no. 2 (July 14, 2020): 20–40, https://doi.org/10.34005/tahdzib.v3i2.891.

<sup>&</sup>lt;sup>10</sup> Asfiati, Redesign Pembelajaran Pendidikan Agama Islam Menuju Revolusi Industri 4.0, 11.

<sup>&</sup>lt;sup>11</sup> Choli, "Pendidikan Agama Islam Dan Industri 4.0," 24.

<sup>&</sup>lt;sup>12</sup> Adun Priyanto, "Pendidikan Islam dalam Era Revolusi Industri 4.0," *J-PAI: Jurnal Pendidikan Agama Islam* 6, no. 2 (June 12, 2020), https://doi.org/10.18860/jpai.v6i2.9072.

<sup>&</sup>lt;sup>13</sup> Dimas, "Pendidikan Agama Islam Dalam Revolusi Industri 4.0."

Likewise, Tesla has succeeded in developing an unmanned car, which can transport passengers automatically. The invention of a 3-dimensional printer that can make various kinds of goods also changed many things in the industrial world.<sup>14</sup>

Broadly speaking, Industry 4.0 can be said to describe the growing trend towards automation and data exchange in technology and processes in the manufacturing industry. These trends include the Internet of Things (IoT), Industrial Internet of Things (IoT), cyber-physical systems (CPS), artificial intelligence (AI), smart factories, cloud computing systems, and so on. In short, industry 4.0 is all about digital transformation. Which in this industrial era will allow automation of equipment with combined systems that can work together with each other. The technology will also help troubleshoot and track processes while increasing productivity in business and manufacturing at scale.<sup>15</sup>

The Industrial Revolution 4.0 is also called a phenomenon that collaborates cyber technology and automation technology. The concept of its application is more centered on the concept of automation carried out by technology without the need for human labor in the process of using it. In this 4.0 Industrial Revolution, there are 9 technologies that will become the main pillars to be able to develop an ordinary industry towards a digital-ready industry, namely: Internet of Things (IoT), Big Data, Augmented Reality, Cyber Security, Artificial Intelligence, Additive Manufacturing, Simulation, System Integration, Cloud Computing.<sup>16</sup>

#### Pendidikan Islam Di Era Revolusi Industri 4.0

Talking about Islamic education, we should first know what "Education" is and what "Islam" is. Etymologically, education comes from the word "didik" which means to build. While the terminology is defined as coaching.<sup>17</sup> Meanwhile, in Arabic, Islam is a *masdar* from the word *aslama-yuslimu-islaaman* which means obedience, submission, obedience, submission to Allah.<sup>18</sup> So it can be concluded that Islamic education is coaching or character building for students so that they are always obedient and obedient to orders and stay away from prohibitions in accordance with Islamic teachings.

Islamic education has an important role in developing the quality of children's potential, both in mastering science and technology as well as in terms of character, attitude and

<sup>&</sup>lt;sup>14</sup> Kresnoadi, "Sejarah Revolusi Industri 4.0 Dan Bedanya Dengan Society 5.0," *BINUS Online Learning* (blog), May 23, 2021, http://onlinelearning.binus.ac.id/2021/05/23/sejarah-revolusi-industri-4-0-dan-bedanya-dengan-society-5-0/.

<sup>&</sup>lt;sup>15</sup> M. Iksan Kahar et al., "Pendidikan Era Revolusi Industri 4.0 Menuju Era Society 5.0 Di Masa Pandemi Covid 19," *Moderasi: Jurnal Studi Ilmu Pengetahuan Sosial* 2, no. 1 (September 24, 2021): 58–78, https://doi.org/10.24239/moderasi.Vol2.Iss1.40.

<sup>&</sup>lt;sup>16</sup> Zulfadli, "9 Teknologi Pilar Utama Dalam Revolusi Industri 4.0", <u>https://fti.bunghatta.ac.id/2020/12/21/9-</u> <u>teknologi-pilar-utama-dalam-revolusi-industri-4-0/</u>, diakses pada tanggal 24 Juni 2021.

<sup>&</sup>lt;sup>17</sup> Siti Aisyah et al., "Kiai Leadership Concept in The Scope of Pesantren Organizational Culture," *Tafkir: Interdisciplinary Journal of Islamic Education* 3, no. 1 (January 29, 2022): 40–59, https://doi.org/10.31538/tijie.v3i1.106; Akhsanul Fuadi and Suyatno Suyatno, "Integration of Nationalistic and Religious Values in Islamic Education: Study in Integrated Islamic School," *Randwick International of Social Science Journal* 1, no. 3 (October 23, 2020): 555–70, https://doi.org/10.47175/rissj.v1i3.108.

<sup>&</sup>lt;sup>18</sup> Yeni Ciptaningsih and Muhammad Husnur Rofiq, "Participatory Learning With Game Method For Learning Completeness In Islamic Religious Education," *Fikroh: Jurnal Pemikiran Dan Pendidikan Islam* 15, no. 1 (January 29, 2022): 18–29, https://doi.org/10.37812/fikroh.v15i1.361.

appreciation, and practice of religious teachings.<sup>19</sup> Education, especially Islamic education, must be able to carry out the mission of building good character so that graduates of educational institutions can participate in filling development without leaving a noble character.<sup>20</sup>

The awareness movement that brings together and collaborates technology into Islamic education is a "smart way" of conveying all religious moral messages. Regarding Islamic education and the penetration of this technological wave, there are at least three main points in this discussion. First, Islam as a worldview is a foundation of thought that has its own area of study, which has an absolute source, namely revelation in the form of the Qur'an and Sunnah. The second is the need for human life skills (human need). Third, technology is part of the expansion of the times that have been around society.<sup>21</sup>

Education 4.0 is a general term used by educational theorists to describe cyber technology both physically and indirectly in learning (Education, Education). The world of education after the presence of the disruptive innovation phenomenon is predicted to enter the era of digitalization of the education system. Where activities in learning will change completely. By evolving the classroom into a digital learning model to provide a more creative, participatory, diverse, and holistic learning experience.<sup>22</sup>

When compared with education in the West, Islamic education is still very far behind due to several things, including 1) The orientation of education still has to be clarified towards the goals that should be in accordance with the Islamic orientation. Islamic education is only concerned with the transfer of religious knowledge.<sup>23</sup> 2) The practice of Islamic education still maintains the old heritage, so that the knowledge learned is classical science and modern science is not touched. 3) Muslims are still busy being lulled by the romance of the past. The greatness of Muslims in the past until now still affects the mindset of Muslims. They are still proud of past glories but do not realize that it is this pride that causes them to fall behind. 4) Islamic education learning model still emphasizes a verbalistic intellectual approach and negates educative interaction and humanistic communication between educators and students.<sup>24</sup>

<sup>&</sup>lt;sup>19</sup> Rony Rony and Siti Ainun Jariyah, "Urgensi Pendidikan Karakter Dalam Membentuk Akhlak Peserta Didik," *Tafkir: Interdisciplinary Journal of Islamic Education* 1, no. 1 (2020): 79–100, https://doi.org/10.31538/tijie.v1i1.18; Prastio Surya and Muhammad Husnur Rofiq, "Internalisasi Nilai Karakter Jujur Dalam Proses Pembelajaran Di Kelas VIII Madrasah Tsanawiyah Unggulan Hikmatul Amanah Pacet Mojokerto," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 2, no. 1 (August 4, 2021): 31–37, https://doi.org/10.31538/munaddhomah.v2i1.65.

<sup>&</sup>lt;sup>20</sup> luluk Indarinul Mufidah, "Analisis Pendidikan Nilai Islam Di Era Industri 4.0," JURNAL LENTERA: *Kajian Keagamaan, Keilmuan Dan Teknologi* 17, no. 2 (2018): 179–90.

<sup>&</sup>lt;sup>21</sup> Arif Rahman, Pendidikan Islam Di Era Revolusi Industri 4.0 (Depok: Komojoyo Press, 2019), 7.

<sup>&</sup>lt;sup>22</sup> Suharto, "Pendidikan Islam Di Era Revolusi Industri 4.0," *SALIHA: Jurnal Pendidikan & Agama Islam* 2, no. 2 (2019), https://staitbiasjogja.ac.id/jurnal/index.php/saliha/article/view/33.

<sup>&</sup>lt;sup>23</sup> Ashdaq Fillah Fr, Erny Roesminingsih, and Meini Sondang Sumbawati, "The Leadership of School Principal in The Education Era 4.0," *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 6, no. 2 (July 22, 2021): 244–50, https://doi.org/10.31538/ndh.v6i2.1413; Abdurahman Jemani and M. Afif Zamroni, "Tantangan Pendiddikan Islam Di Era Revolusi Industri 4.0," *Attaqwa: Jurnal Ilmu Pendidikan Islam* 16, no. 2 (August 3, 2020): 126–40, https://doi.org/10.54069/attaqwa.v16i2.55.

<sup>&</sup>lt;sup>24</sup> Rahmat Rahmat, "Pendidikan Agama Islam Berwawasan Interdisipliner Sebagai Corak Dan Solusi Pendidikan Agama Islam Era 4.0," *Tribakti: Jurnal Pemikiran Keislaman* 30, no. 2 (July 10, 2019): 349–61, https://doi.org/10.33367/tribakti.v30i2.821.

In the world of education, it is not only educating children to grow up to be smart children, but it would be nice if students were equipped with noble character because Islamic education in the 4.0 era not only helps to learn to be effective but also has a negative impact on the growth of children's moral values. This is what educators need to pay attention to so that students do not only grow up to be smart children but also grow up to be moral and have good personalities.<sup>25</sup>

#### Educational Challenges in the Era of the Industrial Revolution 4.0

The challenge in the world of education in facing industry 4.0 is the cultivation of educational values that need to be developed. Through value-based learning, students are expected to be able to determine good and bad values in life so that they can choose good values to improve their quality of life in society. But in fact, with the rapid flow of technology, students are increasingly complacent and have an attitude that is reluctant to take responsibility, moral degradation, and increasing cases of crime among students.<sup>26</sup> This is due to the lack of value education and challenges for educators to strengthen the moral character of students so as not to fall into and be complacent with the rapid industrial technology 4.0. One of the substances of Islamic education is that moral education is an effort to assist students in getting to a stage of development according to their readiness.<sup>27</sup> The values that have begun to erode due to the transformation of industry 4 are as follows.

Cultural values are values related to culture, characteristics of the social environment, and society. Education can help students to see social-cultural values systematically by developing a healthy balance between openness and skepticism.<sup>28</sup> Formal juridical values are values related to political, legal, and ideological aspects. The socio-political value of teaching material is valuable content that can provide instructions for humans to behave and behave in good social or political life.

Maintaining these values is the toughest challenge in facing the industrial revolution 4.0. The development of the era requires humans to be more creative because basically time cannot be resisted. Industrial revolution 4.0. use machines more than humans. But there is an important thing that distinguishes machines from humans, namely in terms of human values that machines do not have. It is this value that needs to be strengthened to raise the dignity of the world of education.<sup>29</sup>

Islamic Religious Education in the Industrial Revolution Era 4.0 There are challenges in the form of a problem as much as possible accompanied by solutions to overcome existing

<sup>&</sup>lt;sup>25</sup> Muhammad Anas Ma`arif and Ibnu Rusydi, "Implementasi Pendidikan Holistik Di Pondok Pesantren Amanatul Ummah Mojokerto," *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan* 18, no. 1 (April 27, 2020): 100–117, https://doi.org/10.32729/edukasi.v18i1.598; Akhmad Sirojuddin, Andika Aprilianto, and Novela Elza Zahari, "Peran Kepala Sekolah Sebagai Supervisor Pendidikan Dalam Meningkatkan Profesionalisme Guru," *Chalim Journal of Teaching and Learning (CJoTL)* 1, no. 2 (2021): 159–68.

<sup>&</sup>lt;sup>26</sup> Ahmad Tajudin and Andika Aprilianto, "Strategi Kepala Madrasah..Dalam Membangun Budaya Religius Peserta Didik," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 1, no. 2 (September 25, 2020): 101–10, https://doi.org/10.31538/munaddhomah.v1i2.34.

<sup>&</sup>lt;sup>27</sup> Choli, "Pendidikan Agama Islam Dan Industri 4.0," 26.

<sup>&</sup>lt;sup>28</sup> Riza Firly Maulidyah and Agus Machfud Fauzi, "Multicultural Community Rationality in Running Religious Activities in Pandemic Times," *Al-Mada: Jurnal Agama, Sosial, Dan Budaya* 4, no. 2 (November 1, 2021): 271–87, https://doi.org/10.31538/almada.v4i2.1653.

<sup>&</sup>lt;sup>29</sup> Choli, "Pendidikan Agama Islam Dan Industri 4.0," 34.

problems. The world of education is currently starting to be busy preparing a generation that is able to survive in the competition in the industrial era 4.0.<sup>30</sup>

In facing the era of the industrial revolution 4.0, several things must be prepared including 1) preparation of a more innovative learning system. to produce graduates who are competitive and skilled, especially in the aspects of data literacy, technological literacy, and human literacy. 2) Reconstruction of educational institutional policies that are adaptive and responsive to the industrial revolution 4.0 in developing the required transdisciplinary sciences and study programs. 3) Preparation of responsive, adaptive, and reliable human resources to face the industrial revolution 4.0. 4) Rejuvenation of infrastructure and development of education, research, and innovation infrastructure also needs to be carried out to support the quality of education, research, and innovation.<sup>31</sup>

As has been explained in the study of the challenges of the industrial revolution era 4.0, the point that needs to be observed is that there must be a distinction between humans and machines, so that whatever happens with changing times, humans are still needed in the world of work. Therefore, education in the era of the industrial revolution 4.0 must be able to produce students with character so that they not only survive in their era but are also able to criticize the times.

Several steps to create students with character, including 1) Introducing students to the values of their nation through civic education. 2) Value education in the child's immediate environment, especially the family. Children are educated and trained by working while learning. 3) Children's thinking intelligence is developed as widely as possible; 4) Nurturing children's personalities with Indonesian personalities so that they become dynamic, confident, brave, responsible, and independent individuals; 5) Lessons are not only given during class hours, but also on every occasion outside school hours; and 5) Examples of good deeds are applied because they are more successful in fostering good character. The existence of a balance between cognitive abilities and the character possessed by students is what must be the goal of education in the current era. In this case, it takes the readiness of all parties to be able to provide understanding, examples, and evaluations of value habituation in everyday life.<sup>32</sup>

## Learning Innovation in the Industrial Revolution 4.0

Learning innovation is an effort to renew the various components needed in the delivery of learning materials in the form of knowledge from educators to students with the aim of improving the quality of education. The characteristics of innovation are distinctive or new.<sup>33</sup> Distinctive means ideas, programs, arrangements, systems, including the possible outcomes that are expected. In addition to being unique, it is new in the sense that innovation

<sup>&</sup>lt;sup>30</sup> Shalahudin Ismail et al., "The Competence of Millennial Islamic Education Teachers in Facing The Challenges of Industrial Revolution," *Nazhruna: Jurnal Pendidikan Islam* 3, no. 3 (November 4, 2020): 389–405, https://doi.org/10.31538/nzh.v3i3.823.

<sup>&</sup>lt;sup>31</sup> Dimas, "Pendidikan Agama Islam Dalam Revolusi Industri 4.0."

<sup>&</sup>lt;sup>32</sup> Dimas.

<sup>&</sup>lt;sup>33</sup> Umin Kango, Ari Kartiko, and Muhammad Anas Maarif, "The Effect of Promotion on the Decision to Choose a Higher Education through the Brand Image of Education," *AL-ISHLAH: Jurnal Pendidikan* 13, no. 3 (October 26, 2021): 1611–21, https://doi.org/10.35445/alishlah.v13i3.852.

must have characteristics as works and thoughts that have original and contemporary content. As a planned program, innovation is carried out through an unhurried process, carefully prepared with a clear program. Innovation has a goal that the innovation program carried out must have a direction to be achieved, including directions and strategies to achieve these goals.<sup>34</sup>

All problems related to learning facilities can be solved by mastering methods and media. Learning innovation 4.0 can be done in various ways, such as applying learning innovation methods such as Multimethod, Internet, Experience, Experiment, Creativity.<sup>35</sup> Multi-method learning is the use of various methods in learning by providing the widest opportunity for students to be active in the achievement of learning.<sup>36</sup> The internet is a very large computer network, where the computer network consists of several small networks that are connected to each other.

Experience is the result of the contact of nature with the five human senses. Experience allows a person to know and the result of this knowledge is then called knowledge. A systematic and planned experiment (to prove the truth of a theory and so on).<sup>37</sup> Creativity is an individual's ability to use imagination and the various possibilities obtained due to interaction with ideas or ideas, other people, and the environment, of course, to make connections and new results also have meaning.<sup>38</sup>

#### CONCLUSION

The era of the industrial revolution is also called the cyber era, wherein in this era, all human activities are required to be technological. And in the era of industrial revolution 4.0, is marked by the existence of 9 technologies that will become the main pillars to be able to develop an ordinary industry towards a digital-ready industry, namely: Internet of Things (IoT), Big Data, Augmented Reality, Cyber Security, Artificial Intelligence, Additive Manufacturing, Simulation, System Integration, Cloud Computing. The application of Islamic education in the industrial revolution 4.0 era is very important in developing the quality of children's potential, both in mastering science and technology as well as in terms of character, attitude and appreciation, and practice of religious teachings. However, in addition to the many benefits in the era of the industrial revolution 4.0 in education, there are also negative impacts on students including the shifting of Cultural Values, Formal Juridical Values, and Religious Values. This is what educators need to pay attention to, in addition to forming smart children, educators must also form good character and morals in their students. With this, it is

<sup>&</sup>lt;sup>34</sup> Susetyo Susetyo, "Inovasi Pembelajaran Di Era Revolusi Industri 4.0," *Prosiding Seminar Nasional PBSI UPY 2019* 1, no. 1 (December 30, 2019): 1–9.

<sup>&</sup>lt;sup>35</sup> Abdul Muis Joenaidy, Konsep dan Strategi Pembelajaran di Era Revolusi Industri 4.0 (Yogyakarta: Laksana, 2019), 12.

<sup>&</sup>lt;sup>36</sup> Fani Gunawan Irdianto, "Multi Metode dan Multi Media Dalam Pembelajaran Sosiologi", <u>https://www.kompasiana.com/fanyangunawanindiarto/552c19466ea834ca558b4569/multi-metode-dan-multi-media-dalam-pembelajaran-sosiologi</u>, diakses pada tanggal 30 Juni 2021.

<sup>&</sup>lt;sup>37</sup> Jinyoung Kim, "Learning and Teaching Online During Covid-19: Experiences of Student Teachers in an Early Childhood Education Practicum," *International Journal of Early Childhood* 52, no. 2 (August 1, 2020): 145–58, https://doi.org/10.1007/s13158-020-00272-6.

<sup>&</sup>lt;sup>38</sup> Pangestu and Karwan, "The Role of The Principal to Increase Teacher Innovation and Creativity during the Pandemic."

expected that educators can apply learning innovations such as Multimethod, Internet, Experience, Experiment, Creativity. So that students and educators can collaborate well, not only using boring learning methods, which can make students feel uncomfortable.

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