

The Impact of The Fourth Industrial Revolution on IIUM Student's Motivation in Learning Islamic Education

Hafid Arif Saputra¹, Yunita Noor Azizah^{2*}

¹International Islamic University Malaysia (IIUM)

²Sultan Aji Muhammad Idris State Islamic University Samarinda

Article History:

Received: January 1st, 2023 Accepted: January 25th, 2023 Published: January 27th, 2023

Abstract

The Fourth Industrial Revolution has impacted several fields, including education. Along with the rapid development of technology, the education sector is also progressing to encourage this development. Students need to stay motivated in learning Islamic education subjects and make good use of all the technology presented by the Fourth Industrial Revolution. This study aimed to describe the impact of the Fourth Industrial Revolution on students' motivation in learning Islamic Education in Malaysia, especially among students at the International Islamic University Malaysia (IIUM). This study used a survey approach. The survey is in the form of a questionnaire in google form to make it easily accessed by students. The sample for this research consisted of 51 International Islamic University of Malaysia students with a random sampling technique. The researcher analyzed the data in-depth and concluded the impact of the Fourth Industrial Revolution on the motivation of IIUM students in learning Islamic Education. The result of this study is that phenomenon of Islamic education in the Industrial Revolution cannot be separated from gadgets and smartphones. Over half of the respondents, with a percentage of 71%, strongly said that students are very enthusiastic about using smartphones to learn through digital resources because it is easy for them to access information so that they can learn a lot about Islamic Education through smartphones or the internet. Thus, it can increase their motivation to learn Islamic Education. Furthermore, the Fourth Industrial Revolution has had a positive impact on IIUM Student's Motivation in learning Islamic Education.

Keywords: fourth industrial revolution, Islamic education, learning motivation

Copyright © 2022 Hafid Arif Saputra, Yunita Noor Azizah

* **Correspondence Address:**

Email Address: azizah.yunitha@gmail.com

Citation: Saputra, H. A. & Azizah, Y N. (2022). The Impact of The Fourth Industrial Revolution on IIUM Student's Motivation in Learning Islamic Education. *Southeast Asian Journal of Islamic Education*, 5(1), 95-109. <https://doi.org/10.21093/sajie.v4i2.5800>

A. Introduction

The Industrial Revolution 4.0, often known as the "cyber-physical system," is a technological revolution that emphasizes automation and cooperation across cyber technologies. The 4.0 revolution began in the twenty-first century with the inclusion of information and communication technology into the industrial sector as its fundamental characteristic. With the advent of this revolution, many things in numerous areas have changed. Whereas it used to take a large number of people to operate its operations, it is currently being replaced by technological machinery.

Islamic education is a continuous attempt to impart Islamic knowledge, skills, and appreciation based on the Qur'an and the Sunnah. Every component of Islamic education will be drawn from these two texts if applied to every subject and age (Pratama & Zulhijra, 2019). Islamic education can shape attitudes, skills, personalities, and views of life as a servant of Allah who has responsibilities to build themselves, the community, the natural surroundings, and their respective countries in the direction of achieving well in the world and prosperity that is intrinsic and eternal in the hereafter, just as the verses of the Qur'an function as encouragement for the Islamic community to continue to improve science, processes, and technology through education.

The Fourth Industrial Revolution has impacted student motivation in Islamic education, and it has both positive and negative aspects. In addition, many students misuse the technology provided by the Fourth Industrial Revolution. Furthermore, the harmful contents of the Fourth Industrial Revolution need special attention. Data show that technological developments are one of the factors that cause a shift in the character of teenagers (Muhammad, 2018). The importance of substantial transformation in Islamic education reform may respond to the challenges and needs of an ever-changing world. Furthermore, in the face of the Fourth Industrial Revolution, this article proposes a solution to Islamic education. As we all know, period 4.0 has a significant influence on many aspects of life, including education.

The era of Fourth Industrial Revolution is an era where human life is always related to technology and information. In facing the Fourth Industrial Revolution, Malaysia is estimated to have a high potential to compete with other developed countries in technology and information. The Fourth Industrial Revolution also had various impacts on several fields, including education. Along with the rapid development of technology, the education sector is also progressing to encourage this development. Higher Education has a vital role in the transition of society to adjust to the industrial revolution (Gleason, 2018). Education in tertiary institutions is expected to provide learning that is useful for developing students' abilities as the next generation to be ready to face technological and information developments in the industrial revolution. Learning activities in tertiary institutions optimally require facilities, strategies, and technology that support this. The development of information and communication technology can affect learning activities which have an impact and influence on student learning outcomes.

Graduates of Islamic education today face new difficulties, expectations, and requirements they have never encountered before. As a result, the system, governance, curriculum, human resource competencies, facilities and infrastructure, culture, work ethic, and so on must all be updated and reinvented. Otherwise, Islamic education would fall further behind and become outdated. Therefore, efforts must be made for Islamic education to stay competitive in this disruptive period. Participating in self-discipline is the next stage. Students need to stay motivated in

learning Islamic education and make good use of all the technology presented by the Fourth Industrial Revolution. So, this study aimed to describe the impact of the Fourth Industrial Revolution on students' motivation in learning Islamic education in Malaysia, especially among students at the International Islamic University Malaysia (IIUM).

B. Literature Review

1. Fourth Industrial Revolution in Education

A brand-new phase of the Industrial Revolution known as "Industry 4.0" is centred on interconnection, automation, device learning, and real-time analytics. Industry 4.0 (Stokes, 2014) also occasionally referred to as intelligent production, combines physical manufacturing and operations with clever virtual technology, machine learning, and big data to create a more holistic and connected environment for businesses that focus on production and supply chain management. While each business and organization operating today is unique, they all have a common challenge: the need for connectivity and access to real-time information about processes, partners, products, and people (Daunton, 2011).

Industry 4.0 takes the emphasis on the virtual era from the last many years to an entirely new degree with assistance of interconnectivity through the Internet of Things (IoT), the right of entry to real-time statistics, and the advent of cyber-bodily systems (Chen, 2020). Industry 4.0 gives a greater comprehensive, interlinked, and holistic method to production. Industry 4.0 empowers enterprise proprietors to higher manage and recognize each element in their operation and permits them to leverage on the spontaneous statistics to enhance productivity, enhance processes, and power growth. The data that replicate the consequences of industrialization are staggering. Many people these days experience the benefits of industrialization. With much extra power flowing via human structures than ever before, lots of us need to do a good deal, much less tough bodily excretions than in advance generations did. Many people vote and participate in contemporary-day states, which give education and social security. Large numbers of human's experience ranges of wealth, education, travel, and lifestyles expectancy unimagined earlier than industrialization.

Technological developments become potential in various fields in particular in the field of education so that it must be responded positively and adaptively in answering challenges of the 21st century which are full of complexity (Hussin, 2018). The use of technology in education has become a critical issue often discussed in various activities. Technology for education is a tool that can be used as a medium of learning both in one direction and interactively. The learning process is no longer limited by certain classrooms, besides the use of technology has enabled the emergence of distance learning and encourage greater innovation in creating teaching methods within and outside the classroom as explained in figure below:

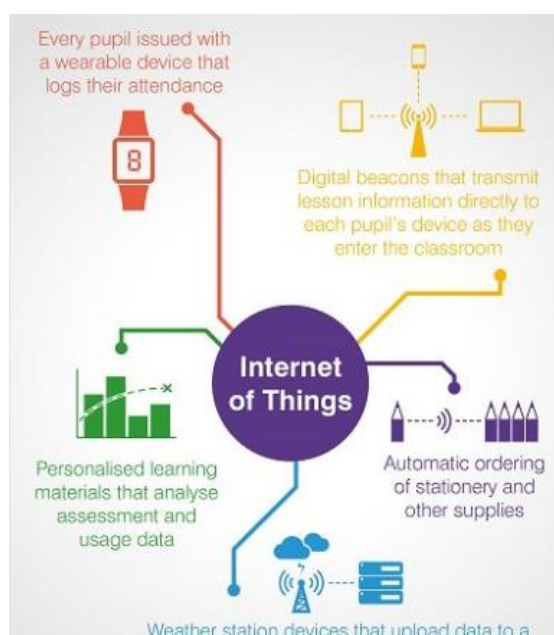


Figure 1. Internet of Things

2. Islamic Education

Education is a process of the generation to be able to run a life and fulfil their life goals more effectively and efficiently. Education is more than teaching, because teaching is a mere process of transfer of knowledge, while education is a transformation of values and the formation of personality with all aspects that they cover. The difference between education and teaching lies in the emphasis of education on the formation of awareness and personality of students in addition to the transfer of knowledge and expertise. Understanding education in general that is associated with Islam as a religious system gives rise to new notions, which implicitly explains the characteristics they have (Chowdhury, 2018).

The meaning of the terms "tarbiyah," "ta'lim, and "ta'dib," which must be comprehended collectively, is inherent in the concept of understanding education in its whole in the framework of Islam. These three concepts have important implications for how people, society, and the environment connect to and interact with God. The definitions of informal, formal, and non-formal education are likewise provided by these terminologies. Islamic education, according to Hasan Langgulung, is a process that equips young people with the skills necessary to carry out their responsibilities, and imparts Islamic knowledge and principles in line with the human capacity to carry out good actions in the world and enjoy blessings in the hereafter. Numerous ways of comprehending Islamic education come from diverse literary sources. According to Athiyah Al Abrasyi, the purpose of Islamic education is to prepare people to live perfectly and happily, to love their motherland, to be physically fit, to have perfect minds and characters, to be calm and collected under pressure, to be professional at their jobs, and to greet others with a smile. According to Ahmad D. Marimba, Islamic education is a method of physical and spiritual teaching based on Islamic principles that result in the development of the personality following Islamic standards.

So, the definition of Islamic education is the recognition which is gradually instilled into individuals about the right places of all things in the order of creation, thus leading to the recognition and acknowledgment of God's right place in the order of being and personality. The development of Islamic education has a good status in every country, with research by state governments to improve quality in that country. The government is not arbitrary in determining the basics of education, they also carry out a lot of research every year to improve the quality of education. Islamic education is very functional for every educational institution to work on future prospects so that future generations are better. Islamic education was developed in Malaysia and Indonesia based on sources from the ministries of education of each country and some references from Islamic education experts.

Since Islam was revived in Melaka in the 14th century, Islamic education classes have been implemented throughout Malaysia (pre-merdeka, known as the Malay Land). However, the Islamic educational system at the time was a non-formal one (Abdul Hamid, 2017). There was no particular classification in this circumstance that mandates that all Muslim youngsters get an Islamic education. Following the Malay Land's independence in 1957, Islamic education initially received emphasis (A. F. A. Hamid, 2010). The early monarchy put into effect a statute regarding education in 1960 based on the Rahman Talib Report. The report has given the kingdom the authority to carry out one action (Nor, 2011) which is the duty to offer Islamic religious instruction to Muslim religious students in every school where there are at least 15 Muslim pupils (Mohd Nor, 2012).

Islamic Higher Education in Malay Land began when Malaya Islamic College was established. The Islamic higher education institution was first seen as a necessity for the community when more and more religious schools were established. In order to meet the growing need for increasing numbers of Islamic majors, a number of Islamic scholars and Islamic universities were developed to fulfil these demands (Ministry of Higher Education, 2015). In addition, in some universities which do not focus on the Islamic study fully, the position and faculties of Islamic recitation, Islamic Tamadun courses have also been introduced in all state institutions and private institutions. Thus, the study of Islam is also taught indirectly in all educational institutions in Malaysia.

The intention of studying Islam in low schools contains cases that students must not learn and are arranged according to their age and ability. Among them are the creed, worship, history of the apostles, manners and reading the Quran. When having a high school lesson, it also contains cases that must be known by every Muslim in the age of puberty. These intentions are also adjusted to the needs of the community and the interests of the country. Among them are fiqh, aqeedah, Islamic history, verses of the Quran and hadith. However, not all aspects of life can be included considering that the time devoted to this lesson is limited and the burden of other subjects that must be faced by students (Hashim, 2006).

At that time Islamic education courses were also used as terrace subjects in the middle to low and high to middle level. In addition, students were obliged in the examination. In the upper middle level there are courses in Islamic education as elective subjects other than Islamic Education namely Islamic Tasawuf, Al-Quran and al-Sunnah Education and Islamic Sharia Education.

Islamic education subjects continue to be exposed again by the existence of the j-QAF program, which stands for jawi, Al Quran, Arabic and, fardu ain. The program was inspired by the former fifth Prime Minister, namely Tun Abdullah Hj. Ahmad Badawi that aimed to strengthen the mastery of Jawi, ensure that the students can read the Qur'an in low schools, oblige Arabic lessons, and establish fardu ain practice and appreciation. The j-QAF program is part of an effort to strengthen Islamic education and at the same time strengthen the national education system. This program has been implemented since 2005 in Higher Education.

3. Islamic Education in Industry Revolution 4.0

The difficulties and barriers associated with Islamic education continue to evolve and grow along with the times. Intimate talks between students and professors are now commonplace, when in previous decades they would have been forbidden (Ishak, 2022). It is necessary even in the eyes of contemporary educational thought. These conversations show how well the instructional process is working another paradigm change, in terms of methods of learning. Teachers dominated educational activities throughout the age of conventional Islamic education (Darajat, 2020). Even if it's the only one, it's the primary source of information in the classroom. However, this is no longer true in the context of contemporary Islamic education. Today's teachers have a different role, one that emphasizes students now more at the core of learning than instructors are.

Islamic education must become more attuned to the signs of societal change as we move into this disruptive period. If Islamic education is to grow, it must be prepared to challenge itself. Islamic education will become more and more out of date if we continue to cling to outdated practises and ideologies while also keeping ourselves isolated from global advancements. In order to improve learning motivation that is constrained by bureaucratic norms to a disruptive mindset that encourages corporate practises, there are three objectives that must be achieved through Islamic education. Islamic education must include self-driving as well if it wants to be able to create innovations that meet the needs of the 4.0 age. All of the parts of Islamic education must also be redesigned or built so that they are always up to date with needs and changes.

In order to reconstruct Islamic education, it is important to keep in mind its guiding principles, which are as follows: (1) Islamic education is a component of the Islamic life system; it entails a process of internalizing and socializing Islamic moral values through a variety of information, knowledge, attitudes, behaviour, and culture; (2) Islamic education is integrated, which means that it has connections that form an integral unit with other sciences; (3) Islamic education is based on the Qur'an.

Although Industry 4.0 offers many potential advantages, many contents that are harmful are now easily accessible on the internet, and many people, especially students who are still trying to find their identities are preoccupied with their smartphones in order to express themselves on social media. When discussing technical advancements, it is like looking at two blades, one of which provides benefits while the other may have drawbacks. Therefore, we must be ready to react intelligently to technological advancements, particularly in this sector of education, during the Fourth Industrial Revolution. All these changes should encourage the education community to use all of its creativity to make a

system that produces teachers who are qualified, have good character, and are good at their jobs.

The education system needs a new movement to respond to the industrial era 4.0. One of the movements proclaimed by the government is the new literacy movement to strengthen and even shift the old literacy movement. The new literacy movement is intended to focus on three main literacies, namely 1) digital literacy, 2) technological literacy, and 3) human literacy.

These three abilities are necessary today or during the industrial period. 4.0. Technology literacy aims to provide an understanding of how machines work and technology applications, while human literacy aims to enhance communication skills and mastery of design science (Ahmadfadzli, 2002). Digital literacy aims to increase the ability to read, analyse, and use information in the digital world (Big Data). In preparing the learners towards a higher level in education in relation to the 4IR, the Ministry of Higher Education is guided by the Malaysia Education Blueprint 2015-2025 (Higher Education) which is established with the determination of achieving Malaysia's education system in bring into line with global trends (Ministry of Higher Education, 2015).

The previous literacy movement, which solely emphasised increasing reading, writing, and arithmetic abilities, is being perfected by the new literacy movement, which is intended to produce graduates who are competitive. By adapting the curriculum and educational system to the industrial period, the integration of the new literacy movement may be achieved. The use of technology in education necessitates the involvement of parents in managing and overseeing learning activities. In order to prevent their kids from becoming withdrawn or finding it hard to communicate with others, parents should be able to split the time their kids spend using technology so that periodically, kids may take the time to play and converse with their friends. Similar to parents, educators play a crucial role in guiding their pupils' usage of this information technology and imparting knowledge on how to utilise it properly. There are undoubtedly both beneficial and bad effects of information technology use in the field of education. However, if parents and teachers work together to monitor and guide their pupils to use technology properly and sensibly, these negative effects may be avoided.

4. Student's Motivation Toward Learning Islamic Education

Learning motivation is a process that gives enthusiasm for learning, direction, and persistence of behaviour. Motivated behaviour is behaviour that is full of energy, directed and long lasting. Motivation is the impetus that exists in a person to achieve the expected goals. Slameto revealed that motivation is closely related to the goals to be achieved. In order to achieve that goal, one can realize it or not, but to achieve that goal it is necessary to do something while the cause of doing is the motivation as the driving force (Slameto, 2014).

Hamzah B. Uno mentioned different indicators of learning motivation of Islamic Education, which can be classified as follows: (1) There is desire to succeed in learning Islamic education (2) There is encouragement in learning Islamic Education (3) There is appreciation in learning Islamic Education (4) There are interesting activities in learning Islamic Education (5) There is a conducive learning environment that enables a student to learn Islamic Education as well (B. Uno, 2011).

From the explanation above, the researcher concluded that learning motivation in Islamic Education has a big role in one's success in learning. The notion of learning motivation is the overall driving force or encouragement within students to carry out learning activities marked by changes to achieve the desired goals. A student who always has high learning motivation, is actively involved in learning activities, and has high affective involvement.

C. Method

Quantitative methodology was used in this study. The instrument used in this study was a survey. The survey was in the form of a questionnaire made in google form that was easily accessed by students. The survey created aimed to reveal in detail about the impact of the Fourth Industrial Revolution on IIUM student's motivation in learning Islamic Education. The type the survey used a Likert scale. According to Sugiyono (Sugiyono, 2018), the Likert scale is used as a tool to measure attitudes, opinions, and perceptions of individuals or groups of people to social phenomena. The Likert scale table is presented below.

Table 1 Assessment Criteria Rating Scale

Assessment Criteria	Rating Scale
5	Strongly agree
4	Agree
3	Fair/Neutral
2	Don't agree
1	Strongly Disagree

Meanwhile, the data analysis in this study was done by counting the percentage of the results of the scores that have been obtained. Then, the results of the percentages that have been obtained are interpreted according to the score based on the following interval table:

Table 2 Score Interpretation Criteria

Assessment Criteria	Rating Scale
0 % - 19,99 %	Very Less Good
20 % - 39,99 %	Not good
40 % - 59,99 %	Enough
60 % - 79,99 %	Good
80 % - 100 %	Very good

The questionnaire consisted of 15 questions to identify the impact of Industry Revolution 4.0 on students' motivation in learning Islamic education nowadays. The sample for this research consisted of 51 International Islamic University of Malaysia students with a random sampling technique. Based on the faculty, there were 56.9% respondents were students of Kulliyyah of Islamic Revealed Knowledge and Human Sciences and 43.1% respondents were students of Kulliyyah of Education.

The researcher analysed the result to represent the required data for this research. The results of the above calculations form the basis for in-depth analysis and conclude how the impact of the Industrial Revolution 4.0 on the learning motivation of IIUM students in learning Islamic Education.

D. Findings and Discussion

1. Findings

This chapter aims to discuss data analysis once data obtained through questionnaire have been analysed. Previously, the theoretical side has been explained and mentioned on problems concerning the impact of Industrial Revolution 4.0 on IIUM Students' motivation in learning Islamic Education. The survey in the form of a questionnaire made in google form was conducted from 6th May 2022 until 13th July 2022 involving 51 respondents.

Have you ever heard of the Industrial Revolution 4.0 ?

51 responses

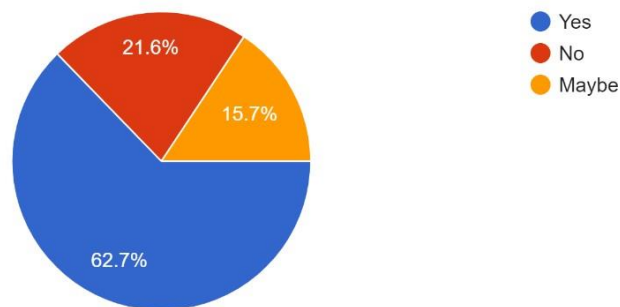


Figure 2. Survey 1

Based on the chart above, the majority of respondents already know about Fourth Industrial Revolution, the percentage shows there are 62.7% say "Yes" they know about industrial revolution and in the following number is 21.6% of respondents say "No" and the rest of respondents say "Maybe" which is 15,6%.

As a student, do you use smartphone every day ?

51 responses

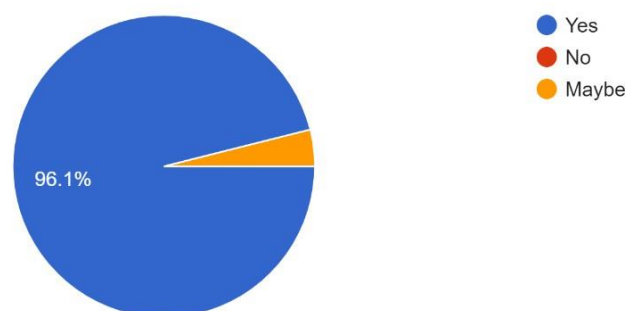


Figure 3. Survey 2

The chart above shows that 96,1% respondents state "Yes" that they use smartphones every day, and no one stated "No" for this statement. Hence, the respondents as students use smartphone every day.

How much time do you spend using the gadget each day?

51 responses

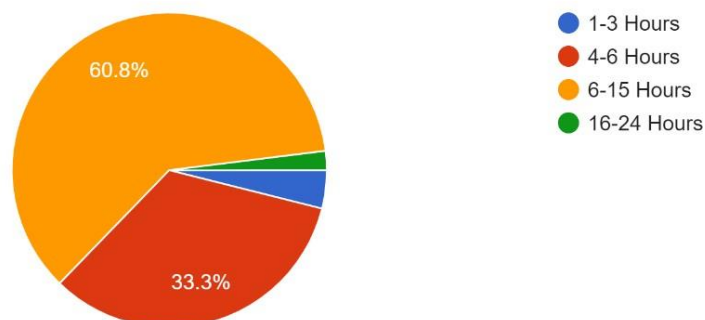


Figure 4. Survey 3

The chart above shows that 60.8% respondents use smartphone approximately 6-15 hours a day, and 33.3% respondents use smartphone 4-6 hours a day, and 3.9% respondents use smartphone by 1-3 hours, and 1.5% respondents use smartphones 16-24 hours a day. Hence, most respondents use smartphone 6-15 Hours a day.

I am Using a Smartphone to increase the enthusiasm for learning.

51 responses

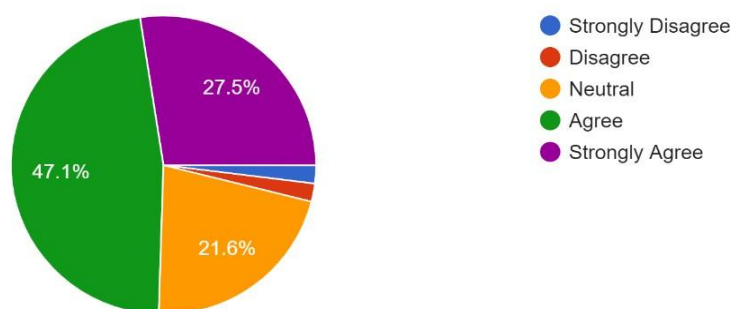


Figure 5. Survey 4

The diagram above is an evidence that the presence of smartphones not only has a negative influence on their lives, almost half of the respondents with a percentage of 47.1% agree and 27.5% strongly agree, saying that they are very enthusiastic about using smartphones for learning. It can increase their enthusiasm for their individual qualities and they can learn a lot of knowledge through smartphones. Besides, smartphones also make it easier for them to learn online from anywhere and anytime.

Student has easy access in searching Digital Learning Resources of Islamic Education with smartphone or internet
51 Responses

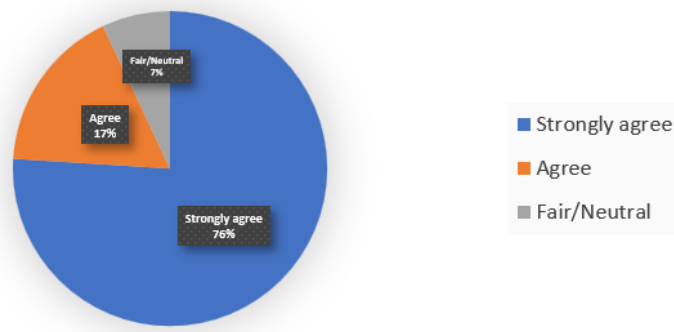


Figure 6. Survey 5

The diagram above is an evidence that student has an easy access in searching digital learning resources of Islamic Education with smartphones or internet, over half of the respondents with a percentage of 76% strongly agree, 17% agree, also 7% fair/neutral, saying that student are very enthusiastic about using smartphones in learning Islamic Education through digital resources because it is easy for them to access everything especially digital resources in Islamic Education, so they can they can learn a lot about Islamic Education through smartphones.

Easy access Digital Resources can increase my motivation in Learning Islamic Education
51 Responses

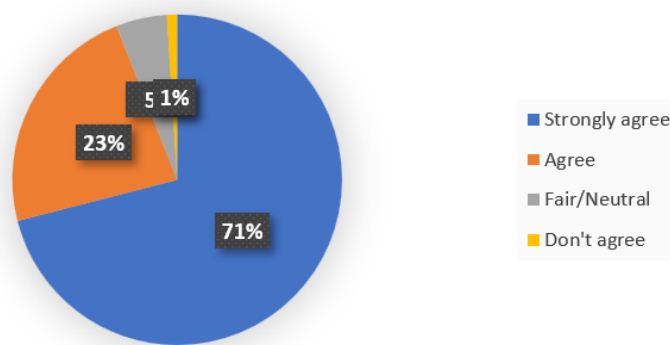


Figure 7. Survey 6

The diagram above is an evidence that easy access in digital learning resources of Islamic Education can increase student's motivation in learning. Over half of the respondents with a percentage of 71% strongly agree, 23% agree, also 5% fair/neutral, saying that students are very enthusiastic about using smartphones in learning Islamic Education through digital resources. With an easy access, it can increase their motivation in learning Islamic Education.

2. Findings

The results of this research show that majority of IIUM students already know about Industrial Revolution, most of them understand that Industrial Revolution is about the rapid change to technology industry. The present study aimed to analyze the impact of the Fourth Industrial Revolution. Based on the result shown in figure 1, figure 2 and figure 3, the Industrial Revolution cannot be separated with gadgets and smartphones. Most of respondents stated they are strongly agree that using smartphone affects motivation toward learning and teaching, in line with the results of the study of Komarudin (Komarudin et al., 2018).

Educational theorists often refer to Industrial Revolution Era 4.0 Education to describe various ways of integrating cyber technology both physically and non-physically in learning (Baenanda, 2019). Education in the Industrial Revolution Era 4.0 is a phenomenon that responds to the needs of the industrial revolution by adjusting the new curriculum according to the current situation. The curriculum is able to open a window to the world through hands, for example utilizing the internet of things (IOT). On the other hand, teachers also get more references and teaching methods.



Figure 8. Internet of Things (IOT) in Education

The problems facing Islamic education today cannot be separated from the factors of modernization and globalization, which have an impact on all aspects of life: economic, social, and also education. The influence of modernization has significantly contributed to changing people's lifestyles and patterns of life (A. Hamid, 2010). Islamic education is a significant milestone that can be used as the

primary foundation in forming a generation that is ready to go into the global world, which is full of challenges (Wahid et al., 2011). From the description above, it is clear how vital Islamic education is, in educating individuals who are following Sharia, especially in the current era of globalization 4.0, where everything is fast and precise, and challenges cannot be avoided.

Based on the result of research in figure 4, figure 5, and figure 6, students are very enthusiastic about using smartphones; it can increase their enthusiasm for their individual qualities. They can learn a lot about science through smartphones and the internet. The result of research claimed that over half of respondents strongly agree in using smartphones in learning Islamic Education through digital resources because it is easy for them to access everything especially digital resources in Islamic Education, so they can learn a lot about Islamic Education through smartphones.

The result of the survey also claimed that respondents are very enthusiastic about using smartphones in learning Islamic Education. With an easy access, it can increase their motivation in learning Islamic Education. Besides, smartphones and internet also make it easier for them to learn online from anywhere and anytime.

In the era of Fourth Industrial Revolution, there is a need for a significant overhaul of Islamic education, starting from the level of management and professionalism of human resources, which requires increasing competence and capacity (Ministry of Higher Education, 2015). Another way to respond to the era of the Fourth Industrial Revolution can be done by creating innovations. In other words, it can be said that the old system has expired. Obsolete systems are replaced with new systems, for example developing a new digital-based service system (Chang Da, 2018) so that citizens of Islamic educational institutions in Higher Education can freely access all needs related to education and administrative services. Another example is developing a modern learning model by fully utilizing digital technology, such as e-learning, blended learning, and so on.

Therefore, to welcome the era of the industrial revolution 4.0, concepts of Islamic education are needed and a very basic role in empowering Muslims (Kolandan, 2019). In this perspective, Islamic educational institutions are expected to be able to improve themselves, so that they are not only able to become a medium for transmitting culture, knowledge and expertise, but also as a potential and cultural interaction. Thus, Islamic educational institutions are able to grow and develop the potential of children given by Allah, from birth in the context of preparing students to live their lives (A. Hamid, 2010; Hussin, 2018; Mat, 2015). To welcome Islamic Education 4.0, inevitably all latent problems must be able to find a way out. Otherwise, it will be difficult to realize Islamic education that is contextual to the times.

The impact of Fourth Industrial Revolution on IIUM Student's Motivation in learning Islamic Education has shown evidences that most of respondents agreed that using smartphone for teaching and learning is easier because students can look for the knowledge, resources, journal and so on for improving their knowledge.

E. Conclusion

Islamic Education in the period of the Fourth Industrial Revolution (Ir4.0) refers to the different ways that learning might use cyber technology, both physically and virtually. The phenomenon of education in the Industrial Revolution Era 4.0 reacts to the demands of the industrial revolution by adapting the new curriculum to the circumstances at hand. The curriculum may provide a window into the world via the use of, for instance, the internet of things (IOT) and it's intended to focus on three main literacies: 1) human literacy 2) digital literacy, and 3) technological literacy. Recommendation for further research that Fourth Industrial Revolution is expected to be able to realize smart education through increasing and equalizing the quality of education especially in Islamic Education, expanding access and relevance in realizing world class. To realize this, learning interactions are carried out through blended learning (through collaboration), project-based learning (through publications), and flipped classrooms (through public interaction and digital interaction).

References

- Abdul Hamid, A. (2017). *Islamic Education in Malaysia*. https://doi.org/10.1007/978-3-319-53620-0_27-1
- Ahmadfadzli, N. (2002). *Pusat Perkembangan Kurikulum Kementerian Pendidikan Malaysia*. https://www.academia.edu/31031438/Pusat_Perkembangan_Kurikulum_Kementerian_Pendidikan_Malaysia
- B. Uno, H. (2011). *Teori Motivasi dan Pengukurannya Analisis di Bidang Pendidikan*. Bumi Aksara.
- Baenanda, L. (2019). *Mengenal lebih jauh Revolusi Industri 4.0*. Binus University.
- Chang Da, W. (2018). Education in Malaysia Towards a Developed Nation. *ISEAS Yusof Ishak Institute*.
- Chen, J. (2020). *Industrial Revolution Definition: History, Pros, and Cons*. Investopedia. <https://www.investopedia.com/terms/i/industrial-revolution.asp>
- Chowdhury, M. (2018). Emphasizing morals, values, ethics, and character education in science education and science teaching. *MOJES: Malaysian Online Journal of Educational Sciences*, 4(2), 1–16.
- Darajat, Z. (2020). *Pendidikan Islam*. PT Bumi Aksara.
- Daunton. (2011). The British Industrial Revolution in Global Perspective, by Robert C. Allen. *Victorian Studies*, 53(4), 773. <https://doi.org/10.2979/victorianstudies.53.4.773>
- Gleason, N. W. (Ed.). (2018). *Higher Education in the Era of the Fourth Industrial Revolution*. Springer. <https://doi.org/10.1007/978-981-13-0194-0>
- Hamid, A. (2010). *Islamic education in Malaysia*. S. Rajaratnam School of International Studies Publication.

- Hamid, A. F. A. (2010). *Islamic Education in Malaysia: The Pre-Independence Era* (Islamic Education in Malaysia, pp. 13–24). S. Rajaratnam School of International Studies. <https://www.jstor.org/stable/resrep05898.5>
- Hashim, R. (2006). Pendidikan Islam di Malaysia: Dari pondok ke universiti. *Jurnal Pendidikan Islam*, 12(1), Article 1.
- Hussin, A. (2018). Education 4.0 Made Simple: Ideas For Teaching. *International Journal of Education and Literacy Studies*, 6(3), 92. <https://doi.org/10.7575/aiac.ijels.v.6n.3p.92>
- Ishak, H. A. (2022). *Pendidikan Islam dan pengaruhnya di Malaysia*. Dewan Bahasa dan Pustaka.
- Kolandan, S. (2019). *Industry Revolution 4.0 and Education System in Malaysia: Are We Ready for the Challenges?* (pp. 252–264). <https://doi.org/10.4018/978-1-5225-7832-1.ch015>
- Komarudin, D., Adnan, A., & Upe, A. A. (2018). The Effect of Smartphone Technology Development on Student Morality. *International Journal of Nusantara Islam*, 5(2), 142–153. <https://doi.org/10.15575/ijni.v5i2.2048>
- Mat, D. (2015). *Pendidikan Islam di Malaysia*.
- Ministry of Higher Education. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. <https://www.moe.gov.my/menumedia/media-cetak/penerbitan/dasar/1207-malaysia-education-blueprint-2013-2025/file>
- Mohd Nor, M. R. (2012). *Comparative Analysis on Emergence of Islamic Education in Malaysia and Bangladesh*.
- Muhammad, Y. (2018). Era Industri 4.0: Tantangan dan Peluang Perkembangan Pendidikan Kejuruan Indonesia. *Universitas Negeri Makassar*.
- Nor, M. R. M. (2011). Sejarah dan Perkembangan Pendidikan Islam di Malaysia. *At-Ta'dib*, 6(1), Article 1. <https://doi.org/10.21111/at-tadib.v6i1.547>
- Pratama, I. P., & Zulhijra, Z. (2019). Reformasi Pendidikan Islam di Indonesia. *Jurnal PAI Raden Fatah*, 1(2), 117–127. <https://doi.org/10.19109/pairf.v1i2.3216>
- Slameto. (2014). *Belajar dan faktor-faktor yang mempengaruhinya*. PT Rineka Cipta.
- Stokes, C. B. (2014). *The Industrial Revolution*. Khan Academy. <https://www.khanacademy.org/humanities/big-history-project/acceleration/bhp-acceleration/a/the-industrial-revolution>
- Sugiyono. (2018). *Metode Penelitian Kuantitatif Kualitatif dan R & D*. Alfabeta.
- Wahid, N., Hamid, H., Low, S., & Mohd Ashhari, Z. (2011). *Malaysian Education System Reform: Educationists Perspectives*. https://www.researchgate.net/publication/241064438_Malaysian_Education_System_Reform_Educationists_Perspectives