Profile of Educands in the Digital Era

Babang Robandi, Euis Kurniati, Rianita Puspita Sari

Universitas Pendidikan Indonesia
brobandi@upi.edu

Abstract

This article is aimed to describe the profile of educands in the digital era which obtained through the research of "Pedagogic in the Era of Industrial Revolution 4.0". The research method used is the phenomenology research method. Data were obtained through in-depth interviews with the Pedagogics Study Program students who work as educators. The results of the study include (1) Education 4.0: Digitalization of Education; (2) Challenges of Education 4.0; and (3) Education which is relevant to The Era of Industrial Revolution 4.0. Based on those findings of the research results, it is understood that the era of industrial revolution 4.0 is closely related to the development of the digital world which provides many opportunities and challenges, among others from the educands factor. The profile of educands in the digital era needs to be understood as the basis for considering the application of educational concepts which is relevant to the digital age. Through analysis of the research findings, the profile of the educands presented in this article, namely, the use of digital technologies and changes of educands' characters in the digital era. Educands use digitals technologies and internet access to obtain knowledge and information, socialize and for entertaining. However, the development of industrial revolution 4.0 also bringing changes in the educands' characters, which is the addiction to digital technologies and tend to underestimate something.

Keywords: digital era, education 4.0, pedagogic, digital education, phenomenology

1. INTRODUCTION

We are now in the era of the Industrial Revolution 4.0 which is known as the digitalization or the automation era in the various sectors of life (Supratman, 2018; Suwardana, 2017), which brings out a number of opportunities and challenges, including in the education sector. The new knowledge and skills are needed for people where the education is required to fulfil those need.

The digital era is characterized by the use of digital technology in daily human life, not only by adults but also by educands of elementary education age. Digital technology is a part of everyday educands 'needs', both in non-academic and academic activities, among others, in obtaining information on academic assignments and social media use. It is also common for young age educands to use digital technologies, internet access, and also explore in social media.

In the research of "Pedagogic in the Era of Industrial Revolution 4.0" (Robandi, 2018) examined how the Era of Industrial Revolution 4.0 on pedagogic perspectives. The research was conducted on four students of pedagogic courses who also worked as educators at formal and informal educational institutions. The research was conducted on four students of The Pedagogic Study Program who also worked as educators at formal and informal educational institutions. They are educators for educands aged 6-14 years old. It aims to explore the pedagogic phenomenon from the perspectives of The Pedagogic Study Program' students. The results of the study include, (1) Education 4.0: Digitalization of Education; (2) Challenges of Education 4.0; and (3) Education which is relevant to The Era of Industrial Revolution 4.0. Nevertheless, this article will focus more on educands in the industrial revolution 4.0, which is also known as digital era.

It has been mentioned that in this digital era, educands in the elementary education age use digital technology in their daily activities, both for learning and entertainment activities. Educands in the digital age have a lot of opportunities in developing their potential because of a lot of advantages brought about by the digital era, among others, the easiness of obtaining information and self-exploration through social media. But it is also followed by the various challenges, especially regarding their readiness to receive all the technology earlier. We need to know how to prepare young educands to be able to use the digital technologies and internet access wisely.

Pedagogics is intending to investigate how educating children and young people attain maturity, which is the level of certain developments that generally become a requirement to be fully accepted as citizens (Rasyidin, 2014), so it is important for us to develop pedagogical science along with the development of the world, including the digital era. We must understand how the educands' characteristic in the digital era to be able provide them with the proper education.

It is hoped that educators have an understanding of the development of education relevant to the emerging digital era. An understanding of educands profiles in the digital age is expected to assist educators in designing appropriate learning activity which relevant to the digital era.

2. METHOD

The issue examined is the phenomena of pedagogics in the era of industrial revolution 4.0. The focuses are as follows: (1) influence of the industrial revolution 4.0 for education which is experienced by participants; 2) challenges for education in the era of the industrial revolution 4.0; and 3) expectation of education in the era of the industrial revolution 4.0.

The method use is a qualitative approach with phenomenological research methods. The method of research in phenomenology is used because it is relevant to the purpose of research to explore the consciousness of The Pedagogics Study Program's students related to pedagogic phenomena in the era of the Industrial Revolution 4.0. The procedure of phenomenological research used refers to the procedure of phenomenological research according to Stevick, Colaizzi, and Keen (Hasbiansyah, 2005), that is the determination of the scope of the phenomenon to be examined, the drafting of questions, data collection, data analysis, essence description stage, and reporting of research results. In-depth interviews are used as data collection techniques.

Table 1. The Explanation of Each Stage of Analysis

Stages	Definition	Implementation
Initial Stage	Describe fully the phenomena experienced by subjects in the written language	Transcript of interview four interviews, that TD, RF, IK, anda AW
Horzontalization Stage	An inventory of important statements that are relevant to the topic. At this stage the postponed the assessment (bracketing), that there should be no element of subjectivity	Write down the important statements of the results of the interviews that are relevant to research topics
Cluster of Meaning Stage	Classify statements on 'horizontalization stage' into theme units of meaning. This stage is done by finding the meaning based on the reflection of the researcher	Grouping statements into a number of themes and then classifying it into three main points, 1) influence of the industrial revolution 4.0 for education which is experienced by participants; 2) challenges for education in the era of the industrial revolution 4.0

The students involved in this research is students of Pedagogics Study Program of year 2015 and 2016, which is also working as educators at the formal and informal educational institution for learners aged 6-14 years. Four students of Pedagogics Study Program are selected based on the criteria, namely, TD (2016), RF (2016), IK (2015), and AW 2015).

The research instruments used in this study are a list of interview questions derived from the formulation of problems and research questions. The analysis step of the phenomenological research methods used refers to Stevick, Colaizzi, and Keen (Hasbiansyah, 2005), i.e. the early stages, the horizontalization stage, and the cluster stage of meaning. The explanation of each stage of analysis is stated in the table 1.

The codes written in the 'Result and Discussion' represent initial of students' name, the statements' number, and the lines' number, i.e IK10, 6-7, represented the data from in-depth interview transcript for IK, statement number 10 in lines 6-7.

3. RESULTS AND DISCUSSION

The educands' profiles that will be examined in this article include how digital technology and internet use by educands of elementary education and how it impacts the changes of character of students in the digital age.

3.1 Use of Digital Technologies and Internet Access

In the digital age, it is easy for educands to acquire knowledge. Access to the latest information is faster and easier to obtain. They just need to have digital technology like a smartphone or laptop, and also internet access. Then, they can get almost every information that they want. Digital technology and internet access are now being an option for educands to collect information both academic and non-academic, as it is considered to be easier and less restrictive IK10, 6-7; IK12, 2-4; TD12, 1-2; RF12, 10-11).

Suppose that you want to search information for assignments, automatically, enter the keywords, then you will get the answer. Yes, it is very useful for working on the assignments (IK10, 6-7)

The positives are, it is faster to get the material, the content of subject matter, from what, from the search through internet access, then for searching through internet access they can use the computer, smartphone, is it easy, right? (IK12, 2-4)

Well, like I said previously, so if there is an assignment, for example, we definitely, either we want to or not, surely we're using a smartphone or laptop, internet access (TD12, 1-2)

But if it is from the internet access, we can know much about the changes that exist in this world (RF12, 10-11)

Based on the statement above, it is seen that the use of digital technology and the internet access not only facilitate and accelerate the acquisition of information, but also make us aware of information from different countries. It is so easy for young educands to access latest information from around the world. It is common for them to get information faster than the adult, because that age tend to have high curiosity. Because of the ease mentioned previously, therefore, the use of digital and internet technology tends to be a source for the completion of academic assignments for various ages, including the educands of elementary school age. It is supported by other research in Indonesia that suggests that the educands of elementary age in Indonesia tend to use the internet for reasons of working on the assignments provided by educators in schools (Fitri, 2017; Husni & Fatulloh, 2016).

However, it turns out that students not only use digital technology and internet access to acquire knowledge or information only, but rather as entertainment media, such as playing online games and watching videos. The popularity of online games cannot be denied anymore (Kurniawan, 2017). Almost all young educands play the online games. They don't need to go out to the game center anymore for play such games. They have all of that in their hand. They even can play the game with a group of friends or sometimes strangers. A little alarming when we think that young educands are playing with people that they haven't known before. Also the addiction of online game can affect educands' social life (Edrizal. 2018; Santoso & Purnomo, 2017).

In addition, the increased used of digital technology and internet access is closely related to the use of social media in everyday life, such as *Facebook*, *Instagram, YouTube, Twitter,* etc. Nowadays, social media has evolved more than a few years ago (RF4, 7-8; RF4, 12-15).

In the past time, the social media only email, and it was also used by people for working, most of the time (RF4, 7-8).

… previously, there was only "Twitter", "Facebook", email, now there is a name "Tik Tok", exploration what … hmm … his expression, what the name … his ability in public, not in 'public' anyway, in the presence of the media (RF4, 12-15).

In the past, social media used for socializing only, where we can chat or video call with others. However, nowadays, the use of social media has changed. Social Media is not only used to socialize, but also to demonstrate people existences, such as show their opinion about some issues and also express their talent through social media (Supratman, 2018; Susilowati, 2018), for example, using *Facebook, Instagram, YouTube Channel, Tik-Tok, Musical.ly, and Smule*. The talent that they have been showing are various, such as singing, dancing, and other talents. Some of people even being so famous. In Indonesia, even many children become popular through social media, namely, Ryan (6 years old) who became a billionaire through *YouTube* and Bowo (13 years old) who famous through *Tik-Tok*.

3.2 The Changes of Educands' Character In The Digital Era

The use of digital technologies and internet access, not only gives educands the opportunity to acquire knowledge with ease, as well as demonstrate their existence. It also affects the changes of educands' character in the digital age.

The main challenge is the educands of elementary education age, i.e. between 6-14 years of age tend to not able to sort wisely, which is good or not good to follow or what information they deserve to get according to their age. They are not mature enough to sort the information without adult proper guidance. Access to adult content is an example of the information that they don't deserve to have (AW24, 3-4; AW28, 9; IK32, 1-2; RF32, 1-2; TD20, 3).

Because educands have not been able to directly filter, for educands, of course, tough challenges ... (AW24, 3-4)

So, for me anyway, they still don't have a strong filter, like that (AW28, 9)

Anyway, what, the use of the results of the industrial revolution, can they use later, after they mature enough. Once they get used to the manual things (IK32, 6-8).

Yes, it is, they tend to not able to sort which is good for them, which is not (RF32, 1-2)

… Especially, those adult content that should not be accessed ... (TD20, 3)

Based on the statements above, the ability for sorting wisely not develop in young educands yet, even though their ability for using digital technologies already developed well. The ability to operate digital technology is not enough, they need to be ready both intellectually and emotionally.

Not only adult content (pornography), bullying is also an unworthy content to be gained by educands. Their inability to sort wisely, making them tend to mimic the things they see, without first analyzing whether or not it was good to emulate. Through the freedom of use of digital technology and internet access, educands can easily access pornographic and violent content (Alia & Irwansyah, 2018; Husni & Fatulloh, 2016).

Digital technology and internet access can be an addiction for young educands as well. They can play with their gadget every spare time they have. It is also can distract their focus for learning at school (TD22, 13-14; TD30, 4-6).

Then, the educands must also focus on learning. I think it would be hard, it would be difficult for educands to focus when they could access the internet (TD22, 13-14)

… So, now the kids are … already addicted to gadgets, internet addiction, online gaming addiction. So, do not use the smartphone was a bit hard for them, in my opinion (TD30, 4-6)

The other issue which is arises along with the development of digital era that the young educands tend to underestimate something, such as completion of assignments (IK22, 1-2; AW24, 18-19).

The challenge is they tend to underestimate something to do... (IK22, 1-2)

That's what's worrying, loss of patience in the process and the desire to take a short cut (AW24, 18-19)

Because the ease to get information through digital technology and internet access, they tend to procrastinate the assignments until close to the deadline. They don't need to read a lot of articles or books. They just need to enter the keywords in internet search engine.

The educators need to guide them to develop themselves holistically, which is their ability to think, their feeling, and also their willing. The digital era brings the ease for young educands to get information. However, education should prepare them to have strong willing, responsibilities and hard work. Then, we cannot forget our nature as social being, we should educate children to socialize well also. It is good for them to have cyber friends, but also they need to socialize outside the cyber world.

4. CONCLUSION

The digital world has become part of the daily life of educands, both in academic and non-academic activities. Smartphones, online games, and social media become 'an addiction' for them, including for educands in the age of elementary education. It's not uncommon anymore if their ability to use digital technology and social media, even better than adults. This brings many opportunities for them to increase their knowledge and to develop their potential. Nevertheless, the opportunity was accompanied by the presence of challenges for learners regarding their readiness to use digital technology too early. Their ability to sort out what is good and not good tends to be not mature enough, so the role of educators deeply watching and guiding them utilizing the right digital technology becomes very important in this digital era. The easiness to access pornography and violence, the tendency of learners to underestimate something because it is accustomed to gaining convenience, become challenges in this digital era. It is expected through educator guidance, educands are not left behind in their ability to use digital technology, but they are capable of using digital technology and social media appropriately. The balance between the ability to use digital technology, socializing ability, and not easy to underestimate things are expected to materialize, so students are able to develop holistically, both the ability to think, good emotional quotient, and also have a strong willing in doing things.

5. REFERENCES

Alia, T., & Irwansyah, I. (2018). Pendampingan orang tua pada anak usia dini dalam penggunaan teknologi digital [parent mentoring of young children in the use of digital technology]. *Polyglot: Jurnal Ilmiah*, *14*(1), 65-78.

Edrizal. (2018). Pengaruh kecanduan siswa terhadap game online (Studi tentang kebiasaan siswa bermain game online) di SMP N 3 Teluk Kuantan. *Jurnal PAJAR (Pendidikan dan Pengajaran),* 2(6), 1001-1008.

Fitri, S. (2017). Dampak positif dan negatif sosial media terhadap perubahan sosial anak. *Naturalistic: Jurnal Kajian Penelitian Pendidikan dan Pembelajaran*, *1*(2), 118-123.

Hasbiansyah. (2005). Pendekatan fenomenologi: Pengantar praktik penelitian dalam ilmu sosial dan komunikasi. *E-Journal UNISBA Terakreditasi Dirjen Dikti SK No. 56/DIKTI/Kep/2005. Tersedia: http://ejournal.unisba.ac.id/indeks.php/mediator/article/viewFile/1146714*

Husni & Fatulloh. (2016). Kategorisasi pengguna internet di kalangan pelajar SD dan SMP menggunakan metode twostep cluster. *Proceeding Seminar Nasional Aplikasi Teknologi Informasi* (SNATI) 2016, pp. 6-16.

Kurniawan, D. E. (2017). Pengaruh intensitas bermain game online terhadap perilaku prokrastinasi akademik pada mahasiswa bimbingan dan konseling Universitas Pgri Yogyakarta. *Jurnal Konseling GUSJIGANG*, *3*(1).

Rasyidin, W. (2014). *Pedagogik teoritis dan praktis*. Bandung: PT Remaja Rosdakarya.

Robandi, et al. (2018). *Pedagogik dalam era revolusi industri 4.0*. Laporan Penelitian Departemen Pedagogik, Fakultas Ilmu Pendidikan, Universitas Pendidikan Indonesia. [unpublished].

Santoso, Y. R. D., & Purnomo, J. T. (2017). Hubungan kecanduan game online Dota 2 terhadap penyesuaian sosial pada remaja. *PAX HUMANA*, *4*(1), 027-044.

Supratman, L. P. (2018). Penggunaan media sosial oleh digital native. *Jurnal Ilmu Komunikasi, 15(1),* 47-60.

Susilowati, S. (2018). Pemanfaatan aplikasi Tiktok sebagai personal branding di instagram (studi deskriptif kualitatif pada akun @bowo_allpennliebe). *Jurnal Komunikasi*, *9*(2), 176-185.

Suwardana, H. (2018). Revolusi industri 4. 0 berbasis revolusi mental. *JATI UNIK: Jurnal Ilmiah Teknik dan Manajemen Industri*, *1*(2), 102-110.