

The Quality of Educators Facing The Industrial Revolution 4.0 During The Covid 19 Pandemic Period

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The Quality of Educators Facing The Industrial Revolution 4.0 During The Covid-19 Pandemic Period

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Abstract—This research was conducted to provide an illustration of the importance of increasing the competence of educators, in particularly in the educational institution of Police Academy in order to realize Police that professional, modern, trust (Promoter). The Covid-19 pandemic that occurred in the industrial revolution 4.0 era change the educational process by further optimizing the use of information, communication, technology (ICT) integrated in the implementation of the learning process. The big change in education in this pandemic that was previously limited to face-to-face learning, in today's class is its implemented by digital space. Educators face obstacles in utilizing technology and the digital platform used in this learning process. To form a Promoter Police Officer requires professional educators. Educators are required to be professional by having pedagogic, personality, social, professional, leadership and 21st century competencies, namely communication and digital literacy. The results shown in this study that efforts to improve the competence of educators in the era industrial revolution 4.0 during the Covid-19 pandemic were carried out with digital training as a media to support learning and to strengthen digital literacy.

Keywords: educators competence, the industrial revolution 4.0, Indonesian Police Academy.

I. INTRODUCTION

In the era of the industrial revolution 4.0 the development of technology, information, and communication (ICT) rapidly, gradually shifting the use of conventional methods in the field of education. This era disrupts human activities in which there is science and technology and higher education. Moreover, the current condition with the pandemic of Covid-19 virus, it also has an impact on the various fields, one of which is an education. The Government is trying with various efforts to press the pandemic Covid-19 virus by issuing policies in all sectors. One of those policy is social distancing. This policy requires students to learn at home until the time that has not been determined by the Government yet. The Government letter from the Directorate General of

higher Education Ministry of Education and Culture No 262/E.E2/KM/2020 dated March 23, 2020 about Learning During the Emergency of the Pandemic Covid-19 which is states that during the study period at home (Study from home) learning uses an online system and Project Based Learning (PjBL) Based on the aim that learning and competencies of the students keep running during the pandemic period.

The future educational challenges, such as technological development, have penetrated several specific areas of governance in the education component. By looking at these conditions, education in Indonesia must also follow changes in the education component in order to improve the quality of education itself.

One component of education is educators who are also tasked with achieving learning objectives. Educators as the spearhead of improving the quality of education that directly interacts with students. In law number 20 of 2003 it clearly states the duty and responsibility of educators is to educate the nation's life. Thus, the educators have the crucial role in the learning process.

In addition, an educator must be able to become a professional educator as set out in Law No. 14 of 2005 concerning Teachers and Lecturers Chapter I Article 6 on General Provisions, in item number 2 states that the Lecturer is a professional educator and scientist with the main task of transforming, developing and disseminating science, technology, and art through education, research, and community service. An educator must be able to organize an interactive teaching and learning process and communication between educators and students. Ali (2015) stated that the quality of a university and its graduation also came from the competence of lecturers as well.

By looking at the roles and responsibilities of the educators, the use of ICT obviously it is not easy to be implemented. However, it is required to have abilities and competencies that is not only in academic field but also in the management skills

based on each role. Through this change without an exception, it occurred in the education and training of the Indonesian National Police Academy (Akpól) that has a role to form the future Police leader that has to follow the change. During the pandemic of Covid-19 period that happen in the revolution industrial 4.0, new innovations emerge by utilizing all the ICT used to help the learning process.

This is as a big challenge for Akpól to carry out its role as an educational institution to form the future leader. In accordance with the Chief of Indonesian National Police (Kapolri) programs which always emphasize that Polri Members are required to improve the quality of performance. As for one of the programs from the National Police Chief, which is to realize a promoter Polri, which is a professional, modern, and trusted (promoter).

Therefore, to form the Police Promoter begins with the education process through Indonesian National Police education and training institution. During the pandemic Covid-19 the learning process is carried out with the use of the media in order to minimize face-to-face learning. Using online learning method and distance learning could be the other way to follow the rules from the government. In order to implementing this method, educators were required to have competence of the industrial revolution 4.0 during the pandemic Covid-19 period namely communication and literacy digital. Furthermore, Husein (in Yusufziral, Safiah, and Nurhaidah 2017: 128) technology plays a role as a liaison in learning without eliminating direct face-to-face models.

The purpose of this study is to provide an overview of how competencies that educators should have in facing the 4.0 revolution era during the current Covid-19 pandemic.

II. METHODS

The study was conducted through a descriptive qualitative approach and taking the place in Police Academy education institution. The subjects in this study were the Akpól Governor, educators, the Academic Director of the Police Academy, Cadet. Data reference techniques through observation, interviews, and literature. The condition of Covid-19 requires that interviews be carried out using communication tools. Then the data is analyzed.

III. RESULTS AND DISCUSSION

During the Covid-19 pandemic that occurred in the industrial revolution 4.0 era brought huge changes to the world of education which was previously limited by face-to-face and currently learning is carried out through a media that occurs in the learning process method initially using conventional methods or face to face and now

using new innovations for the sustainability of the learning process. To achieve the goal of the quality education at the Police Academy, the process of education and training for the cadet must continue.

Government policies in minimizing the spread of the Covid-19 virus, one of which issued a recommendation to divert distance. This distancing social policy has an impact on the learning process. Akpól as the implementing institution for training and training for prospective police officers apply the learning process in an application-assisted network (daring) on the website. As consideration references that education is integrated with the use of ICT, Babateen (2011). In addition, the use of ICT can also develop high order thinking skills, Kosta & Gallick (2000).

In the implementation of online learning as a modern learning model, it has been regulated in Permendikbud No.22 2016 on standard processes and in line with the principles of modern learning, 4 pillars of education by UNESCO namely Learning to Know, Learning to Do, Learning to Be and Learning to Live Together. Regarding online learning, creative breakthrough and innovative learning are needed through a variety of applications to be more interactive.

Based on the Skinner's theory of behaviorism in the book Hergenenhan & Olson (2009: 129) states that one teaching technique is programmed learning one of which material can be presented through a teaching machine (teaching machine). A machine does not replace the role of the teacher but the machine is only as a means of connecting between students and people who compile the material to be presented, where through this machine the two users of students and educators will continue to be in touch because of an ongoing activity. The use of technology does not shift the role of educators but only as a medium in the learning process. In other words, the use of technology is an educational paradigm shift from teacher center to student center that makes the teachers as facilitators.

Here, the educators must also be able to integrate all academic abilities and technological knowledge in carrying out the program. A program will not run if it is not supported by the awareness of each field. So that the purpose of using this technology can run effectively, efficiently, and appropriately, each component needs to play an active role in running programs and application.

The educators should be able to operationalize the program in order to facilitate the use of the program in teaching. Many of the educators who have not mastered the use of this technology and have not been able to operate it optimally so that it takes an exercise and mastery in operating internet media that will be used in the learning process. Educators must be able to follow the development of this technology in order to be

able to print profiles of cadets graduates who are ready to work according to their respective fields with the skills, insights, and knowledge gained from information and communication technology.

As stated in the strategic plan for the Police Academy 2020-2024 written through the Police Academy Governor Decree number: Kep / 42 / I / 2020 / Akpol on January 31, 2020 regarding the Police Academy strategy plan for 2020-2024 states that the Police Academy as a Police Education Institution, Police Academy has a vision of becoming an Educational Institution that produces Polri Officers who are professional, intelligent and moral, modern with a global outlook and international standard (World Class Academy).

One of the objectives of the Police Academy is to carry out modernization of information technology-based education and training services. To realize the vision and mission and goals, the Police Academy must be able to organize a modern education in the effort to develop science and technology. Fulfillment of eight national education standards and the achievement of key performance indicators to ensure the quality of the organization of Education and achievement Education as well as the quality of its graduates.

Educators' competence to face all of these dimensions requires more communication skills and mastery of digital literacy. Online learning is a new thing that is held at the Akpol Education Institution, considering that there is a formation in which there are some limitations in the use of technology. However, in this pandemic it forces all stakeholders to apply the use of e-learning such as online learning both through the Learning Management System (LMS) that available at the Police Academy and through the LMS on the website. Varied of LMS are available in the website that can be accessed such as video conference, online quiz, references.

In the field of training, it is expected that the availability of supporting facilities and infrastructure such as e-library facilities, e-learning, laboratories and paperless systems. In order to achieve this vision, Akpol strives to continuously modernize some of its management, especially e-learning facilities and infrastructure. At present, Akpol has launched the Kendalisodo ICT application, which includes an LMS (Learning management system) and SMS (School Management system). The application can be downloaded via Google Play Store or can be opened via a web-link. The application contains features related to the education component, one of which is e-learning.

The use of e-learning according to Holmes et Garner (2006) can provide learning opportunities that can be accessed anywhere and anytime without any restrictions. In applying the use of technology

in this case e-learning in a higher education strategy is needed to be able to run in accordance with learning objectives and the needs of learners. By conducting good management also become one strategy in conducting online learning system.

The similar statement from Tucker and Gentry (2009) in their study which concluded that the development of e-learning requires strategic steps including determining the delivery method and the technology itself, making and developing the curriculum, explaining all strategies and making monitoring and evaluation the new e-learning program. In carrying out e-learning requires solid cooperation from all parties in an organization in order to achieve the application of the use of e-learning but it is also necessary to pay attention to other factors such as cost and technology and security system.

Rui-Hsin & Lin's research (2017) found that the use of e-learning in the education and training of the Taiwan Police has a positive impact on the education process, especially in its ease of use and fast service quality through the web through the design and management of a good e-learning information system. E-learning information systems should have several criteria such as ease of use, stakeholder support, and administrative officers.

Leal, J. (2009). The results of research conducted on training law enforcement officers in the United States found that the trend of the use of e-training and e-education systems through online learning portals can reduce the increase in costs of training through conventional means. In addition, through the application of technology in e-learning will produce trained employees in accordance with the needs and demands of the future.

Maria & Sedyono (2017) regarding some of the obstacles faced by the implementation of e-learning seen from the management concept of man (HR) that there are still some teachers who are comfortable with the use of conventional teaching methods so that they do not seek to improve IT skills; Method (method) not yet maximally making RPP; material (facilities) for maintenance of infrastructure; machine (machines) limited computers used due to damage; money (funding) limited funds for the use of ICT in learning.

In an effort to overcome these obstacles, efforts are made to improve the competence of educators in utilizing the use of technology in e-learning. The institution conducted some training and workshop as professional developments in order to improve the educators competence. The training participants consisted of all teaching staff including lecturers, caregivers, instructors, counselors, and mentors who take shelter in the fields of teaching, training, and care (Jarlatuh) in Akpol.

The training was carried out with due regard to health protocols to prevent the spread of the Covid-19 virus. In order to minimize face-to-face meetings and restrictions on crowding, the Institute conducts online training using video conferencing applications such as zoom, cloud x, google meet, skype, and several other supporting applications.

During the process of training, educators also gain new insights, especially regarding the use of ICT in the use of applications that can support the learning process while using online. It is not easy to socialize digital use to educators who are mostly comfortable with conventional methods. But through this training, the Institute continues to strive, to develop and to improve the ability of educators to be able to keep abreast of the times. The use of ICT which has a great influence on the education system provides an opportunity to develop educational management and learning processes in higher education (William, 2015).

Through this training, educators will get great benefits. This momentum gradually changes the mindset of traditional learning paradigms into modern learning. Educators can get a lot of information, especially e-literacy when activities take place. According to UNESCO (2011) there are several benefits of the application of ICT in the education system, namely: 1) simplifying and expanding access to education; 2) increasing educational equality; 3) improve the quality of learning; 4) increase teacher professionalism; 5) improve the effectiveness and efficiency of management, governance, and education administration.

It is expected that by conducting the training activities for the educators can improve the competence of educators in the industrial revolution 4.0 and to enhance the learning quality in any condition. Those could be reached by developing the new learning models so the students will involve actively in the learning process. Improving the ability of educators through training has become a new vehicle, especially in facing the challenges of the era of industry revolution 4.0 during this pandemic.

IV. CONCLUSION

The educators ability are required to be enhanced in various fields and more innovative in developing learning models and approach in the learning process. The improvement of educators competences in the industrial revolution 4.0 during the pandemic Covid-19 such as digital communication and digital literacy competences are should be increased by conducting some training and workshop on digital literacy and some fields related to professional development. Those improvement in the Police Academy as the

responsibility and commitment of all stakeholders in achieving the vision and mission of the Police Academy. In the future, it is expected that in facing the industrial revolution 4.0 will expand to all others educational components. Other educational components such as curriculum, infrastructure, must also be adapted to the needs of this era in order to support the application of ICT in the learning process.

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