Impact of the Industrial Revolution 4.0 for Citizens Learning at Non-formal Education Units

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Pendidikan Luar Sekolah

Abstract

The era of the industrial revolution gave a very rapid influence in the field of learning, especially in Non-formal learning. All components of learning must be able to adjust these changes. The purpose of this study is to describe the impact of the industrial revolution 4.0 in the process of learning equality in non-formal education units.

The method used in this research is explorative descriptive qualitative. Respondents in this study are the managers of non-formal education institutions and non-formal education program participants. The study was conducted in Sleman Regency, Yogyakarta City and Bantul Regency. Data collection is done through interviews, observation and documentation. Data analysis was performed using qualitative analysis.

The results of this study are a) graduates can work better and are useful for promotion, b) the work skills of graduates increase so they are able to get better jobs; c) learning citizens can apply for jobs using certificates or diplomas they have, d) create new jobs, and absorb labor; e) graduates of courses and training institutions that utilize digital marketing are able to develop businesses characterized by increasing sales turnover.

Key words :industrial revolution, education, non-formal

Introduction

The industrial revolution provided many influences on people's lives in various fields. The development is so fast that people must be fast in responding to it. In this case it is not only limited to the formal world, but informal life must also be able to be fast. The industrial revolution 4.0 is a unique phenomenon compared to other industrial revolutions. The term industry 4.0 itself was officially born in Germany precisely when the Hannover Fair was held in 2011 (Kagermann et al, 2011). Several other countries also participated in realizing the concept 4.0 but using different terms such as Smart Factories, Industrial Internet of Things, Smart Industry. Some of these conditions are caused by the rapid use of technology in various fields. The impact of the industrial revolution had a negative and positive effect. Of the benefits obtained, namely regarding the improvement of work flexibility acceleration, increased service to customers and increased revenue. Besides bringing benefits, the industrial revolution raises challenges that must be faced by society. Drath and Horch (2014) say that industry 4.0 challenges are the emergence of resistance to changes in demographics and social aspects, instability in political conditions, limited resources, risk of natural disasters and demands for the application of environmentally friendly technologies.

The industrial revolution made possible the emergence of a society without schools, which meant that everyone could study anywhere and anytime without having to be in the classroom. Internet technology is developing faster and faster, able to facilitate one's learning needs without having to study in class with the guidance of the teacher. A person is able to learn something through video shows, digital books and other skills that are increasingly offered through the internet network.

The possibility that can arise encourages non-formal education to continue to innovate, especially in terms of learning. Non-formal education itself according to Coombs (Sudjana, 2004) is any organized and systematic activity, outside the established schooling system, carried out independently or is an important part of broader activities, which are intentionally carried out to serve certain students in achieving their goals study it. The presence of the industrial revolution in non-formal education has been widely felt by non-formal education providers such as the Learning Activity Studio, PKBM (Community Learning Centers), LPK (Job Training Institutions), and TBM (Community Reading Gardens). Various challenges in non-formal education according to Sudjana (2004), namely a) non-formal education needs to be more proactive in reforming its vision, mission and strategy to change educational programs that were originally oriented to produce graduates as job seekers into efforts to produce graduates who have expertise and abilities to be independent and create employment, b) elements of the non-normal education system need to be carried out in a complete and complete manner that includes components, processes and goals, c) improve the vision and mission and strategies for developing non-formal education, d) non-formal education increases the orientation of the alignments to the people , e) non-formal education needs to develop three aspects of internal institutional development with research, management and production efforts, f) in enhancing the mission of such broad-based non-formal education, the institutions implementing and implementing education programs cannot work independently. self without any connection with other parties. With the 4.0 industrial revolution, the challenges of non-formal educational institutions are increasingly apparent in facing various problems.

Method

This study uses a descriptive-explorative qualitative approach, in which in this study systematically an overview of the facts and characteristics of the subjects and objects under study will be analyzed. The subjects in this study were managers of non-formal education units, and participants of non-formal education programs. The technique used in data collection is through interviews, observation and documentation. The tools used in data collection include: interview guidelines, observation guidelines and documentation guidelines. Qualitative data analysis is performed through data reduction procedures, data display and conclusion drawing.

Discussion

The Industrial Revolution 4.0 has influenced many theories and practices in the field of education, including non-formal education. The practice of non-formal education that is more flexible provides its own advantages because it is able to adjust to the needs of the times. The development of technology has influenced the whole of human life from various fields namely education, politics, culture, economy, social, law and so on. One area of human life that is deeply felt by the community is the field of education. Educators and students are required to be able to balance the educational process with information technology. One of the fields of education that is experiencing the effects of the industrial revolution is Non-formal Education. Non-formal education which was originally carried out with conventional systems, is currently demanded to be able to compete technologically. This is intended to innovate in non-formal education learning. From a number of programs that have been implemented, information was obtained about the results achieved, including: a) the residents learned to obtain additional skills in addition to the chase package they had participated in; b) tutors and citizens learn to get ease in the learning process; c) Citizens can study independently, d) Many graduates are accepted and continue in tertiary institutions, both public and private; e) most of the WB after graduating immediately get a job.

In the industrial era 4.0 education experienced a very severe disruption. In the process of learning non-formal education has made various changes in learning methods. Learning that began with traditional changes in the online system. Tutors are increasingly facilitated in the learning process, as well as learning citizens become easier to access various materials and information. Thus the existence of tutors is somewhat displaced by the existence of technology. This is in line with the opinion of Sukartono (2018), who as long as the only provider of knowledge has more or less shifted away from him. In the future, the roles in their interactions with students will be more varied and require high creativity so that their roles are not replaced by technology which is seen as making it easier for students. The biggest challenge of education is how capable education programs not only emphasize the content of knowledge, but also attitudes and skills. Interaction of non-face-to-face learning (cyber school) in the future will increasingly occur, eroding the interaction of education between teachers and students, so that the values ​​of education are at risk of being lost. Not to mention the challenges of the program and the content of knowledge offered to students. In the future, humans must be able to compete with the dominance of industrial machines which increasingly reduces the role of humans. Human resources are encouraged to be smarter and more productive than the machines created by humans themselves.

The most easily seen impact of non-formal education is its absorption in the world of work. Some of the impacts felt by managers of educational units on their graduates include: a) being able to work better and being useful for promotion, b) increasing work skills so they are able to get better jobs; c) learning citizens can apply for jobs using certificates or diplomas they have, d) create new jobs, and absorb labor; e) graduates of courses and training institutions that utilize digital marketing are able to develop businesses characterized by increasing sales turnover. The direct impact felt by the people learning after they joined the program can be described as described above. But there are also some indirect effects that are felt are routine work done by learning residents who are not interrupted by learning activities. Besides that the educational program that was held also had an economic impact on learning citizens such as monthly income increasing and there was a perceived economic improvement.

Conclusion

The industrial revolution 4.0 has had an influence on non-formal education graduates. Citizens learn to experience many changes in the learning process. However, these changes have a positive impact on the next life. The impact felt after attending non-formal learning are: a) graduates can work better and are useful for promotion, b) the skills of working for graduates increase so they are able to get better jobs; c) learning citizens can apply for jobs using certificates or diplomas they have, d) create new jobs, and absorb labor; e) graduates of courses and training institutions that utilize digital marketing are able to develop businesses characterized by increasing sales turnover.

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