

The Approach to Indonesian Language and Literature Curriculum in the Industrial Revolution Era 4.0 and Society 5.0

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ABSTRACT

The Industrial Revolution 4.0 has hit the world in the last three years. Indonesia is also not spared. There are four implications as the result of the industrial revolution 4.0 such as (1) the use of the internet in all of life, (internet Things), (2) the use of data (big data), (3) the use of sophisticated computer networking (cloud computing), and (4) the use of machine learning (*machine Learning*). In addition, the Society 5.0 is also developed in order to meet the revolution 4.0. It is a society in which intelligent human factors utilize technology to regulate and control technology for the benefit of humanity itself. These five factors will affect aspects the teaching and learning in higher education. In accordance to such a typical condition, this paper will discuss the curriculum of Indonesian language and literature. Before the demands of adjusting the curriculum of language and literature Indonesia with revolution industry 4.0 and the society 5.0, the Ministry of Education and Culture has issued two basic policies for curriculum development namely 1) the equality of the curriculum of higher education with the world of work, known as curriculum Framework of Qualified National Indonesia (KKNI) classified into nine level of competence (level 1 up to 9) and 2) then the adjustment of the higher education curriculum to national standards of higher education (SN-higher education) must meet nine standards (level). Adaptation curriculum language and literature Indonesia will be assessed from the aspect of content, lecture model, and assessment process.

Keywords: curriculum, language and literature, industrial revolution 4.0, and society 5.0

INTRODUCTION

Indonesia is currently facing the challenges of the fourth Industrial Revolution known as RI 4.0. It is a turning point in world history because it affects almost every aspect of human life.

The industrial revolution began in the 1780s, marked by the development of steam engines that could increase human productivity. With the innovation of the steam engine, many work tools that were previously highly dependent on humans and animals were eventually replaced by these machines.

Then in 1870 - an, the world experienced a second industrial revolution with the start of mass production which is supported by the development of electrical power plant and assembly factories. At that time productivity was believed to increase exponentially.

The third industrial revolution began in the 1960s, also known as the computer revolution or the digital revolution. At present it is characterized by innovations in the fields of semiconductors, mainframe computers (1960s), personal computers (1970s and 1980s), and the internet (1990s). These innovations enable the use of electronics and information technology for production automation. This computer-based automation system makes industrial machines no longer human-controlled. The impact is lower production costs.

Now the world and including Indonesia have entered the 4th industrial revolution. Many multitude of jobs will be replaced by automation (automation). Automation is the result of technological developments facilitated by advances in big data, cloud computing, and machine learning. With the development of automation, many works previously done by humans, will be replaced in the future by machines.

It is a fact that nowadays, many companies use big data to predict, to identify and to make decisions. The companies like Google, for example, has always benefited from huge volumes of data, and have made its company's strength. The Google's search engine that is used by almost all walks of life stores data on searches conducted by internet users in fantastic numbers. Forbes released that Google on average processes more than 40,000 searches every second. In one day, the total number of searches performed using the Google search engine was 3.5 billion. Google manages billions of data and maps based on the required parameters. By processing the big data, Google can make it easier for advertisers to track the use of internet users around the world with highly specific and accurate geographical, demographic, and even psychographic segmentation.

Furthermore, it can be seen how big the *big data* is from social media businesses, such as Facebook. Today, more than a quarter of people in the world are Facebook users. Every day, there are 1.5 billion active people on Facebook. More than 300 million photos are uploaded every day. Every minute there are 293,000 statuses and there are 510,000 comments written by Facebook users. The amount of data that much only from social media called Facebook, not to mention how much data from Instagram users who are also owned by Facebook.

By RI 4.0, many works usually done by human being will be replaced by machine and its automation. This means that many people will lose their jobs due to machine automation. In line with the loss of the job, McKins reported in Global Institute December 2017 predicted that would happen 400-800 million people in the world who lost jobs were replaced by automation (automation) until 2030. In fact, in 2017, the McKinsey Global Institute claimed that around 44% of jobs in Singapore had been replaced by automation.

To respond such a typical situation, the Japanese initiation the Society of 5.0 is introduced to deal with the disruption effect of the 4.0 Industrial Revolution. Society 5.0 is characterized by the structuring and regulation of humans as controllers of rapidly changing technology so that it is hoped that an intelligent society will be formed utilizing technology for non-human human needs which is being controlled by technology.

To do so, the higher education holds a central role in the midst of rapid change. Almost all fields of science in the 4th industrial revolution era, except regional languages and literature will change rapidly. New concepts, new technologies, new knowledge, even new branches of science will continue to emerge. Therefore, universities cooperate with the government and industry are required to jointly prepare lifelong learners (*lifelong learner*), namely individuals who have a strong motivation to continue learning.

Lifelong learning is a fundamental element for success in the 4th industrial revolution era. We do not know what developments will occur tomorrow, we do not know when the challenges will be faced, the tertiary institution must prepare individuals to become scholars plus who have smart, flexible, and cooperative minds, and who are able to work professionally as well as able to work in a professional manner. In addition, they are also able to initiate *startup companies*. The college is required to print an undergraduate plus, the *scholar* or scholars who not only mastered the science, but also has a professional character. Therefore, curriculum in college must be maximized to follow change in society.

Language and Literature Curriculum Meeting the Qualification Frameworks Indonesian National

Historically, the word "curriculum" derived from Latin "currere" meaning "running" or "running track". Educational academics in the United States (1906) interpreted the curriculum as teaching material (course of study) and subsequently and it was revised it into a learning plan (plan for learning study).

In line with the essence of the curriculum, the educational experts such as Ellimano (2009) suggested " Curriculum A general statement of goals, outcomes, learning arrangements, evaluation and documentation relating to management of programs within an educational institution ". In addition, Richards (2006) adds curriculum is an educational program which states (1) the educational purpose of the program, (2) the content, (3) teaching procedures and learning experiences which will be necessary to achieve the purpose, and (4) some means of assessing whether or not the educational ends have been achieved. Similarly, according to Kelly (2000) the curriculum can be seen as content: in the form of education it is seen as the transmission of material content to learners. Then the curriculum is seen as a product, which means workers' curriculum must produce learner.

Based on the above explanation, it can be concluded that the curriculum learning covers the elements such as purpose, achievement of results, materials, procedures and learning experiences and assessment tools on the process and whether the essence of learning has been reached or not.

In Indonesian context, regarding to curriculum, the Republic of Indonesia's Presidential Regulation No. 8 of 2012 issues the Indonesian National Qualification Framework (KKNI). KKNI is a competency qualification selection framework that can juxtapose, equalize, and integrate education and work training as well as work experience in the context of providing work competency recognition in accordance with the work structure in various sectors. The **IQF** which consists of nine levels has implications for the tertiary curriculum. Every college graduate, must reach a certain level of KKNI, for graduates of the S1 study program has level 6. By level 6, the graduate must be able to do the following competences. First, to be able apply their fields of expertise and utilize science and, technology and art (IPTEKs) in their fields in problem solving and be able to adapt to the situation at hand. Second, to be able to master theoretical concepts in a particular field of knowledge in general and the theoretical concepts of special sections in that field of knowledge in depth, as well as being able to formulate procedural problem solving. Third, to be able to make appropriate decisions based on information and data analysis, and being able to provide guidance in choosing various alternative solutions independently and group. Finally, is to be responsible for the work itself and can be given responsibility for the achievement of the work of the organization.

As a matter of fact, the (KKNI) curriculum has 9 (nine) levels (level 1 up to level 9) in which level 1 is the lowest and level 9 is the highest one. Then the higher education curriculum adjustment to high Pendidikan National Standards (SN-Higher Education) must meet nine standards. Then the latest policy is also expected so that the tertiary education curriculum embraces the latest development, namely the Industrial Revolution 4.0.

Responding to those three things, of course all educational programs should normally align their curriculum by finding graduates profiles that are in accordance with the needs of the user interests. Furthermore, it will place the graduate profile parallel to the reference of graduate learning outcomes requested by the Indonesian National Qualifications Framework in the form of graduates who are standardized with graduate competency standards in accordance with the level determined whether undergraduate, professional, master's, and doctoral programs.

When the three things have been formed, then the study material is prepared in the form of material that is appropriate to reach the expected level. The next work, of course, the study material must also trace the importance of new work skills that have been scheduled by competence in the 21st century. In short, the important point of the Industrial Revolution 4.0 is to utilize all the potential of digital technology and abundant data by the role of humans being controlling all form of changes.

Curriculum Development Procedures

There are various ways in which the Study Program is carried out in developing and compiling the curriculum. Based on the information that the author accompanies the heads of study programs must prepare for the accreditation of study programs in various tertiary institutions. To do study program prepares the curriculum through a complete mechanism or procedure as required in the development of competency-based curriculum namely (1) the formulation of vision, mission, and (2) graduate profile, (3) graduate task analysis, (4) graduate competencies, (5) study materials, (6) competency elements, (7) course names, (8) identification of learning experiences, (9) learning resources, (10) semester credit unit weight (SKS), and (11) time allocation. Before design the accreditation, usually the Study Program carries out the self-evaluation curriculum in order to know the strengths, the weaknesses, the opportunities, and the challenges. The *tracer studies* of activity is preliminarily done in order to determine subjects required and describes the material or materials. However, it is also not uncommon in the preparation of the curriculum, the Study Program only adopts the curriculum precisely the course and its spread) from other tertiary study programs.

In line with the enactment of *Presidential Decree No. 12 of 2012 concerning the Indonesian National Qualification Framework (KKNI)*, which requires tertiary education graduates to have qualifications that are in accordance with the strata and types of education, in the Higher Education Curriculum Development and Compilation Book (KPT) consisting the steps for drafting curriculum. The steps in compiling the curriculum include (1) determination of graduate profiles, (2) determination of graduate competencies or learning outcomes, (3) assessment of the competency element content, (4) determination of study material or teaching material, (5) estimation and determination of the burden (credits) and the formation of courses, (6) preparation of curriculum structure.

First, the graduate profile, the function that graduates can carry out after they have worked to complete their education from a tertiary institution. This profile is generated from a tracer study of the alumni, the analysis needs assessment of stakeholders, scientific vision and SWOT analysis of the study program and university. This profile can be seen as an educational *outcome* to be addressed. Profiles can be used as benchmarks for the success of the learning process or academic accountability, namely the number of graduates can play a role in society or the world of work.

The second step is to determine the *outcome* of the study program is the determination of graduate competencies or learning outcomes. The achievement of learning (*learning outcomes*) is the internalization and accumulation of knowledge, skillfulness, attitudes and competencies achieved through a structured educational process and includes a field of science / specific expertise or through working experience. Graduates' competencies must contain at least four elements of the IQF description, namely (1) general description as a feature of education graduates in Indonesia, (2) formulation of abilities in the field of work, (3) scientific space that must be mastered, and (4) formulation of rights and authority managerial.

The third step is to study the formulation of graduate competencies that have been formulated with five competencies, namely (1) the foundation of personality, (2) mastery of science, technology, art, and sports, (3) ability to work, and (4) attitudes and behavior work, and (5) the principle of understanding community life. If a competency can be achieved by tucked integrated in a hidden curriculum, it is not taught as a discussion cap.

The fourth step is determining the study material that must be mastered and achieved the established graduate competencies. The study material is a building science, technology, or art that shows the characteristics of a clump or a particular branch of science, or a field of study which is the core science of a program of study. The study material is also a field of study to be developed

that is needed by the community in the future. The choice of study material is strongly influenced by the scientific vision of the study program in question.

The fifth step is the estimation or determination of the load (credits) and the formation of courses. Determination of depth of detail, the breadth of study material and mastery level, a minimum should include a "knowledge or science that must be mastered from the description of the achievement of the learning programs of study are in accordance with the level KKNI and agreed forum similar studies program. By analyzing the relationship between the formulation of graduate competencies and study material, a course can be formed with an estimation of the amount of load or time allocation (credits). The last step is the preparation of curriculum structure or arrangement of courses in the semester stages. Theoretically there are two kinds of curriculum structure approaches, namely the serial model and the parallel model. The serial model approach is an approach that arranges courses based on logic or scientific structure. In this spiral approach, courses are arranged from the most basic to the final semester which is an advanced course. Each course is interconnected with the presence of a subject that is a prerequisite. The initial course will be a prerequisite for the next course in the semester above. For example, the Phonology course is a prerequisite for attending the Morphology course at the semester level above. Then the parallel model approach is an approach that arranges courses based on alignment and position between subjects with one another. This is different from the serial pattern. Here courses that are in one group are also given in one semester. For example, the Phonology course in the early semester did not become a prerequisite for the Morphology course. Both courses are simultaneously given in the same semester. Both models of determining these courses can be done in the preparation of curriculum in tertiary institution.

The Content Material, Learning Model, and Assessment in the Language Curriculum in accordance with the Industrial Revolution 4 and Society 5.0

Determining the content of lecture material in the language curriculum should also adjust it with the competencies needed for the future. Referring to the competency framework needed to be achieved by 21st century learners and based on an analysis of the teacher's role and student needs, the authors recommend that the content of the material in the language curriculum should be interdisciplinary and multidisciplinary. Interdisciplinary is an approach in solving a problem by using a view of various relevant or appropriate perspectives of cognate science in an integrated manner. One example of an interdisciplinary theme can include technology, biology, environmental, social, cultural, and so on. However, the focus is on learning languages through the content. Thus, it does not focus solely on studying grammar or linguistic aspects separately. But rather become one unit.

Actually, this material approach has been implemented in elementary school up to the high school level since the enactment of the 2013 curriculum. The material that is multidisciplinary is material content that uses various approaches to the viewpoints of many relevant sciences. So in problem solving using science - science more relevant. Then, the learning must be authentic, namely that focus on the real world, to discuss complex problems, and find solutions for the problem, using exercises such as role playing, activities based on problem-solving, case studies, and participation in virtual communication. So in this case, authentic learning together with the application of science to the real world involve interdisciplinary sciences and multidiscipline. The students who are involved in authentic learning activities must master various portable skills that encompass, (1) provide an assessment to distinguish reliable and untrusted information, (2) patience to reason, synthetic ability to remember patterns - unfamiliar context patterns, and (4) flexibility to work between disciplinary disciplines and cultural boundaries to create innovative solutions.

The Industrial Revolution Era 4.0 also has implications for the element of assessment because in that era requests the preparation of human resources who possessed skills referred to (4C), that is (1) critical thinking, (2) communication, 3) collaboration, and (4) creativity. Consequently, the pressure of the assessor's must be real and expertise. The authentic assessment should be prepared based on the high level of skills in the realm meet the Taxonomy Bloom including analyzing, evaluating and creating. High-minded and mind-oriented assessment is not a new form of assessment for lecturers in conducting assessments. However, this high-level minded oriented evaluation has not been carried out fully yet. The lecturers in this assessment must emphasize the assessment of attitudes, knowledge and skills that can improve the skills of students in the process of learning high-level thinking too.

CONCLUSION

The development of the Industrial Revolution 4.0 is expected to bring progress to the development of language curricula in particular by bringing the consequences of change towards a more oriented way to prepare superior and highly graduates so that they work in the community they are already equipped with skills prepared beforehand. Finally, whatever challenges that occur in the future will be adapted by graduates appropriately and correctly.

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