



Health Science Educator Preparation Toward an Industrial Revolution 5.0 Era in Education: A Case Study

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ABSTRACT Industrial Revolution 5.0 Era is an Era that also affected of education system in Indonesia, which one of the influences is the competence of the educator in using technology and also international language like English while teaching. These realities became a consideration for the educator to improve their quality and services to the student to face 5.0 Era. Based on that consideration, this study investigated the educator (lecturer) preparation toward an Industrial Revolution 5.0 Era in Education. This study applied descriptive method, which used qualitative as the approach. Questionnaire, observation, and interviews were used as data collection. The questionnaires were spread to 22 lecturers in Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH), Indonesia. The research reveals that the educators are quite well prepared; it also shows that the lecturers have well preparation in creating learning target, using the teaching strategies, and doing the learning evaluation effectively. The other factor that also influence the lecturer preparation are BPH always improve the educator knowledge by involve them in workshops or seminars. The research also shows that lecturer needs to learn English Language as high as their needs to improve the students' qualities. The recommendation is to conduct an optional course on English for Professional Purposes

Key word: *Health Science Educator, Teaching Preparation, 5.0 Era*

BACKGROUND

Education has an important factor in improving the whole Indonesian society as develop country in Southeast Asia; it is also can improve the quality of competitiveness Indutrial Revolution 5.0 era. As we know that in 5.0 era is related with the further and

highest technology era, while all people around the world are connected by the technology. it encourages Indonesian government to improve the infra-structure preparation until human resources preparation, which's skillful and professional.

In creating skillful and professional human resources, a high quality of education is needed. It is because the Working current condition is very competitive. Indonesian labor not only compete each other's, but they also compete with foreign labor and entrepreneur. Without skillful and professional human resources, Indonesian cannot include in this tight competitiveness, Indonesia will only provide low class labor likes unskilled manual labor, daily laborer, or house assistant.

Education in this era nowadays is must be ready for global challenging, and it more complicated than before. One of the efforts to improve the competitiveness is through optimizing the vocational education, especially vocational university. It is because this sector is one of reliable labor supplier. Vocational program is a barn of skillful and professional labor, it produce graduates who have mastered in some areas, which can directly absorbed in field.

Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH), Indonesia is one of vocational university in Cirebon. It is existed since march 21st in 2005, the address of BPH is at Jl. Kampung Melati No.6A Cirebon west java. One of an effort in developing and improving Indonesia as member of ASEAN Community especially in provides health labor, Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) encourage to held an education that focused on midwifery program.

It's marked by decree of Indonesia health ministry No.HK.03.2.4.1.04880 for DIV majoring in clinical and educator and No.HK.03.2.4.1.04881 for DIII at 09 October 2006. All programs are accredited by BAN PT. In every year the interest of society increasing, it can be seen by total of the alumnus in each years are increasing, there

were 254 graduates in 2010, 202 graduates in 2011, 227 graduates in 2012, 494 graduates in 2013, 1074 graduates in 2014, and also 1001 graduates in 2015. It also shows that the society trust in this institution and it is indicated that Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH), dedicated to create skillful and professionals' labors.

In this era of globalization, Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) hold important role as the agents in provide qualified health labor in Cirebon, the institution must prepare the high quality of educators. As stated by Saphier et. all (2018) that Skillful educators are *made*, not born. Skillful educators are clear about what is to be learned and what they are going to do to help students learn it. If one thing doesn't work, they try another plan. Beside that to makes the educators skillful also needs other factors such us management, curriculum, and facilities.

Due to answer of global challenges in 5.0 Era, Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) try to know the educator's competence and preparation in facing 5.0. So, this research will focus on Educators knowledge about the 5.0 Era, educator knowledge toward ASEAN integrated 5.0 Era, learning preparation, strategies and methods in teaching, learning evaluation, learning support facilities, and improved educators' qualities.

METHOD

The method of this research is qualitative descriptive analysis; which is case study as the approach. According to Alwasilah (2002), in descriptive research, the observer did not only provide the reader with

facts, but also the interpretation of what is being investigated. Then, a case study is employed to attempt or gain information of phenomena from individual or unit in depth as stated by Arikunto (2015). So, to gather the data, this research used three kinds of instruments, there are questionnaire adopted by Brown (2021), observation, and interview, then supported by documents review. The sample of this research are 22 lecturer of Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) which has differences ages, majors, experiences, and also perspectives in preparing the students to face 5.0 Era

RESULT AND DISCUSSION

Indonesian had the best of natural resources in South East Asian, but it cannot be a sturdiest pillar of Indonesian development. Because of that reason, Indonesia must have good qualities in its human resources. In this case are the educators who fast respond and they also can challenges the global request. These properties more than enough to create or provide graduates that have dynamic personalities and easy to adapt in changes condition.

Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) as one of provider of the health human resources also wants to take a part in today's global waves by provides the description of educator competence and preparation in facing 5.0 era. The discussion will be divided into six parts according to the criteria. There is educator knowledge toward 5.0 era, learning preparation, strategies and methods in teaching, learning evaluation, learning support facilities, and improved educators qualities.

First is educator knowledge toward Industrial Revolution of 5.0 Era. According to the questionnaire, the educators get the information about 5.0 era from different media, such us 15% educators get the information from television and seminar, then 10% from printed media or news paper and 60% educators collect the information about 5.0 era through the Internet. This data shows that the majority of educators can access the recent technologies and also aware with global issues. When the researcher asked them about their perception in facing 5.0 era the data revealed that 75% educators optimist that they are can provide graduates which can compete in 5.0 era. The others or 25% educators still in confused stated, they don't know whether they are optimist or pessimistic. Their reason are they don't what will happen in 5.0 era or in other word, that educators didn't get the detailed information about 5.0 era itself.

Second is learning preparation, in gathering the data related to preparation in learning, researcher divided the question into seven involving curriculum, teaching document, and steps in creating lesson plan. The data shows that 85% of educators believe that the newest curriculum is appropriate to answer AEC needs, which is the composition are 40% for theories and 60% medical practice. So, in the end of the course the student skillful and professional in their fields. Then, the text book source almost use English text book. 70% of educators use English text and article for the student, the purpose is to improve the student abilities in using English as International language. They are also some educators that used international journal as the tools to explain recent data related to the topics. While, in preparing the lesson plan, the educators must have finished it two weeks before the

teaching and learning process begin. So, based on questionnaire and documents analysis the educator is quite good in preparing the lesson plan. It shows that 100% educators or 22 educators that involve in this research are have prepare the target of the course for each semester, collecting and arranging the course materials, and also updating the sources. All the preparation is very important in held qualify teaching and learning process, so the conclusion is the educators of Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) are well prepared.

Third are strategies and methods in teaching factor. In this factor the educators must answer 14 questions related to teaching process. The guideline adopts by brown (2001), the outline of brown are divided into three branches, such us opening, main course, and closing. Then, 22 educators are good in teaching activities, or in other word the 100% the educators follow what they have planned in their lesson plan. The data can be seen in table 1.1;

No	Indicators	done	undone
1	explaining course target	v	
2	explaining the indicators	v	
3	explaining main materials	v	
4	explaining the refferences	v	
5	describing the learning strategies	v	
6	time management is suitable with Lesson plan	v	
7	giving times for student to ask question	v	
8	use creative media	v	
9	providing the student to get the source	v	
10	releveant evaluation	v	

Table 1.1 observation resultBeside that in doing teaching activities the educators used varieties strategy, not only used speech in delivering materials they are also used cooperative learning method through big and small group discussion, role playing,

entertaining games, storytelling and experiment demonstrations. As stated by Saphier et. all (2018) that there are three important areas that skillful educators to develop expertise in and these three concepts guide for a good educator likes comprehensiveness, repertoire, and matching. Comprehensiveness has to do with an awareness of all of the areas of performance involved in running a successful classroom. Repertoire refers to the variety of strategies educators have at their disposal to deal with different teaching situations. Matching is what helps educators choose an appropriate strategy from their repertoire. It shows that educators in Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) are skillful educator and ready to create health professional labor.

Forth is learning evaluation. In order to know the qualities of the student, educators must prepare evaluation concept that related to their own course. Evaluation not only in traditional ways, which the students must answer lots of questions but also it can be done in creative ways. For example evaluation through games or role playing. then, the data of evaluation of Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) is 100% or 22 educators held evaluation to know the students levels comprehension, which the evaluation form are question answer test, oral test, and quiz.

Fifth learning support facilities factor. The other factor that gives a direct impact to teaching learning process is facilities. Educators cannot explore their own capabilities without supported by recent qualities. The sub focus of this research is talks about 5.0era as part of globalization. So, it can't separate from technology as the result of modern era. In supporting government program Polytechnic of Health Science

Bhakti Pertiwi Husada Cirebon (BPH) facilities is categorized well prepared, because it's provide good quality of wifi, computer laboratory, language laboratory, and midwife laboratory. Beside that all facilities in each teaching and learning rooms are also complete include LCD projector and laptop.

CONCLUSION

The last is improved educators' qualities. Based on questionnaire and documents review analysis found that Polytechnic of Health Science Bhakti Pertiwi Husada Cirebon (BPH) is quite supportive to educators who want to improve their knowledge. It is shows from the data that 100% of educators have experience in following scientific meeting as the representative of the institution, such us seminar national or international, workshop, training. These are some scientific meeting and event that followed by 22 educators likes training APN, KIA seminar, writing a report for education, curriculum seminar, assesor seminar, and also some educator also join to publish their own reseach in international event as the speakers.

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