

The Readiness of Economy Education Students for the Employment Market of the 4th Industrial Revolution

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Abstract— This study aims to describe the level of readiness of students majoring in Economic Education at the Faculty of Economics, State University of Surabaya in dealing with the world of work in the era of the 4th industrial revolution when viewed from the self-efficacy's factor. The type of this research is a quantitative descriptive study using 348 samples. There are 3 aspects of self-efficacy discussed in this study, namely the moral and the teacher's code of ethic's aspect, human value's aspect, and self-ability's aspect. The results showed that students majoring in Economic Education at UNESA had good job readiness in dealing with the world of work in the 4th industrial era on moral and ethical codes of teacher's aspect and human value's aspect. However, there are things to note are the low foreign language skills of students in the self-ability's aspect. Students still feel that they are not ready with the demands of the use of foreign languages which are starting to be demanded by the workforce today. Therefore, coaching and assistance are needed to increase the weaknesses of students on these indicators. (*Abstract*)

Keywords—*Students' Readiness, Economy Education Student, Self-efficacy, 4th Industrial Revolution.* (*key words*)

I. INTRODUCTION

Nowadays, advances in science and technology have brought the world into the 4th era of the industrial revolution or can also be called the era of disruption. This era is marked by the many automation systems in all fields of life with technology. In general, technology in education is considered a challenge and opportunity [1] [2]. Technology presents new job opportunities based on technology and produces high added value in facilitating human life. On the other hand, technology is a challenge for humans to continue to develop and be able to become human resources who master technology. Although the impact of this development on graduate employment opportunities is not yet clear, it is likely that the fourth industrial revolution will create new jobs and unemployment in a relatively equal size [3]. As a result, as many as 75-375 million workers switched professions and as many as 1.8 million jobs were replaced by machines. Therefore, State Higher Education (PTN) and Private Higher Education (PTS) are required to be able to produce professional graduates who are ready to face this 4th industrial era.

Surabaya State University (UNESA) is one of the State Higher Education in Indonesia which organizes educational programs and non-educational programs that have more than 25,000 students. UNESA is an institution based on Educational Workforce Education Institutions so that its main task is to produce educational staff for preschool education, basic education and secondary education. UNESA students as candidates for professional education in the 4th industrial era must be able to understand and develop according to the needs of the workforce today. UNESA students are also equipped with a variety of technology-based knowledge that is applied in every academic activity so they are used to using technology. This is because they will play an important role in the success of learning at various levels of education that will affect the quality of human resources in Indonesia. Professional education personnel have several criteria that must be mastered, including self-confidence or self-efficacy [4].

Self efficacy is a person's evaluation of his ability or competence to carry out a task, achieve goals and overcome obstacles [5]. Self efficacy can also provide a strong foothold for individuals to evaluate themselves to be able to face the demands of work and competition dynamically [4]. The stronger the level of self-efficacy a person has, the more prepared a person is to face the world of work. This is because self-efficacy describes a person's mental readiness in dealing with every obstacle faced by maximizing the capabilities they have. Good self efficacy will also help students in understanding themselves so that they will be able to show the positive value or strengths they have to get the job they expect [6].

University graduates must be able to produce quality educational staff in accordance with the needs of the world of work in the 4th industrial era, including UNESA graduates. The Department of Economic Education is one of the majors at UNESA that produces educational staff at the level of vocational secondary education or commonly known as Vocational High School (VHS). In addition to producing graduates as educational staff, the Department of Economic Education at UNESA also produces graduates who work in various fields, such as in finance and banking, entrepreneurs,

and other fields. The graduates also argued that to be able to get a job needed a confidence and highlight the capabilities and competencies possessed to convince employers so that the ability of self efficacy is also needed.

Based on the above conditions, the readiness of UNESA Department of Economic Education students needs to be evaluated to determine the condition of students as prospective graduates in facing the demands of the workforce. Therefore, this study aims to describe the readiness of students of the Faculty of Economics, Surabaya State University, especially in the Department of Economic Education in dealing with the world of work in the 4th industrial era when viewed from self efficacy. From various theories and previous studies regarding work readiness on the factor of self-efficacy, researchers in this study use aspects used by Utami and Hudaniah (2013), Hanani and Sukirno (2016), Teng, et al (2019) which have been modified in accordance with research needs consisting of moral and the teacher's code of ethic's aspect, human value's aspects, and self-ability's aspect [4] [7] [3]. The results of this study are expected to provide a picture of the readiness of UNESA students majoring in Economic Education in the face of the world of work in the 4th industrial era. Furthermore, the results of this study can also be used to find solutions and actions that can improve the competitiveness of UNESA graduates to face the world of work.

II. METHODS

The type of this research is quantitative descriptive research. The study population was all students majoring in Economic Education at Surabaya State University (UNESA) of 2,560 students. The sample used was 348 students who were determined using simple purposive sampling technique. The sample criteria used are students majoring in Economic Education 4-8 semester assuming students have obtained an educational course and in the near future will face the world of work so that the sample is considered relevant to the research objectives. Data collection is done by distributing questionnaires to student samples to produce primary data from research subjects. Based on various theories and previous research, this study uses research indicators regarding work readiness, namely self-efficacy. These indicators can be explained as follows:

TABLE 1. THE LATTICE'S QUESTIONNAIRES ABOUT SELF-EFFICACY

No.	Aspect	Indicator
1	Moral and ethical codes of teacher	Control of emotions
		Responsible
		Professionalism
		Self management
		Communication manner
2	Human Value	Tolerance of differences
		Ability to work in teams
		Work hapiness
3	Self-ability	Cognitive and foreign language skills
		Abilty to face the stressfull conditions
		Ability to overcome problems
		Abilty to reach targets
		Abilty to grow motivation to achieve an outcome
		Abilty to continue learning
		Abilty to think critically

Source: Utami and Hudaniah (2013), Hanani and Sukirno (2016), Teng, et al (2019), modified by researchers.

Data obtained from the results of student surveys in the form of quantitative data so analyzed descriptively quantitative with percentage techniques. Quantitative data obtained using a Likert scale with a scale of 1-4 (not ready-very ready). Then the data obtained from the results of student surveys are then analyzed using percentage techniques. Students of the Department of Economic Education at UNESA can be said to be ready to face the world of work if the average results of all aspects in the questionnaire get a percentage of $\geq 51\%$ so that they get a ready or very ready interpretation.

III. RESULTS AND DISCUSSION

Based on the results of research conducted to students majoring in Economic Education at UNESA, obtained information about the readiness of students in dealing with the world of work seen from self-efficacy which is divided into three aspects, namely moral and ethical codes of teacher's aspect, human value's aspect, and self-ability's aspect. These aspects can be explained as follows:

A. Moral and Ethical Codes of Teacher's Aspect

Student readiness on the moral and teacher's code of ethics aspect can be described as follows:

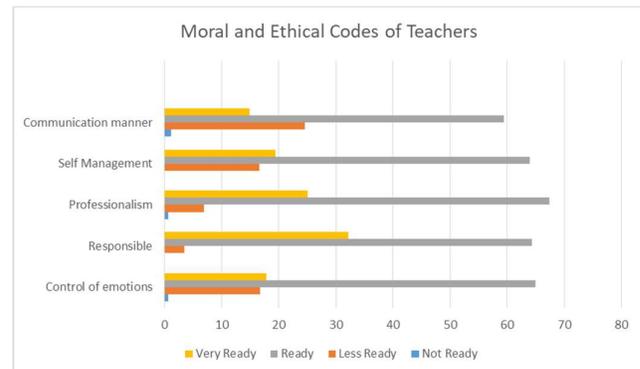


Figure 1. Student's Moral and Ethical Codes of Teachers

Based on the figure above, it can be seen that in the indicators of emotional control, the readiness of students in the highly prepared category was 19.4%, 64% ready, and 16.6% less ready. This shows that 83.4% of students have prepared themselves in controlling emotions to face the world of work. Every learning takes place, the teacher must control himself in order to teach well. Students learn 8 basic teaching skills, which in every aspect of these skills require good self-control so that during the course they can be easily accepted by students in the future.

Then, in the indicator of responsibility, students in the highly prepared category were 32.2%, 64.4% ready and 3.4% less ready. This shows that 96.6% of students have prepared themselves to behave and behave responsibly to face the world of work. Responsibility is part of the characterized behavior expected by the curriculum currently used in schools, namely the Kurikulum 2013.

In the professionalism indicator, the readiness of students in the highly prepared category was 25.1%, ready in the category was 67.4% and less ready was 0.6%. Based on these data it can be concluded that 92.5% of students are ready to

face the world of work. The level of professionalism of a teacher has always been the main theme of prospective teacher students to try to work in the professional work world. These professionals can be shown with their enthusiasm so that they can master learning materials in accordance with their respective fields, make work in the form of lesson plans, teaching materials, media, and can apply learning models that are applied in the classroom or outside the classroom (practice at school). In addition, changes in character and ethical behavior such as teachers are desired in the Kurikulum 2013 which are currently in force.

In self-management indicators, the readiness of students in the highly prepared category was 19.4%, 64% ready, and 16.6% less ready. Based on this it can be concluded that students are ready to face the world of work as much as 83.4%. Students are ready because they have the ability to manage themselves better after they take educational courses. In addition, according to them that with technological and social developments, they learn a lot to manage themselves in order to prepare to become future professional teacher candidates. However, as many as 16.6% of students were not ready to face the world of work because some of these students were still unable to face the era with self-management.

Furthermore, the indicators of how to communicate S1 Economic Education students, Department of Economic Education, Faculty of Economics, UNESA with the category of very ready at 14.9%, ready at 59.4%, less ready at 24.6% and not ready at 1.1%. From these results it can be concluded that students who are ready to face the world of work from the indicators of how to communicate by 74.3%. Students have prepared themselves by communicating well in the context of facing the 4th industrial era. Good ways of communicating have been taught in learning courses including the Fundamentals of Education, Innovative Learning I and II, Vocational Studies in Accounting Vocational, and several other subjects. To provide stability on how to communicate with students, students are required to take the Job Training courses held at partner schools. Therefore students are ready to face the 4th industrial era by changing the way they communicate in order to prepare to become a good teacher.

Based on the survey results on the moral and ethical codes of teacher's aspect above it can be said that students majoring in Economic Education at UNESA have a good level of readiness. This is evidenced by as much as 86.04% of students of the Department of Economic Education already have a good readiness in controlling emotions, responsibilities, professionalism, self-management, and how to communicate. A good level of self efficacy in the moral aspects and code of ethics of teachers can help teachers and prospective teachers feel they have good and professional competence in their fields [8].

B. Human Value's Aspect

Students' readiness on aspects of human values can be described as follows:



Figure 2. Student's Human Value

Based on Figure 2, it can be explained that the indicator of tolerance for differences, the readiness of students in the highly prepared category was 42.3%, 53.7% ready, and less ready by 4%. This means that 96% of students are ready for differences when working as teachers in the 4th industrial era in terms of tolerance. Tolerance is needed by students because when they enter the workforce they will meet different types of people with different personalities and proposals. They will be required to be able to adapt to the work environment wherever they are placed.

Then in the indicator of ability to work with a team, the readiness of students in the very prepared category was 28%, 66.3% ready, and 6.3% less ready. Its means that as much as 94.3% of students are ready to work to become future teachers in the 4th industrial era from indicators of the ability to work with teams. The ability to work with a team can be demonstrated by student behavior in order to improve the professional skills of the teacher. In other professional fields, the ability to work in teams is necessary because there is a lot of work related to many people or work that must be completed in a team.

In the indicator of happiness at work, the readiness of students in the highly prepared category was 26.3%, 67.4% ready, and 6.3% less ready. Its means that 93.7% of students are ready to face the world of work from the aspect of work happiness. The factor that supports the success of work is a happy heart. The students perceive that they are ready to face the 4th industrial era by preparing a happy heart to work as a teacher and various other professions in the future.

Based on the survey results on the aspects of human values above, it can be said that students majoring in Economic Education at UNESA have a good level of readiness. This is proven by as much as 94.66% of students of the Department of Economic Education already have good readiness in tolerance to differences, the ability to work in teams, and have happiness at work. Self-efficacy has a positive influence on teamwork because high self-efficacy is an important mediator of the relationship between emotional intelligence and team cohesion resulting in increased performance and participation in teams [9]. Self efficacy also brings a great psychological impact in making someone comfortable in their work so that it can cause a feeling of happiness at work [10].

C. Self Ability's Aspect

Readiness of students in the aspect of self ability can be described as follows:

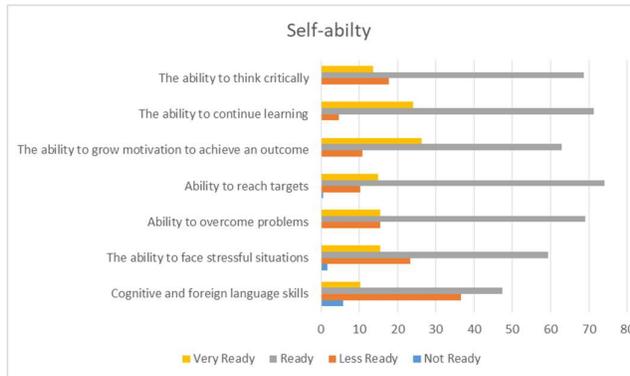


Figure 3. Student's Self-ability

Based on figure 3, it can be seen that the indicators of cognitive abilities and foreign languages, the readiness of students in the highly prepared category is 10.3%, 47.4% ready, 36.6% less ready, and 5.7% not ready. This shows that 57.7% of students have good readiness in foreign languages. Foreign language skills of students majoring in Economic education at UNESA are still relatively low. Many students are still not ready to face the industrial era 4.0 because many of them have difficulty in applying language that is not normally used in daily life. The value of foreign languages that can be seen from their TOEFL scores is still low. Only a few passed directly on the TOEFL Test. However, 57.7% were ready to face the 4th industrial era on the grounds that students study continuously to be able to speak a foreign language.

In indicator of the ability to face a stressful situation, the readiness of students categorized as very ready by 15.4%, 59.4% prepared by category, 23.4% less prepared and not prepared at 1.7%. This means that as many as 74.8% of students are ready to face a stressful situation. The situation faced in the world of work is different from the situation when taking lectures at the University. Students have prepared various efforts to deal with the situation in the future. Various efforts according to them are to learn more from various conditions and learning situations in the future. Learning not only from lecturers, books, friends and from the internet, but from all sources that can be used to improve their ability to deal with stressful situations.

On the indicator of ability to overcome problems, the readiness of students in the highly prepared category was 15.4%, ready was 69.1%, less ready was 15.4%. This means that as many as 84.5% of students are ready to face problems in the world of work. Various problems that will occur in the future according to them are problems that must be faced so that they are ready for working conditions in the 4th industrial era.

In the indicator of the ability to reach the target, the readiness of students in the very ready category is 14.9%, 74.1% ready, 10.3% less ready, and 0.6% not ready. From this it can be concluded that 89% of students are ready to reach the target of becoming teachers in the 4th industrial era. The ability to achieve the target can be demonstrated by their activities during lecturing.

In the indicator of the ability to grow motivation to achieve an outcome, the readiness of students in the very prepared category was 26.3%, 62.9% ready, and 10.9% less ready. So

from this it can be concluded that as many as 89.2% of students are ready to foster motivation to achieve results. Students are ready to face the 4th industrial era with high motivation.

On the indicator of the ability to continue learning, the readiness of students in the highly prepared category was 24.1%, 71.3% ready, less prepared by 4.6%. This means that 95.4% of students are ready to face the 4th industrial era by continuing to study. Learning in the sense of not only learning about subject matter related to future work as prospective teachers, but learning in any case that can be useful in the future according to their professional field.

In the indicator of critical thinking ability, the readiness of students in the very prepared category was 13.7%, 68.6% ready, less prepared by 17.7%. One of the abilities expected in the 4th industrial era is the ability to think critically. Based on the above, it is concluded that as many as 82.3% of students are ready to face the 4th industrial era as a professional teacher with critical thinking skills. The effort prepared in the ability to think critically is the existence of learning activities by increasing student activity. In learning, lecturers and students try to improve this ability in various ways including implementing learning with a problem based learning model, project based and discovery based. Activities that can improve this ability in the form of reasoning ability with methods of discussion, demonstration, simulation, practice and analysis both in the lecture room and activities outside of lectures.

Based on the survey results on the aspects of self-ability above, it can be said that students majoring in Economic Education at UNESA have a good level of readiness, even though the indicators of foreign language ability of students are still low. This is proven by as many as 81.84% of students of the Department of Economic Education already have good readiness in cognitive abilities and foreign languages, the ability to deal with stressful situations, the ability to overcome problems, the ability to achieve targets, the ability to grow motivation to achieve an outcome, the ability to continue learning, and critical thinking skills. Whereas cognitive ability and good foreign language affect the level of self-efficacy of students [11]. This is because foreign language skills have become one of the most needed soft skills in the world of work in the current 4th industrial era. Self-efficacy is also able to increase individual resources and make it easier for employees to cope with stressful situations [12]. In addition, self-efficacy gives encouragement to students to develop their ability to adapt to changes in the environment and give rise to a desire to continue learning [13].

IV. CONCLUSION

Based on the above research results it can be concluded that students majoring in Economic Education at UNESA have good job readiness in facing the world of work in the 4th industrial era when viewed from the factor of self-efficacy. In moral and ethical codes of teacher's aspect as much as 86.04% of students already have excellent readiness in dealing with the world of work. In the human value's aspect as much as 94.66% of students already have excellent readiness in dealing with the world of work. In the self-ability's aspect as much as 81.84% of students already have a very good readiness in dealing with the world of work.

The average student stated that he already had enough to face the world of work from the lecture process that he had obtained so far. However, what needs to be considered is the

low level of foreign language ability of students. Students still feel that they are not ready with the demands of the use of foreign languages which are starting to be demanded by the workforce today. Therefore, coaching and mentoring as a potential scaffold are needed to create an appreciation of the value of self-efficacy and it is suggested that the active development of individual self-efficacy through mentoring and coaching relationships can function to ensure that students have sufficient self-efficacy in dealing with the world work [14].

The results of this study can be used as an evaluation material to improve the learning process and also strengthen in areas that still have low readiness, such as indicators of foreign language proficiency. Thus the aim of the Department of Economic Education at UNESA to produce professional educators can be realized with an increase and strengthening of the hard skills and soft skills of prospective graduates. This research is limited to the object of research which still includes students of the Department of Economic Education at UNESA. The next researcher is expected to be able to expand the object of research so that it can produce information about student readiness at the faculty level, university level, or even the national level.

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