Relevant Analysis of Competence of Diploma III Culinary with Industrial Needs

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Abstract—This study aims to find out: (1) competence of diploma III culinary graduates taught in universities; (2) diploma III culinary competencies needed in learning; (3) competencies possessed by alumni from diploma III that are not needed in industry, (4) the competencies needed by industry, but not taught on campus, (5) the level of relevance of the diploma III curriculum in culinary with industry needs. This research is a descriptive study with a qualitative approach. The object of this research was the diploma III alumni of culinary and culinary industry. The data were collected by using observation and interviews. There are five results of this study. First, there are several courses taught at Diploma III Culinary but are not used in the industry. Second, there are several courses needed in the industry but the material is not delivered thoroughly. Third, there are several courses that do not contain attitude. Fourth, there is a poor performance of graduates in industry. Last, there is a mismatch between the courses of the Diploma III diploma III and the demands of the workforce.

Keywords—competence, curriculum, industry needs, culinary

I. INTRODUCTION

The curriculum structure is part of the curriculum related to the management of subjects in educational programs. The school as a product unit has the task of implementing and adjusting the curriculum with learning activities. The implementation of the curriculum must pay attention to the conditions of the times, the advancement of science and technology, and the need for education.

The education unit in this case is the Education System of Diploma III thus has the obligation to carry out soft skills and hard skills because it affects the performance of Human Resources (HR). It is closely related to the development of a country. Vocational education can provide an important role in preparing young people to work independently, develop themselves with skills, and respond to the needs of the job market in the economy.

The world of work as an absorbent of the workforce faces very tight competition so that the high competency of human resource is needed, namely college graduates have extensive knowledge, high work skills and a good attitude. To be able to fulfill it, universities are expected to be guided by the competencies needed by the world of work, so there is relevance and equivalence between knowledge and skills provided in universities with the needs of the workforce. Equivalence and relevance in fact has not been implemented well until now. Equivalence and relevance as it is stated in the form of link and match, in fact has not been implemented well until now. Human resources are more valuable if they have attitudes, behaviors, insights, skills, or competencies that match the needs or demands of the workforce [1].

Diploma III of Culinary is one of the major in the Department of Family Welfare Sciences, Faculty of Tourism and Hospitality, Padang State University. It studies Indonesian, Asian, European and American food and how to serve food in catering services.

In the last 3 years, there are 215 students of culinary diploma III. With the high interest of students in the study program and many job opportunities for their graduates, it is important for this program to improve the quality of graduation, so the diploma III culinary includes an expertise program that is able to compete in the work world domestically and abroad. However, there are several problems encountered in the learning programs that have been carried out on campus, so there is a mismatch between the education unit and the world of work. First, not all courses studied on campus are suitable/used in the industry. Nonconformities can occur because there are competencies that are demanded in the campus, but they are not needed in the industry. Besides, there are competencies that are not taught on campus but are demanded in the industry. In terms of one indicator of the success of education is the national education system that is relevant to its time [2]. Research into the latest curriculum in vocational education shows a lot of irrelevant educational material with the needs of the workforce. Research conducted in Norway said the main problem is that content is not related to the need for workplace qualifications. The problem that arises is that students complain because they lose employment opportunities [3].

This discrepancy causes irregularities in conditions where ideally all competencies demanded on campus can be used in the world of work. In addition, with the incompatibility of competencies, it can be difficult for graduates of the diploma III to be accepted in the world of work because their competence still does not meet the standards required by the...
industry. Competencies taught by campus cannot train graduates well. Competencies related to graduate skills in structuring activities are things that must be mastered by students during the learning period. Technical skills affect the performance of students when they have worked in the industry and operate a tool, method, use of materials and instruments. During this time, the campus educates students as prospective workers by prioritizing aspects of knowledge and skills [4], so graduates are expected to have experience that can be applied when they work. The reality that occurs is: the ability of graduates does not meet the standards set by industry. Higher education system has a distance from the world of work so that indicators of study success cannot anticipate graduate competencies that are in line with the demands of the workforce [5].

Some of the causes are learning devices which are not in accordance with industry standards; teaching materials that are out of date; activities and practicum equipment that are not adequate so that the learning time is insufficient It has caused graduates who have worked in the industry become unable to work in accordance with the standards. In fact, because of inadequate technical skills, the graduates must work in a field that is not in accordance with the field they are engaged in college/university. The impact is that graduates are viewed ineligible by the industry.

Courses received by students have to create student’s independency for when they are working. The course structure carried out is not in line with and culinary diploma III program should be in line with the objectives of the national education that is oriented towards the industry today.

The solution to the problems raised above is to study the suitability of the curriculum applied on campus with the competencies needed in the world of work. The study was conducted to determine the competencies taught on campus but not needed in the world of work.

Based on the research above, information is needed regarding the needs of the labor market. The ability of graduates in the “KKNI” (Indonesian National Qualifications Framework) contains four elements; (1) attitudes and values, (2) elements of work ability, (3) elements of scientific mastery, and (4) elements of authority and responsibility[6]. In this journal, to discover the needs of industry of the Diploma III culinary graduates, the authors describe the elements of qualifications to be explored, among others; 1) students opinions about the learning situation and conditions, 2) suitability of material obtained on campus with the demands of the industry, 3) The effectivenss of the curriculum used today, 4) substance of the material that needs to be added in lectures that are relevant to the industry requirement, 5) coaching of characters in university

II. METHOD

This research was conducted using a qualitative approach at Department of Family Welfare Science in the culinary diploma III study and several hotels in West Sumatra. The research subject selected in this study were relevant and competent graduates users to provide opinions, thoughts, and assessments as well as reinforcement that researchers needed in order to formulate, refine and validate in order to create the Relevance of the Diploma III Culinary Competency Expertise Curriculum. The subjects were 30 alumni of the diploma III Culinary, 19 food and beverage managers from several hotels in West Sumatra and 3 General Managers, the chairman and secretary of the association of Indonesian hotels and restaurants (PHRI) West Sumatra. The approach used is to capture information, opinions, and input from related parties regarding the relevance of the curriculum of the Diploma III study program to the needs of the industry. The methods used in this study were interviews, observation, and documentation. This approach is used to capture information, opinions, data and input from alumni and graduate users as well as from associations on the relevance of the Diploma III Culinary curriculum to the needs of the Industry.

The data analysis technique used is an interactive analysis [7]. This data analysis consists of three activities, namely: data reduction, data presentation, and conclusion drawing. Data from interviews and in-depth observations were collected for analysis. The data reduction is a process, focusing attention on simplification and rough data transformation that arises from the author's field notes. During the data collection process, it can be said that there is a reduction stage in which the author summarizes, encodes, and traces themes. At this stage, the author has begun to sharpen, classify, discard unnecessary data, organize data so that it gets a conclusion and finally can be verified. After reducing the data, the author conducts the second analysis activity, namely the presentation of data. The data presentation in this study is in the form of narrative and matrix by referring to the subject matter and data source. In general, there are five indicators of the data and information collected from the alumni and respondents. The first one is students opinions about the learning situation and conditions. The second one is suitability of material obtained on campus with the demands of the industry. The third is the effectiveness of the curriculum currently used. The fourth is substances material that needs to be added in lectures that are relevant to the industry. The last is character building in universities. While the data collected from the users of the graduates and the associations are: 1) the usage of knowledge obtained on campus with industry demands; 2) the level of alumni ability to do the work; 3) the substance of the material that needs to be added to the Culinary Diploma III curriculum relevant to the demands of industry; 4) character or attitude and values of alumni in the industry; 5) responsibility of alumni at work.

The third analysis phase is drawing conclusions and verification. At this stage researchers review and exchange ideas with peers, and conduct triangulation, which compares data obtained with interview techniques with data obtained with documentation and data obtained by observation. Later, holding an extension of research to develop an intersubjective agreement must be tested for its truth, robustness, and compatibility which is validity. Thus, the
writer can draw conclusions from this research which is a finding.

III. RESULT AND DISCUSSION

A. Result

Based on the data analysis, the result can be seen in the table below:

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<tr>
<th>No</th>
<th>Data Indicator</th>
<th>Data Obtained</th>
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| 1  | Learning situations and conditions | 1. Learning conditions are often uncomfortable, hot and narrow classes.  
2. Facilities are not in accordance with the curriculum, equipment, practical materials and the quality of teaching staff is less competent.  
3. Students work without guidance  
4. Some lecturers do not provide practice support categories  
5. Lecturers do not have references, jobsheet, clear direction, so students are confused  
6. The opinions of the team lecturers are different so that students were confused.  
7. Ambiguous learning non hygiene equipment.  
8. Learning time is long enough to reduce work speed  
9. The learning system does not make students confident  
10. The number of students is not balanced the size of the class  
11. The number of students is not balanced the size of the class |
| 2  | Suitability of material on campus with the world of work today. | 1. On campus, it is lacks of technique, and there is no analysis of the results of the practice. When it is made in the workplace, there is a failure.  
2. Practice material is not suitable with the industri  
3. A lot of knowledge that has not been mastered according to the industry  
4. The material obtained in the campus is not related to the work needs in the field  
5. Courses on campus is outdated, while in the world of work there is much newer material.  
6. Courses taught monotonically from time to time because there are no new techniques and knowledge.  
7. Courses and materials still refer to the products of the past. While the culinary era is now very fast and developing. |
| 3  | The curriculum used today | 1. The curriculum is ineffective, unclear and not directed so that students do not have the competencies needed by the world of work.  
2. There are many irregular schedules; there is no sequence of courses structured.  
3. The curriculum is not effective, frequent repetition of material from semester to the next semester. There is no new materials.  
4. The concept of courses is not clear  
5. The subjects studied are not focused  
6. The course learned is not connected with what is done in the industry.  
7. What is learned is not in accordance with the syllabus.  
8. There is material that overlaps with different courses  
9. The curriculum is ineffective, unclear and not directed, so that students do not have the competencies needed by the industry.  
10. The curriculum is outdated, teaching material is not new.  
11. There are too many courses, so students do not becomeskilled  
12. The curriculum does not reflect the professional work.  
13. The subjects in this field of study are separate.  
14. The subject matter and material are not relevant to the needs of the workforce. |
| 4  | Material substance that needs to be added in lectures that are relevant to the needs of the workforce | 1. Food innovation that fits the times  
2. Various food ornaments.  
3. Various kinds of pastries  
4. New techniques for making food decorations.  
5. Food from the Middle East  
6. Adding European food material that is developing  
7. Formation of prospective workforce characters. |
| 5  | Student character / attitude in the last 3 years | 1. There are still many students who have a bad attitude, especially in terms of discipline in lectures and work, responsibility and honesty.  
2. Many students are arrogant.  
3. Many students do not care about the environment  
4. There are still students who do not have a polite attitude to others. |
### TABLE 2. RESULT STUDY WITH GRADUATE USERS/ INDUSTRY

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<th>No</th>
<th>Data Indicator</th>
<th>Data Obtained</th>
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| 1. | The use of alumni science with the demands of work in the industry | 1. There is still a lot of knowledge that alumni have not used in the workplace, because at the basic stage that is done by the middle-level workers.  
2. For jobs that need ideas and innovations alumni cannot be given responsibility, because the brand is not accustomed.  
3. For food services they are quite good, but for food services at special events they cannot be given responsibility |
| 2. | The level of ability and skill of alumni in doing work | 1. Alumni cannot do jobs that need high ideas and innovations,  
2. Alumni still work at the basic level of work.  
3. Alumni cannot handle their own orders from guests/customer.  
4. Alumni can only process food/work daily.  
5. Alumni often lack confidence in work |
| 3. | Character, attitude and values of alumni in the work area | 1. There are still many alumni who do not want to study/learn with senior employees.  
2. There are still people who use the label “I’m from college”  
3. There are many arrogant alumni, rarely associate with senior employees.  
4. There are alumni who rarely socialize with the workplace environment.  
5. Alumni are picky about work  
6. Lack of cooperation in doing work |
| 4. | Alumni responsibility for work | 1. Still lacking responsibility for work, the results of the work are not in accordance with the standards.  
2. After work, alumni does not return the material or equipment in place.  
3. Often late in producing food, not in accordance with the plans set by the industry. |
| 5. | Material substance that needs to be added in universities | 1. Subjects about manners, good character and good appearance.  
2. Develop a curriculum in accordance with the demands of the ever-evolving Industry.  
3. Hold deepening of food innovation material.  
4. Hold high training in food art.  
5. Integrated curriculum  
6. Cocktail processing courses, because industry often serves a variety of mixed drinks.  
7. Add material about coffee arts. |

From the two results above, there are the results of research on indicators that occur in learning in higher education, especially in the field of diploma III culinary study program. Learning in campus has no comfort in lectures because of the narrow class. Class capacity is not balanced with the number of students studying. On the other hand, the equipment and materials for holding a practicum are not sufficient or not in accordance with the number of students and many tools and materials that are not clean and inappropriate with the topic of material. Teaching staff judge that there are many who are not professional.

For indicators of suitability of material on campus with the world of work today, there is a lack of linkages between material on campus and the industry. It can be seen from the data from alumni and graduate users who stated that a lot of knowledge is not used in employment because they assess the knowledge learned on campus has been using not in accordance with the times.

The curriculum indicators used today are not effective to be implemented at this time because the existing curriculum does not make professional students. Courses and materials are separated; teaching material is inconsistent and material overlaps with several courses. The course is not relevant to the demands of the working world today, even in the learning process it is less professional than the teaching staff, so that no competencies are needed by the workforce.

Indicators of substance that need to be added according to alumni and users are: 1) Food innovation needs to be developed according to the times; 2) Material about decorating food and cakes with high technology; 3) adding materials mix drinks/cocktails and coffee arts, 4) including material or courses discussing character, and manners.

**B. Discussion**

From the results of the study, there is a gap between the world of education and the world of work. It happens because the competencies created or produced by universities are not in accordance with the competencies needed by the world of work. It can be seen from the lack of preparedness of alumni to work in the employment field, they feel insecure and there are those who have an foul attitude.

In general, industry wants graduates possessed two competency; hard skills and soft skills. Hard skills are skills that are used to work according to the area of expertise, while soft skills are used to support workers in completing their tasks. This competence is obtained when graduates are at university through the learning process. Thus, field of expertise must be included soft skills that can achieve hard skill competence. Furthermore, soft skills include communication skills, organization skills, leadership skills, logic skills, effort skills, group skills, ethic [8].

Organizing education in universities for the Diploma III Program aims to increase students' knowledge and expertise to prepare them as educated, professional, and able to develop themselves in line with the development of science and technology, but it has not achieved yet. Indonesian education is currently prepared for industry workers and technology experts so that the era of industrialization will not
fade. The power produced by education will be a human resource that can sustain the implementation of industrialization in Indonesia. Therefore, the creation of human resources must start from the education system that leads to the provision of professional and character power needed by the industry [9].

The task of the college on the relevance of graduate competencies to work needs, there are three important things that must be considered [10]:

1. The content of what is learned in primary school may be provided by students are learning basic competencies.
2. A ranking in relevance will be less effective if it is not worth feasibility and ignored.
3. Attempts to make relevant content are too fast, too narrowly vocational and often have been dysfunctional.

IV. CONCLUSION

Based on the results of the views or findings presented, it can be concluded that:

1. Curriculum development or revision is needed so that it can always be adapted to the needs of the work / industry world that is a demand in society.
2. In order to ensure that higher education graduates employability, it is better to develop or revise the curriculum by sit together with industry users and understand what they need/require.
3. To support implementation of the revised/ developed curriculum, it is necessary to improve teaching staff and facility knowledge, it will be better that if it technology-based so that the curriculum that has been developed can be implemented well and can create competent alumni that relevance with the industry.
4. By creating competent graduates, alumni can compete for domestic and foreign job markets according to their expertise.

REFERENCES