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Cross Cultural Competencies for Informatics Engineering Graduates: A Case Study of Women from Dayaknese Communities of Central Kalimantan

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Abstract – The profession of Informatics Engineering graduates has become a new favorite profession all around the world. In this 4.0 Industrial Revolution era, Informatics Engineering graduates fill the position in any field. Either men or women can do this job without any obstacle. Women from Dayaknese Communities have ability to adjust with any of other cultures. Their flexibility is taught by their ancestor and it is included in their family values.This fact is supporting that Informatics engineering graduates should have a cross cultural competencies to face global job market. The purpose of this study is to investigate how Dayaknese culture teaches their people to be ready for cross cultural relationship with othe culture.

Keywords*: Cross Cultural Competencies*

1. Introduction

The professions of Informatics Engineering graduates are varied from databese administrator, computer network specialist, system Analyst, software engineer, web designer/developer, IT support, entrepreneur, etc. These profession are not only in regional or national scale. Informatics Engineering graduates will also expected to fill the need of workforce in global scale.

Informatics Engineering graduates are widely needed all over the world in many sectors, government and private sector. It is expected that they will have a complete whole package of competencies that includes hard skills and soft skills competencies. Hard skills competencies are consisting skills that are relating to their specialization in Informatics Engineering, such as computer network, database, web programming, software engineering, multimedia, and so on. Soft skills competencies are consisting skills that are relating to personal attributes of a person that can help the person to interact and face the problem appropriately.

Hard skills can be learned during the graduate studies. The universities provide the curriculum on each of the subject with the learning purpose. The lecturer will deliver the learning material according to the guidance of the curriculum. In some universities, the delivery of hard skills will also supported by other support system than the lecturer. The support systems for instance are university website, laboratory facilities including the laboratory technician, guest lecturer from professionals, content providers on the Internet, and others.

Soft skills can be learned by the students through the training and by practice. Currently, in Informatics Engineering Curriculum, there are only a few of soft skills competencies that taught in the class.

Table 1. Informatics Engineering Curriculum

SEMESTER 1		SEMESTER 5	
Basic of Algorithm & Programming	4	Computer Network	4
Calculus I	3	Concept of Science and Technology Development	2
English I Reading and Speaking	2	Human & Computer Interaction	3
ICT Literacy	2	Implementation and Software Testing	4
Introduction of Informatics Engineering	2	Machine & Artificial Intelligence	3
Mathematics Logic	3	Operation System	3
Religion and Ethics Study	2		
SEMESTER 2		SEMESTER 6	
Basic Physic	3	Basic Modeling & Simulation	3
Calculus 2	3	Elective Course 1	3
Data Structure	4	Engine Learning	3
Discreet Mathematics	3	Information System	3
Indonesia Language	2	Junior Internship Program	2
Linier Algebra	3	Research Methodology	3
		System Distribution	3
SEMESTER 3		SEMESTER 7	
Database Modeling	3	Elective Course 2	3
Digital System	3	Elective Course 3	3
English 2	2	Entrepreneurship	2
Global Insight and ICT	3	Final Project I (Seminar & Proposal)	3
Language Theory & Automata	3	ICT Project Management	3
Object Oriented Programming	3	Informatics Profession Study	3
Probability and Statistics	3		
SEMESTER 4		SEMESTER 8	
Algorithm Design & Analysis	3	Elective Course 4	3
Database System & Management	3	Elective Course 5	3
Digital Business Modeling	3	English Language 3	2
Environment Science	2	Final Project II	4
Software Design	3	Nationalism & Citizenship	3
Web Programming	3		

As we can see from table 1, that the curriculum in Informatics engineering study is not sufficient to teach the students about their soft skills. There are Entrepreneurship, Religion and Ethics Study and Nationalism & Citizenship.

An Informatics Engineering graduate needs to have both hard skills and soft skills to prepare them to be a complete skillful person. (Prabowo and Windiarti, 2017a) (Prabowo and Windiarti, 2017b). In those papers,

2. Research Methods

The research project is funded by Muhammadiyah University of Palangkaraya in a scheme called Women's Studies Grant Scheme. This paper reports part of results from the interviews of a research project.

Purposive sampling is used in this research to support the validity of the data. Purposive sampling is a non random sampling technique that chooses the

participants based on the characteristics of a certain population and particular research objective. In this research, the researcher did a communication through IT community in Palangka Raya and search for information on government and private institution that employed women IT engineers. After gathered some data about the participants, then potential participants be contacted to ask their agreement as the subject of this research.

Research method used in this study is phenomenological approach of qualitative methods. This approach involves the participants to be the co-researchers as they reporting the lived experiences of what we investigated.
Table 2 shows the Criteria of research participants. There are 6(six) criteria for being the research participants.

Table 2. Criteria Of Research Participants

Criteria
- Woman
- Dayak Tribe Cultural Background
- Strongly contact with Dayak culture
- Age: 20-60
- IT engineering education background
- IT engineering job description

3. Result

The result of this research is in forms of interview quotes that we gathered from a deep interview and live experiences sharing.

From the interview result, it reflects that Dayaknese family taught their children to be flexible in terms of socializing with other people either from same or different subtribes. Dayak tribe consist of at least 50 subtribes, such as:

1. Ngaju
2. Manyaan
3. Iban/Hiban
4. Bidayuh
5. Murut
6. Ounan
7. Ot Danum
8. Bekumpai

As we can see from the list of the subtribes, they are all have their own language and ethnic custom. This is the richness of Indonesian culture.

From this fact is also can be seen that Dayaknese people have special competency in cross cultural relationship between their of tribe: Dayaknese.

4. Conclusion

Dayaknese people is a kind of community that has a particular ability to do crosscultural related activities, because they have more than 50 subtribes with different language and custom.

This is a good sign that Women in Informatics engineering field from Dayak Ethnic background is also good and competence in cross cultural related activities.

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