

# The Readiness of Health & Computer Science Faculties Graduates in This Industrial Revolution 4.0 Related to English Communicative Competence (Case study at Duta Bangsa University 2019)

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**Abstract**— One of the phenomena in Industrial Revolution 4.0 is common digitization and ensuring constant communication between people themselves, people and devices and between devices themselves. Therefore in this Industrial revolution 4.0 or Destruction era, English Communicative Competence is one of the important skills. Based on Tracer Study of Duta Bangsa University, alumni's English Communicative Competence has not been satisfied. The objectives of the research are to know whether the graduates are ready or not to face the Industrial Revolution 4.0?. This research used descriptive qualitative method. The research used TOEIC that was tested by International Test Center (ITC) to know the result of the research. The populations of the research were the entire students who would graduate in the academic years 2018/2019, there were 308 students from Health Faculty and 176 students from Computer Science faculty. The researchers used TOEIC to know the English Communicative Competence of Health and Computer Science faculty graduates. The results from TOEIC showed that the higher TOEIC score was 955 (International Proficiency), the minimum score was 140 (No Useful Proficiency) and the mean score was 288 (Elementary Proficiency). It means that most of the students have not been ready to compete in this era and the graduates need good English Communicative Competence to compete in this destruction era.

**Keywords**— Industrial Revolution 4.0, English Communicative Competence, TOEIC, Graduates

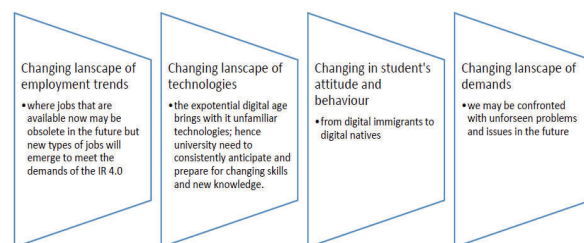
## I. INTRODUCTION

In the Industrial Revolution 4.0 there are three phenomena (1) common digitization and ensuring constant communication between people themselves, people and devices and between devices themselves, more and more frequently implemented disruptive innovations, which allow for a stepwise increase in efficiency and effectiveness of the operation of the socio-economic system, (3) the achievement of such development of machines that they gain the ability for autonomous behavior through the use of artificial intelligence in the process of their control [1].

Shahroom & Hussin [2] showed that the role of technology to IM regarding the Industrial Revolution 4.0 is very big. It changes everything from the landscape of employment trends, landscape of technologies, landscape in students' attitude, landscape of demands [2].

Schleier in Shahroom & Hussin [2] added that Due to rapid economic and social change, schools/university have to prepare students for jobs that have not yet been created,

technologies that have not yet been invented and problems that we don't yet know will arise. Higher education sector is pressured to put up with the needs of digital communities.



ROLES OF TECHNOLOGY TO IM REGARDING IR 4.0

Sources: [2]

Figure 1: The Role of Technology to IM Regarding the Industrial Revolution 4.0

Moreover Shahroom & Hussin [2] explained that to prepare graduates for future life and work achieved by IR 4.0 where more smart robots will supplant people in certain activity divisions, education should harness on pertinent information and abilities that couldn't be replaced by robots. Innovation interruption that produces Education 4.0 that focuses on educational development and skill has made future learning more customized, hyper, intelligent, portable, worldwide and virtual. Beside that Employability of graduates is a concern in many countries.

To respond global challenge, universities prepare their graduates with English Proficiency Test. The test result is expected to demonstrate students' English ability equals the Common European Framework of Reference for Languages (CEFR) (B1) level or above. English Proficiency Tests refer to tests that are designed to measure people's ability in a language. Major proficiency tests to fulfill the assessment purpose in this study are the General English Proficiency Test (GEPT), the Test of English for International Communication (TOEIC), the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), and the Cambridge ESOL Exams. All these proficiency tests, except for TOEIC, have a mixture of receptive and productive components: listening, reading, speaking and writing [3].

Setiadi & Piyakun [4] stated that English is commonly used as a medium of communication for various purposes in addition to other major foreign languages. In the academic

sphere, it is not only a disciplinary subject at different educational levels, but a lingua franca to achieve academic goals, since literature and teaching materials are written in this language. For non-English speakers, speaking and using English requires individuals to learn it in formal or non-formal education settings. Therefore, sometimes foreign language acquisition becomes a very hard struggle for some or many people especially for the communicative competence [4].

Cetinavci [5], coined the term communicative competence as the knowledge of both rules of grammar and rules of language use appropriate to a given context [5]. Saleh [6] communicative competence refers to the level of language learning that enables language users to convey their messages to others and to understand others' messages within specific contexts. It also implies the language learners' ability to relate what is learnt in the classroom to the outside world [6]. Bloemer, Pluymaekers & Odekerken [7] said that "We define communicative competence as the capacity of an organization and its personnel to communicate effectively in foreign languages and to convey information in a manner that is easily understood by foreign customers"[7].

Beside that point according to (Nallaya, 2012, cited in Bekdas, 2015: 14) in Yuyun, Meyling, Laksana & Abednego [3] English language proficiency is utilized as a scale to measure the degree of an individual's relation in the fields of economy, business, politics, society, and education.

Hsu (2010: 13) in Yuyun, Meyling, Laksana & Abednego [3] explained that like other developing countries, Indonesia is profoundly controlled by international business for its economic growth; English is deemed to be a prerequisite tool for success in any aspects of life. Both the government and the community in general recognize that a high level of English language ability among the workforce is essential. In the last few decades, there has been a growing concern for national standards of educational achievement in a competitive global economy. This concern has been reflected in tertiary institutions, the use of English Proficiency Test for the graduation requirement is then taken into account.

Because of the reason above the objectives of the research are to know the graduates' English Communicative Competence and to know whether the graduates are ready or not to face the Industrial Revolution 4.0?.

## II. METHOD

This research used descriptive qualitative method. This research describes and elaborates English Communicative Competence. The populations of the research were entire graduates. The research used TOEIC that was tested by ETC (English Test Center) to know the result of the research. The populations of the research were the entire students who would graduate in the academic years 2018/2019, there were 308 students from Health Faculty and 176 students from Computer Science faculty. To know the English Communicative Competence of Health and Computer Science faculty graduates, the researcher used TOEIC to test the students English Communicative Competence.

## III. RESULT

### A. The Graduates' English Communicative Competence

TOEIC is Test of English for International Communication. It is an English test designed specially to measure the English skills of people working in an international environment. In this research, there were 484 graduates from two faculties (Health faculty and Computer Science faculty), and the graduates were tested TOEIC by trusted institution namely ITC (International Test Center). Through TOEIC score results, the English communicative competence of the graduates can be obviously understood. The TOEIC Test results are categorized into 6 points namely: score 905-990 (International Proficiency), score 785-900 (Working Proficiency Plus), score 605-789 (Limited Working Proficiency), score 405-600 (Elementary Proficiency Plus), score 255- 400 (Elementary Proficiency), score 186-250 (Memorized Proficiency), and score 10-180 (No Useful Proficiency): the result of the graduates TOEIC Score is:

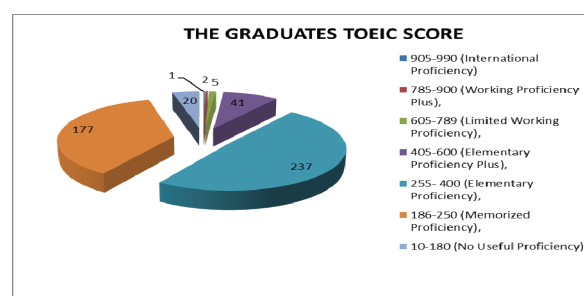


Figure 2: The Graduates TOEIC Score

Based on the figure 2, There are 20 graduates who had score 10-180 it means that their English Communicative competence is still "No Useful Proficiency", There are 177 graduates who had score 186-250, it means that their English Communicative competence is still "Memorized Proficiency", There are 237 graduates who had score 255-400, it means that their English Communicative competence is still "Elementary Proficiency", There are 41 graduates who had score 405-600, it means that their English Communicative competence is still "Elementary Proficiency Plus", There are 5 graduates who had score 605-789, it means that their English Communicative competence is still "Limited Working Proficiency", There are 2 graduates who had score 785-900, it means that their English Communicative competence is still "Working Proficiency Plus", and There is a graduate who had score 905-990, it means that their English Communicative competence is still "International Proficiency". Here is the average score of the graduates:

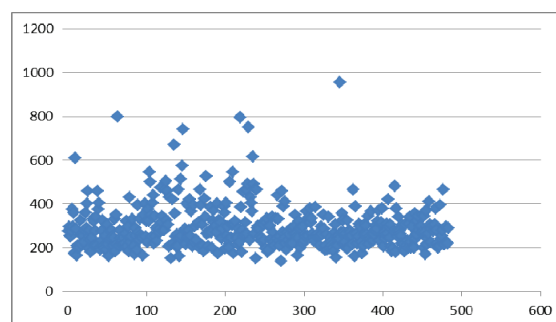


Figure 3: The average score of the graduates

Based on figure 3, the higher TOEIC score was 955 (International Proficiency), the minimum score was 140 (No Useful Proficiency) and the mean score was 288 (Elementary Proficiency). It shows that most of the graduates TOEIC score are still 255- 400, it means that their English Communicative competence is still at "Elementary Proficiency". The graduates have not been qualified enough to compete in International workforce.

#### B. Are Graduates Ready to Face the Industrial Revolution 4.0?

In the Industrial Revolution 4.0, English Communicative Competence is one of the priorities because it is obviously explained by Yuyun, Meyling, Laksana & Abednego [3] that like other developing countries, Indonesia is profoundly controlled by international business for its economic growth; English is deemed to be a prerequisite tool for success in any aspects of life. Both the government and the community in general recognize that a high level of English language ability among the workforce is essential. Therefore Duta Bangsa University concerns on preparing the graduates to face the Industrial Revolution 4.0 by improving their skills especially English Communicative skill. The graduates had been trained English for two months before having real TOEIC that was held by ITC.

The researchers used TOEIC test for understanding the result. The test was done by ITC (International Test Center) for all of the graduates. The result of the study shows that the English Competence of Duta Bangsa University's graduates TOEIC.

There were 484 graduates from two faculties (Health faculty and Computer Science faculty), Based on the figure 1, There are 20 graduates had score 10-180 (No Useful Proficiency), 177 graduates had score 186-250 (Memorized Proficiency), 237 graduates had score 255- 400 (Elementary Proficiency), 41 graduates had score 405-600 (Elementary Proficiency Plus), 5 graduates had score 605-789 (Limited Working Proficiency), 2 graduates had score 785-900 (Working Proficiency Plus), and a graduate had score 905-990 (International Proficiency).

Based on the TOEIC Score result, the graduates' English Communicative competence is still poor because most of the is still at Elementary Proficiency, according to (Nallaya, 2012, cited in Bekdas, 2015: 14) in Yuyun, Meyling, Laksana & Abednego [3] English language proficiency is utilized as a scale to measure the degree of an individual's relation in the fields of economy, business, politics, society, and education.

Elementary Proficiency means the graduates have been ready to face this Revolution Industry 4.0 because in the Industrial Revolution 4.0 common digitization and ensuring constant communication between people themselves, people and devices and between devices themselves. Communication competence is needed because 'communicative competence refers to the level of language learning that enables language users to convey their messages to others and to understand others' messages within specific contexts. It also implies the language learners' ability to relate what is learnt in the classroom to the outside world [6]. Bloemer, Pluymaekers & Odekerken [7] added that "We define communicative competence as the capacity of an organization and its personnel to communicate

effectively in foreign languages and to convey information in a manner that is easily understood by foreign customers".

#### IV. CONCLUSION

In this conclusion, the reseachers summarize the findings. In this reseacher, from TOEIC showed that the higher TOEIC score was 955 (International Proficiency), the minimum score was 140 (No Useful Proficiency) and the mean score was 288 (Elementary Proficiency). It means that most of the graduates have not been ready to compete in this era and the graduates needs good English Communicative Competence to compete in this distruction era.

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