Promoting 21st Century Skills for Facing Industry 4.0 in English for Written Business Communication Course: Students' Perception

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Abstract. The rapid development of technology had triggered the commencement of industry 4.0 in society. This condition also impacted the demands in educational world. Students required to master skills to be ready facing industry 4.0 after graduated. This paper aimed to investigate the students' perception toward the promotion of 21st Century Skills in English for Written Business & Communication course as to prepare them in facing Industry 4.0 in the future. 90 students whom enrolled English for Written Business Communication course were analyzed. Case study method and data source triangulation were conducted to reach the conclusion. Result showed collaboration, communication, creativity, and critical thinking skills were developed during the course. Facing industry 4.0, the students also need to master problem solving, critical thinking, creativity, and coordinating with others. It can be concluded that the course has promoted the 21st Century Skills that the students need to face industry 4.0 in the future.

Keywords: *21st Century Skills, Industry 4.0, English for Business*

1 INTRODUCTION

The excessive advancement of technology has influenced many aspects in society, as well as in education field. Nowadays, the teaching-learning process in the classroom has changed. The teaching-learning process involved various technological tools to facilitate more effective learning. As for learning resources, the students have utilized smartphone, tablet, and other smart devices to access available information on the internet. As for teaching media and assessment tools, the lecturers could utilize various devices and applications to teach and measure the students' achievements. Thus, the demands for the graduates in the society also increased rapidly. The breakthrough of Industry 4.0 has emerged the increased demands for graduates to master specific skills in order to survive in the future [1]. Reported by Forbes [2], the work life has changed due to the advancement in technology that reshape the requirements of jobs. Kurshan noted on Forbes article [3] highlighted the importance of acquiring 21st century skills to survive in the future society. As noted on the 21 Partnership Framework [4], the 21st century skills are as follow: creativity & innovation, critical thinking & problem solving, communication and collaboration, information literacy, media literacy, flexibility & adaptability, initiative & self-direction, social and cross-cultural skills, productivity &

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accountability, and leadership and responsibility. Aligned with the reported articles, Grzybowska & Anna [5] pointed out eight key competencies needed by an employee to be successful in Industry 4.0 in the future, namely creativity, entrepreneurial thinking, problem solving, conflict solving, decision making, analytical skills, research skills, and efficiency orientation. It can be seen that the students needed to develop the 21st century skills in order to be successfully facing the challenging demands in Industry 4.0 in the future. As the result, the demands of Industry 4.0 did not only change the tools and facilities utilized by the lecturers and students, but also required the students to master those specific skills, especially creativity and innovation, problem solving, decision making, communication and collaboration, analytical thinking, leadership and entrepreneurial skills, information and media literacy.

Beside those skills, Hariharasudan & Kot [6] found that English has become the number one language that should be mastered by the students to be ready with the Education 4.0 and Industry 4.0 since the sources of knowledge and innovation have used English as the instructional language. Further, the research found strong connection between English and the preparation effort to successfully face the challenging demands in education world in the future.

The statement also supported by the findings by Yunus [7] that to educate the students to be a better communicator, the language teaching should not only focus on grammar, voabulary, and pronunciation. The language teaching-learning should enable the students to be able to communicate effectively in the global settings. Further, Yunus also noted that the language learning also should stimulate the students‘ critical thinking. Further, Halvorsen [8] noted the importance of teaching the communication, critical thinking, collaboration, and creativity in English language classroom. Those 21st skills might help the students to be excellent graduates in the future society. This research emphasized how the 4Cs were implemented in the classroom, from the planning stage into assessment. Halvorsen explained how the 4Cs were aqcuired by the students in Mexico through project-based learning. In line with the related previouse research findings, English for Written Business & Communication had learning outcomes that enabled the acquisition both English in business context. The purpose of the course was to prepare the students to be able to utilize English in the workplace both written and spoken English in the appropriate manner. In this course, the students were required to use English for business communication context and produce business documents, such as business reports, advertisements, e-mails, memos, and business plans. Since the students who enrolled the English for Written Business & Communication course were in the second semester, it implied that when they graduated from the university later on they would face the challenges in industry 4.0. Thus, preparing the students to be ready in facing the challenges in the workplace in the era of industry 4.0 would be crucial. To facilitate and prepare the students to be ready facing the demands in industry 4.0, 21st century skills were promoted to students during the teaching-learning process in the English for Written Business & Communication course. So that the students could learn English in the meaningful and real-life context. Subsequently, this paper aimed to investigate the promotion of the 21st Century Skills in English for Written Business & Communication course. The 21st century skills acquisition during the course activities became the focus of this paper. This paper also highlighted how the students acquired the skills.

2 METHODOLOGY

This paper reported the research which aimed to investigate the students’ perspectives on the promotion of 21st century skills in English for Written Business & Communication in order to facilitate the students to be ready in facing the challenges in Industry 4.0. Case study method was implemented since this method can be implemented in various disciplines, especially in social science. Case study also enabled to gather deep understanding of a single issue,

phenomenon of interest, in real life context [9]. Besides, case study was considered as a thorough investigation method that might facilitate a research to answer the questions of 'how' and 'why' a phenomenon occur [10] [11] [12]. Thus, case study was considered suitable in facilitating this paper to investigate the phenomenon on how the promotion of 21st century skills in English for Written Business & Communication course may help the students to face the challenges in industry 4.0.

The subjects of the research in this paper were 90 students enrolled in English for Written Business & Communication course in the even semester of 2018/2019 academic year. The backgrounds of the students were from Visual Communication Design Department and Hotel Management Department. The students were in their second semester. The research was conducted on December 2018 to April 2019.

Data instrument triangulation was established to validate the data. Data were gathered by utilizing e-questionnaire or Google Form, conducting interview, and reviewing the teaching-learning journal. The e-questionnaire was utilized to depict the students' perspective toward their learning experiences during the course activities. Interview and teaching journal were conducted in order to reconfirm the data gathered through e-questionnaire. Total sampling was established since the number of the population was under 100 people.

The procedure of the research was divided into two phases. First, the lecturer designed the learning process that would be able to facilitate the students in acquiring the targeted skills. And then, the students should work in group and do projects. During the course, the students were assigned to work in a team that we called 'a company' and do a project related to the company's business they chose. The students had to choose the business that closely related to their department. For example, students from Visual Communication Design department had business related to art, such as mural painting, game character design, and so on; and for students from Hotel Management department had business related to hotel management, such as restaurant, food and beverage café, and so on. At the end of the first phase, the students had to present their project and learning reflection. Observation and teaching-learning-journal writing were conducted in phase one as well. In second phase, e-questionnaire was given to the students. The data gathered from e-questionnaire were tabulated in Microsoft Excel to ease the data interpretation and analysis. To validate the gathered data, data cross-checking from e-questionnaire, interview, and teaching-learning journal was conducted. The findings and conclusion were generated based on the result of data interpretation. After the data were being gathered and validated through data-resources triangulation, the data were analyzed and interpreted. Gaining the results and findings, the analysis and interpretation of the data were utilized the theories presented in the previous chapter, namely the theories from 21 Partnership Framework [4], Grzybowska & Anna [5], and Halvorsen [8].

3 FINDINGS AND DISCUSSION

The findings of the research showed the students agree that 21st century skills were promoted in the English for Written Business & Communication course. There are three domains of skills promoted on the course, namely learning & innovation skills, information media & technological skills, and life & career skills. From those three domains, the students agree that life and career skills was the most frequently promoted on the course, followed by learning and innovation skills, and then information media and technological skills.

There were five skills under the life & career skills domain, namely flexibility & adaptability, initiative & self-direction, social & cultural skills, productivity & accountability, and leadership & responsibility. Figure 1 showed the students' perspective toward those five skills.

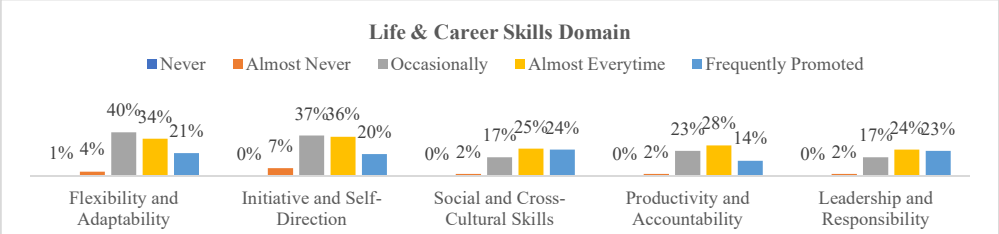

Fig. 1. Students' perception on life & career skills domain.

Figure 1 showed that the students' agreed they can learn the skills on life & career skills domain. The number of percentages on the figure one above also aligned with the result from interview and teaching journal. By working in a 'company' group and doing a project as a team, the students learnt to respect each member's point of view and background. At the same time, the students were required to have initiative and self-direction in doing the project. The students also learn to be flexible, adaptable, productive and accountable.

In interview session, one student admitted that they have difficulty in dealing with the other members of her group:

> *"I have difficulties in managing my friends so that they can work well as a team. They keep ignoring my direction as the leader of the group. They do not do their required tasks on the project. So that I did all the tasks myself at the end. What should I do, Miss?"*

Another team also faced the same problem that there was an idle member that was not actively participate join the discussion.

> *"There was one member in our team that wasn't actively participated on the discussion on our group's online chat. But we decide to meet her face to face and discuss her problems so that she couldn't manage to be actively participate on the online chat."*

The result could be depicted from those two interview's results that the students learnt the leadership and responsibility skills. The good point was the students can solve their problems in a mature manner.

The next figure showed the students' perspectives toward the learning and innovation skills domain. There were three skills on the domain, namely creative & innovation, critical thinking & problem-solving skills, and communication and collaboration.

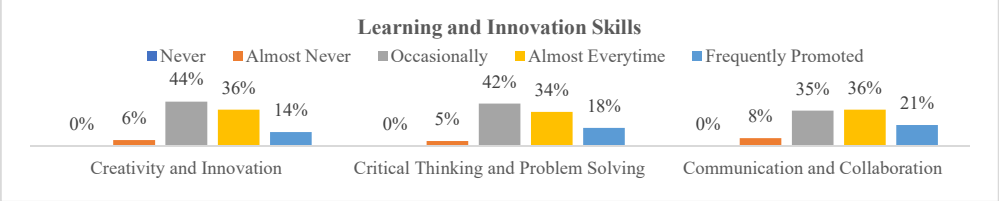

Fig. 2. Students' perception on learning & innovation skills domain.

Figure 2 showed that the students agreed the course and the given task may help them to learn the learning and innovation skills. According to the teaching-learning journal of the lecturer, the learning and innovation skills were developed when the students were required to do a project in a company so that they had to show the creativity and innovation on their product. The students were also required to make a report and do a benchmark to another company that had the similar business field. By doing a benchmark and writing a report, the students developed their critical thinking, analysis, and problem-solving since the students were required to make a report on the visited business. Further, to be able to do a benchmark and data gathering for their report, the students needed to contact the visited business. By doing these activities, the students were required to learn and implement the proper business communication and collaborate each other on the project so that their goal could be achieved.

Figure 3 below described the students' perspective toward the information media and technology skills. There are two skills on the information media and technology course, namely information technology and media literacy.

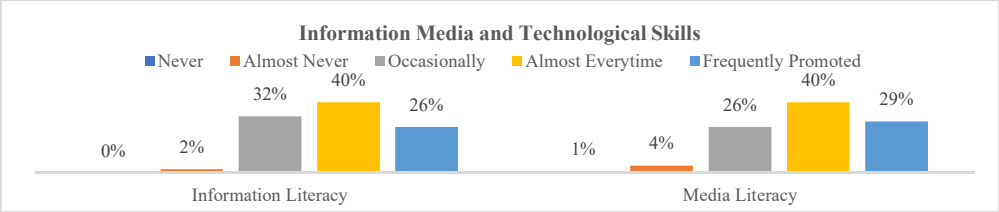

Fig. 3. Students' perception on information media & technological skills domain.

Figure 3 showed that the students agreed the course required them to utilize the information and media in doing the project. As noted in the teaching-learning journal, the students were required to access and evaluate information from various sources, manage information from various sources, and utilize various technological tools or media to access various information and to communicate effectively with other peoples.

Result of interview also showed the alignment with the two other research instruments.

"My group made the advertisement for our company by using my tab and draw the pictures so that it could be the video animation. We also utilized the free web-based application to make the video animation."

"We made group chat using LINE apps to ease our communication because we have different class schedule. And it helped a lot."

The utilization of technology in the course not only used to communicate and information access, but also during the classroom activities, such as for developing advertisements tools as one of the students' assignments, and for the classroom assessment to measure the students' understanding toward the course contents.

In the early stage of the research, this study found that 60% of the students already familiar with the term industry 4.0, while the other 40% of the students were not familiar with the terms. After more explanations and discussions during the course, the students noted the challenged in the future industry 4.0. This research also discovered the students' initial needs in facing the industry 4.0. As shown on the figure 4, 43% of the students thought that creativity and innovation is very crucial to be mastered in order to face the challenges in industry 4.0.

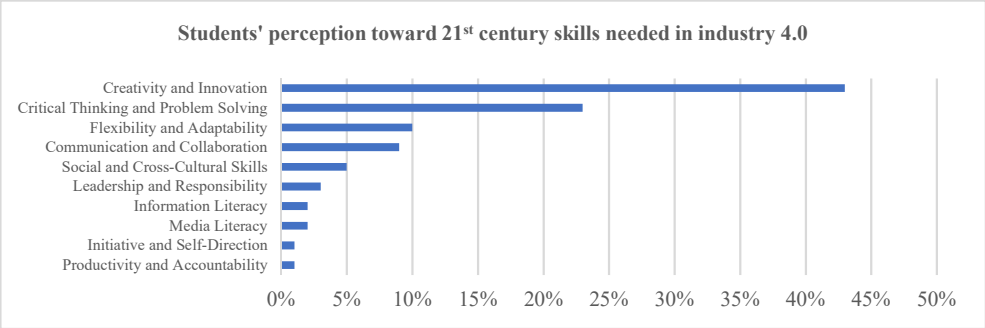

Fig. 4. Students' perception toward 21st century skills needed in industry 4.0.

The result showed in figure 4 was a surprising finding that information and media literacy was considered as the least skills needed for the future industry 4.0. The result of interview might explain this phenomenon as follow.

> *"I don't have difficulties in accessing, using, and managing information, media, and technological tools both for study and daily activities. I can say that it is more challenging for me to master the other soft skills I chose in the Google Form you gave, Miss."*

The result showed that the students thought they needed the soft skills such as creative & innovation skills, critical thinking & problem-solving skills, flexibility & adaptability skills, and communication and collaboration skills rather than information and media literacy to face the challenges in industry 4.0.

4 CONCLUSION

Based on the findings and discussion it can be concluded that English for Written Business & Communication course has promoted the 21st century skills in order to prepare the students to be ready facing the challenges in industry 4.0.

An interesting finding showed that the finding on students' perception toward 21st century skills needed in industry 4.0 could be associated with the age of the students. The students perceived the information and media literacy skills as the least skills needed in industry 4.0. Looking back at the students' background, they were in the second semester with the range of age between 18-19 years old. It can be implied that the students were Z generation or digital native whom have not difficulties in learning new technologies. This condition might explain the findings.

From the finding that showed the students' perception toward 21st century skills needed in industry 4.0, the future researches can be focused on studying the establishment of creative & innovation skills, critical thinking & problem-solving skills, flexibility & adaptability skills, and communication and collaboration skills.

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