

The Gap between Proficiency of Non -Technical Skills of Vocational College Graduates and the Perception of Employers in the Malaysian Industry

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Abstract

This paper explains about the gap between of non-technical skills of Vocational College graduates and the perception of employers in the Malaysian industry. Non-technical skills consist of seven elements namely communication skills, critical thinking and problem-solving skills, information management skills, leadership and organizational skills, group work skills, workplace attitude-related skills and self-management skills. A total of 300 technical graduates of Vocational Colleges and 129 employers in the Malaysian industry were involved in this quantitative study. The data was present in radar chart. The results showed that the technical graduates of the Vocational College proficiency all the non-technical skills. However, it is still low compared to the non-technical skills required by employers in the industry. Through non-parametric research methods such as the Wilcoxon Test shows that there is a gap between of non-technical skills of Vocational College graduates and the perception of employers in the Malaysian industry is seen to be quite significant and it needs to be addressed seriously. From this research, we suggested with the existence of industry collaboration projects with institutions. Students will get information and data directly from

the industry while the industry benefits through ideas or solution proposals generated at the institution.

Keywords : Non-technical skills, technical graduate, employers

1. Introduction

Every graduate who will enter the world of work must have non-technical skills for them to promote themselves to employers (Bekri, Noor, Jamil, Faizal&Nizamuddin; 2011). It not only revolves around the extent of an individual's academic achievement, but other skills that can add value to the individual to compete in the world of work such as communication skills, critical thinking, problem solving, self -management, interpersonal, leadership and working in groups (Ruhizan , Norazah, Khadijah, Bekri&Faizal; 2015). The country's determination in realizing the desire to improve the existing vocational education system to successfully develop a system in contributing to the transformation process of Malaysia which is known as a highly skilled country (Nabil, 2016).This technical field needs to be given adequate attention as well as exposure to non -technical skills in order to produce graduates who are skilled in the industry and knowledgeable. This can strengthen a more proactive education system in terms of infrastructure and quality of teaching and learning as well as train professionals and further develop the national economy (Ghazali& Said, 2017).

Malaysia's shortage of technical workers and technical graduates in Malaysia needs to be increased 2.5 times by 2025 (Malaysia Education Development Plan 2015-2025, 2018). The involvement of employers and industry in the education system is very necessary to ensure that knowledge and skills are in line with the wishes of employers and strengthen the production of quality graduates (Yusof et al, 2015).The results of previous studies also found that technical graduates are unemployed for almost nine months each year due to the problem of lack of non -technical skills (Hanapi; Kamis, Kiong, &Hanapi; 2016). This is because, graduates are still weak in writing skills, computer and communication skills (Nabil et. Al, 2011 &Zaliza et. Al, 2016). The challenges of the economy and globalization have forced employers in Malaysia to look for excellent employees. This affects graduates to provide themselves with academic qualifications and skills that are in line with the wishes of future employers (Azami et. Al, 2009).

In addition, The COVID-19 epidemic has hit the whole world and Malaysia in particular and it has had a major impact on the country's economic system as well as affecting the employment sector. This factor causes the closure of the operating sector and impacts on increased unemployment cases as employers are unable to cover the cost of expenses (Rashid, 2020).

2. Research Methodology

Referring to this study, data collection used quantitative methods. This is because, quantitative methods are more associated with numerical data and its accuracy by using statistical analysis (Hisham, 2011).In addition, the descriptive quantitative method that be used in this study aims to gather information and explain the relevance of the elements that need to be assessed in non-technical skills. This is in line with what was stated by Rahim et al., (2018) that a descriptive study can provide detailed information in a matter, process or in

a group and help in making plans to solve related problems in the future. Descriptive research also involves data collected to answer research questions and current hypotheses to be studied (Hayati, 2010 & Chuan, 2017).

According to G*Power version 3.1.9.4, the sample for this research are 300 technical graduates of Vocational Colleges and 129 employers in the Malaysian industry were involved. Both questionnaires consist of Part A (Demography of the respondent), Part B (Functional Skills have 78 questions) and Part C (Adaptive Skills have 62 questions) focus on non-technical skills element. The demographics of the graduates involved in this study are such as gender, field of study, duration of work experience as well as the Vocational College zone for the graduates. Meanwhile, the demographics of employers involved in this study are such as gender, employer position, zone of existence of the industry involved and the type of industry.

Next, data Normality Test is performed to determine the data obtained based on parametric or non-parametric before inferential statistical analysis is performed (Chua Yan Piau, 2014). The results of data normality analysis showed the finding were non-parametric. So, Wilcoxon Test is conducted to be observed the gap between proficiency of non-technical skills. Researchers used the Wilcoxon Test because it has the same function as the T Test for repeated measurements. But this Wilcoxon test is more accurate in analyzing non-parametric data sets that involve graduates and employers in the industry (Nabil et. al, 2020 & Chua, 2014). Table 1 shows the Vocational College graduates non-technical skills proficiency scale and Table 2 shows non-technical skills proficiency required by employer's perception.

Table 1 : Vocational College graduates non-technical skills proficiency scale

Mean Score	1.00 – 2.00	2.01 – 3.00	3.01 – 4.00
Proficiency	Low	Medium	High

Table 2 : Non-technical skills proficiency required by employer's perception

Mean Score	1.00 – 2.00	2.01 – 3.00	3.01 – 4.00
Requirement	Not required	Required	Most Required

Reference : The Measurement Scale and The Number of Responses in Likert Scale, 2013

3. Result

From this study, it indicates that the Vocational College graduates of non-technical skills. It also include the perception of employer in the Malaysian industry needed. But, when the non-technical skills proficiency of Vocational College graduates are compared with employer in Malaysian industry, they are difference and have the gap between them that were seen. Figure 1 shows the Radar Chart between the mean proficiency of Vocational College graduates with employer need towards non-technical skills.

Figure 1 : Radar Chart between the mean proficiency of Vocational College graduates with employer need towards non-technical skills

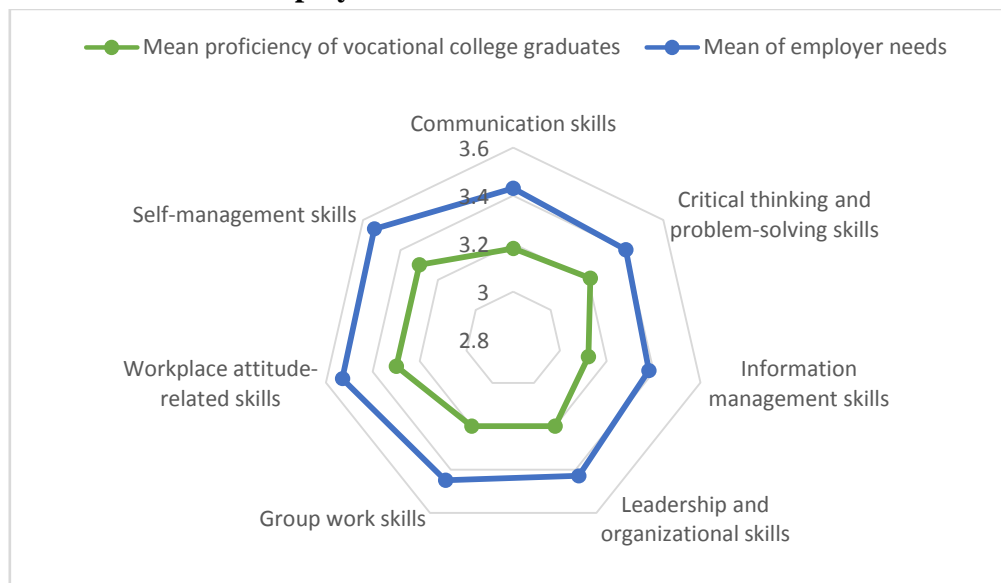


Table 3 : Difference between the mean proficiency of Vocational College graduates with employer need towards non-technical skills

Elements of non-technical skills	Mean proficiency of Vocational College graduates	Mean of employer needs	Mean difference
Communication skills	3.18	3.43	0.25
Critical thinking and problem-solving skills	3.21	3.40	0.19
Information management skills	3.12	3.38	0.26
Leadership and organizational skills	3.20	3.43	0.23
Group work skills	3.20	3.45	0.25
Workplace attitude-related skills	3.30	3.53	0.23
Self-management skills	3.30	3.54	0.24

Based on Table 3, it can be observed the gap between proficiency of non -technical skills of Vocational College graduates and the perception of employers in the Malaysian industry. Next, Wilcoxon Test is conducted to show the mean gap for both findings in Table 4.

Table 4 : Results of Wilcoxon Test Analysis

Elements of non-technical skills	Z	p	Result	Null Hypothesis
Communication skills	-4.292	0.000	Significant	Rejected
Critical thinking and problem-solving skills	-3.566	0.000	Significant	Rejected
Information management skills	-4.357	0.000	Significant	Rejected

Leadership and organizational skills	-4.482	0.000	Significant	Rejected
Group work skills	-3.509	0.000	Significant	Rejected
Workplace attitude-related skills	-3.408	0.001	Significant	Rejected
Self-management skills	-3.918	0.000	Significant	Rejected

4. Discussion

The findings of the study, the difference between the proficiency of non -technical skills of Vocational College graduates and the needs of employers in the Malaysian industry shows the four highest elements, namely Information Management Skills, Communication Skills, Group Work Skills and Self-Management Skills. After Wilcoxon Test was conducted, it clearly shows the findings are significantly difference.

For communication skills, the finding shows that there have significant difference, which is in line with Chua (2017), Employers also stated that the weakness of graduates in mastering communication skills is the highest factor that makes it difficult for them to get a suitable job. This is because, during the interview session, the perception from employer is very important and can determine whether the employee is accepted or rejected(Hanapi et al., 2017).The element of critical and creative thinking skills also having a significant difference towards the employers need. It also in line with the finding from Nurfazwin&Fadila (2019) is an important element that gets the attention of employers for the recruitment of new employees. This is because, this element determine of the graduate can be independent and solve problems by applying existing knowledge and not limited to theory and facts only.

The finding of information management skills for graduates is having a significant difference. The graduates not able to having same like standard of expectation from employers, In the same boat, Nabil (2012) the gap exists due to lack of use technology in finding and collecting information in completing work (Zaliza, 2015).As for leadership and organizational skills, the finding shows that there are significant difference, it is consistent with the finding from Chua (2017) an organization to be mutually responsible towards themselves and others motivate colleagues, to be able facilitate the process of information transfer, the work process becomes orderly and can avoid conflicts between employees, employers and management (Hanapi et al., 2017).

Next, the finding result among the criteria of group work skills and attitude-related skills the finding shows that there are significant difference, which are in line with the findings from Nabil et. al, (2013) & Lian (2017) the gap exists because of minimal use of the skills in the workplace since most of work is done on an individual basis rather than in team. This study also shows that self -management skills also have higher the gap significant difference between graduates and employers needs. Having high self -management skills such as self -confidence, discipline, motivation, maturity in action, open -mindedness and having integrity can help graduates in adapting to the work environment (De Lange, 2000; HadinaHabil et. Al, 2006; Nabil; , 2012; Hanapi, 2015). Totally non-technical skills in this study officially have gap between of non-technical skills of Vocational College graduates and the perception of employers in the Malaysian industry.

5. Conclusion

Several measures are proposed to help improve graduates' proficiency of non-technical skills. Employers are advised to hold special additional courses to discuss the importance of these skills. Course requirements made periodically are also welcome in order to keep abreast of current developments. This not only meets the criteria and demands of jobs in the industry, but also trains individuals in carrying out responsibilities, in order to benefit the industry, companies and further improve quality as well as be competitive up to the International level. In addition, with the existence of industry collaboration projects with institutions such as research projects, product design, manufacturing design and equipment maintenance. Student projects can be a solution to real problems in the industry. Students will get information and data directly from the industry while the industry benefits through ideas or solution proposals generated at the institution. The high demand of employee not only depends on the technical skills but it also focuses on Non-technical skills. From this study, it is also hoped to be a source of inspiration and reference for education institution and industry to help improve the proficiency of non-technical skills for graduates in Malaysia.

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