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Employability Readiness Among Vocational College Students (Refrigeration and Air Conditioning Technology Courses) in The Southern Zone of Malaysia

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Abstract: The readiness of prospective graduates to face the world of work is important to prevent prospective graduates from experiencing culture shock when entering the world of work. In general, this study aims to determine the employability readiness of vocational college students, especially final year students from the Refrigeration and Air Conditioning Technology Courses. This study involved 103 respondents from 9 vocational colleges in the southern zone by using a set of questionnaires as the research instrument. The value of the reliability index of the questionnaire items was 0.931. The results of the study were then analyzed by obtaining mean values, standard deviations, frequencies and percentages based on the data that had been processed. The results of the study showed that the employability readiness of vocational college students based on aspects of intellectual resources, personality resources, meta -skills resources and job -specific resources were at a high level, the mean score was between 4.00 to 4.5 out of a total score of 5.0. The findings of the study also found that there was a difference in employability readiness according to gender where male students were more prepared than female students at $\alpha = 0.05$. In conclusion, vocational college students were at high level of readiness to face the world of work based on aspects of intellectual resources, personality resources, meta -skills resources and job -specific resources. This study showed that the government's goal to produce skilled and semi -skilled workforce of vocational college students was somewhat achievable. In addition, this study provided recommendations to certain parties so that they could take according actions in addition to ensuring that these students can meet their career goals.

Keywords: Work-readiness, Employability, Vocational College

1. Introduction

The Eleventh Malaysia Plan (RMK-11), technical and vocational education must also be in line with the goals of national education by ensuring that the country's energy needs can be met in the short

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or long term. The plans implemented are for Malaysia to become a respected developed country, with the manpower resources provided by TVET institutions mastering the knowledge and skills that are well suited to the needs of the industry. In this regard, TVET institutions must ensure that their products are of quality and meet the aspirations of the National Education Philosophy by producing citizens who are balanced in terms of physical, emotional, spiritual, intellectual, social and achieve balance and personal prosperity and be able to serve religion, race and country.

By bringing the status of a developing country, Malaysia needs more skilled and knowledgeable workforce in national development. According to Ibrahim and Awang (2008), in the presence of manpower. Malaysia is seen to be able to achieve and implement national development. The Economic Planning Unit (2010), argues that in order to achieve the status of a developed country, the country must first expand the marketability of students and the methods to be used in a particular skill. However, higher education is also important in achieving a skill level in the field of technical development.

Being an individual with various work skills will usually have great potential to become a pioneer in the world and often be the prey of large companies. With the ever-changing state of the national economy, all the workforce must have sufficient skills to be able to cope if the national economy needs change (Clark, 2011).

In addition to cultivating sufficient skills in graduates to be better prepared to face all the challenges in the world of work, attitude also plays a major role as a motivator for graduates to apply all the necessary readiness in themselves. Attitude refers to the way a person handles oneself while carrying out responsibilities, special functions and duties in the job (Nasir et al, 2017). This is because, a positive attitude can affect an organization's operating system and have an impact on organizational performance (Norman et al, 2017).

For the refrigeration and air conditioning technology course, this course will be able to produce skilled students and enable them to work in the refrigeration and air conditioning industry sector as technicians, supervisors and assistant engineers. Vocational and technical training has been seen as a positive approach in meeting the needs of skilled human resources.

1.1 Problem Statement

Employability readiness is necessary to be emphasized by prospective graduates. This is because, even with the approval in hand it is still not considered a big ticket that can promise jobs to the graduates as most of the graduates are still lacking with skills in a job.

Suleman (2016) stated that graduates who have good skills and qualities are considered ready to enter the world of work and strive to meet the standards of workers required by the market. There are many things to ensure that students get a variety of skills such as workshop infrastructure facilities, curriculum, and when students undergo teaching and learning sessions. Learning at KV requires a lot of "hands-on" skills, but the practical facilities available at KV are limited and make learning sessions affected.

In addition, the mastery of soft skills is highly emphasized among graduates because it is an indicator of the resilience of a graduate to be accepted to work in a more dynamic job market as a result of rapid technological change (Norasmah, 2017). Graduates need to ensure that soft skills have been reinforced in themselves to enable them to be the top choice of employers in today's highly competitive labor market (Norazila et. al, 2017). Hence, soft skills also aim to strengthen the spiritual and physical aspects of graduates so that they dare to face the challenges of today's career with common sense and not easily give up (Rahazimah & Abdul Razaq, 2018).

According to V.Prikshat (2018), in addition to soft skills, students also need skill resources such as intellectual skills, personality skills, meta skills and also job -specific skills. The resources needed are

because they are focused on pre-employment entry and graduates who are looking for their first full-time job in the industry. Such skills can also cause a person to have high efficiency in a job.

Therefore, a study on the employability readiness of vocational college graduates in the Southern Zone was conducted to identify their readiness in facing employability after graduation.

2. Methodology

The aspects discussed in this chapter are study design, population and sample, study location, study instruments, pilot study, study operational framework, data collection methods, data analysis and expected results. Thus, the results and design of the study determine the objectives of the study, while the objectives of the study determine the design of the study (Chua, 2011).

2.1 Research Design

The design of this study is a quantitative survey in the form of a survey. This study was conducted to identify the level of employability readiness of fourth year students in nine vocational colleges in the Southern Zone. In addition, the construction of the questionnaire also helps researchers to obtain information to identify the level of employability readiness of vocational college students in the Southern Zone. The method of implementing the questionnaire will be carried out by distributing questions through an online survey that is "Google Form". The data obtained will be collected and analyzed using normality test, descriptive statistics (mean and standard deviation) and inferential analysis T-test as well as one-way ANOVA test (one-way ANOVA). The results from the statistical questions then draw conclusions on the characteristics of the variables studied.

2.2 Population and Sample

The study population consisted of final year vocational college students from Refrigeration and Air Conditioning Technology courses. Therefore, the sampling technique chosen by the researchers is purposive sampling. The determination of the required sample size was determined based on the Krejcie & Morgan (1970) sizing table. The sample was selected from nine vocational colleges in the southern zone, namely KV Port Dickson, KV Ampangan, KV Juasseh, KV Melaka Tengah, KV Batu Pahat, KV Segamat, KV Kota Tinggi, KV Muar and KV Kluang. The total sample of students in nine (9) vocational colleges in the southern zone is 103 people out of 140 people which includes Malaysian Vocational Diploma students.

2.3 Research Instrument

This study is in the form of analysis and research instrumentation used is a questionnaire. The questionnaire was constructed based on the employability readiness of vocational college students covering aspects of intellectual resources, personality resources, meta -skills resources and job -specific resources. The use of questionnaires is able to collect data in detail, organized and meet the standards.

This questionnaire has been divided into five parts, namely Part A is the demographic data of the respondents who use multiple choice questions in collecting the background data of the respondents. Next, Sections B, C, D and E use a Likert scale that involves variables from the aspects of intellectual resources, personality resources, meta -skills resources and job -specific resources.

2.4 Reliability

This questionnaire was first tested through a pilot study conducted by Port Dickson Vocational College students of Computer Systems and Network Technology course to determine whether the respondents could answer it easily and simply. A pilot study was also conducted on 26 students of Port Dickson Vocational College from the field of Computer Systems and Network Technology who were not involved with the pre -determined study sample.

This study uses the Cronbach's Alpha method in SPSS version 28.0 to measure the reliability coefficient of the data obtained. An acceptable value of the Cronbach's Alpha correlation index (α) to indicate a level of reliability is at least .60. The table shows the alpha values obtained from the constructed questionnaires. The Cronbach's Alpha values shown are 0.773 on item B, 0.600 on item C, 0.789 on item D, 0.848 on item E and the overall value for all god items is 0.931. If referred back to the table above, the reliability of the questionnaire form for this study is at a high level.

Table 1: Cronbach's Alpha Reliability Index

Cronbach's alpha Value	Strength
.9-1.0	Very high
.7-.8	High
.4-.6	Medium
.2-.3	Weak
.0-.1	Very weak

Table 2: Reliability Test Value

Division	Cronbach's alpha value	Total Item
Intellectual Sources	0.773	7
Sources of Personality	0.600	7
Meta Skill Resources	0.789	7
Special Sources of Employment	0.848	7
Total value	0.931	28

3. Results and Discussion

Descriptive statistical analysis was conducted using SPSS software to answer the questions of this study. The findings of the analysis study conducted in the table below, score for the mean for each item is at a high level with a range between 3.68 to 5.00. The highest mean score value for section B (intellectual resources) is item B1 "*I managed to find a solution when faced with learning problems*" with a mean value score of ($M = 4.26$; $SP = 0.69$). This shows that the majority of students have an employability readiness capable of making themselves ready for work.

Table 3: Mean Values and Standard Deviations for Aspects of Intellectual Resources

No. Item	Item	Mean	Std. Devision
B1	I managed to find a solution when faced with learning problems.	4.26	0.69
B2	I can identify a problem first before making a decision.	4.07	0.66
B3	I was able to process the information I received well.	4.03	0.71
B4	I managed to complete the practical work based on the assignment given by the lecturer.	4.14	0.64
B5	I will make a work plan first before doing any work.	4.14	0.66
B6	I am proficient in the subject of calculations.	3.91	0.87
B7	I am happy to be able to complete assignments related to mathematics subjects.	3.97	0.75

Descriptive statistical analysis was conducted using SPSS software to answer the questions of this study. The findings of the analysis study conducted in the table below, score for the mean for each item is at a high level with a range between 3.68 to 5.00. The highest mean score value for section C

(personality resources) is item C4 “*I will always think positively in performing a task*” with a mean value score of ($M = 4.33$; $SP = 0.61$). The students have come to understand that personality resources are important things they need to have and apply in work.

Table 4: Mean Values and Standard Deviations for Aspects of Personality Resources

No. Item	Item	Mean	Std. Devision
C1	I always perform tasks creatively and innovatively.	4.19	0.64
C2	I will give help to group members if they can't find a solution to a problem.	4.22	0.59
C3	I have high self -motivation.	4.17	0.66
C4	I will always think positively in performing a task.	4.33	0.61
C5	I always perform a task diligently.	4.25	0.63
C6	I am always on time in completing assignments.	4.03	0.69
C7	I will always ask the lecturer about things I don't understand.	4.14	0.70

Descriptive statistical analysis was conducted using SPSS software to answer the questions of this study. The findings of the analysis study conducted in the table below, score for the mean for each item is at a high level with a range between 3.68 to 5.00. The highest mean score value for section D (meta -skills resources) is item D1 “*I am good at using computer software*” with a mean value score of ($M = 4.22$; $SP = 0.74$). This also shows that vocational college students are ready to face the world of work.

Table 5: Mean Values and Standard Deviations for Aspects of Meta -skills Resources

No. Item	Item	Mean	Std. Devision
D1	I am good at using computer software.	4.22	0.74
D2	I can interact well while doing practical work.	4.18	0.60
D3	I was comfortable communicating with people I had just met.	4.17	0.77
D4	I am comfortable working in a large group.	4.10	0.69
D5	I am good at using machine technology available in the workshop.	4.16	0.67
D6	I am not ashamed to voice my opinion.	4.14	0.74
D7	I always give good feedback when questioned by lecturers.	4.06	0.70

Descriptive statistical analysis was conducted using SPSS software to answer the questions of this study. The findings of the analysis study conducted in the table below, score for the mean for each item is at a high level with a range between 3.68 to 5.00. The highest mean score value for section E (job - specific resources.) is item E1 “*I like learning about business*” with a mean value score of ($M = 4.20$; $SP = 0.74$). This also shows that vocational college students are ready to face the world of work.

Table 6: Mean Values and Standard Deviations for Aspects of Job -specific Resources.

No. Item	Item	Mean	Std. Devision
E1	I like learning about business.	4.20	0.74
E2	I am always serious in performing tasks.	4.19	0.50
E3	I know the organization in my workshop.	4.13	0.64
E4	I know what a vision and mission mean.	4.09	0.69
E5	I have knowledge of business budgets.	4.20	0.67
E6	I have experience managing a group.	4.06	0.80
E7	I would be happy if business subjects were taught in vocational colleges.	4.16	0.72

3.1 Discussions

Overall, it can be concluded that the four questions show that aspects of intellectual resources, personality resources, meta-skills resources and job-specific resources are at a high level. This proves that vocational college students in the southern zone have a high readiness for employment and are ready to enter the world of work based on these four aspects. Intelligence resources world of work, each individual must work hard to stand out from other individuals such as basic skills and cognitive skills while working because with such skills can further improve the quality and quality of an individual to continue advanced in the world of work and be able to compete in a healthy way. Most new employees who enter the industry fail for reasons related to personality skills and are slow to solve problems. Sources of meta skills, with the growing meta skills, the knowledge of the industrial environment will require graduates to always be at the forefront of the 'technology innovation curve' (Collet et al., 2015). Finally, job -specific resource skills are an important dimension based on the fact that graduates must possess the minimum skills required to perform a particular role (Bhaerman and Spill 1988, cited in Finch et al, 2016).

4. Conclusion

Based on the findings of this study, it can be concluded that the employability readiness of vocational college students in the southern zone is at a high level. High readiness in a field can determine the quality of a student. Student take drastic steps to have the aspects that the industry needs today. In addition, students also take the initiative to further improve their knowledge by doing practical work or asking lecturers and experienced people. Vocational colleges establish good relations with the industry, especially when students undergo industrial training which is the initial exposure to students in the field of employment, this good relationship can facilitate the marketability of vocational college students in the future. At the same time, each vocational college involved should be wise to further enhance the existing employability readiness in students in line with current technological advances.

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