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Employability Skills Needed by Vocational College Graduates: Feedback from Industries

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Abstract: In the real industrial setting, job duties and skills requirement have changed so much that makes seeking for employment can be a challenging experience. Hence, new graduates need to have the right skills at the right place, and at the right time. This study has been conducted to identify the employability potential of Malaysian Vocational College (KV) graduates based on the current employer perception. In addition, the employability skills among KV graduates as perceived by their potential employers will be identified, so an action can be suggested to KV stakeholders to better prepare their graduates. This study used a descriptive research design with a quantitative approach. The quantitative data for this study were obtained through questionnaires, developed based on the related literature review. The population size of the study is 882 industrial employers, who were involved in On the Job training (OJT) program of the first batch of KV students (from a pilot program). Stratified random sampling techniques were used to select the sample, which came out with a total of 269 sample size. The result of the study shows that communication, thinking and problem-solving skills were perceived as very important by industrial employers, so it has been suggested for the KV management team to develop their students with those attributes before they proceed to the job seeking process.

Keywords: Malaysian Vocational College graduates, skills workers, employability skills, communication skills, thinking skills, problem-solving skills

1. Introduction

In Malaysia, the ratio of skilled workers compared to non-skilled workers is low, which is about one over four (Kementerian Pendidikan Malaysia, 2010). This issue raises a national concern because Malaysia is expected to become a developed country by 2050 and the demand for skilled workers from industrial and services sectors is constantly increasing. By 2020, the Malaysian government are expecting the percentage of local skilled workers to be increased by 10% (Economic Development Unit, 2015). In order to achieve the expectation, the Technical Vocational Education and Training (TVET) sectors have been strengthened through the implementation of the Vocational College (KV) system. The new KV system in Malaysia has been introduced to replace the previous version of vocational school (local secondary school with vocational stream). In the new KV system, teenagers aged 16 will go through a two-year training program to get their skilled certificate (Malaysia vocational certificate, SVM), then they are qualified to take an additional two years training, in which they will graduate with a diploma

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in the related vocational area (Malaysia Vocational Diploma, DVM) . With the DVM qualification, those graduates will be qualified to enter the job market as skilled workers. The DVM system that has been implemented since 2014 is expected to increase the local skilled workers to 1.3 million in 2020 (Economic Development Unit, 2015).

According to the Malaysian Technical and Vocational Education Division (BPTV) in the Malaysian Ministry of Education, 83% of the first batch of KV graduates have been employed within three months after their graduation (Noor, 2017). Although the statistics shows a positive sign of the KV graduates' employment rate, the success of the next batch is still uncertain. This uncertainty comes from the fact that recently the unemployment rate among graduates in engineering, accountancy and other professional areas is high although previously the employment rate in these professions was very convincing (Kementerian Pendidikan Tinggi, 2015). In addition, getting employed in this challenging economic time is not an easy task compared to many years ago. Technologies have advanced every single day, work environment has changed, and employment conditions are getting more flexible (Quek, 2005). Of late, job duties and skills requirement have changed so much that makes seeking for employment can be a challenging experience. Hence, the new graduates need to have the right skills at the right place, and at the right time (Ang, 2015).

From the local industrial employers' perspective, their perception on the KV graduates is still uncertain because less studies have been conducted regarding the employer perception on KV graduates, especially their performance in the real job setting. However, previous studies have shown that many employers prefer to hire foreign labor compared to local workers because of the low wages advantage (Norsi'ee, Ismail, & Khalid, 2014). In addition, some employers still have the perception that this country lacks skilled and quality workers without realising that several actions have been taken to overcome this issue. Some employers believe that local graduates lack the generic skills, especially thinking, and communication skills (Mohd Makhbul *et al.*, 2015). Their insufficient generic skills makes them ineffective for organisation performance, besides being unable to deliver creative and convincing ideas for organisational development (Mohd Makhbul *et al.*, 2015).

Against this backdrop, this paper is motivated by two objectives. Firstly, it aims to study the employability potential of KV graduates based on the current employer perception. Second, it hopes to identify employability skills among KV graduates as perceived by their potential employers. Thus, in the future if these employability skills have been developed, the KV graduates' chances of employment can be increased.

2.0 Graduate Employability Skills

One of the the pioneer studies on employability skills among graduates in Malaysia has been conducted by Yahya (2004) in his PhD thesis, which is about the integration of employability skills in Malaysian agricultural education and industries. In his study, the author has ranked possessing honesty as the most important employability skill needed by employers in Malaysian agricultural industries followed by 1) cooperating with others, 2) using technological instrument and information system effectively, 3) decision making, and 4) time management (Yahya, M. Khata, Muhammad Sukri, Syed Mohd Syafeq & Noorfa Haszlinna 2010; Yahya, 2004). In addition to those findings, Yahya (2004) also found five qualities that are sought after by agricultural industries employers in their potential workers which include 1) punctuality, 2) work efficiency, 3) high quality work outcome, 4) interest in career, and 5) hardworking.

Basically, the term of employability has been variously defined because 'skills' means different things to different employers, educators, graduates and other stakeholders (Kumar, 2009). According to Yorke (2006), employability refers to a set of skills and knowledge that gives advantages to an individual to secure a position in his or her chosen occupation(s). By referring to this definition, there can be various elements in employability skills that can be listed as important and are highly valued by employers. However, this study will be focused on three elements of employability skills which are communication, problem-solving, and thinking skills.

Communication

Communication refers to the ability to effectively communicate with others. According to Goutam (2013), people reach an understanding of each other through communication and it is also the best way to build trust and influence one another. People who communicate effectively, can likely interact with others skillfully, flexibly, and responsibly, but without sacrificing their own needs and integrity (Goutham, 2013). In the context of a workplace situation, having good communication skills is the way to succeed and is seen as a basis for workplace activities including work related discussions, meetings, explaining and demonstrating to subordinates and other colleagues, also responding to supervisor inquiry (Mehta & Mehta 2009). As suggested by Stevens (2005), a new graduate requires the ability to communicate effectively both in oral and writing; especially when the technology strengthens the significant role of messages in the workplace. Currently in Malaysia, communication skills play an important role at the workplace (Ali Moslehifara & Noor Aireen, 2012). Hence, higher educational institutions in Malaysia implemented various developmental programs to ensure that their students graduate with high ability to communicate effectively at the workplace, which will eventually give a better chance of employment for them (Ali Moslehifara & Noor Aireen, 2012).

Thinking skills

In a previous study done by Husin, Mokhtar, Ahmad & Mustapha (2010) conducted on 180 employers in Malaysia, it was found that thinking skills is one of the important employability skills needed by local employers. A similar study conducted internationally found that thinking skills was listed as the second most important workers' attributes sought by employers in Australia (Prinsley and Barayan, 2015). The reality in the workplace today is that organisations are continually seeking for potential employees not only with technical skills, but also with sufficient thinking skills to be effective in a constantly changing environment (Flores, Matkin, Burbach, Quinn & Harding, 2012). The reason is because workers who are only good at specific technical tasks will not meet the needs of tomorrow's changing environment. A survey of over 400 companies in the United States listed four attributes that employers feel are most important for new entrants which are professionalism/work ethic, communication skills, teamwork/collaboration, and critical thinking skills. Among these attributes, 92% of the respondents rated critical thinking as very important (The Conference Board, 2006).

Problem-solving

Problem-solving skills in the workplace context refers to the ability to identify the problem, apply problem-solving, formulation and solutions (Zaharim *et al.*, 2010). In Australia, a study that was conducted on 486 employers found that more than 80% of them rate problem-solving skills as either very important or important attribute that employers seek for in their new workers. In addition, the same study shows that the problem-solving skills has been rated as the third important attribute needed among workers, after active learning and thinking skills (Prinsley and Barayan, 2015). According to Zaharim *et al.* (2010), in the Malaysian context, the problem-solving skills elements that are essential to workers are: 1. Able to identify the problem or issue; 2. Implement the problem solving; 3. Apply sufficient formulation and solution; 4. Be creative, innovative and able to use different points of view in solving problems; and 5. Able to analyse and identify the root cause of the problems.

3. Methodology

This study used a descriptive research design with a quantitative approach. The objective of the study is to identify employability skills (communication, thinking and problem-solving attributes) among KV graduates as perceived important by industrial employers. The quantitative data for this study were obtained through questionnaires, developed based on the related literature review. The population size of the study is 882 industrial employers, who were involved in On the Job training program of the first batch of KV students (from a pilot program). Stratified random sampling techniques were used to select the sample (refer Table 2). The selection of samples in each population region is made by referring to the Krejcie and Morgan (1970) sampling table, which comes out with a total of 269 sample size. A total of 265 questionnaires have been distributed to samples by postage; a total of 141 answered questionnaires were received back by the end of the data collection process.

The instruments validation procedure has been made by referring the questionnaire to two experts from a local higher institution. The reliability test has been conducted to identify the value of alpha cronbatch for the questionnaire items. The value of alpha cronbatch for the questionnaire is 0.763, which indicates the sufficient reliability (more than 0.6) by referring to Mohd Majid (2005). In order to show the result of the study, a mean score has been used to identify the importance of employability skills attributes that have been listed in the questionnaire based on a 5.0 scale, range from 1 (very unimportant) to 5 (very important). Table 1 shows the interpretation of mean scores level based on the mean score chart suggested by Nunnaly (1978). The mode and median value have also been used to identify the rating on the scale that has been selected most often by respondents.

Table 1: Mean scores level interpretation

Score mean	Score/interpretation
1.00–2.00	Low
2.01–3.00	Medium Low
3.01–4.00	Medium High
4.01–5.00	High

Table 2: Distribution of samples according to regions

No	Region	State	Company Numbers	Total population	Sample number
1	North	Perlis	96	282	86
		Kedah	36		
		Pulau Pinang	43		
		Perak	105		
2	East Coast	Kelantan	79	194	59
		Terengganu	114		
3	West	Selangor	64	121	37
		Kuala Lumpur	56		
		Negeri sembilan	155		
4	South	Melaka	121	285	87
		Johor	104		
		Total		882	269

4.0 Findings and Discussion

4.1 Company Profile

Table 3 shows a total of 33 (23.4%) managers, 63 (44.7%) supervisors and (31.9%) other positions involved in this study. A total of 141 companies were involved in this study, where a total of 24 from construction companies (17.0%), 24 of factory and manufacturing companies (17.9%), 68 services companies (48.2%) and 25 from other companies (17.7%). A total of 125 companies (88.7%) belong to local companies, 12 companies (8.5%) owned by foreign investors, while 4 companies (2.8%) belong to joint venture companies (0.6%). In this study, the respondents were asked regarding their agreement to offer permanent positions to KV students after they finish their OJT, and the result indicates that only 51.8% of respondents agreed to do so, while 43.3% was unsure and 5% disagreed.

Table 3: Respondents' profile

Background	Frequency	%
Position:		
<i>Manager</i>	33	23.4
<i>Supervisor</i>	63	44.7
<i>Others</i>	45	31.9
Scope:		
Construction	24	17
Factory and manufacturing	24	17
Services	68	48.2
Others	25	17.7
Company Ownership		
100% Local	125	88.7
100% Foreign	12	8.5
Joint-venture	4	2.8
Agreement to offer permanent position to KV students who do OJT in their company:		
Disagree	7	5
Unsure	61	43.3
Agree	73	51.8

4.2 Communication Skill Attributes Perceived Important by Industrial Employers

The mean score of each of the communication skill attributes is related to its perceived level of importance as shown in Table 4. Each of the seven communication skill attributes has a mean score of ≥ 4.17 , which indicates that those attributes have been rated as very important by industrial employers for the employment of KV graduates. The reason why all of the communication attributes is perceived as important by industrial employers is very clear, which is because employees with good communication skills will be able to build rapport with co-workers which can help them complete their task efficiently (Goutam, 2013). Skilled communicators also know who the right person they can ask for assistance and they are skillful at resolving conflicts and building consensus among team members while achieving the goal (MsnEncarta Premium Magazine Center, 2005). According to Goutam (2013), today’s organisations normally have multi and cross-functional teams which need effective downward, horizontal and upward communication. For a new employee, effective horizontal communication allows his/her idea to be converted into action by his/her co-workers, also boosts teamwork, trust, better relations, and productivity. While upward communication helps workers to communicate their new or creative idea in order to help their supervisor or management team in decision making and organisation development.

The table also indicates that “being able to follow the supervisor’s order” has been rated as very important most often by respondents. According to Ahmad (2006), the top-down communication is frequently being practised in workplace because organisations consist of several hierarchy from the top management to supporting staff. The top management team are responsible to set the organisation target and policy which will be followed by their supporting staff. Therefore, the management group is likely to believe that it is very important to have subordinates that can follow their order in ensuring that the organisation policy will be followed and the company targets will be achieved.

Table 4: Communication skills attributes perceived important by industrial employers

No	Communication attributes	Mode	Median	Mean score (SD)
1	Able to follow his/her supervisor’s order	5	5	4.50 (0.53)
2	Communicate with different races	4	4	4.46 (0.73)
3	Discuss with others in finding ways to do his/her work task correctly	4	4	4.44 (0.70)
4	Provide sufficient responds while communicate with others	4	4	4.39 (0.72)
5	Fluent communication in Malay	4	4	4.36 (0.72)
6	Able to communicate his/her idea through writing	4	4	4.28 (0.83)
7	Fluent communication in English	4	4	4.17 (0.85)

4.2 Thinking Skill Attributes Perceived Important by Industrial Employers

Table 5 lists four thinking skills attributes, and the mean scores according to their perceived level of importance rated by industrial employers. All the four attributes attained mean scores of higher than 4.27. The highest score of 4.44, belongs to ability to infer and draw conclusions based on the information presented, followed by ability to think out of the box (4.39), pre-identified implication of action (4.34) and creative thinking (4.27). As has been mentioned by Flores et al. (2012), being creative, out of the box thinker and analytical thinker will give advantages to the job seekers because those attributes will help them to adapt with tomorrow’s changing environment and contribute to the organisational development.

Table 5: Thinking skills attributes perceived important by industrial employers

No	Thinking skills attributes	Mode	Median	Mean score (SD)
1	Ability to infer and draw conclusions based on the information presented	4	4	4.44 (0.72)
2	Think out of the box	4	4	4.39 (0.98)
3	Pre-identified implication might be behind every idea or action that will be taken			4.34 (0.76)
4	Creative thinking	4	4	4.27 (1.01)

4.3 Problem-Solving Skills Attributes Perceived Important by Industrial Employers

Problem-solving skills includes the ability to recognise and define problems, invent and implement solutions and evaluate results (Carnevale & Smitha, 2013). Table 6 shows that all five problem-solving skills attributes perceived as important by industrial employers with a mean score of 4.27 and above. The scores indicate that KV graduates with those attributes will have advantages to secure a permanent position in industries. Researchers have identified that problem-solving skills is the key to employability (Reid and Anderson, 2012; Wellman, 2010; Fallows and Steven, 2000). According to Scherbaum *et al.* (2012), problem-solving abilities can reflect individual intelligence, which is the best predictor of job performance across a variety of occupations. In addition, problem-solving also incorporates a range of other competencies including critical thinking skills (Reid and Anderson, 2012), creativity (Kilgour and Koslow, 2009), leadership skills (Conrad and Newberry, 2012), and adaptability (Jabr, 2011).

Table 6: Problem-Solving skills attributes perceived important by industrial employers

No	Problem Solving Attributes	Mode	Median	Mean Value (SD)
1	Able to specifically identify the problem	4	4	4.44 (0.56)
2	Finding possible solutions to the problems	4	4	4.44 (0.98)
3	Selecting the right solution based on the solid judgement	4	4	4.38 (0.71)
4	Reflective on action that has been taken	4	4	4.37 (0.72)
5	Clearly analyzing the problem situation	4	4	4.36 (0.70)

6. Conclusion

Since this study confirms that communication, thinking and problem-solving skills are indeed an important need for KV graduates' employment in industries, this issue warrants attention. All of those generic skills attributes which are perceived important by industrial employers have been clearly ranked through descriptive statistics in this study. Hence, it will be a good recommendation for KV college administration, and stakeholders to develop their students with those attributes before they proceed to the job seeking process.

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References

- Ahmad, A. M. (2006). *Komunikasi di Tempat Kerja*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Ang, M. C. (2015). Graduate Employability Awareness: A Gendered Perspective. *Procedia-Social and Behavioral Sciences*, 211, 192-198.
- Buntat, Y., Jabor, M. K., Saud, M. S., Mansor, S. M. S. S., & Mustaffa, N. H. (2013). Employability Skills Element's: Difference Perspective Between Teaching Staff and Employers Industrial in Malaysia. *Procedia-Social and Behavioral Sciences*, 93, 1531-1535. <http://dx.doi.org/10.1016/j.sbspro.2013.10.077>
- Carnevale, A. P., & Smith, N. (2013). Workplace basics: The Skills Employees Need and Employers Want. 491-501.
- Conrad, D. and Newberry, R. (2012). Identification and Instruction of Important Business Communication Skills for Graduate Business Education. *Journal of Education for Business*, 87(2), 112-120.
- Economic Development Unit. (2015). *Rancangan Malaysia ke-11 (2016-2020)*. Unit Perancang Ekonomi, Jabatan Perdana Menteri. Retrieved from <http://www.epu.gov.my> .*Education for Business*, 87(1), 52-59.
- Fallows, S. and Steven, C. (2000). Building Employability Skills into the Higher Education Curriculum: A University-Wide Initiative. *Education and Training*, 42(2), 75-82.
- Flores, K. L., Matkin, G. S., Burbach, M. E., Quinn, C. E., & Harding, H. (2012). Deficient Critical Thinking Skills among College Graduates: Implications for Leadership. *Educational Philosophy and Theory*, 44(2), 212-230.

- Goutam, A. (2013). Effective Communication at Workplace. *IRC's International Journal of Multidisciplinary Research in Social & Management Sciences*.
- Husain, M. Y., Mokhtar, S. B., Ahmad, A. A., & Mustapha, R. (2010). Importance of Employability Skills From Employers' Perspective. *Procedia-Social and Behavioral Sciences*, 7, 430-438.
- Jabr, N.H. (2011). Social Networking as a Tool for Extending Academic Learning and Communication. *International Journal of Business and Social Science*, 2(12) , 93-102.
- Kementerian Pendidikan Malaysia. (2010). Rancangan Malaysia Ke-10: Bab 5: Membangun dan Mengekalkan Modal Insan. *Rancangan Malaysia Kesepuluh (RMKe-10)*, 192–251. Retrieved from <http://www.moe.gov.my/my/rmk10>
- Kementerian Pendidikan Tinggi. (2015). Kajian Pengesanan Graduan 2015. Retrieved November 19, 2016, from <http://graduan.mohe.gov.my/skpg-report/ProgramPengajian/SubBidangK.aspx>
- Kilgour, M. and Koslow, S. (2009). Why and How Do Creative Thinking Techniques Work?: Trading off Originality and Appropriateness to Make More Creative Advertising. *Journal of the Academy of Marketing Science*, 37(3), 298-309.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Kumar, A. (2009). Engaging Students in SOARing for Employability. *Graduate Market Trends, Autumn 2009*, 8 -10.
- Mehta, D., & Mehta, N. K. (2007). Communication Skills for Engineering Professionals. Retrieved on 10th November 2009 from <http://www.adit.ac.in>.
- Mohd Majid Konting. (2005). *Kaedah Penyelidikan Pendidikan*. Dewan Bahasa dan Pustaka.
- Mohd Makhbul, Z., Yussof, I., Hair Awang, A., Ekonomi dan Pengurusan, F., Kebangsaan Malaysia, U., & Sains Sosial dan Kemanusiaan, F. (2015). Antara realiti dan harapan – Kajian empirikal persepsi majikan terhadap prestasi graduan tempatan. *Fakulti Ekonomi Dan Pengurusan, Universiti Kebangsaan Malaysia, Bangi, Selangor, 2Fakulti Sains Sosial Dan Kemanusiaan, Universiti Kebangsaan Malaysia, Bangi, Selangor, 10(10)*, 27–36.
- Moslehifar, M. A., & Ibrahim, N. A. (2012). English Language Oral Communication Needs at the Workplace: Feedback from Human Resource Development (HRD) trainees. *Procedia-Social and Behavioral Sciences*, 66, 529-536.
- MsnEncarta Premium Magazine Center (2005). Communicating Well on the Job [Electronic version]. USA Today. November 2002. v 1 3 1 i260 p 9(1). Retrieved May 2005 from <http://www.encyarta.msn.com>
- Noor, M. H. M. (2017). 83.1 Peratus lulusan Kolej Vokasional Dapat Kerja. *Utusan Online*. Retrieved from <http://www.utusan.com.my/berita/nasional/83-1-peratus-lulusan-8232-kolej-vokasional-dapat-kerja-1.434085>
- Norsi'ee, S. R., Ismail, R., & Khalid, N. (2014). Impak Pekerja Asing Terhadap Upah Firma Perusahaan Kecil. *Prosiding PERKEM Ke-9 (2014) 104 - 116 ISSN: 2231-962X*, 9, 104–116.
- Nunnally, J. C. (1978). *Psychometric Theory*. 2nd ed. New York: McGraw- Hill.
- Prinsley, R. T., & Baranyai, K. (2013). *STEM Skills in The Workforce: What do Employers Want?*. Office of the Chief Scientist.
- Quek, A. H. (2005). Learning for Workplace: A Case Study in Graduate Employees' Generic Competencies. *Journal of Workplace Learning (JWL), United Kingdom*, 17(4), 231-242.
- Reid, J.R. and Anderson, P.R. (2012). Critical Thinking in the Business Classroom. *Journal of Education for Business*, 87(1), 52-59. Scherbaum, C.A., Goldstein,
- Stevens, B. (2005). What Communication Skills Do Employers Want? Silicon Valley Recruiters Respond. *Journal of Employment Counseling*, 42(1).
- The Conference Board (2006) *Are They Ready to Work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century US workforce (BED-06- Workforce)*. New York: Jill Casner-Lotto & Linda Barrington.
- Wellman, N. (2010). The Employability Attributes Required of New Marketing Graduates. *Marketing Intelligence and Plannin.*, 28(7), 908-930.
- Yahya, B. (2004). *Integrasi Kemahiran Employability Dalam Program Pendidikan Vokasional Pertanian dan Industri di*

Malaysia. Tesis Dr. Falsafah. Universiti Teknologi Malaysia.

Yorke, M. (2006). *Employability in Higher Education: What it is–what it is not*. ESECT, The Higher Education Academy. Proceedings of the 6th WSEAS International Conference on Engineering Education.

Zaharim, A., Yusoff, Y. M., Mohamed, A., Omar, M. Z., Muhamad, N., & Mustapha, R. (2010, April). Practical Framework of Employability Skills for Engineering Graduate in Malaysia. In *EFucation Engineering (EDUCON), 2010 IEEE* (pp. 921-927). IEEE.