

# Perception of Employers Towards the Generic Skills of Working Polytechnic Graduates of Malaysia

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## Abstract

Generic skills are increasingly important both in the local and international workplaces. Employers nowadays often seek on employees who possess sound generic skills to ensure business success. In the local context, Polytechnics are one of the main educational institutions in Malaysia that aiming to produce technical personnel to meet industrial needs. Therefore, this study focuses on the current perception of employers towards the generic skills possessed by the graduates from polytechnics. The study is done on six established industries situated in the state of Johor. The respondents consist of 35 employers with managerial or supervisory positions. This quantitative study utilizes questionnaires as the main evaluation instrument. The findings showed that on overall, generic skills of polytechnic graduates at the industries studied are at a fairly high level based on the perception of the employers.

*Keywords: Generic Skills, Perception of Employers, Polytechnic Graduates.*

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## 1. Introduction

Malaysia is progressing rapidly towards the status of a developed nation. The shift of economy from agricultural-based to industrial-based two decades ago produced a high demand for trained technical workforce. Many learning institutions of private or government funded institutions had offered courses focused towards Technical and Vocational Education and Training (TVET) in order to produce graduates that are able to fulfill the need of our country in the new industrialized era.

The challenge in producing graduates are now greater as compared to before due to the advent of globalization and liberalization of global economy and the policy of Malaysia in the nation's long term development programs [7]. The change of environment due to the rapid development of information technology and communication had changed the way industries doing business. The industries need workforces that can adapt to the ever changing environment where the workforces are competent not only in skills but other essentials such as generic skills.

### 1.1 Generic skills

Generic skills are skills that are crucial for employment and also for personal development, fulfillment, community life and active citizenship [4]. In today's highly competitive market, employers seek employees who possess sound generic skills to ensure business success [2]. Therefore, it is important for the TVET institutions to plan for strategies in order to produce graduates that meet the demand of the industries.

Among the institutions that offered TVET, polytechnics of Malaysia are one of the many institutions that aimed at producing both skilled and semi-skilled technical graduates. Polytechnics of Malaysia offer courses both in the certificate and diploma levels. Though had been widely acknowledged by public that TVET graduates are able to perform well technically, it is still doubtful that they possess the generic skills as required by the industries.

### 1.2 Statements of problem

A study by Ramlee [10] showed that most of the employees are not satisfied with the affective skills

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possessed by the TVET graduates especially in terms of language communication skills, social and interpersonal skills, and critical thinking skills. This is also due to the design of current TVET courses that solely emphasizes on knowledge and technical skills needed for the workplace [5].

As a result, TVET graduates are still unconfident and not prepared for the workplace environment although they are given intensive theoretical and hands-on trainings [8]. In the case of Polytechnic graduates, they are regarded as the one lacking the essential skills in information technology, interpersonal communications and other generic skills by the industries [10]. This indirectly shows the current curriculum design in polytechnics of Malaysia is unable to deliver the essential generic skills to its client.

Since Polytechnics of Malaysia is one of the most established local TVET institutions, the writers are interested in investigating the current perception of employers towards the generic skills of working polytechnic graduates. This study can function as a guide for the institutions that provide TVET as well as TVET graduates as of what is the current demand of generic skills by the industries.

## 2. Methodology

This research is a quantitative and descriptive study where the collection and analysis of quantitative data was done by means of research instrumentation. Questionnaires were used as the instrument for data collection in this study. The instrument was chosen as it was easier to have cooperation from the respondents with questionnaires compared to interviewing questions.

During the course of study, a total of six industries had granted the permission for the writers to conduct this study. The industries, Panasonic Communication (M) Sdn. Bhd., JK Wire Harness Sdn. Bhd. and Hydro Aluminium Malaysia Sdn. Bhd. are situated in the Johor Bahru district. Another three industries, Fujitsu Component (M) Sdn. Bhd., Sharp-Roxy Electronics Corporation (M) Sdn. Bhd. and Harta Packaging Industries Sdn. Bhd. are situated at the Batu Pahat district.

All these industries are well known industries in their respective field for utilizing advanced engineering technology in their production as well as operation. Some of the industries are international firms such as Panasonic, Fujitsu and Sharp-Roxy that are well-known

for their excellent human resource training and technology management.

The respondents consist of employers with managerial or supervisory positions. Respondents of this study were from the technical department and human resource department. Human resource department was taken into account as it was the department that handles the intake of employees. Respondents from this department consist of human resource managers, assistant managers and executive officers. For the technical department the respondents were the direct supervisor of the working graduates where majority consist of engineers in various departments. They were the direct supervisors that can provide information regarding the performance of working graduates.

### 2.1 The questionnaires

The research instrument in this study was questionnaires. The questionnaires was set and adapted from the questionnaires as in the related past research [6] due to some similarity between the past research and the current research. The items were slightly modified to suit this study environment. The questionnaires consist of three main parts:

- Part A: Contains six items regarding the demography of the respondents. Respondents were given multiple responses and they were required to tick on the appropriate choice.
- Part B: Contains items related with the generic skills of the working Polytechnic graduates. These includes human relations, life-long learning, computer literacy, problem solving skills, thinking skills, motivation at work and English language skills.
- Part C: Contains open-ended questions that asked for respondents' opinion regarding the generic skills possessed by the working graduates.

Likert Scale on a scale of 5 was adapted as options for Part B of the questionnaires. The Likert Scale used in these questionnaires are as shown in Table 1.

Table 1. Likert Scale Format[11].

Indicator	Score Value
Strongly Disagree	1
Disagree	2
Somehow Disagree	3
Agree	4
Strongly Agree	5

For ease of analysis, the score value will be averaged

and grouped. The interpretation of the averaged values was as shown at Table 2 below. This study follows the averaged value as stated by Landell [11] as the mean score range are higher for “agree” as compared to the averaged value introduced by Weirsma [11].

Table 2. Averaged Value Range As Stated by Landell [11].

Mean Score	Interpretation
1.0 to 2.3	Not Satisfactory
2.4 to 3.7	Satisfactory
3.8 to 5.0	Good

## 2.2 Procedures of study

The study started with pilot study to assess the reliability of the questionnaires created. Pilot study is essential to ensure that the questionnaires created have high reliability for actual studies. The reliability of the questionnaires was assessed by using the Alpha-Cronbach score value.

Alpha-Cronbach score value is a reliability constant that shows the relationship between the items. If the Alpha-Cronbach score is greater than 0.7 then the design of the questionnaire would be considered as good [9]. Otherwise, the questionnaire would have to be updated accordingly until the score exceeds 0.7. Pilot study in this study was conducted with eight randomly picked respondents from Hydro Aluminium Malaysia Sdn. Bhd. The results from the analysis of questionnaire showed that the Alpha-Cronbach score value is 0.7118. This score value showed that the questionnaire is reliable for actual study.

After the pilot study was successfully carried out, the actual study will follow with the distribution of questionnaires to targeted respondents. Data collection process will prevail after the respondents had completed their questionnaires set. All the data analysis was done by using computer software packages.

## 2.3 Data analysis method

The questionnaires distributed contain three parts. After recollection of questionnaires, all the quantitative data obtained will be analyzed using computer software. The quantitative data was entered into computer statistical package, which is SPSS for Windows Version 11.5. Data entered was analyzed in terms of percentages, averages and total counts. For Part C of which open-ended items were presented to the respondents, the data was not entered into the software but critically reviewed by writers.

## 2.4 Assumptions and limitations

It was assumed that the respondents were honest in answering all the items in the questionnaires. The writer also assumed that all the Polytechnics in Malaysia produced graduates with the same characteristics in terms of technical and generic skills. This study only focused towards the Polytechnic graduates that are working in the industrial sector. The population is from the six industries that are willing to cooperate without considering the population from other similar types of industries.

## 3. Results and findings

The questionnaires were given to all the targeted respondents from the six factories. Of all the questionnaires there were 35 set questionnaires were returned. Analysis of data collected were then carried out by computer via the SPSS statistical package.

### 3.1 Respondents demographic data

Based on the results of analysis, it was discovered that all the 35 set of questionnaires were answered by male respondents. This showed that the male dominated the managerial and supervisory position in all the six factories studied. Of all the male respondents, 27 respondents or 77.14% of the respondents were Malays, followed by only five Chinese respondents (14.29%) and three Indian respondents (8.57%).

For respondents' age, it was found that 20 out of all the respondents were over 30 years old and that was more than half of the total respondents. The rest of the respondents were aged between 24 to 29 years old. In terms of qualifications, all of them possess a basic first degree from local or overseas institutions. This showed that the respondents in this study were professionals in their respective field. In addition, the analysis showed that 20 respondents had worked for more than four years in their factory. The rest of the respondents were found to have working experience ranging between two to four years.

Of all the respondents, five respondents (or 14.29% of respondents) were managers, seven of them (or 20% of respondents) were human resource officers. Majority of the respondents (65.71%) were engineers, of which are also the direct supervisors of the working Polytechnic graduates studied.

### 3.2 Generic skills of the polytechnic graduates

The generic skills of the polytechnic graduates are shown from the analysis of items in Part B of questionnaires. Sub sections related to human relations, life-long learning, computer literacy, problem solving skills, thinking skills, motivation at work and English language skills were presented in Part B. Each subsections contains several items presented to the respondents where they were required to circle a number from 1 to 5 to indicate their preference.

For items related to human relations, a mean score value of 4.02 was produced from the analysis. This showed that the respondents agreed that the Polytechnic graduates possess the essential human relations skills. From the analysis it was found that a few items produced the highest mean scores of 4.5. These items were related to good personal appearance, good interpersonal relations with supervisor and peers, ability to work in teams and the ability to adapt to the working environment. Items related to the cooperation of graduates in terms of work also produced high mean scores. Among the items, item related to emotional control possessed the lowest mean score (score of 3.9) but the Polytechnic graduates were still considered good in emotional control based on Lendell's mean score interpretation.

Items related with life-long learning in work produced an overall mean score of 4.0. Several items related to the ability to learn new work-related knowledge and the readiness to learn new work-related knowledge produced high mean score of over 4.0. However, items related to willingness to learn new knowledge related to work produced only satisfactory results, with mean score of below 3.8. This shows that the respondents that consists of supervisors of the graduates agreed in general that Polytechnic graduates still lack the motivation and attitude to move on to life-long learning by their own.

Items related to computer literacy produced results with "satisfactory" level. The overall mean score was 3.61. Items related to the usage of computers by the graduates to produce technical report, data processing and work implementation produced higher mean score (3.7) compared to the overall mean score. Items related to the ability to use internet and the usage of computers to improve the workflow produced mean score (3.3) lower than the overall mean score. The analysis of items in computer literacy showed that the Polytechnic

graduates were computer literate but at satisfactory level. The respondents perceived the graduates as not good at computers based on the open-ended responses.

Based on the analysis, the Polytechnic graduates were found good at problem solving skills. The overall mean score was 3.91. The problem stated here were problems related to their work. Items such as the ability to analyze problems and ideas generation produced a fairly good results with mean score over 4.0. However, items related to the experience in solving problems and the responsibility of not to delay the problems produced only satisfactory result, with mean score of below 3.8. In overall, Polytechnic graduates were found still possess problem solving skills but not experienced in dealing with problems.

For thinking skills, a relatively high mean score was obtained from the analysis of data, with a mean score value of 3.8. Items related to the ability to think rationally at work, ability to think swiftly for action plan for problem, ability to think of the best solutions at work and the ability to prioritize work based on importance produced the highest mean score of 4.0. Other items related to the theoretical background of thinking skills, the practice based on thinking skills theory produced relatively low mean score of 3.5. The study showed that the Polytechnic graduates were not exposed to thinking skills at either Polytechnic or the factories they work.

Items related with motivation at work produced an overall mean score of 4.1. On overall, Polytechnic graduates were found to be highly motivated as regarded by their superiors. Based on the data analysis, Polytechnic graduates were found to be able to work without supervision, attentive while doing their work and possess positive attitude at work as all the items related produced high mean score of over 4.0. Other items such as swift action when task is given and the willingness to perform the task given also produced high mean score of over 3.8.

In terms of English language skills, the language skills possessed by the Polytechnic graduates as perceived by the respondents were only at satisfactory level with an overall mean score of 3.24. Items such as the ability to use English in conversation and the usage of English in interpreting and communicating work related information produced mean scores of greater than 3.2. Items related to the use of English in producing proper technical reports were found to have the lowest mean score of below 3.0. This showed that in overall Polytechnic graduates still do not possess a good command of English.

#### 4. Discussion and conclusions

In overall, generic skills of polytechnic graduates at all the industries studied are at a fairly high level based on the perception of the employers. The overall mean score for all the items at Part B is 3.81. From the analysis, the employers perceived that Polytechnic graduates possess the essential human relation skills. The Polytechnic graduates were regarded as good in terms of interpersonal skills and ability to work in teams, but sometimes unable to self control emotionally.

Based on the analysis, Polytechnic graduates were highly motivated employees. However, they still lack the motivation and attitude to move themselves towards life-long learning where most of them were contented with the skills and knowledge they already have. They were not that willing to learn new things related to their work. This situation may have something to do with their working environment of whether extrinsic motivation exist to encourage them to learn, such as rewards or incentives in work of which this study did not cover. However, the analysis of data could be interpreted that their intrinsic motivation was still insufficient to create a boost in their learning interest.

In terms of problem solving skills, employers regards Polytechnic graduates as able to solve work-related problems but still were not experienced in dealing with problems. This resulted in graduates that were not confident in handling problems although they have the ability to do so. In terms of thinking skills, both Polytechnics and the industries did not provide them with the essential knowledge in thinking skills, though they are able to make important decisions at work.

Other essential skills such as computer related skills and English language skills were found to be only in satisfactory level. Most of the Polytechnic graduates do not have a good command of English language and this was significant when writing technical report in English. In terms of computer literacy, their skills were regarded as only at basic level. They were able to perform the usual task given to them with computers but in general they were still regarded as not computer savvy. This supports the statement that the skills training at TVET institutions still fail to equip students with the essential computing and Information Technology (IT) skills [12].

The analysis showed that the working Polytechnic graduates were not readily equipped with all the generic

skills at the level expected by their employers although analysis showed their skills at fairly high level based on overall mean score of 3.81. The result support Dodridge's claim [1] that there exist a gap between what the graduate possess and what is expected by employers. The expectation by the employers is always higher than what the actual generic skill level that the graduate possesses. The result from the study also support Pumphrey's claim[9] that stated there exist a gap between what is possessed by the graduates and the actual performance in terms of language communication skills.

In a nutshell, the working Polytechnic graduates do possess the essential generic skills for employability but their skill level still need to be upgraded in order to meet the demand of their employers. It is suggested that the curriculum design at Polytechnic to be restructured to give emphasis more towards the generic skills. Employers nowadays are seeking graduates with equal competency of technical and generic skills [9]. Therefore, it is suggested that TVET institutions to consider implementing educational strategies such as Problem Based Learning (PBL) to effectively train students with the generic skills they need in their career. Furthermore, TVET institutions also need to emphasize more on computer skills and English language skills in order to produce highly competitive students for the future job market.

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