

## COMPREHENSIVE INDUSTRIAL TRAINING KIT: ENHANCING THE PREPARATION OF INDUSTRIAL TRAINING REPORT AMONG STUDENTS

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### ABSTRACT

*Faculty of Information Management prepares its final semester undergraduate students for the industrial training period of five months, involving 480-hour equivalent work placement, paid or unpaid, located in an approved industrial site, working under the supervision of experienced Information Professionals. During the industrial training period, the students are expected to contribute to the activities of the workplace and to meet the same demands of work production and responsibility expected by the organization of its regular employees. After completion of the industrial training, students are required to present and submit a report regarding activities and projects involved. To date, there are no comprehensive guidelines and standards in the Faculty of Information Management, Universiti Teknologi MARA to assist student's industrial training preparation, presentation and report documentation. Therefore, this study intends to identify the awareness of students towards the existence of industrial training guideline and their expectations. A survey has been conducted on 213 students (131 female, 82 male) from the Bachelor of Information Science (Hons) Information Systems Management (IM245), final year bachelor programme, at the Universiti Teknologi MARA Cawangan Kelantan. The findings show that comprehensive and standardized guideline is needed by the students to guide them in writing a good industrial training report. This study also significantly contributes in producing a comprehensive all-in-one booklet which is known as Industrial Training Kit (IT Kit) that contains all forms and guidelines, including terms and conditions, rules and regulations provided by the Ministry of Higher Education (MOHE) and Faculty of Information Management. This comprehensive training kit could also be used as a guideline to assist various faculties in managing their students' practical training.*

**Keywords:** *industrial training, industrial training guidelines, industrial training kit, employability, Faculty of Information Management*

## 1.0 Introduction

Many Malaysian universities have embedded the subject of industrial training or internship in their academic curriculum as a method to prepare their graduates for better exposure to the real working experiences. Certain amount of credit hours is allocated for this internship course conducted in the end of the academic years or as a sandwich program. Internship benefits all the parties involved – the faculty, the students and the industry.

The faculty or university gets the advantage of having input and feedbacks from the industry pertaining to their relevancy of syllabus with the current industrial trends, and the enhancement needed in the quality of students' knowledge and skills. The students are gaining most of the benefits in obtaining a first-hand experience in the real working situational environment, being exposed to practical skills, improving their social relationships, enhancing their social personality, applying their knowledge and skills gained in the classrooms, and motivating future lifelong learning (Cheong et al., 2014). Employers can also benefit from university internship programs by having the chance to recruit potential and motivated employees that is less expensive than hiring full-time employees. In addition, the good words about the industry or employers spread by the interns can become a good attraction for potential customers or new recruits (Kim, Kim, & Bzullak, 2012).

## 2.0 Industrial Training

Faculty of Information Management, Universiti Teknologi MARA prepares its final semester undergraduate students for the industrial training period of five months, involving 480-hours equivalent work placement, paid or unpaid, located in an approved industrial site, working under the supervision of an experienced Information Professional. During the industrial training, the student is expected to contribute to the activities of the workplace and to meet the same demands of work production and responsibility expected by the organization of its regular employees. This course is relevant to the students' personal career interests as it improves their marketability after graduation (Faculty of Information Management, 2013).

The internship program was outlined to fulfill certain following objectives:

- i. To provide pre-professional work experience with specific assignments and responsibilities.
- ii. To encourage or stimulate a personal career interests, serving as a bridge between university and the industry.
- iii. To encourage students to apply the skills and knowledge gained at the university to benefit the organizations.
- iv. To adapt managerial and technical skills in a library and information environment.

The practical training, internship, or work-related training is being included in the curriculum of certain academic programs to achieve certain objectives laid down by the educational authorities. Universities and colleges in Malaysia are designing their academic curriculum with certain emphasis on practical training in order to ensure realization of eight domains of learning outcomes that consist of knowledge; practical skills; social skills and

responsibilities; values, attitudes and professionalism; communication, leadership, and team skills; problem solving and scientific skills; and managerial and entrepreneurial skills (Malaysian Qualification Agency, 2011).

Maelah et al. (2012) concluded in their study on degree students of Universiti Kebangsaan Malaysia (UKM) that internship program helps to develop various soft skills for students. It includes time management, oral communication and working in group skills. Rodzalan and Saat (2012) reviewed the theories and literatures on the relationship of industrial training to the students' four generic skills - communication skill, teamwork skill, critical thinking and problem solving, and moral and professional ethics. From their review, it has been found that certain degree of development of the generic skills among student will be achieved with industrial training as an intervention among the undergraduate engineering students in public and private universities in Malaysia.

Halabi Hasbullah and Suziah Sulaiman (2002) concluded that through industrial training, the exposure of students to the real working environment increases their level of competency as well as soft skills. Pillai, Mahmud, Ida Syahirah and Raphael (2012) pointed out that from the industrial training, students are ready to be employed in real working environment. However, tasks given during industrial training must be related with the students' field and English and other soft skills competencies should be improved. The study also suggested that ideas and participation from the industries are significant to help them in improving employability.

For the purpose of this study which relates to the bachelor degree students of the faculty, internship is a compulsory for each student from Faculty of Information Management. This opportunity is given for each student in order to provide students with lifelong learning skills, real-life experience being in the industry, and explore their talents while contributing their knowledge to the organizations. Industrial training also opens up career opportunities for the students and increases graduate employability.

Lim, and Muszafarshah Mohd Mustafa (2013) have identified that industrial training contributes in enhancing student's generic skills, English language proficiency, and communication skills. The study also found that the Government-Linked Company (GLC) is more significant in improving communication skills, creativity and analytical skills, time management skills, and group management skills.

Nor'aini Yusof, Siti Nur Fazillah Mohd Fauzi, Nazirah Zainul Abidin, and Hanizam Awang (2013) found that students' personal and core skills level was satisfactory, while process skills level was excellent after completing industrial training. Furthermore, the employers of the industrial training felt that students' overall performance was excellent and they are willing to recruit the students. Nevertheless, they suggested that the students should improve more on personal and core skills such as communication skills to enhance their employability.

The Malaysian Investment Development Authority (MIDA) has reported on 23<sup>rd</sup> April 2015 about its collaboration with the Ministry of Higher Education (MOHE) and Talent Corp Malaysia Bhd (TalentCorp), known as The Industry-Academia Collaboration (IAC). The collaboration was an initiative planned for the electrical and electronics (E&E) field which contains internship programme and industrial training to improve graduate employability. IAC aimed for collaboration between universities, government and industries to develop tertiary education curriculums as well as addressing human force challenges in the E&E field (Chow, 2015). MOHE has also introduced 2u2i programme which is a work-based learning programme to enhance graduate employability. This programme requires students to spend two years in university and two years in the industry (Danial Rahman, 2016).

### **3.0 The Importance of Industrial Training Guidelines**

Universities in Malaysia are providing their students with written guidelines to enable their students putting their feet in the world of work-related environment from the very beginning stage. The guidelines in the form of handbook and manuals should be able to assist their students from the first process of choosing the right institution for internship until they finish the program and graduated from the academic program, and to some extreme, be able to maintain professional relationship with the industry.

Phang et al. (2013) reported that Mohd. Shariff and Saad (2010) had identified some weaknesses in the management of internship in Malaysia were the followings:

- i. Inadequate documentations.
- ii. No procedures and guidelines for industrial training.
- iii. Lack or no documented industrial training syllabus.
- iv. Objectives and its curricular structure are not defined.
- v. Inadequate industrial training evaluation on students and their learning outcomes after completion of training.
- vi. No evaluation on the supervisors and host organizations in the implementation of industrial training.

Renganathan, Karim, and Li (2012) conducted a study on the industrial internship programme at Universiti Teknologi PETRONAS. The study suggested that the various procedures and guidelines for the industrial placement need to be examined by the Student's Industrial Internship Unit (SIIU). Further revisions of the guidelines may ensure not only the smooth running of the programme, but also for a successful and effective internship programme.

Faculty of Information Management is aware of the need to provide industrial training guidelines for the students; therefore, students could access and download guidelines and forms pertaining to industrial training course from a portal, known as i-Learn Portal. However, there are six locations of Faculty of Information Management in Malaysia; Puncak Perdana (Selangor), Machang (Kelantan), Merbok (Kedah), Segamat (Johor), Samarahan (Sarawak) and the latest in Rembau (Negeri Sembilan). Thus, students tend to view guidelines from all campuses which might be differently arranged according to the programme. There are four bachelor degree programmes offered by Faculty of Information Management; Information Systems Management, Library Management, Resource Center Management, and Records Management. This study is focused on the effort to produce a

comprehensive guideline for students from Information Systems Management programme (IM245).

Students have to submit the industrial training report after completing their five months internship period. The report consists of four chapters; Introduction, Organization Information, Industrial Training Activities and Conclusion. The most critical part is in Chapter 3 whereby the students should report in detail all their training activities and 'Special Project'. Special Project can be defined as any suitable project to be proposed to the industrial supervisor and planned to be developed by the students that can be beneficial to the organization. The project should be related to Information Management field.

#### **4.0 Methodology**

This section discusses the methodological issues such as the study's samples, data collection method, and instruments that have been used.

##### **4.1 Samples and data collection method**

Based on previous researches that highlighted on the importance of having a well-understood and well-managed guideline, a survey was conducted to gather feedbacks from students. This is important as an initial step of producing comprehensive guidelines to assist students in preparing their industrial training report. The survey was aimed to identify the students' awareness towards the existence of industrial training guidelines and other documents (forms, rubrics, etc.) provided by the faculty as well as to collect their opinions. The survey involved 213 students from Bachelor of Information Science (Hons.) Information System Management (IM245), Faculty of Information Management, Universiti Teknologi MARA Cawangan Kelantan. The students are from semester seven; consisting of 131 female and 82 male students, who have undergone industrial training programme for five months.

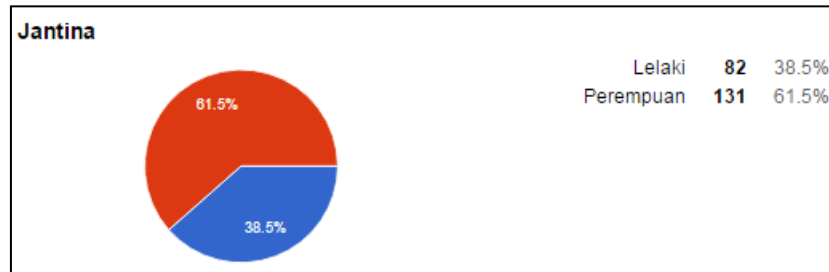
##### **4.2 Instrumentation**

A set of questionnaire was constructed in the Malay language, which consists of four sections; demographic information, students' awareness towards the existence of industrial training and form guidelines, understanding level of report writing, and feedbacks (comments). The instrument was developed using 5-point Likert scale, from 1 for the lowest score (very weak) to 5 for the highest score (very good). The questionnaire was constructed with Google form and the link was shared among students via e-mail and WhatsApp application to enable fast response. The respondents were asked to rate the questionnaire based on their preferences and understanding. However, provision of different guidelines provided by different faculties has put a limitation of the study whereby only IM245 students are covered.

#### **5.0 Finding & Discussion**

Figure 1 indicates the gender of 213 respondents. There were 82 male ('lelaki') respondents represented by 38.5%, and 131 female ('perempuan') respondents represented by 61.5%. Furthermore, Figure 2 shows the semester of industrial training of each respondent which

actually represents the duration of industrial training and completion of the report, altogether with presentation session.



**Figure 1: Gender of the respondents**



**Figure 2: Semester of industrial training**

The result from the second section of the questionnaire which focused on the awareness of the students can be viewed from Figure 3 and Figure 4. Figure 3 shows the awareness level of industrial training guidelines among students. 183 students (85.9%) responded 'Yes' ('Ya'), which means students are aware that there are guidelines available and can be accessed by students. However, there are 30 students (14.1%) who responded 'No' ('Tidak').



**Figure 3: Students' feedback regarding availability of industrial training guidelines**

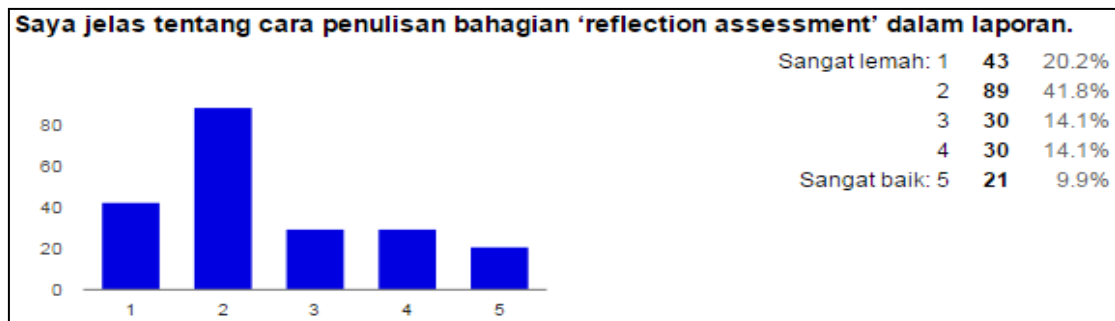
In addition, Figure 4 shows the students' awareness level regarding availability of industrial training forms. 197 students (92.5%) responded 'Yes' ('Ya'), which means students are

aware that there are forms available and can be accessed by students, meanwhile 16 students (7.5%) responded 'No' ('Tidak'). The results of 14.1 % from Figure 3 and 7.5% from Figure 4 who responded 'No' may be the result from students who did not attend the briefing session conducted at the faculty before they go for industrial training. Therefore, these parts of the data have not been used in the study.



**Figure 4: Students' feedback regarding availability of industrial training forms**

Moreover, Figure 5 and Figure 6 indicate the results from the third section of the questionnaire which highlighted on students' feedback regarding the understanding level of report writing method. Figure 5 shows the understanding level of writing 'reflection assessment' section in the report, whereby more than 60% of the respondents did not clearly understand the method of writing for reflection assessment section.



**Figure 5: Students' feedback regarding understanding level of report writing method for 'reflection assessment' section**

On the other hand, Figure 6 shows students' feedback regarding understanding level of report writing method for 'special project' section. There were more than 50% students who did not clearly understand the method of writing for 'special project' section. This result indicates that even though majority of the students responded that they were aware of the existence of industrial training guidelines and forms provided, they did not clearly understand on how they should write and elaborate in their report.

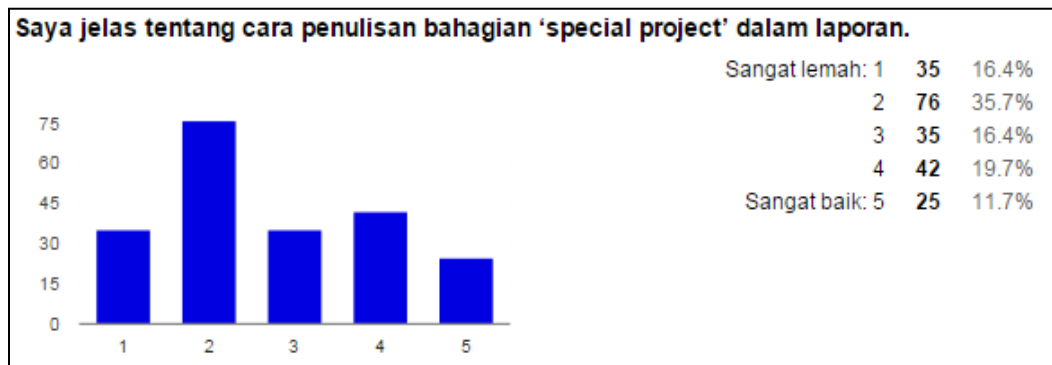


Figure 6: Students' feedback regarding understanding level of report writing method for 'special project' section

Table 1 indicates the feedbacks derived from section 4 of the questionnaire, which contains the comments and opinions from the students towards industrial training. From the result, it was found that students requested for one comprehensive and standardized guideline from the faculty.

Table 1: Student's comments towards industrial training guidelines

Original Comments	Translated Comments	Source
"Saya berharap versi pada setiap borang dan panduan yang dimuatnaik adalah versi terakhir dan terkini sahaja supaya pelajar tidak terkeliru dan tersalah muat turun versi borang-borang & panduan tersebut".	"I hope that only the latest version of guidelines and forms are uploaded (into i-Learn portal), so that students are not confused with various versions of guidelines and forms."	<b>Student from semester Mac 2016 - July 2016</b>
"Harap dapat standardkan format-format guidance."	"I hope that the format of guidelines could be standardized".	<b>Student from semester September 2015 - January 2016</b>
"Perlu lebih penekanan kepada student supaya merujuk panduan handbook industrial training dan memahami semua yang tercatat. Rujukan daripada pelajar semester lepas itu perlu tetapi sebagai rujukan yang diberi pada pelajar sebelum latihan industri bermula. Supaya pelajar faham apa yang	"The enforcement of industrial training guidelines usage must be strengthen so that students refer to it and understand the contents. Students may need previous industrial training reports as reference, however, the guidelines are utmost important as a reference before	<b>Student from semester Mac 2016 - July 2016</b>



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perlu ada.”	industrial training started, thus, students could understand all requirements.”	
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## 6.0 The Development of Industrial Training Kit

Due to the findings, an innovation team, IM-Vative from the Faculty of Information Management, Universiti Teknologi MARA Cawangan Kelantan has taken an initiative to produce and compile all guidelines and forms pertaining to industrial training into one comprehensive booklet, known as Industrial Training Kit (IT Kit).

The IT Kit provides several features which are as follows:

1. Comprehensive all-in-one booklet; contains all forms and guidelines, including terms and conditions, rules and regulations provided by the Ministry of Higher Education (MOHE) and Faculty of Information Management.
2. Easy to use; guidelines and forms are arranged according to 'before', 'during' and 'after' industrial training, of which students will be aware of what they should prepare for each stage.
3. Checklist; students are provided with a checklist, therefore it will be easy to see their progress.
4. Using the English language; Universiti Teknologi MARA uses the English language as the main platform for teaching and learning. This could avoid confusion of terms and words in multiple languages, as well as in-line with current implementation in the university.
5. Cheap and affordable; the price for the kit is only RM 10. While the faculty is trying to put an effort on income generation, students could also benefit from the comprehensive contents of the kit.



**Figure 7 : Industrial Training Kit (IT Kit)**

## 7.0 Conclusion and Future Recommendation

This paper discusses the need for producing a comprehensive guideline for students attending industrial training. The Faculty of Information Management, Universiti Teknologi MARA Cawangan Kelantan has taken the effort to improve the quality of industrial training report to be submitted by the students at the end of their training period. A comprehensive, informative and standardized Industrial Training Kit may increase the students' compliance to the report submission dateline. The report, as well, represents the portfolio containing proof of tasks completed by the student during industrial training. Furthermore, it will provide a new standard of operating procedure for both students and the supervising lecturers – students are being more guided in their report writing, whereas the lecturers are at ease in grading the report. This can ensure better quality of industrial report being produced by the students. Nevertheless, the effort should not end by only producing IT Kit, but a study should be followed in the future to identify the effectiveness of the kit.

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