

## **INDUSTRIAL DESIGN STUDENTS AND EMPLOYER'S PERCEPTIONS TOWARDS INDUSTRIAL TRAINING**

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**Abstract:** Industrial training is very important in assessing the ability of the student particularly with respect to the variations in training practices and attitudes across national cultures (Wahlstrom, Seashore-Louis, Leithwood, & Anderson, 2010)<sup>1</sup>. The purpose of industrial training is to familiarizing students with the current situation at workplace. The other purposes of Industrial Training courses in universities is to produce graduates which is capable of applying their basic and specific knowledge they acquired at the university to the real work, capable of discharging their work and responsibilities efficiently, capable of working in a group and of assuming leadership, capable of doing administrative work and management with a keen interest to learn something new continuously, capable of effective communication and endowed with good professional ethics and a sense of responsibility (Nasir et al., 2012)<sup>2</sup>. There is an idea stated that the businesses, industries and the academia must work together and cooperate to provide more real world opportunities for students to be trained, develop and ready for the job market (Department for Work and Pensions, 2012)<sup>3</sup>.

### **INTRODUCTION**

To ensure that a students' education can compete to the challenges that emerge in the working environment, many have argued that it starts with graduates from various disciplines being trained to be independent, critical in their thinking, possess intellectual skills, and be effective and efficient in their performance (Yusof & Fauzi, 2013)<sup>4</sup>. To produce these quality graduates, there is a need for mutual understanding between the university and industry. The collaboration that is achieved in the industrial training program is important because it exposes students to the technology implemented in the industry, and also by helping the students learn from experience and relate their classroom learning to workplace activities (Yusof & Fauzi, 2013)<sup>4</sup>.

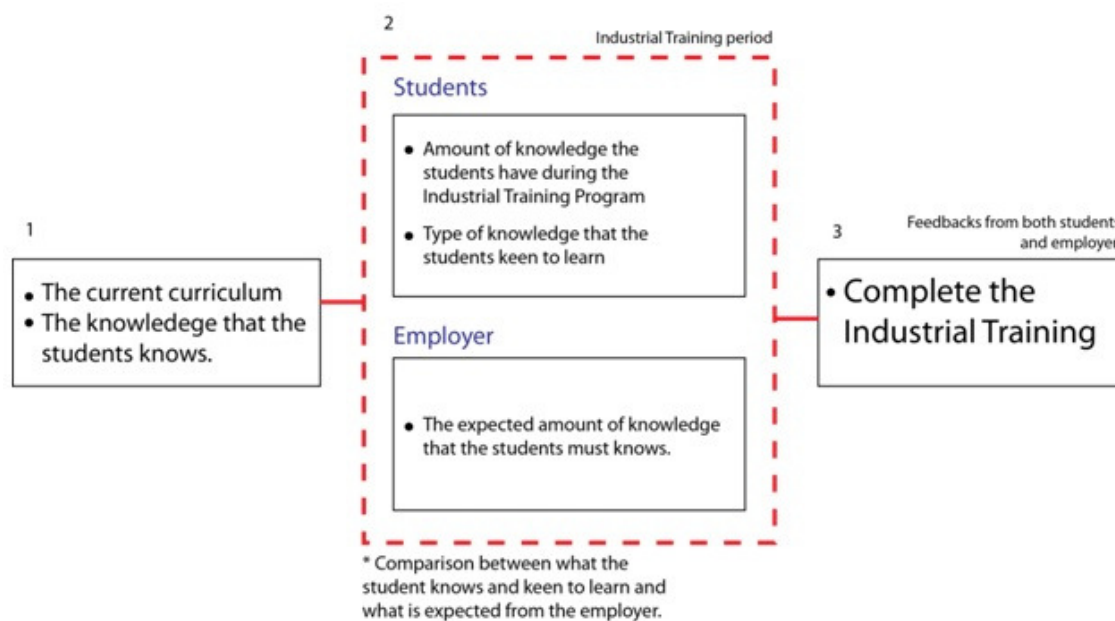
## **2.0 Problem Background**

There is no clear justification or order for any private company to reserve a placement for universities students doing training; they just did it as one of the social responsibilities. The problems occur when the industry does not have a clear justification what is the output needed as well as the filling input during the training period. There is no clear problem having by the big organization where they actually have their own training program or syllabus for the students coming doing internships, but the problem occurs for the small SME's organization whereby they will create their own output for the students. The major problems why some organizations refuse to offer a placement for students is there is a problem at the curriculum design which for them does not fit the need of their company (Bardan, 2010)<sup>5</sup>. It is clear that there is a need for close collaboration between the university and industry in order to achieve the goal for this industrial training program (Yusof & Fauzi, 2013)<sup>4</sup>.

## **3.0 Key Objective**

There is no clear justification or order for any private company to reserve a placement for universities students doing training, they just did it as one of the social responsibilities. The problems occur when the industry does not have a clear justification what is the output needed as well as the filling input during the training period. There is no clear problem having by the big organization where they actually have their own training program or syllabus for the students coming doing internships, but the problem occurs for the small SME's organization whereby they will create their own output for the students. The major problems why some organizations refuse to offer a placement for students is there is a problem at the curriculum design which for them does not fit the need of their company (Bardan, 2010)<sup>5</sup>. It is clear that there is a need for close collaboration between the university and industry in order to achieve the goal for this industrial training program (Yusof & Fauzi, 2013)<sup>4</sup>.

## 4.0 Research Framework



**Plate 1:** Research framework in order to obtain the perception from both students and employers

## 5.0 Approaches and Methodology

### 5.1 Approach and design

The information was gathered from participants through a questionnaire and interviews, which was developed to collect the supplementary demographic and industrial training experiences from the participant.

### 5.2 Limitations

While the questionnaire is the tools used for this first stage of research, it is actually hard to get feedback from the students while they are currently doing their training and for the diploma students, they are on leaves. It is actually quite difficult to get the company to be interviews as there is a limited of time to do so.

This survey sample is not intended to be the most accurate representation of the broader student populations attending this industrial design courses. And for this reason, the views expressed by the participants should not be assumed to reflect, or represent those all of industrial design students in Malaysia. The focus group are also containing some biases whereby there are students doing training in the right company, some quite significant or related to their studies and some doing out of the design background but still in the art & design fields. While this group experienced issues that are common with other industrial

design students (because there are other students from other institutions doing training there), the data will cover wide range of students that doing training in this field.

## **6.0 Analysis and Discussions**

### **6.1 Placement Area**

From the questionnaire given, 65.7% students were first-degree students and the other 34.3% is diploma students. Currently only 71.8% degree students and 48% of diploma students participate in answering this questionnaire. This is due to the limited of time making it difficult for them to contribute more in this survey. It is interesting when we look into the area of student placement whereby, most of the students doing their training at the eastern region of peninsular Malaysia by percentage of 45.7%, followed by the western region (KL, Klang Valley, Selangor & Perak) 34.3%. This was a proof stated by some host organizations that, the students most fully tend to look from industrial training placement which is closest to their hometown (Perjumpaan UniSZA dan Rakan Industri, Mac 2014). In industrial design area, most of the industry normally placed around Kuala Lumpur and Klang Valley because it is the center of this country. Only small companies like SME have operated at the other region such as northern, southern and eastern region.

### **6.2 Area of training**

Internship or 'Industrial Training' is often called a 'bridge' from the normal classroom to workplace. By doing training, it is a medium to test skills, interest and career choices in real work situations while obtaining an edge on 'inexperienced' job market competitors (Neuman, 1999)<sup>6</sup>. It is important for the students to choose the most related host organizations in order to do their training, as it is huge to guide them about the norm or nature of their study at the end of the day. For some, it is just to complete their university study but still, most students see industrial training as an opportunity to network, to learn new fields or gain work experience (Seymore II & Higham, 1996)<sup>7</sup>. It is not an optional enhancement to their record in academics or classrooms, but collegiately essential experience component (Management & Uni, 2002)<sup>8</sup>.

We can see that the amount of students pursuing their training in the real industrial design company is high giving 38.3% in the total of students (another 2.1% doing model making and it is IDE as well). It is good to see that the placement is still in the right place but we can see also that the amount of students doing training at the similar design field is quite high too (Advertising 21.3%, Photography & Digital Media 12.8%, Digital Imaging & Printing 14.9%). For the past 5 years, the interior design field attracts lots of students doing their

training there as it holds a high percentage too (12.8%). Interior Design Company also was among the highest other design fields that were hiring industrial design students for the past 5 years.

### 6.3 Decision making

As been stated by the government policies, the students are allowed to choose their own preferred industrial training placement (Kementerian Pelajaran Malaysia, 2010)<sup>9</sup>. It is quite interesting when we see the feedback given by students, seeing that, the students are more confident in choosing their own placement given, 51.4% saying they choose their placement themselves. Still, the student nowadays quite depends on the lecturers in finding their own placement stating that 31.4% is recommended by the lecturers.

There is something unique to be discussing about the students who chose their placement themselves. Their decision sometimes influence by some outcomes that participants perceived to be associated with different subject areas, which they are trying to explore, within the range of their abilities ("Student Choice and Student Experience: The Views of Selected New Zealand Tertiary Students," 2009)<sup>10</sup>. These included first, **the change of career and progression**. There are some students trying to adapt a new discipline for two reasons which is; 1. The course attended was not their choice, 2. They want to vary their abilities making them well marketed outside. Said that, their choice of study for some individuals was made after they were experiencing the scenario themselves and confirming their interest during the training. From their perspective, by changing to quite different discipline, it will enhance their abilities. Second, the choice made by seeing the **employment opportunities**. These students tend to seek a placement where they can be adopted as permanent workers at the host organization as soon as they finished their industrial training by creating a great repo with them, the potential employment opportunities upon graduation. What we are trying to avoid here is, there is a problem with the students when they refuse to continue their studies after finishing the industrial training, so they did not finish their studies and they were not graduated. There are also issues regarding **financials**. The students tend to choose a placement where they provide a hostel or any other privileges. As we know, the students has limited amount of money to spend so they prefer to save as much as they can.

It is different for the students that clearly understand the meaning of learning whereby they should get a lot from something they did no matter how hard it is. Some causes the type of placement for this kind of students is maybe the interest and passion towards their field of studies, love to learn and a commitment to what they are paying for which is the place in the

institutions (“Student Choice and Student Experience : The Views of Selected New Zealand Tertiary Students,” 2009)<sup>10</sup>.

The latest assessment towards the practical students said that, the students have remarkably passed all of the assessments towards their commitment, work quality, effort, communication skills, comprehension of work, self-confidence, and technical skills. There is no doubt that the students can choose their placement themselves and did well during their training. But the same issues appear like what happened in the other institutions that the students need to improve on their work quality, communication skills and effort (Yusof & Fauzi, 2013)<sup>4</sup>.

#### **6.4 Curriculum Design**

This is massive when we are going to look back into the curriculum design. We can see the related work done by the students during their training. The designing processes or design work weighted at average 3.67 from 5 which is the highest following by management in design (controlling the design processes), prototyping, handling a design project and lastly the accounting which lead to the entrepreneurships. We can see that the curriculum design for this subjects fully load with a foundation subjects which did not apply the most during the real work situation. Compares to the other institutions which offering the same courses such as UiTM, they prefer to inject more design approach towards their curriculum, making the students learn a variety of knowledge specifically related to this field.

For example, the students here teach a specific account subject which at first we hope that the students can learn how to handle their own account, managing funds for their future self-owned business that hopefully lead to the entrepreneurships. Actually, this kind of subjects can be embedded into the other subject, making it more related towards design, for example the subject ‘Design Marketing’.

The respondent has answered the detail subjects that need to be improved. CAD, CAID, and graphic software subjects scores a high percentage with 34.1%, making it the most used knowledge during training. It will then follow by ‘Studio Project’ courses, which scores 22.0%. It is related to what have been stated by several major companies that the students need to be prepared with high and updated knowledge towards the development of new softwares. This is to make them ready to compete with the outside world which developing every day (Dialog Rakan Industri UniSZA, 2014).

We also can see the important of studio projects for the students to learn. In the existing curriculum design, the studio projects only starts at semester 4 for degree students and they will go for their training in semester 6, causing them to not be familiar enough with the

design projects. This is different compared to other institutions that offer the same courses whereby the studio classes started as early as semester 2.

### **6.5 Students perception towards their abilities**

The abilities of students often assessed based on the assessment marking form from the employer and the institutions. Most of the time, like other institutions, the students' scores their industrial training remarkably, as stated by their employer that they are satisfied with the student's current performances (Osman et al., 2013)<sup>11</sup>. Stated by this paper, most of the employer on the other side, dissatisfied with the student's leadership abilities, which is the same respond getting here that the score for the student's ability to work independently weighted at average 3.12 from 5 which is fair.

From their ability in handling work task, the time management is a serious matter to look into. It was back then referring to the curriculum design where the students are actually didn't familiar enough with the actual design processes and work independently in achieving the assignment's goals.

### **7.0 Conclusion and recommendations**

The industrial design department needs to look back in revising their curriculum designing order to meet the requirement for the students and making them ready for the industrial training. The department should regularly meet to ensure smooth organization of the program, ensuring the most related placement in the industry (Jamaluddin et al., 2013)<sup>12</sup>.

#### **7.1 Curriculum design**

The curriculum design should look into injecting more the design knowledge, which mostly applied during real work situations. Subject such as CAD, CAID, graphic software and studio projects need to be developed more and placed earlier in the semester in order to make the students ready to use this knowledge during training. Soft skills related subjects also need to be look into in order to build self-independent personality inside the students.

#### **7.2 University-Industry collaboration**

The institutions and the host organization need to have a close collaboration and clear mutual understanding in order to achieve the goal of this industrial training program (Yusof & Fauzi, 2013)<sup>4</sup>. This mutual understanding will then guide our students to have a better experience in their training and developing their hard and soft skills. Based on that, together with knowledge and an ability to learn, will help graduates compete and succeed in the working environment in the future (Maher & Graves, 2007).

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