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# CONTINUAL IMPROVEMENT IN OUTCOME-BASED EDUCATION (OBE) FOR INDUSTRIAL PRACTICUM TRAINING PROGRAM

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## ABSTRACT

*This paper aims to share the findings and continual improvements made to the curricular structure on industrial practicum training program in the Faculty of Business Management of a local public university based on a study carried out in 2005 – 2006. A total of 103 practicum students (25%) responded to a quantitative survey using a 5-point Likert scale to determine the practicum training effectiveness; followed by in-depth interviews on twelve purposive-selected trainees. Findings showed that the factors that make the industrial practicum training effective were: host organizations, roles of facilitators, roles of trainees and the training-learning curriculum in the practicum. The scope of study encompassed final semester business management students who had completed practicum attachments in various industries from multinational companies, national and local small-medium enterprises. The practical implications of this study resulted in a change of curriculum structure for practicum programs, improved administration and practicum evaluations on the students, and enhanced the university-industrial linkages.*

*Keywords: Industrial training, practicum, curricular development, learning*

*Paper Type: Research Paper*

## Introduction

Malaysia is progressing fast to become an industrialized nation by 2020. There is growing demand for trained and competent workforce in the job market but yet there are unemployed graduates that seemed not able to fill up these vacancies. Many research and publications have indicated lack of trainings and lack of skills of the graduates hinder them from securing job opportunities. The nationwide survey carried out in 2004 – 2005 by Malaysian Economic Planning Unit on 59,315 unemployed graduates reported 24,619 (42%) were not working and 60% stated they had no working experience (MTEN Report, 2006). Employers are demanding for experienced, competent, skilled candidates but on the other hand fresh graduates lack job exposure and no work experiences. Hence, many institutions of higher learning in the country are competing to produce skilful graduates that are able to fulfil the job market requirements by providing finishing school programs, students' development programs and revised academic programs curricular structures towards developing students' psychomotor and affective skills. Additionally, the government, corporations and private bodies are also competing by offering programs such as graduate development schemes, management trainees programs, entrepreneurship programs to provide fresh graduates with job knowledge and skills.

As for institutions of higher learning, the industrial practicum training programs provides the platform and opportunity for students to be exposed to the industry and real business world to acquire work experiences, job knowledge and skills at the work places. Each faculty has its own educational program plan that aims to produce quality graduates. Some faculties offer academic programs with industrial training as part of the curricular structure, while some do not. Most industrial training is often slotted in the final semester of an academic program, and others are being structured in the middle of the

study. Practical training is synonymous with practicum or industrial training attachment and shall be used interchangeably hereafter throughout this write up.

The Faculty of Business Management of this local public university in Malaysia had four degree programs out of ten that required mandatory industrial attachment in the year 2005, mainly: Insurance, Marketing, Retail and Operations Management. The objective of industrial training then was to provide practical experience for the students and students were expected to pursue in depth, synthesize and apply the knowledge learnt in the class (Faculty of Business Management Academic Program Curriculum requirements, UiTM, 2004). Final semester students were required to seek for their own placement in organizations for a twelve week industrial attachment in the industry. Each respective Head of Program coordinated the practicum administration, practicum advisors and the students. The faculty presumed that organizations in the industry provide opportunities for the students to gain experience and job exposure. The practicum was allocated twelve credit hours and graded together with the student's project paper before the students graduated from the academic program. No study has ever been carried out to ascertain the adequacy and effectiveness of this practicum program for the students for past many years.

This study was initiated based on problems raised such as inadequate documentations, no procedures and guidelines for practicum training, lack or no documented practicum syllabus, the scope of practicum, objectives and its curricular structure were not defined, inadequate practicum evaluation on students and their learning outcomes after completion of training, and no evaluation on the supervisors and host organizations. Hence, a survey study was carried out in this faculty in 2005-2006 with an approved grant with the university. The main objective of this study was to determine whether the industrial training program was effective, and to evaluate students' learning outcomes from the trainee's perspectives. The research questions were: 1) What makes industrial practicum training program effective? 2) To what extent are the trainees' learning outcomes upon completion of industrial training? An additional study adopting a qualitative design approach using in-depth interview technique on twelve purposively-selected practicum trainees was also carried out throughout in end of 2006 and 2007 to elicit more descriptive information on students' learning perceptions and experiences in practicum training. These informants were selected based on a set of criteria such as immediate employment with the same host organization at the end of training.

In 2006, an extensive curriculum review was carried out for all academic Business Management programs, and findings of this study were incorporated into the new practicum curricular structure. The first cohort of practicum students using this new practicum structure commenced in December 2008. This paper aimed to share the Faculty of Business Management's journey and experience on the continual improvement made in the practicum training program towards outcome-based education with defined learning outcomes towards producing skilful and employable business management graduates. Significant improvement was also achieved where students received timely practicum placements, host organizations and the institutions benefitted from the programs through centralized coordination and control and comprehensive evaluations of all related parties towards effective practicum program

## **Literature review**

### **Job Market Expectation**

There has been demand and high market expectation on quality of university graduates. Prospective employers are not only expecting high grades, their preferences are now towards candidates that exhibit excellent personal qualities, good mastery of language, in particular English language, possess good communication and leadership skills. Universities today generate business graduates who are hardly trained in business operations. Graduates perceived a compartmentalized view on business as subjects and the curricular were taught in an unconnected or unsynergistic manner (Singaraju, 2004). Local institutions of higher learning should attempt developing programmes that match future skills and knowledge requirements for businesses moving into the 21<sup>st</sup> century with integrative learning processes that not only emphasizing on functional skills (academic) but also inculcating communication skills, the ability to learn continuously or life-long learning and operational skills among graduates.

### **The Gap**

Today's competitive business environment places demands on graduates that cannot often be provided within the academia. Formal education is no longer sufficient to guarantee one's future and success. Universities can no longer rest on their laurels in producing high number of graduates but instead to strategize in breeding new genre of superb and calibre graduates that satisfy job market needs and requirements. All institutes of higher learning are required to intensify efforts to upgrade and identify critical focus areas by producing critical thinking graduates who are marketable and to gain international recognition (UILC News, 2004). Business and education must cooperate to create more real world opportunities for students. Employers and academic researchers have identified a major gap between corporate needs and graduates skills that shows that graduates have little real world experience and need to practice communication and problem solving skills.

Graduates need opportunities to work in teams to develop initiative, persistence and integrity (Neumann and Banghart, 2001). There is a need for both university training (for disciplinary knowledge) and on the job training (for practical knowledge) and that neither of these is sufficient on its own. It is necessary to incorporate exposure of the work place into the university context; "there is a need to help students move from the general (book knowledge, theories, abstractions) to the particular (real clients, real work place) as they move from the university to actual practice situations. The knowledge acquired at the university acts as a principled foundation for the practical knowledge and practice at the work place; hence there is a genuine need for collaboration between university and the industry (Maistre and Pare, 2004). Academic prepares a person with knowledge to prove their ability academically for his world of works; it is the OJT that prepares him for the practical world. Well trained individuals know the scope, expectations and depth of their jobs and will be able to add building blocks to their competencies and skills as they progress through their careers (Jain, 1999). Hence, it is imperative for higher educational institutions to inculcate skills that bridge the training gap between education and employability for graduates (Lope Pihie, Abd. Hamid, Mahyuddin, 2005).

### **Industrial Practicum Training**

Higher education students should undergo practical training in the private sector so that they acquired practical work experience (MOHE Report,2006). Through industrial attachment, it can narrow the gap between the needs and expectations of the business world. Thus, the content and requirements to create a practical program needs cooperative efforts from students, faculty members and people from the industry (Smith, 2000). Industrial training is a planned effort by an organization to facilitate employees' learning of job related competencies: knowledge, skills or behaviours that are critical for successful job performance. Industrial training may span across on the job (OJT), off job training, informal and non formal and competency training. From human resource development perspective, industrial training emphasizes on job focus and the human itself. It is application driven and aims to impart skills that are useful immediately in particular applications at work or real life situations. It serves to develop a person towards some form of positive growth that embraces the realities of environment, as well as to achieve organizational goals and objectives and actualization of inner reality of emerging self (Knowles, Holton, Swanson, 1998).In industrial training, trainees are expected to be actively involved in learning that include doing authentic tasks and carrying out work activities, jobs or specific assignments, solving problems and working together with the people in the organization (Billet, 2000).

### **Factors for an Effective Industrial Practicum**

Empirical research done on business school graduates revealed that those with internship experience tend to be hired more quickly; and they tend to receive higher starting salary and reported greater job satisfaction than their non internship counterparts (Knemeyer and Murphy, 2002). Students have high expectations from practical learning; hence business programs must be proactive in managing and providing relevant field experiences for their students (Lope Pihe, *et al*, 2005). Based on literatures, there exist common elements that constitute an effective training program: roles of a good facilitator, trainees'

characteristics, training objectives, the training program (OJT), authentic tasks and activities, problem solving, social context and culture, work environment, feedback and a good evaluation system.

### **Host Organization and Facilitator**

Universities and the private sector can enhance the employability of graduates through internship and providing work experience; hence institutions should redefine their roles to produce employable graduates through effective collaboration with the industry (Singh, 2005). The key role of the facilitator or supervisor is to structure the learning experiences and activities for the trainee so that optimal understanding and acquisition of information takes place (Cornford and Athanasou, 1995). A good facilitator maintains good interpersonal relationships with trainees, communicates clearly and provide constructive feedback, demonstrates mastery of range of teaching skills, reveals mastery of theory and skills being taught, motivates trainees, and aware of limitations and possibilities of the learner at different stages of skills and learning process.

### **Trainees**

Trainees need to be self driven and proactive, learn from others, seek assistance and information, socialize and interact, and self directed. Trainees should predispose themselves towards taking primary responsibility for their own learning and have a positive concept and readiness to learn (Merriam and Caffarella, 2008). Through internship, companies and trainees learn about each other (Knemeyer and Murphy, 2002). A trainee engages in three main learning tasks as an entrant into a new organization: learning in OJT, social learning and informal learning (Knowles, Holton and Swanson, 1998). The trainee's characteristics such as motivation-related constructs (motivation to learn and transfer learning) and ability constructs (knowledge acquisition, situation identification and personal capacity to transfer) or self efficacy affect training effectiveness (Lau, Suandi, Ahmad, et al, 2006).

### **Practicum Training**

Objective is an intended result of an educational activity or desired accomplishments which may be known prior to the activity or emerge while it is occurring or perceived subsequently (Houle, 1972). Setting objectives of a program depend on the milieu, the nature of the work, the aspirations, the motives, the content and the framework itself. An effective training program has these criteria: defined needs, defined objectives, learning experiences that meet these objectives, organizing learning experiences into a plan, and evaluating the outcomes. An effective learning results when 1) the program is based on the needs of learners, 2) these needs form the basis of educational objectives, 3) knowledge is external to the learners, 4) objectives are the basis for organizing learning experiences, 5) the emphasis of learning effort is on the individual learner (Tyler, 1949). OJT is effective when it is contributed by three clusters of factors, namely: the trainee, the training and the work place (Klink and Streumer, 2002). Cornford and Athanasou (1995) revealed that an effective training occurs within a specific, natural workplace where there are clearly visible models of applications involving theory, skills and attitudes. For effective learning to occur, trainees need to be exposed to levels of difficulties that commensurate with their understanding; opportunities for practice beyond a mere demonstration of competency and mastery level; trainees are exposed to situations with examples of incorrect skills applications and errors in process application available as negative examples, and work load. Abdul Yazid and Muhamad (1998) described an effective training program comprised of eight factors: 1) clear objectives, 2) motivation 3) suitable learning experience, 4) guidance and coaching, 5) learning transfer, 6) monitor and feedback, 7) conducive training place and 8) organizational commitment.

### **Learning**

Learning involves change that enables the individual to make both personal and social adjustments. Learning process is not a single event; it involves understanding and is essentially a humanistic process (Jarvis, 1995). People learn from observation, observing others (Merriam and Caffarella, 2008). Observational learning is closely associated to social learning, learning how to relate to the others for

carrying out tasks for mutual benefits (Knowles, Holton and Swanson, 1998). Listening to others at the work place is one of the effective contributors towards work place learning (Billet, 2000). Participating in everyday activities in the work place is a rich source of learning the knowledge required for completing the tasks (Billet, 2000). Participation in everyday work activities, observing and listening to others are components of the learning curriculum at the work place. Engaging in problem solving activities is central to the cognitive development of an individual. The more routine tasks will provide learning through reinforcement that strengthen the existing knowledge and enhances the confidence with means to proceed with the next tasks (Knemeyer and Murphy, 2002). "Experience is always the starting point of an educational process; it is never the result" (Dewey, 1938). Learning is where knowledge is created through transformation of experience (Kolb, 1984); resulting in actions in decision making, taking initiatives, practicing, solving problems and influencing others.

### **Learning Outcomes**

An effective training resulted when a trainee is able to perform tasks with adequate knowledge and skills required to do the job through application of what he has understood in the training and learning process. It is the application of what he has learnt through the training at the work place, meaning they are able to construct their knowledge and skills which interact with the physical and social context. An effective training often resulted in an observable improved performance, morale and loyalty of the trainees to the organization, and the attainment of organizational targets and objectives (Noe, 2006; Tennant, Boonkrong and Roberts, 2002; Mulder, 2001).

### **Training Evaluation**

An effective training must have value for the organization, the institution and the trainee. Training evaluation emphasizes on the total value of training, in the form of cost benefits and general outcomes such as the value of the improved performances of the training participant (Lewis and Thorhill, 1994). Evaluation process completes the cycle of training; it is the key role of quality control on the training by assessing and providing feedback on the effectiveness of training, the achievement of the objectives set by both trainer and trainees, and whether it satisfy the needs of the related parties, both organizational and individual (Noe, 2006; Kirkpartrick, 1998; Bramley, 1991).

### **Methodology**

The study adopted a quantitative survey approach where the questionnaires were distributed through the heads of programs for their practicum students upon completion of practicum in 2006. The questionnaires consisted of sections comprising of demographic profile, host organization, facilitators, practicum training, learning outcomes: knowledge, skills and personal development, project paper, evaluation and sections for feedback on the practicum, host organization, practicum and advisors. In early 2007, interviews were carried out twelve-purposely selected trainees using snow-balling technique, three to four months after the practicum. The in-depth interviews using semi-structured questions were recorded and transcribed to extract themes and detailed experiences to provide detailed understanding on the nature of tasks, jobs, social context and experiences of each trainee. The duration of this study took two years to complete by end of 2007.

### **Findings and discussions**

A total of 103 respondents (25%) responded to the survey carried out in two semesters with 80 female students (77%) and 23 male students (23%) with the following breakdown by programs: BM224 Operations Management (52%), BM220 Marketing (23%), BM221 Insurance (15%), BM226 International Business (6%), BM216 Transport (4%). Thirty-two percent of the respondents received only one placement offer despite sending in minimum of six applications, 29% received more than 2 offers and 27% consulted the faculty for assistance. Only 10% of the respondents took the initiatives to consult and follow up with the organization for practicum placement. Through the interview, trainees highlighted the

difficulty to secure practicum placement in the organization. This finding concurred with Nordin, Ismail, Mohamad, *et al* (2005) securing an industrial training place was problematic. Total of 80% of the trainees did their practicum in organizations in the industry and 20% in government agencies. Seventy-one percent of host organization did not provide written training schedule for the trainees, and 69% provided orientation or briefings on the first few days upon reporting duty. Some of the major findings of the study are tabulated below.

Table 1: Some of the Main Results on Practicum Training Study, 2005 – 2006

Organization	Mean Score	Std. Dev.
The management was willing to share information.	3.81	0.62
The management treated me like their employees.	3.97	0.61
I received good cooperation from the organization.	<b>4.00</b>	0.66
The industrial training provided is meaningful to me.	<b>4.16</b>	0.59
<b>Supervisor</b>		
My supervisor explained the training objectives.	3.87	0.82
My supervisor spared his time to explain how the tasks are to be carried out.	<b>4.07</b>	0.68
I was motivated by my supervisor during the training.	<b>4.04</b>	0.71
<b>Knowledge outcomes</b>		
I learnt about the product, services and organization.	<b>4.13</b>	0.62
I learnt the operations and activities in the organization.	<b>4.08</b>	0.65
<b>Behavioural skills outcomes</b>		
I can deliver the tasks and responsibilities.	<b>4.03</b>	0.47
I am able to handle tasks and assignments given to me.	<b>4.00</b>	0.57
My computer application skills have improved.	3.91	0.76
<b>Attitudinal outcomes</b>		
I learnt much through my supervisor.	3.89	0.62
I learnt much from other people's experiences.	<b>4.04</b>	0.65
I have benefited from this training for my future career.	<b>4.03</b>	0.65
<b>Feedback</b>		
I have benefited from this training.	24%	<b>76.%</b>
The project paper benefits me in understanding the operations.	21%	<b>79%</b>

Likert Scale: 1= Strongly Disagree, 2 = Disagree, 3= Neither, 4 = Agree, 5 = Strongly Agree

The in depth interviews were carried out four months after the practicum ended. Informant *Ridwan* (*pseudonym used*) was given real tasks as a store supervisor in a plastic injection company; while *Jenny and Fizah* were materials planners in automobile manufacturing. *Nana and Anwar* were involved in ISO documentations for a rubber manufacturing company and air logistics; *Raziah* and *Mariam* were attached in human resource departments in a bank and manufacturing respectively. *Jenny* and *Jane* were trained in production planning and control, and *Lily* did her practicum as personal assistant in an automobile distribution center. All informants revealed that they were given real job responsibilities in their organizations. All ten informants were offered jobs by the host organizations soon after completion of the practicum. Following were some verbatim interview excerpts from the informants.

*“There is really no obligation for us to conduct these activities; it is up to the individual to make use of the training. I had friendly discussions with the managers and staff, that actually helped a lot, learning from their experiences.”* quoted Raziah.

*“In the manpower audit assignment, the HR executive did hers ...I did mine. After audit, we would discuss and do the report together. That’s something good ...this was what I learn; there are times where they didn’t guide you. They expect university graduates can do on our own”* quoted Mariam.

*“Even though we’re in Training department, the manager told us to take this opportunity to go to other Divisions to gain more information. We were guided on how to benchmark; we also observed how the managers interviewed job candidates. It was an opportunity; it benefited me... It was very interesting because you can see how people behave...I improved myself, I also learn to organize things, actually it was related to what I am doing in my work now; ... I really learn from that experiences”* said Lily.

***“My supervisor normally asked me to do this and that; find out yourself, do the survey, do the data collection myself, then gave it to her. I had to report to her. I went to survey all the departments: what PPE they use, how to use, how to clean; from knowing nothing, now I know how to use, clean the respiratory equipment, the arm guard ...all of that I have do by myself. Of course, how many times I got rejected but lastly, it was OK”*** said Anwar.

*“Industrial training is seriously meaningful for me. Firstly, they give me chance for us to learn everything from A to Z. Everything, where you want to go, you can ask and learn. Even though they do not teach directly, but we can see; we learn from them, how to negotiate, how to trick the customers to accept the offer”* quoted Jenny.

***“When I was in semester 4, I took Logistic subject, we only learn the theory, I don’t really understand logistics. After I had experienced this training, I can apply the knowledge learnt from class. I gained more knowledge and skills in this training. I have more confidence in myself; interact with different people. I learn anger management. You can’t vent out your anger with people. You’ve to be more understanding and flexible. I learnt to communicate with people. It’s totally different in the organization”*** claimed Ridwan.

*“They offered me a job as Production Planner. My supervisor also wants me to work for her, but I have already accepted the Production Planning offer and I took it. The opportunity is here. Situation in learning and situation is working is completely different.* said Fizah.

Feedback and weaknesses were identified in the practicum training program for actions to be taken and continual improvement to enhance the quality of practicum and practicum services to the students. Some of the recommendations were as follows:

- i. The practicum curricular structure needed to be revamped due to lack of documented practicum syllabus; and no practicum guidelines were available for practicum students and host organizations. The practicum objectives and guidelines needed to be established as an operating standard for all parties to comply; defining roles for each respective party, the scope of practicum training, areas and coverage of training, duration of practicum period, credit hours and overall curricular structure for practicum. The practicum structure also needed to define its expected training-learning outcomes of the trainees to fulfill the outcome-based education (OBE) requirements of the Ministry of Higher Education (MOHE Report, 2006).



- ii. The practicum administration needed to improve in provisions for students' placements, liaisons with the industries, a centralized practicum database system, an e- support system for communication, and scheduled advisors' visits to the organizations. Based on trainees' feedback, organizations in the industries looked forward for better rapport and keen interest from the faculty.
- iii. The faculty needed to conduct pre-briefing and post-debrief sessions for practicum students before and after practicum. Pre-briefings provide the mental and physical preparation for students on the practicum requirements and organization expectations. The post sessions provide platforms for intellectual discourse on practicum, sharing problems and feedbacks from the trainees together with the program academic staff and practicum coordinator.
- iv. The practicum evaluation system needed to be improved emphasizing on students' development and learning outcomes. Evaluation should also be done on facilitators, supervisors and the host organization to monitor performances and commitments towards the students and practicum and also as feedback purposes to the industry. This finding was also highlighted in a study by Nordin, Ismail, et al, (2005).
- v. The faculty and host organizations needed to develop a proper system for in-house trainings and certification for practicum training program. Organizations were encouraged to provide some forms of in-house basic training programs for the trainees such as in-house basic safety awareness, ISO or basic quality trainings, so to add values to the trainees. The certification practicum training program would also add added-value in recognition of students' achievements and contributions to the organization as potential testimonials for future employment.

### **Practical Implications**

The Faculty Business Management had made significant continual improvement in the industrial practicum program. In early 2007, the Faculty had set up a centralized Practicum Unit headed by a Practicum Coordinator with assistance from one or two part-time staff. This Unit was given full responsibility to liaise with industries, seeking and securing practicum placements and providing allocations to the students. The practicum administration and quality of practicum service had reduced numerous problems such as redundancy of students' applications to organizations, faster response from industries and fair allocations to all students from various programs and reduced students' anxiety. Standard letters and formats were created, and a centralized database system was set up with the assistance from the Central ICT Department of the university. The numbers of practicum students had increased triple folds in 2009 (estimated six hundred students) due to the increased students' intakes for the past three to four years.

An extensive curriculum review was also carried out for all programs in accordance to the faculty's quality objectives and university directives, and the practicum curricular structure was revamped. Practicum duration was increased from 12 weeks to 20 weeks (5 months). The credit hours were changed from 12 credit hours to 10 credits hours respectively in compliance with the Ministry of Higher Education requirements. Previously, the project paper contributed 85% and practicum 15% to the final cumulative grades. With the new curricular structure, the practicum and project paper were split into two different courses/codes. The practicum was allocated with 10 credit hours, and the project paper allocated with 4 credit hours. The practicum which was graded previously into the Cumulative Grade Points (CGP) was changed to PASS/FAIL based on cumulative evaluation scores from the industry (Report A) and the faculty (Report B); and the project paper is graded into the CGP.

All ten business management programs have now stipulated practicum requirements as compared to four programs previously into the program study plan; the practicum syllabus were improved where the objectives, scope and areas of practicum, roles of host organization, roles of supervisor in the industry, roles of advisors in the faculty and roles of trainees in practicum are clearly defined. The syllabus was

significantly improved to reflect expected training-learning outcomes from the practicum. A guideline book on effective practicum training was published by the researchers in 2008 through the university publication unit (UPENA) to provide tips and guides to maximize training and learning in practicum.

Pre-practicum briefings were now delivered to the students by the Practicum Coordinator. The evaluation system and evaluation formats were improved significantly to assess comprehensively on students, supervisor and host organization performance towards practicum. Upon completion of practicum, students were now called back to the faculty for an exit session to complete a course on finishing school that consists of final lapse of student activities towards job employment such as provisions for jobs interview and readiness for the job market.

### Conclusion

Both organizations and institutions of higher learning need to adopt new perspectives on the industrial training program so as to create values for the practicum program, the trainees as potential graduates and potential workforce and quality of human capital for the country. Strategic efforts must be initiated by the faculty to strengthen the practicum program. Both institutions and organizations have important roles in the industrial training as it involves three interested parties: the trainee, the institution and the host organizations; thus negotiated interest planning approach needs to be considered to serve the needs of these interested parties and to maximize benefits for all.

Industrial training provides informal learning for trainees to develop themselves as an individual young adult. Learning does not limit itself to the learning processes, but also intentional learning (in OJT) and incidental learning through interpersonal interactions at work place, trials and errors and through tasks accomplishments and development of tacit knowledge. Practicum training provides the practical education that supplements formal education and formal learning in the faculty. Hence, a meaningful internship or practicum experience for today's business students is vital for both the institutions and the industry.

The contribution of this study towards theoretical knowledge is the training-learning curriculum that triggers the whole integrated learning system at work place. The training-learning curriculum encompasses training objective, training program, OJT, provisions of authentic tasks, problem solving, social interaction and work values, situational work context and work environment, experiences and reflections during OJT, feedback and evaluation at the work place. Learning also exists in multiple forms in which tacit knowledge are also embedded within the works and the trainees. This study provides practical implications in the conduct of practicum and to make the practicum effective for the students. With this understanding, the faculty and the institution would be able strengthen the industrial linkages with the industry. The institution also needs to keep abreast with technological advancement, developing good management practices and meet the expectations from the organizations in the real working world, and that the programs' academic structures must be at par or relevant to the market and industry needs. This study also provides implications for future research on expectations and perceptions from the industries towards the trainees, the academic programs and the adequacy and relevance of knowledge or skills imparted by the academic staff in teaching and learning and the institutions of higher learning.

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