
IMPACT OF THE WORKPLACES ON THE DESIGN AND DEVELOPMENT OF INFORMATION SCIENCE CURRICULUM : A CASE STUDY OF MAHASARAKHAM UNIVERSITY, THAILAND

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ABSTRACT

Present results from survey research with objective to study the satisfaction level of workplace that accept students from Division of Information Science, Mahasarakham University as apprentice to improve their knowledge and abilities. Population and sample group of this survey research are fifty-five organizations that accepted students as an apprentice during 2011-2012. The returned questionnaire from thirty-seven organizations (67.27%), have been analyzed using basic statistics i.e., percentage, mean and standard deviation. The results shows that the workplaces are highly satisfied with the Information Science students apprentice, with scores in academic section ($\bar{X} = 3.96$), implementation section ($\bar{X} = 4.02$), and personality section ($\bar{X} = 4.32$). This study has shown an interesting point that Library and Information Science institutions nowadays require more from Information Science students than just their field of studies but also those with digital information management for implementational in Institution Repository (IR), Electronic Theses and Dissertations (ETD) and Electronic Publishing. Also, one of the essential skills for Information Science student is English language and communication skill.

KEYWORDS: Practical Training, Information Science, Mahasarakham University, Curriculum, Workplace Practice

Introduction

Practical Training is the process to increase professional capabilities and useful experience for their future career. It assists students to have more understanding in implementation, to improve working skills and abilities according to the need in job market. The students will use theoretical knowledge they gained in actual and practical situation in limited period. Besides this, apprentice program

benefit students in many ways such as creating awareness that they have responsibilities to themselves, their professionals, their institutes and their apprenticeship organizations. Also, it is to practice them to have discipline and responsibilities to their duties and make them able to perform assigned tasks in cooperation with their colleagues and working society. As a result, the apprentice experience will assist the students to realize the actual work environment which can lead to the understanding between themselves and their organizations. More importantly, it is efficiency reinforcement to their working skills in the future.

Apprenticeship is a study system that emphasize on implementation in actual workplaces. By arranging improvement course in the university along with apprentice opportunity that students can implement their skills in workplace. This system will give opportunity to study from actual experience in working operation, coordinate with colleague and improve communication skills which are the qualifications desired by the workplace. At the same time, the workplace also acquire some level of skilled workforce which might assist them in generating new ideas and also help lessen regular employee workload so that they can be more focused on difficult tasks. As for the academic institutions, they can use study result from this system in order to improve the curriculum into more relevant according to the changing needs of the job market. The Faculty members also receive new experiences which help in creating academic cooperation between workplaces and University continuously. So, apprenticeship program is cooperation from all parties concerned to ensure the highest mutual benefits.

Information Science program at Bachelor level in Mahasarakham University has included academic apprenticeship in its syllabus in order to provide the student opportunity to experience professional life. In order to have practical experience in Information Science organization or working unit, and to build understanding and professional improvement, students must behave themselves as apprentice employee of the organization. Students must get training in different positions according to assigned tasks from organization then presents report from apprentice experience. By providing chance to students to have apprentice in workplaces such as library, other information service organizations or the companies whose business involve producing or providing information services not only benefit the students but also the organizations absorbing them. Apprentice period is total of 12 weeks. In academic year 2011 (June 2011- March 2012), a total of 106 students were enrolled in apprentice program in 55 organizations both in Mahasarakham province and other provinces of Thailand.

As for Division of Information Science, Mahasarakham University has conducted entrepreneur satisfaction on apprentice students research in order to improve and adjust the curriculum to ensure

the quality of student that match with job market's need. Also, to conform the policies announced Ministry of Education under National Standard higher education qualification level 2009 which specify quality of graduate and post graduate to be according to learning standard that graduated council has specified. The standard included at least 5 aspects which are 1) Ethics and Morals 2) Knowledge 3) Intelligence Quotient 4) Emotional Quotient and responsibility and 5) Mathematic Analytical, communication and Information Science aspects. As for major study that emphasize on practical skills, they have to increase their standard skill range. By identified desire quality of graduate student in different level in order to set standard for institution of education to use as path to improve course syllabus, teaching method and to improve education quality [3]. As a result, the institute will be able to produce quality graduate for further benefit in guarantee graduate level standard of Thai's educational institutes. So, educational institutes need to set mutual standard of study result in each field in order to create the same goal for them to reach with quality and giving confidence to society in terms of quality and graduate qualification standard that students should be processed after graduated so that they would have admired quality accord with the 5 standard aspect of quality graduated.

Objectives of the Study

This research has objective to study organizations that provide apprenticeship opinion on apprentice students from Information Science program of Mahasarakham University in terms of their knowledge and ability. The research results will be further used in improvement of Information Science curriculum in Bachelor's Degree of Mahasarakham University, Thailand.

Methodology of the Study

This study is based on survey research. The data was collected in the academic year 2011 covering both first and second semesters (June - September 2011 and October 2011- March 2012). Research tools used for collecting data is questionnaire that measure workplace's satisfaction of apprentice students from Information Science program in three aspects namely academic aspect, job implementation ability aspect and personality aspect. The data collected from fifty-five organizations that accept apprentice students from Information Science Program of Mahasarakham University. Respondents of the survey are head of the departments, managers, human resource managers, and section supervisors who assist apprentice students. Out of 55 organizations surveyed, 37 (67.27%) have responded in answering questionnaire. They can be categorized as 19 library and information service centers (51.35%), 13 departments/sections of government's information service

or information technology sections (35.14%), 1 department / section of information service company (2.70%), 4 companies that running information technology related business (10.81%). The collected data were statistically analyzed by using percentage (%), mean (\bar{X}) and standard deviation (S.D.).

Research Results

The study of workplace satisfaction level on student's knowledge and skills of apprenticeship, and the satisfaction level has been divided into 5 levels; such as highest satisfied, high satisfied, satisfied, less satisfied and least satisfied. Workplaces satisfied with knowledge and skills of students in various aspects are as follows:

1) Academic Aspect

Workplaces were highly satisfied ($\bar{X}=3.96$) with academic skills of student from Information Science program, especially knowledge in computer programs which receive highest satisfaction result ($\bar{X}=4.11$) as shown in Table 1.

Table 1: Workplace Satisfaction Level of Information Science Students

Academic Skills	Mean (\bar{X})	Standard Deviation (S.D.)	Satisfaction Level
Knowledge in computer hardware i.e. installation, ability to maintain computers	4.05	0.73	High
Knowledge in computer programs	4.11	0.72	High
Knowledge in information organization	3.82	0.71	High
Knowledge in computer network	3.88	0.87	High
Total	3.96	0.75	High

2) Job Implementation Ability Aspect

Workplaces were highly satisfied ($\bar{X}=4.02$) with job implementation ability of students from Information Science, especially in computer knowledge which received highest satisfaction result ($\bar{X}=4.35$). However, the result shows that workplaces are satisfied in English language skills ($\bar{X}=3.30$) and standard deviation value is 0.63 as shown in Table 2.

Table 2: Workplace Satisfaction Level of Information Science Student

Job Implementation Ability	Mean (\bar{X})	Standard Deviation (S.D.)	Satisfaction Level
Computer skill	4.35	0.64	High
Typing skill	4.23	0.65	High
Office technology usage skill	4.11	0.68	High
English language skill	3.30	0.63	High
Problem solving skill	3.91	0.86	High
Learning ability	4.20	0.76	High
Ability to meet the deadline	4.29	0.67	High
Apply knowledge to practical	4.11	0.68	High
Total	4.02	0.69	High

3) Personality Section

Workplaces were highly satisfied ($\bar{X}=4.32$) with personality of students from Information Science program, especially with their proper manners which receive highest satisfaction result for dressing ($\bar{X}=4.50$), human relations ($\bar{X}=4.67$) and thoughtfulness to colleague ($\bar{X}=4.67$). However, for innovation aspect, workplaces reveal lower level of satisfaction ($\bar{X}=3.97$) than other aspects in personality section as shown in Table 3.

Table 3: Workplace Satisfaction Level of Information Science Student

Personality	Mean (\bar{X})	Standard Deviation (S.D.)	Satisfaction Level
Dressing	4.50	0.74	High
Proper manners	4.64	0.54	Highest
Human Relation	4.67	0.53	Highest
Thoughtfulness to colleague	4.67	0.53	Highest
Confident	4.14	0.65	High
Diligence and patience	4.50	0.61	High
Resourcefulness	4.17	0.75	High
Detailed and careful	4.00	0.88	High
Punctual	4.29	0.83	High
Concentration	4.41	0.70	High
Innovative	3.97	0.71	High
Seek for new knowledge	4.00	0.81	High
Devote to job	4.32	0.84	High
Total	4.32	0.70	High

Suggestion by Work Places

Some workplaces have given suggestions on skills of Information Science students of Mahasarakham University as follows:

- Students should be proactive, seeking new knowledge and having volunteer spirit in assisted others jobs.
- Students should process with confidence and behave themselves in order to be able to

effectively present their opinions to the company.

- Students should focus on self improvement on skilled and unskilled activities/jobs to improve the effectiveness in performing the assigned jobs.
- Students should improve themselves to have good human relations with personnel in the organization in order to adjust themselves to colleague and organization's culture.
- Students should be ready to work and bring pen and paper for note down. Also, they should be careful, detailed and concentrate on their task, act according to policies and regulations, and have responsibility to the assigned job.

Besides these, libraries and information service centers that assign tasks to apprentice students to perform job related to the electronic resource management such as electronic books, Electronic Theses and Dissertations (ETD) and Institutional Repository (IR). Further they have given suggestion to the department to include the digital library or electronic publishing subjects into the course syllabus. As this might be skill that Information Science program need to intensively emphasise upon and provide practical session to students.

Conclusion and Suggestions

Evaluation from workplace is an important indicator of Information Science students' performance and in which field they lack skills. Also it helps to evaluate their performance meeting the expectation of future job market. Beside this, evaluation also reflects that present teaching system and curriculum may not satisfy the current needs of the job market. This might be part of a reason that caused lack of confidence and ability to apply their knowledge into working skills of apprentice students. This conforms with the result from discussion of the Knowledge management project entitled "Matching the right qualification of graduate to the need of market", hosted by Division of the Registrar, Mahasarakham University which reads as follows:

1. *Strength* that found students has good level of responsibility, proactiveness, resourcefulness, able to preform assign task, have good human relation in the organization, adaptive, willing to help the organization, willing to learn new things, have moral, ethical, honesty, punctuality and have volunteer spirit in working aspect.
2. *Weakness* that found students lack service mind, lack of information technology skills especially in electronic-publishing, lack of English language skills, lack of confidence in presentation, lack of negotiation skills, lack of professional or duty common senses, lack of proper living style that is suitable to current situation, lack of everyday's life information

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update, lack of legal knowledge of rules and regulations for the job, lack of proper academic knowledge that can be practically used and cannot handle pressure.

As for the admission of new students into Information Science program is concerned, the university should have screening process of students with proper skills and positive attitude towards Information Science profession as the readiness of students to be one of the reasons that support Information Science students or graduated to become quality product from Mahasarakham University. Besides all these, to produce students with English language skills, it is necessary that Information Science's computer program knowledge, analytical, innovative and development of work skill and utilize office resources shall be taught further. We should teach them of the sufficient economy system, volunteer spirit and to be proud of their academic institutions and workplaces, and also the responsibility of their profession and to the society. They should work in the field they studied and be proud of the organization they have apprenticed in.

For the improvement of Information Science curriculum, it should reduce subjects that have no relevance to current practical work and also the course syllabus should be adjusted according to the changes in Information Technology. The change should emphasize on ability to exchange knowledge and self-improvement. It should give students hands-on experiences before taking apprenticeship and actual work by providing chance for students to experience how to get along with others in the organization and study workplaces' environment beforehand. Students should learn about concept of good governance, corporate governance, responsibility and service mind. The teacher should also improve their performance in conformity with teaching process. It is also suggested to conduct such evaluation studies periodically.

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