THE EFFECTS OF HUMAN AND ORGANIZATIONAL FACTORS ON STUDENTS’ COMMUNICATION SKILL DEVELOPMENT

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Abstract
This conceptual paper review the underpinning theory and past literatures on communication skill with industrial training intervention. The paper intends to investigate the effect of human and organizational factors on students’ communication skill development using pre and post industrial training approach. It proposes that students demographic and motivation (human factors), as well as supervisor, demographic, duration, job scope and culture (organizational factors) may influence students’ communication skill. Subsequently, a number of hypotheses and a framework of communications skill development are proposed in identifying if any development occurs before and after students in higher education institutions attended the industrial training. This paper also illustrates the methodology used and finalized with conclusions.

Keywords: Communication skill, industrial training, motivation, duration and organizational culture

1. Introduction
University students are potential source of professional labour and play an important role in assisting country to become an industrialized nation in the future. In addition, they are also future leaders who will shape the direction and develop the country in all economic and social aspects. Therefore, they need to be trained as a productive human capital as early as in the university years. Human capital development can be defined as a process that comprises with training, education and professional initiatives by having intent to improve levels of employee knowledge, skills, abilities and values that lead to his or her satisfaction and performance in the company (Marimuthu, Arokiasamy, & Ismail, 2009). Thus, it seems like industrial training provides an opportunity for those students in becoming real human capital, in real setting workplace as a preparation to provide a quality workforce and professional in the future (Omar, Rahman, Kofli, Mat, Darus, Osman and Yasin, 2008). As such, almost all universities require students to undergo industrial training. During the training, which lasts up to six months, it provides an exposure to students which they can connect what they have learned into practical work. In addition, students will have opportunity to interact with professionals as early preparation before entering real workforce.

In particular, university students should attempt to develop themselves in becoming competent communicators in order to secure work placement in the future. They need to speak fluently, with confidence and be knowledgeable to attract employer’s heart. Furthermore, a competent communicator is able to convey information in intended way, without any distortion in avoiding misunderstanding when interaction takes place, especially when it comes to profit and loss of company. Indeed, Awang, Abidin, Arshad, Habil and Yahya (2006) argue that an organization might not be able to function if there are no interaction process occurred. However, the levels of communication among university students seem to decline as most of them failed in the interview sessions. The employers stated that fresh graduates are unable to speak fluently, especially in English language (Ismail, 2011; Phang, 2006; Stephanie, 2011). As a result, the numbers of students who are unemployed will increase due to lack of this skill even though they are excellent in academic. In coping with this problem, numerous efforts such extra co-curriculum activities as well as communication classes are being organized by universities. Moreover, most of classes required students to prepare for presentation in regards to build confidence level during communication process. In Malaysia, the Ministry of Higher Education also launched the Soft Skills Framework, to integrate in teaching and learning process in all public universities. Other effort in developing communication skill is by sending university students to undergo industrial training as it provides numerous benefits to students. Nevertheless, past studies show that the experience during industrial training can be influenced by human factors (Abdullah, 2009; Guerrero & Floyd, 2006; Mark van, Menno, & Erwin, 2007) and organizational factors (Chek, Mohamad, Jusoff, Razak, Norwani & Khairuddin, 2011; Koo, Pang, & Fadhil, 2009; Liu, Horsley, & Levenshus, 2010; Mortenson, 2002; Valentine & Godkin, 2000).
Hence, this paper suggests two types of independent variables which are human and organizational factors that may affect the development of students’ communication skill. Human factors consist of students demographic and motivation, while organizational factors include variables such as demographic of supervisor and organization, job scope, duration and organizational culture. The aim of this paper is to review the Transactional Model of Communication Skill and past literatures on communication skill with relation to industrial training. The scope of this study is social science and engineering students. The differences in the nature of work in these two fields are expected to provide interesting findings on how students develop their communication skill. This paper is organized in five sections. The next section will review the theory related to communication. This is followed by a review on past literatures and hypotheses of communication skill development. The fourth section proposes the method use in conducting the study, and lastly, this paper will conclude by proposing a research framework.

2. Literature Review

2.1 Transactional Model Of Communication Theory

One of the prominent criteria in transactional model is the dynamism of the communication process in the way of both parties receive and transmit the information simultaneously. This means, they are a “sender” and also the “receiver”, instead of one way or linear communication (Shannon, 1949). As the active communication take place in this model (see Figure 1), both individuals are become communicators due to the double feedback errors. In this process, our minds are like multi-tasking robots, which can be program to do different task at the same time. Furthermore, Tyler, Kosen and Ryan (2004) said that the simple transactional model make easier for people to understand. In addition, the model gives sufficient information on interpersonal communication rather than linear or interactive model (Schramm & Wilbur Lang, 1993). This model also provides detail information on how interpersonal communication takes place between two persons. In this model, communication is the continuous process and varies over the time. This represented by the time element included in the model. The continuity occur when the communication take place between the same persons. So, the exchange in information will review as a past story of life and based on past interaction. Besides that, as the time past through, the pattern of communication will also change. Exemplar, at a first time A and B communicate; the communication is more formal ways. However, over time, the patterns change to informal ways regarding to the close interaction and the relationship between these two persons.

In addition, the communicators shared the similar field of experience and this varies over the time (the overlap of two circles in Figure 1). Instead of exchange feelings and thoughts, as well as tend to understand what other person talk about, the communication process also have integrated with the relationship dimension of the persons. The relationship depends on the closeness to our relationship, means as a friend, we have intimate relationship, while relationship between manager and subordinate like impersonal relationship. The communication involved the differences in social systems in both persons that may affect the perception and mean of information, which had been portrayed as the outer lines in the model. Other than that, the context of situation also influences the communication process. In situational context, the person may communicate in different way according to the situation. This means, if the communication in academic situation will totally differs with the communication when attending the concert, for example. However, in temporal dimension which is due the time constraint context, communication of people usually tends to be negatively (Tyler et al., 2004). The right information may not be delivered to the other person. Other influences that lead to misinterpretation of the information being transmitted are such physical, interpersonal and organizational context.

In Transactional Model, noise element is including as it will disrupt the information to be received. Noise refers to the “distortion or barriers which prevent the message reaching the target recipient in the ways it was intended” (Scott, 2009). The interruption of noise leads to negative communication, in term of misunderstanding and misinterpretation of the feelings that want to express. Physical noise and semantic noise are including in the types of noise interruptions. Physical noises take place within the person’s communication situation which may interrupt the process of communication. For example, sound of drilling the wall may interrupt the communication process and it will lead to negative information being transmitted. On the other hand, culture, attitude, and external socio cultural are interferences from semantic noise. The implication of this disruption is person might misunderstood of the right meaning of information are sending. In the context of this study, the transactional model of communication is somewhat relevant as the exchanging messages and feedback occurred between students and supervisor during the training (Rodzalan & Saat, 2012). This model describes how students can develop their communication skill by having regular interaction with their supervisors as well as with staffs. In doing so, students not only develop communication skill but enhance their proficiency in communicating with the professional groups. Furthermore, students need to have high confidence level in expressing the ideas without any doubts, when they were asked to do so.
2.2 Industrial Training and Communication Skill Development

Communication process is a medium whereby an individual will transfer the information to others by various channels. This process is vital in all aspects of life because it involves the interaction between two or more persons in certain situations (Al-Nashmi & Zin, 2011). An individual should have good communication skill in order to avoid misunderstanding during the interaction process. In the context of organization, it is not surprisingly when past researchers found that employers are willing to hire new employees with good communication skill (Anderson, Courter, McGlamery, Nathans-Kelly, & Nicometo, 2010; Bui & Porter, 2010; Crawford, Helliar, & Monk, 2011; Devadason, Subramaniam, & Daniel, 2010). In a study on six engineering firms, Anderson Courter, McGlamery, Nathans-Kelly and Nicometo (2010) found that communication skill is the most important skill as compared to other generic skills. The similarities in all six firms rating this skill as most important give an insight how crucial this skill in professional field, like engineering. This consistent with study by Crawford, Helliar and Monk (2011), where they found that communication skill (for both oral and written) is required by the employers in hiring new employees. This is based on the perception 1,971 practitioners and academics in audit and accounting fields.

In relation to industrial training, communication skill is perceived to develop during the training period (Knemeyer & Murphy, 2002). This perception is based on the survey conducted on 64 employers and 137 students (63 from public university and 74 from private university). It is believed that students who are regularly communicated with their supervisor can develop their communication skill. It is because students need to establish two way communications in order to acquire feedback (knowledge) from their supervisors (Smith, 2000). Moreover, a longitudinal study on 97 engineering students showed significant improvement in their communication skill after completing industrial training. The study by Omar, et al. (2008) indicated that industrial training is one of the places where students can develop their communication skill, instead in lecture session and participating in activities at university. Based on the review on past studies related to communication skill, this study proposes the following hypothesis:

**H1: Students will experience significant improvement in communication skill during industrial training.**

2.3 Human Factors and Communication Skill Development

As mentioned in the introduction section, human factors will be studied with the industrial training intervention. This factor will further divided into two main variables; namely students demographic and students’ motivation. In students’ demographic, the items like gender, races, field of study, types of institutions and academic background may influence students’ communication skill development. For example, a study by Abdullah (2009) showed that male students are more inclined to rate their communication skill higher than female students. This indicates that male and female students may have differences in their communication skill development after attending industrial training.

In relation to students’ motivation, this paper focuses on intrinsic and extrinsic motivation in determining the communication skill development. Prior studies on motivation show there are five reasons that motivate the students to communicate with their instructors, which refers to relational, functional, participatory, and excuse-making and sycophancy (Martin, Myers, & Mottet, 1999). In relational reason, students try to build a relationship with their supervisor, while students will learn on the task given for functional reason of their communication with the supervisor. The third reason is participatory; refer to the students that willing to participate in giving ideas and thoughts to their supervisor. This action portrays that they understand on the topic being discussed. Meanwhile, students will be motivated to communicate when they need to give an excuse for unfinished work to their supervisor. The last reason is sycophancy, related to those students who only communicate to their supervisors in order to get some compliances and attention. On the other hand, supervisor with good communication skill can influence the students to communicate effectively (Guerrero & Floyd, 2006).
This is supported with the study by Mark van, Menno and Erwin (2007). In their study, they found that the supervisor’s communication have affected the employees commitment to the organization. Based on the argument made by the past studies, this study hypothesizes that:

**H1.1:** Students’ demographic has influence on their communication skill development during industrial training.
**H1.2:** Students’ motivation has influence on their communication skill development during industrial training.

### 2.4 Organizational Factors and Communication Skill Development

Other than human factors, this paper also proposes that organizational factors may influence students’ communication skill development. This factor consists with five main variables, which are demographic of supervisor and organization, training duration, job scope and finally the organizational culture. In the context of industrial training, students will interact or communicate with their supervisor and other staffs in organization. This process is important for students in developing their communication skill, in terms of writing and oral communication as an early exposure before entering real workforce. However, their development of this skill may affect by the supervisor characteristics; gender, races, position and working experiences. As found by Chek, et al. (2011), there are differences in communication style between male and female staff in organization. In addition, supervisor with long services will have a lot of experiences which expected to influence the interaction process in organization (Kassim & Ali, 2010). Besides, organizational demographic (include type of sectors, type of industries and organization sizes) may also affect students communication skill development. For instances, students A who undergo industrial training in private sectors have higher development as compared to students B in public sectors. This is supported by Gelders, Bouckaert, & van Ruler (2007) and Liu, Horsley and Levenshus (2010) which they argued that there are differences in communication styles in public and private sectors. These differences may imply to students’ communication skill after attending their industrial training.

In the scope of training duration, students in higher education institutions in Malaysia are required to attend industrial training at least minimum for two months, but it depends on the courses and institutions, which up to seven months training. The various training duration across institutions lead to raise an issue among practitioners and academicians on how students cope with the limited training duration in gaining work experience. Thus, this prominent issue has captured attention for many to investigate and get the overview of perception on that particular situation (Ayarkwa, Adinyira, & Osei-Asibey, 2012; Blasko, 2002; Koo, et al., 2009; Zakaria, Hussin, Noordin, Sawal, & Zakaria, 2011). For example, a study by Ayarkwa, Adinyira, & Osei-Asibey (2012) on students’ perception of training organizations in Ghana showed that 85% of the sample indicated that industrial training should be longer than six weeks for developing professional skills. The training duration should be extended as asserted by Koo, Pang and Fadhil (2009) where students have chances to enhance their communication skill. This is because of regular interaction between supervisor, colleagues and clients in organization lead to develop communication skill.

Other than that, job scope may affect the communication skill development of social science and engineering students. As asserted by Valentine and Godkin (2000), the nature of job scope itself required newcomers (students) to interact with their supervisors and other staffs in organization. For example, when a student A’s job deals a lot with customers (for being the project manager or sales engineer) the communication skill development may be significant as compared to a student B who deals with machines in his working environment. This is because students A will interact more with others in organization to acquire knowledge and skills on how to deals with customers. From this interaction, he or she able to identify what is exactly need to be done when giving this similar job in future (Wrzesniewski & Dutton, 2001). Furthermore, students’ communication skill development may also be influenced by organizational culture in organization where they attend industrial training. The culture, either individualism or collectivism type can only be observe during the period of industrial training. In a collective culture, people tend to respect others’ feelings whereas it reverses for individualism culture which emphasized towards the subject matter of the message that is being communicated (Mortenson, 2002). During industrial training, students may experience to engage with other people from difference culture, which require them to understand others’ cultural background and sensitivity. They should have skills and knowledge in making conversation with them in order to avoid misunderstanding and create respect to each other (Al-Nashmi & Zin, 2011). With the sufficient evident from past studies, this study hypothesizes that:

**H1.3:** Supervisor’s demographic has influence on student’s communication skill development during industrial training.
**H1.4:** Supervisor’s demographic has influence on student’s communication skill development during industrial training.
**H1.5:** Training duration has an influence on student’s communication skill development during industrial training.
**H1.6:** Student’s job scope in organization has influence on their communication skill development during industrial training.
**H1.7:** Organizational culture has influence on student’s communication skill development during industrial training.
3. Methodology

In identifying student’s communication skill development during industrial training, a quantitative method will be used. The main research instrument is questionnaire, which will be distributed to students before and after they attend industrial training. The population is undergraduate students from both public and private higher education institutions in Malaysia. In dividing the population into meaningful segments, stratified random sampling is relevant to be implemented to this study (Sekaran & Bougie, 2009). In stratified random sampling, the population will be divided into students from public and private universities. Subsequently these groups of students were chosen among students who enrolled with social science or engineering field for both institutions. Based on the given populations, the appropriate sample size is approximately 650 students (Krejcie & Morgan, 1970) for each public and private institution from different field of study (social science and engineering). These students are mainly third and final year students, as the structure of the program varies slightly between public and private universities.

In regards to data collection process, the study will be divided into two phases, which are pre phase (Phase 1) where students are about to attend and post phase (Phase 2) where students have undertaken the industrial training. The time gap between two phase ranges from two to six months depending of the requirement of universities. The significance in conducting the pre and post study is to examine the differences between the development of student’s communication skill before and after attending the industrial training. Because this study collects the data in two phases, two similar sets of questionnaires will be designed. Both phases will look into students’ motivation and communication skill. Students’ demographic data will derive from the first phase, while organizational factors (consist of supervisor, demographic, duration, job scope and organizational culture) in second phase of data collection. Basically, there are three parts in the questionnaires in Phase 1; Part A for students demographic, Part B for student’s motivation and Part C for communication skill development. Meanwhile, in Phase 2, it comprises seven parts which are Part A and B for demographic of supervisor and organization, Part C for students motivation, while training duration, job scope and organizational culture in Part D, E and F respectively. Lastly, Part G covers section on students’ communication skill development. In order to ensure the validity of the study, similar students will be used in both phases.

In analyzing the data, descriptive analysis will be used with relation to demographic information. The analyses include frequency distribution and central tendency measurements (mean mode and median). Meanwhile, inferential analysis provides more advanced statistical techniques in testing the hypotheses in this study. Meanwhile, paired- test will be used to compare two populations’ means based on similar samples from two different period of time. On the other hand, further exploration on the multivariate statistical technique, such as multiple regression and factor analysis are reasonable as it permits the use of testing hypotheses more than three variables (Tabachnick & Fidell, 2007). Factor analysis provides method in determining the dimensionality of a set of variables, while multiple regression analysis allows in predicting someone score based on scores from several other variables (Tabachnick & Fidell, 2007). Overall, the paper expects that social science and engineering students will develop their communication skill with industrial training intervention. The next section will conclude this paper and propose the framework on communication skill development.

4. Conclusion

Based on the above discussion on students’ communication skill development, it is anticipated that a certain degree of development among students will be achieved. Furthermore, the findings of this study will benefit all stakeholders (students, university and host organization) in the industrial training program and body of knowledge in Malaysia. Based on the findings obtain from students, firstly, stakeholders can identify the loop holes where they can improve the industrial training with better planning and implementation to overcome the weaknesses. It is important to provide better planning because students must clearly understand the objectives of training in order to integrate theory and practical in a real workplace setting. Thus, this will eventually improve the effectiveness and efficiency of the industrial training program. On the other hand, the findings of this study will also serve in developing the training module in order to improve the implementation of the training program. Based on the findings which will be obtained later, the researcher will propose recommendations to minimize the gaps on the expectation of students to their communication skill development. Secondly, it will contribute largely to the body of knowledge and reduces the literature gap in education and industrial training particularly in Malaysia. In addition, feedback regarding these issues is really useful to improve the content in research proposal for doctorate degree.

In conclusion, this paper proposes a framework for communication skill development as portrayed in Figure 2. This framework anticipates that human and organizational factors influence the communication skill development among social science and engineering students. As depicted in Figure 2, human factors consist of two variables, which are students’ demographic and motivation. On the other hand, this framework predicts that students who undergo industrial training may encounter with organizational factors and subsequently will influence their development of communication skill. The variables under organizational factors are supervisor, demographic, duration, job scope and organizational culture. In summary, this paper is mainly a quantitative study which involve two phases, pre and post to measure the development of
communication skill during industrial training among social science and engineering students in both public and private universities in Malaysia.

5. Acknowledgment

We would like to thank Sekolah Pengajian Siswazah (SPS) UTM, for assisting this study financially through Zamalah Scholarship as well as Research Management Centre (RMC) UTM.
Figure 1: A Transactional Model of Communication

Figure 2: A framework for communication skill development
References


