

Cooperative Education: Soft Skills and Complementary Supervision in Field Immersion Engender Lifelong Learning

Jonathan Rante Carreon
Huachiew Chalermprakiet University
Email: carreonjrc@gmail.com

Abstract

The transglobal nature of business transactions assumes skills that have been honed by active theoretical and practical immersions, and remained in the learners' repertoire of skills through constant, guided practice provided by the concerted effort of the academe and the affiliated business or service industry partners, where the students were sent to undergo cooperative education training. The current study has a three-fold purpose: (1) examine which soft skills were developed during the cooperative education training process, (2) analyze which of these soft skills most likely engender lifelong learning, and (3) investigate the potential influence of the complementary supervision implemented for the training. Using a questionnaire, the perspectives of the 27 training supervisors (TS), 12 academic supervisors (AS), and 58 student trainees on the delivery of the complementary cooperative education training were gathered, followed by a semi-structured interview among volunteer participants. The findings from the surveys revealed that lifelong learning skills of students could be enhanced by developing their Life and Career Skills (e.g. Productivity & Accountability, Leadership & Responsibility, and Flexibility & Adaptability), and Learning and Innovation Skills (Collaboration, and Creativity & Innovation). These findings were confirmed in the responses of three groups of participants in the semi-structured interview. Implications of the study particularly on the enhancement of students' lifelong learning skills were drawn.

Keywords: *Complementary supervision, Cooperative education, Lifelong learning*

INTRODUCTION

In 1996, the UNESCO's Report of the International Commission on Education for the 21st Century proposed the four pillars of learning (i.e., learning to know, learning to do, learning to be, and learning to live together), with the concept of lifelong learning in the background [1]. Briefly, lifelong learning integrates traditional education mode and modern learning opportunities, which emphasizes motivating people to learn how to learn and to select content, process, and methodologies that pursues self-design and self-perfection [2]. These concepts are interesting because they are quite similar to the skills being developed in internship programs conducted by higher education institutions in cooperation with their industrial or business partners. However, an informal survey of employers, academicians and students revealed several barriers to the success of internships. For instance, some faculties may not consider internships as part of the educational program, and the employers may not view internships as mentoring opportunities [3]. These may have an impact on the commitment of the students towards the training, the commitment of the higher education institution to provide academic support and the commitment of the host industry or business to conduct mentoring.

Recently, these internship trainings were partially adapted to meet the changing needs of the industries and businesses and has been renamed cooperative education (or also known as coop-ed or co-ed). The pioneering cooperative education projects in Thailand in 1993 by Professor Dr. Wichit Srisa-arn were quite successful that the Office of the Higher Education Commission (OHEC) has thrown its support for including cooperative education in higher education institutions' curricular offerings. Since then, cooperative education has become a common buzz word among higher education institutions with the ultimate goal of providing quality professional experience and self-development in collaboration with public and private enterprises.

In Thailand, the main difference of a regular internship program to that of a cooperative education program is the modified role of each stakeholder: student, academic supervisor (AS) and training supervisor (TS). In cooperative education, students are required to conduct (research) projects that are directly related to the training. For instance, a student undergoing a training in a tourism company may conduct a project that addresses issues in hospitality management such as crowding in the reception and dining areas, long waiting time, and others. Academic supervisors help in identifying host companies; make dialogues with these companies to discuss potential areas of training, problems and concerns, training conduct, co-supervise the projects of the trainees and follow-up progress. The training supervisors provide a training slot in the area agreed upon during the dialogues; conduct mentoring; assess the progress of the trainees and provide timely progress reports and co-supervise the projects of the trainees.

Replacing the traditional on-the-job training (OJT), Huachiew Chalermprakiet University (HCU) opened its doors to cooperative education in 2012. At HCU, cooperative education is composed of two parts: (1) pre-cooperative education and (2) cooperative education. Pre-cooperative education (3 credit units) is the preparatory stage composed mainly of understanding how private and public enterprises run their businesses and offices. Conversely, cooperative education (6 credit units) is the actual job practice that runs for 15 weeks. The actual training is mainly supervised by a training (skills) supervisor (normally an expert in the area the student has chosen to undergo training) and an academic supervisor (a lecturer who has theoretical knowledge about the student's area of training).

A number of research studies on cooperative education has been conducted in Thailand but these studies mainly focused on general training such as engineering [4, 5] and fielding students in industries [e.g. 6, 7, 8] to enhance their technical skills depending on the field where the students are being trained. However, very little research has been done on examining the potentials of cooperative education in promoting lifelong learning [e.g. 9, 10, 11]. To address this issue, this paper draws on the concept of the 21st century skills as proposed by *P21 Partnership for 21st Century Learning* [e.g. 12, 13]. Briefly, *P21* posited that there are three main skills that learners of the 21st century should possess: (1) life and career skills, (2) learning and innovation skills, and (3) digital literacy skills. The first two are soft skills while the third one is composed of the hard skills. This paper considers only the soft skills since they are more difficult to pin down and there is only a dearth of research relating these soft skills to lifelong learning.

Thus, this paper examines the potential influence of the complementary supervision implemented for the cooperative education training of students of a private higher education institution in Thailand. Specifically, it seeks to illuminate three research questions: (1) What soft skills were enhanced during the cooperative education training?, (2) Which of these soft skills most likely engender lifelong learning?, and (3) Did the complementary supervision influence the enhancement of lifelong learning among students?

METHOD

Data

The data for this paper was from the responses to the questionnaire using a five-point Likert scale to allow the responding individuals to express how much they agree or disagree with a particular statement or concept relating to the soft skills by the *P21 Partnership for 21st Century Learning*. There was a total of 97 participants composed of 58 undergraduate English major higher education students, 12 AS and 27 TS, with females accounting for 73.20% (N=71). Then the three groups were asked for volunteers in the semi-structured interview. Seven (58.33%) academic supervisors, nine (33.33%) training supervisors and 14 (24.14%) students volunteered to be interviewed. To simplify referring to them in the findings, each group of participants was provided an abbreviation: academic supervisors (AS1, AS2, AS3, etc.), training supervisors (TS1, TS2, TS3, etc.), and student trainees (ST1, ST2, ST3, etc.).

Data Analysis

The numerical value and the descriptive rating of the concepts rated is given below:

5-rating Scale	Descriptive Rating
4.21 – 5.00	strongly agree
3.41 – 4.20	agree
2.61 – 3.40	neutral
1.81 – 2.60	disagree
1.00 – 1.80	strongly disagree

The mean (\bar{x}) scores of all the (1) life and career skills, and (2) learning and innovation skills in the questionnaire were calculated. The spread or dispersion of the ratings were computed using standard deviation (SD). Themes were iteratively identified from the interview responses and discussed together with the quantitative findings.

RESULTS AND DISCUSSION

The participants were asked to rate which of the skills were likely to promote the development of lifelong learning. The responses of the participants are presented in Table 1 below.

What soft skills were enhanced during the cooperative education training?

Among the Life and Career Skills, both the AS and TS strongly agreed that Productivity & Accountability (4.47 [SD=0.63]/4.53 [SD=0.63]) and Leadership & Responsibility (4.41 [SD=0.53]/4.22 [SD=0.65]) were likely to promote the development of lifelong learning, with the trainees agreeing in both skills with means scores of 4.03 (SD=0.88) and 3.74 (SD=0.71), respectively. Moreover, the three groups of participants agreed that Flexibility & Adaptability may enhance the development of lifelong learning (T=3.62, SD=0.72; AS=3.67, SD=0.69; TS=3.47, SD=0.86). Mixed reactions were found for Initiative & Self Direction. While both groups of supervisors were pessimistic that these skills may not support lifelong learning (AS=2.45, SD=0.68; TS=2.34, SD=0.58), the trainees were quite neutral (2.78, SD=0.96). As for Social & Cultural Skills, all participants were neutral, with their group mean scores ranging from 2.78 to 3.10.

In the semi-structured interview, the trainees claimed that these Life and Career skills are already part of their job assignments. However, they argued that developing Social & Cross-Cultural Skills and Initiative & Self Direction was quite difficult. On the one hand, the trainees thought that Social & Cross-Cultural Skills can only be developed when there is personal and interpersonal adjustment to work and to the workplace. One of the trainees said that 15 weeks is not enough to develop Social & Cross-Cultural Skills due to socio-cultural differences. Moreover, several trainees claimed that there was not much opportunity to develop these skills since their workplaces only have Thai nationals even if their company is a multinational company.

As for the Learning and Innovation Skills, both the trainees and the trainers thought that Collaboration within the department is mostly enhanced (mean scores=3.67/3.06) followed by Creativity & Innovation (mean scores=3.15/3.07). This is because most companies have their own standard operating procedures that require all employees from purchasing department to warehousing and logistics to collaborate closely and strongly support employees to be creative at work. These findings are quite similar to the findings of Robles (2012) that communication, responsibility, social skills, professionalism, teamwork, and collaboration are indispensable soft skills needed in today's workplaces. Moreover, both the trainees and trainers agreed that the Life and Career Skills that were less enhanced by the training were Initiative & Self-direction (\bar{x} =2.34/2.77) and Social & Cross-Cultural Skills (\bar{x} =2.84/2.78). Among the Learning and Innovation Skills, the findings show that the skills

Critical Thinking & Problem Solving ($\bar{x}=2.95/2.84$) and Communication ($\bar{x}=2.38/2.31$) were only partly enhanced.

Which of these soft skills most likely engender lifelong learning?

The three groups of participants strongly agreed that these the two sets of soft skills may engender lifelong learning: trainees ($\bar{x}=4.88$; $SD=0.42$), academic supervisors ($\bar{x}=4.93$; $SD=0.32$), and training supervisors ($\bar{x}=4.64$; $SD=0.77$). In the semi-structured interview, the participants were asked to identify the top three in each set of soft skills that engenders lifelong learning the most. For the Life & Career Skills, the participants thought that leadership and responsibility, productivity and accountability, and initiative and self-direction were the top three, accounting for 96.67% (29 of 30), 83.33% (25 of 30), and 73.33% (22 of 30), respectively. For the Learning & Innovation Skills, the participants claimed that communication was the most important factor in engendering lifelong learning (100% or 30 of 30). This was followed by collaboration (93.33% or 28 of 30), and critical thinking and problem-solving (86.67% or 26 of 30).

The semi-structured interview confirmed the top three choices of the participants in the two sets of skills and the reasons for their choices were unveiled. For the Life & Career Skills that most likely engender lifelong learning, the participants in the interview thought that leadership and responsibility skills are crucial and indispensable in an organization or at least in doing certain tasks. For instance, Academic Supervisor 2 (AS2) thought that strong decision-making skills allows an individual to take risks while AS5 and AS7 claimed that there are ups and downs when making decisions but whatever the end results, good leaders take responsibility of their actions. On the part of the training supervisors (TS), TS1 and TS3 posited that leaders lead, motivate, assess successes and failures; TS2, TS5 and TS7 asserted that a leader listens to subordinates' suggestions and grievances so everyone moves towards the fulfilment of defined goals; and TS4 thought that firm decisions come from a good leadership. Meanwhile, ST2, ST3, ST6, ST7, ST11, ST12 and ST14 thought that leaders command, inspire, role models and provide appropriate examples to their subordinates.

The second among the Life & Career Skills that engenders lifelong learning were the productivity and accountability skills. AS1 and AS3 said that a productive person is someone who does useful things and a goal-oriented person. AS2 and AS6 believes that a productive person can start and finish a project with satisfactory results. TS2, TS4, TS5 and TS8 observed that productivity and accountability are skills that equip a person to work at minimum possible supervision yet capable of producing outputs based on identified goals while TS1, TS3, TS7 and TS9 mentions that being productive means someone knows what s/he is doing and capable of using time efficiently, so deadlines and quotas are met without sacrificing quality and quantity. On the part of the trainees, ST3, ST7, ST10, ST12, ST13 and ST14 shared that being productive allows someone to finish tasks within a given time and not lazy. ST1, ST2 and ST14 claimed that a person is productive if there is no need to remind of the task and deadline many times.

The third among the Life & Career Skills that engenders lifelong learning were the initiative and self-direction skills. AS1, AS4, AS6 and AS7 claimed that people with these skills can take the initial step and work on their own volition. TS2, TS3, TS4, TS7 and TS9 stated that people who have these skills can start something new by using broad imagination and considering what is available in the immediate setting while TS1 and TS5 thought that a person has this skills if they are able to identify and follow clear and well-defined goals. As for the students, it was difficult for them to describe how initiative and self-direction skills may engender lifelong learning, so they were asked to give examples instead. ST3, ST9 and ST13 cited the regular cleaning of the reception area or their workplace before starting work; ST1, ST5, ST7 and ST12 said that they should not be reminded to bring a pencil and a piece of paper or their notebook when attending a meeting; ST2, ST4, ST6 and ST10 thought that filling-in the coffee maker with beans and checking if there is water and turning off electronic

devices in the office when not in use and before going home are signs of having an initiative skill; and ST8, ST11 and ST14 claimed that submitting daily report even when the supervisor forgot about it is not only a good habit but also shows that someone is doing his/her work even without reminders.

For the Learning & Innovation Skills, the interviewees unanimously ranked communication skill on top with varying yet complementary reasons. For instance, AS1, AS2, AS3 and AS5 posited that humans are social beings and they need to talk to start a project. In the same line of reasoning, TS1, TS3, TS6 and TS7 thought that no man is an island. TS2, TS4 and TS8 shared that communication allows one to actively attend meetings, write emails, raise and/or discuss a point or even make a complaint. TS5 and TS9 retorted that through communication one can constructively criticize, give pieces of advice or even praise someone. For the trainees, they again had difficulties expressing their thoughts, so they opted to provide examples. ST3, ST4, ST5 and ST12 said they were not happy with the night shift given to them, so they needed to communicate with their training supervisors and discuss if they could move to morning or afternoon schedule. ST7 needed to communicate to explain his side that he brings his own utensils to work when other trainees from other institutions thought he was the one placing used plates in the sink. ST13 communicated his reasons when he once arrived late because of the political protest that caused a heavy traffic congestion. ST14 related how he sought for help and the staff in the nearby cubicle came without hesitation and helped him operate the new photocopy machine.

The second among the Learning & Innovation Skills was the collaboration skill. AS3, AS2, AS4 and AS6 explained that some tasks could not be accomplished alone saying that more people involved could get several related tasks done in a shorter period. AS1 and AS7 added that members of a group may take specific roles. On their part, all the training supervisors were in a parallel view. They were into distribution of tasks where the right person takes the right job to maximize the use of human resources. In other words, a member of a group shares what s/he has while at the same time receiving help from other members of the company, that what could not be done by one section or person could be provided by the other members or sections. As for the student trainees, ST5 shared that her cooperative education training was a collaboration between her alma mater and the company that hosted her training. He narrated that "when I did my project to improve the workflow of the section where I had a training, I sought the help of my academic supervisor and my training supervisor and both gave me different but useful suggestions. ST10 informed that he did his cooperative education project with another trainee from another university after asking permission from their training supervisor. He explained that his co-trainee is an IT savvy but not good at writing essays, so "he did those related to IT such as graphical presentations of data, PowerPoint slides and the design of our project, while I did most of the researching and writing of the draft. It was really fun, and I was able to do what I wanted to do most not to mention the high ratings we got from our supervisors."

It is a surprising finding that while communication skill topped all the skills that may engender lifelong learning, it was unanimously agreed among the participants that it was not really enhanced during the training. Most of the students claimed that while they had opportunities for communication, the training which lasted for around 15 weeks was too short. Most training supervisors put their trainees in an "observation" role, which took several weeks, prior to actually embarking in the real task. In such a role, they can only take down notes but not "engage" in the task such as meeting a customer. Out of this finding, however, it can be argued that communication is a kind of skill that cannot be mastered in a short period of time, i.e., it requires constant practice in a natural, unimpeded setting, where the interlocutors learn from their experience.

Did the complementary supervision influence the enhancement of lifelong learning among student trainees?

Asked whether the complementary supervision has some impact on the promotion of lifelong learning among student trainees, the three groups of participants strongly agreed:

AS (\bar{x} =4.36; SD=0.95), TS (\bar{x} =4.29; SD=0.94, and ST (\bar{x} =4.81; SD=0.40) as shown in Table 2 above. For their reasons, the academic supervisors disclosed that most of their students start to ask critical questions regarding their training and search for answers both from their academic and training supervisors. They stated further that while the AS provide theoretical responses, their training supervisors gave them practical answers which sometimes contradict what their academic supervisors taught them. They also claimed that the submitted students' requirements were more complete and more thoroughly done, they become more responsible especially in managing their time, and they learn to be responsible citizens, albeit in a slow pace.

The TS complemented what the AS observed. For instance, AS2, AS3, AS4, AS8, 10, AS11 and AS12 claimed that students learned to document not only their daily chores but also the issues or problems they encountered during the training, and tried to find solutions either by reading, asking co-trainees or realizing the answers when they attended meetings. AS1, AS5, AS13 and AS14 noticed that through the research projects and practical tasks assigned to them, the STs received both academic and practical guidance, and agreed that lifelong learning starts when they see the fact they have to balance between the two, sometimes conflicting suggestions to make sound decisions.

For the students, simultaneous exposure to theoretical and practical world helped them develop several useful habits that may enhance their lifelong learning skills. For example, ST4 said "I have never taken notes this much in my entire life, but my experience in the company, which requires precise reporting and the need to document my daily activities as required by my AS taught me that I cannot just remember all information, and sometimes, I must write them as they unfold" ST6 noticed that "complementary supervision allowed my AS to regularly visit me and have a comprehensive discussion with my TS regarding my concerns, big or small, so in a way, I realized that the more I involved them in what I am doing, the more I get better answers, and although coming from opposite directions, they provided me some foundation to start on my own". This response relates to the concept of [2] on lifelong learning that pivots in the pursuit of self-design and self-perfection. AS12 confirmed AS6's observations and claimed that "despite the contradictions, if proper dialogue is initiated, people can meet half-way". AS9 and AS11 realized that the joint supervision taught them to act as if they were already full-time company employees and at the level of professionals. However, AS9 understood that "there is no panacea answer or quick solution to problems, so even the simplest problem requires a thorough discussion / thinking with the parties involved, so it does not happen again or at least minimize its occurrence". AS10 remarked that "it is sometimes difficult to combine thoughts from my academic and training supervisors since they are coming from two different settings. It made me feel more confused and wanted to give up. However, this illuminated my mind that to live a life is to continuously learn from different kinds of people such as from my supervisors, customers of the company where I am having training. Like my two supervisors, these people also have varying needs." These responses are in concord with [2] emphasis on motivating people to learn how to learn and to select content, process, and methodologies.

CONCLUSION

The ultimate goal of this paper is to examine whether the soft skills and complementary supervision in implemented by a private university in cooperation with its partner companies engender lifelong learning. The findings revealed that there were specific Life and Career Skills (Flexibility & Adaptability, Productivity & Accountability and Leadership & Responsibility) and Learning and Innovation Skills (Creativity & Innovation and Collaboration) that were enhanced and may influence lifelong learning. From the findings, it is highly suggested that higher education institutions and the jobsites work closely to make sure that other skills proposed by P21 [e.g. 12, 13] that were not enhanced or partly enhanced should also be developed in the training process. It is worthy to note that while some students had mixed feelings on the parallel or complementary supervisions since they caused confusion on their part, they explicitly admitted, through their recounts in the semi-

structured interview, that their exposure to opposing perspectives were not necessarily inimical to their career growth. Rather, they were indispensable in moulding them to develop the skill of lifelong learning from all sorts of inputs, academic or practical, that come to their lives. While illuminating, the findings of this paper are preliminary and further in-depth studies should be conducted. For instance, there is still a need to conduct a correlation analysis of the relationship between the skills identified as enhanced and the extent to which they are integrated into the cooperative education projects. Moreover, future investigations of the enhancement of lifelong learning should include more variables other than those investigated in this study. I hope that this descriptive paper has provided some insights into the soft skills and complementary supervisions in cooperative education projects that can be used to enhance the lifelong learning skills of higher education students.

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