

Interpersonal Skills Learning in Information System Dept.: Developing Soft skills and Caring Attitude in the Information Technology Education

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Abstract— over the last ten years, Indonesia develops a lot and begin to advance with IT (Information and Technology). But Indonesia as a developing country has a problem with the human resources from the IT department especially their soft skills in the workplace. This issue has concerned many companies, be it private or government, leading to the massive unemployment of Information Technology Graduates. This phenomenon is still increasing year by year. Therefore, it is an important thing to have a subject which concentrated in educating the students with Interpersonal skills. Interpersonal skill learning provide the students not only how to manage themselves, the way to treat other in a good manner in order to develop networking. By educating the students with interpersonal skills, students in the Information System Department will be expected to have a good coordination with each other, not only on their computer or IT project, but also helps them to control their emotion and have better personality. In this paper, it is described how the Interpersonal skills learning are implemented in the Information System Curriculum, the result, and the recommendations for improving soft skill graduates. With this new learning curriculum, which is given in the first semester in Information System Dept., it is predicted that they will gain soft skills and become their foundation in the long run.

Keywords— Soft Skills, Interpersonal Skills, curriculum

I. INTRODUCTION

In the latest education trends, not all of IT graduates are welcomed by companies. This issue becomes one of major problem in Indonesia. Indonesia as the biggest five in the world population [1], which obviously make larger graduates quantity. But one of the critical problems in IT graduates is their interpersonal skills problem. This problem worsens because an interpersonal skill is not yet become one of important curriculum in many higher educations. Students are given the hard skills in their learning process. They are rarely know how to interact with each other, and this will place a gap between a student and the other students. In higher education with a goal to graduates quality students, this issue is not being seen as an important issue because the academic from the higher education judge their students based on their evaluating mark. And when they have graduates, they will be

shocked due to the environment different in their college and their workplace.

Interpersonal skills mainly educate the students how to interact with each other and to work together as a team to achieve same goal/goals. The main reason of this learning is to prepare the students to go in the working environment and to build a better personality for them. In the short term, this education result is not seen as an instant result. but it takes several step and experience to learn and apply interpersonal skills.

Stake holders would be astonished if IT graduates can show their interpersonal skills better than before. This situation will lead to a higher chance to get into prestigious company. For in Indonesia, many people think that an IT job is only work in front of their computer. Rather than work and doing project alone and don't have the ability to understand others, Interpersonal skills lead and encourage them to have empathy and sense of social.

Unfortunately, most of the students are not welcoming this interpersonal skills learning and are not enthusiastic with it. Even when the higher education, make this as the main subject in their Universities or Colleges, students prefer to get hard skills education. They think this process of learning interpersonal skills would not have a good effect be it on the short run or on the long run. Some of them also think that Interpersonal skills learning are a waste of time as they can learn this education by reading and implementing soft skills directly.

This problem is not as big as it seems, in order to make the students think that this learning is important for them, this course have to be redesigned and re-evaluated based on the students opinion and the goal of giving Interpersonal skills learning to them. This course have to get a positive image towards the students and it will require some research attempts to develop the learning plan, learning process, learning method, and the evaluation. This is why interpersonal skills here are divided to three subjects of learning, such as, 1) team building, 2) Study Acceleration, 3).Written Communication skills.

II. LITERATURE REVIEW

Interpersonal skills

Interpersonal skill which is the main topic of this paper has been defined in many ways. According to Honey (1988), Interpersonal skills refers to interactive skills as the skills people use in face-to-face encounters to arrange their behaviour so that it is in step with their objectives. But in a normal communication rather than interaction between people there is some purposes on making communication with other, Communication used to define or achieve personal goals through interaction with others (e.g. ,Canary , Condy, & Manusov, 2003). Practically, Interpersonal skills show how to treat others with care and empathy but it also achieved the goal when the communication is delivered between people. There are many strategies how to interact with each other, one of the theory is from Brown and Levinson (1978, 1987), politeness theory clarifies how we manage our own and others identities through interaction, in particular, through the use of politeness strategies. This is why, Interpersonal skills is not a rigid knowledge but it is flexible and can be adjusted as the time goes.

In Indonesia, interpersonal skills are seen as important skills, and whoever have it, will be considered and respected by others. This happens for a reason, people with interpersonal skills rather than communicating without ethics, they communicate with respects and politeness. This way, they gain popularity with their work mate or their team mate which will help broaden their connections. And interpersonal skills also can blends with any other know ledges, as it is different from hard skills. The true meaning of studying and giving this learning to the students is to help them combine between hard skills and soft skills and increase their opportunity to have a job or to make one.

There are few reasons why there should be Interpersonal skills in the curriculum of Higher education especially in Information Technology, as depicted below:

a) To prepare the students to enter the society and be part of it. The reasons why IT students, don't get respected by their colleagues be it on their team or on the workplace, are because they are too individualistic and don't have empathy towards others. With this given in the first Semester, it will help them to understand and strengthen the bond in each student.

b) **Wheeler (2005)** explained that there are five reasons why students have to learn interpersonal skills, there are knowing yourself, Maintaining control, maintaining motivation and communicating flexibly. This five reasons are the main fundamental in the soft skills development education. In this course and curriculum, students are expected to learn this fundamental in the classroom by communicating and using soft skills to the students. There are facilitators who will help them to learn new things about interpersonal skills as they also teach them by doing it. This will create a good habit and will affect students' behavior and personality from being pampered to mature.

c) To enhance IT graduates opportunity to apply job easily. Communications skills can't be studied in one night . One note that students and people judge how their interpersonal skills is developing can be shown in their communication skills, be it negotiating, interviewing, or in a speech. IT

graduates, usually don't have this kind of skills. The best way to communicate well is to train endlessly and experience it directly. As time goes on, there will be a different and new method in the way of communicating that is why this knowledge is essentials to learn. In the higher education, to apply communication skills learning, there is an intensive class which educate and press them to talk to the audiences. There is a supervisor who evaluates their communicating skills.

Interpersonal skills Frameworks

PMB describes that in the thinking skills and personal capabilities(TS & PC) framework there are there are two main points to develop, working with others and self management , these two points will lead to managing information and thinking creative, and finally combining these will be a way to thinking, problem-solving & decision making (PMB,2007). Furthermore, they explained that there are four steps to deliver the purposes on the students, this step is taken from the first until the end serially to make this method works, these four steps are lesson introduction, thinking actively, thinking about thinking and applying thinking. Geoff Petty (2007) introduced ICEDIP Model and mix this with TS & PC frameworks, ICEDIP stands for inspiration, clarification, evaluation, distillation, incubation, and perspiration, this model explain that there is no correct order to the process and every stage has its own mind set, so in order to maximize this framework, every learning aspects must have different way to deliver according to the model. This frameworks has been researched and implemented for classroom practice which have quite good results such as 1) TS&PC develop the tools, habits and dispositions for lifelong learning, 2) The TS&PC framework brings together different types of thinking skills along with personal and interpersonal skills, 3) The different strands that make up the framework overlap and interact with each other, 4) Few of these skills and capabilities are new, but if we are going to develop them explicitly, this will have implications on the pedagogy (PMB, 2007).

Another frameworks, which is used in Indonesia is Interpersonal skills cycle from the first there are ,1) understanding and working with each other, 2) understanding and working with team,3) leadership,4) Interpersonal skills(Pusdiklatwas, 2007). Each of these cycles are checked and evaluated with psychological quiz which determines what point do the students need to improve. This model note, important principle which have to be known and implemented with, there are openness, empathy, helping each other, positive relationship, equality, and trust. Rather than delivering the way to communicate with Interpersonal skills, this model is not separated with the active listening method. Active listening is the art of the receiver to decode message (Muller, 2011). Burkill et al.(2000) also noticed that listening and interpersonal skills are fundamental to the process of learning itself.

Interpersonal Skills within Higher Education

Not only in Indonesia, in some other countries, education curriculum was dominated with subject content learning, this happens in all major degrees(NCIHE, 1997). Dearing report,

NCIHE publication, results to the change of curriculum in the British, which was followed and modeled by other countries after them.

In the year of 1960's there are many ideas about interpersonal skills and how important is it in the business and commercial environments. When recruiting staff and officer from management graduates, Buckley, Peach and Weitzel (1975, cited in Maes et al) compare that the findings of two different studies to find out which attributes employers valued most highly are their technical skills. But this event has changed since 1983 when, in 1975 research was revealing that communication and interpersonal skills were the most valued skill to the employers.

Interpersonal skills in higher education are not yet taken seriously in Indonesia; this phenomenon is predicted by some authors (Hyslop and Tone, 1988; Burkill et al, 2000). Based on their research the lack of emphasis on the development of such skills came from an assumption that interpersonal skills would develop naturally without the need for direct instruction. Yet from the surveys of employers have indicated that the qualities they consistently rate most highly in graduates relate to their communication skills, their ability to work together in teams and their technical writing skills, besides their basic technical knowledge (Higher Education Round Table, 1992). Even though knowing that, students are also not welcoming the educational of interpersonal skills In higher education, Rees & McPherson (2002) found that students held both positive and negative attitudes to learning these types of skills. They thought that learning interpersonal skills can be directly applied in the real life situation not in the class. They also accepted that being active listener and learning interpersonal skills were vital to the success.

III. METHODOLOGY

In this research, the objective is to develop interpersonal skills learning which is applicable in the Information System dept. The subjects of the research are all students who have entered the first semester. This course is a must to them and roughly a total of 130 students are involved. The observations doesn't take a lot of time, because all of the students in semester one are involved. The following are the steps of implementing the interpersonal skills learning in Information System Dept.

Preparation Stage

a. Syllabus of the Course

In preparing the syllabus, interpersonal skills learning especially in class has been taken from IMB, which is using TS & PC framework, but with some modification through student's opinion, change of culture, and goals. In this development process, there are many factors which are considered as important; they are students, teachers, and methods, teaching kits, psychological atmosphere and class room situation (Johnson, 2002). Learning objective of this course, according to the syllabus is e.g., students able to work in team and capable of leading other and him/her self based on good interpersonal relation and able to solve problem with their own team.

b. Method of learning

Interpersonal model learning is used as the method of learning. There are some considerations for using this method, such as:

1. Students find difficulty to express what in their mind freely, as an information system dept student, would not have much time to interact with each other ; this is the place where they can meet with all of their friends and getting to know them better. But, some students tend to be shy, holding back, and not interested with some of this course programs because they don't think that soft skills will help their future career.
2. By using the model of learning, students learn how to work together in team. How to communicate with each other; develop empathy, respect and awareness. This will boost their interpersonal skills learning. The teams are divided in to four team where in one team there are 10 students member, with one leader which is changed and elected in the beginning of the course. The leader has the right to organize the group and the final decision making will be taken by the leader. The leader also has a full responsibility towards his/her members.
3. Few students are not interested with interpersonal skills learning in the class. They think it's a waste of time because the teachers taught them what they already know. This problem, are being countered by giving the students ice breaking or mini games which happens to be the subject lessons that delivered to them. Because to have this course welcomed, they have to think that this course is enjoyable even though they think negatives at first, this may change in the further development.

c. Learning evaluation

This step is important for measuring the goal or objectives and also measuring the effectiveness of the learning method. Here there are two types of evaluation: Daily evaluation and final evaluation. Daily evaluation are conducted to the students which is report assignment including new things that they have learned from the course. This will help them to express their own creativity by writing it out in the paper, and also notices the teachers what is the progress of the students. This evaluation is far different with the final evaluation which emphasize on a big project. These projects are divided into three projects. One is team building, two is digital interpersonal skills and the last is making a mind map. With this three evaluation, teachers can measure the achievement of the objective learning. Yet, for the purpose of comprehensive evaluation, questioners will be needed and distributed toward the students to gather their opinion and ideas about this course development.

Learning Design of Implementation Stage

The implementation spends 16 weeks for usual meeting, examination will be held on weeks 17 until weeks 18. In the first meeting, the teachers will explained the students about the syllabi which include the goal of course, benefits for IT graduates in their future activity, and the references, material, resources learning, evaluation system and the rule of lecturing.

Every week there are two meetings, outdoor and in class. The different between indoor and outdoor is in the learning scope, outdoor focuses on practical rather than in class which focuses on soft skills theories.

In the learning process there are five facilitators who will help the teacher delivering the essential of interpersonal skills learning. The facilitators were chosen from the students who have finished interpersonal skills course in the first semester, they will be given some qualifications and have to take an interview to determine their qualification, with this, and teachers can control their facilitator's quality.

Facilitator qualifications are determines by their communication skills. Effectual communication engages the choice of the best communications channel, the technical know-how to use the channel, the presentation of information to the target audience, and the skill to understand responses received from others. They have to be qualified and skilled with managing the overall process of communication, expressive skills, listening skills and emotional skills. All of the communication skills have such benefit as:

1. Expressive skills are required to convey message to others through words, facial expressions and body language.
2. Listening skills are skills that are used to obtain messages or information from others. These help to clearly understand what a person feels and thinks about you or understand the other person closely.
3. Skills for managing the overall process of communication help to recognize the required information and develop a strong hold on the existing rules of communication and interaction.

From the first week, the teachers encouraged the students to write an assignment about their activity in the outdoor class, students are asked to note every good things related to soft skills that they learned and experienced in that week course. The formats of the assignment are given below:

- (a) Writing essays about their activities
- (b) Identifying the lesson goals from every activities
- (c) Soft skills Analysis
- (d) Write about how to implement the soft skills in their daily lives
- (e) Comparing how the lessons effect the students

To encourage the students, in every week the teachers will choose the best assignment and reward them with an honor to give a presentation to all of the students and teachers as the audiences. Whoever can deliver and tells the audiences and get a standing applause, will be guaranteed to have a great mark in this course.

IV. RESULT AND DISCUSSION

To judge and identify the method it is essential to summarize the observations and to review the students learning output. With this observation, the model can be studied and judged which programs or learning process will work well and which did not. This observation and experience

analysis helps the teachers to organize the future planning of the course.

In the end of the semester, the teachers will spread questioners and surveys the students about this course. The result was excellent; it is indicated through two things, first was by the high rate of students' attendance and second is based on the survey. Students' attendances were counted excluding sick student's who have doctor permit to leave the course. In the survey there are important point which were asked, those are 1) opinion towards this course, 2) soft skills before and after entering this course. 3) Benefits of this course for them.

All the programs and learning process really affected the students. All students competed to each other enthusiastically, and they didn't complain about being the loser team, because the teachers already prepared the punishment game, this punishment includes students to do what the audience (students, teachers, and facilitators) requested for example: dancing or singing, which is actually well received by some students. Every aspects of learning will be discussed by the facilitators to show the students what they actually learn from one program, they also have a time to discuss it with the other students. This will encourage them to know each other's and learn to anticipate different opinion.

Based on the student's academic performance, it was shown that students who are serious in class, who have high attendance, having involved and participated in all the course programs, get some benefits such as having good communication skills, better moral and personality, and having learning experience. It is shown that more than 50 percent of the students got high grades; only small amount of students got fair and low grades. They got fair and low grades because they didn't focus on class and were frequently absent in the class. This indicates that this method are working and improving their academic performance.

Table 1 Effects of the Interpersonal Learning on

Dimension of skill	Before getting Interpersonal skills course	Daily Assign ment	End Semes ter	△
1. Study acceleration	2,5	3,5	3,5	1
2. Oral communication	2,5	3	3,5	1,25
3. Written communication	2,5	3	3,5	0,25
4. Team Building	2,5	3,5	4	1,25
5. Leadership skill	2,5	2,5	3,5	1
6. Self-confident	2,5	3	3,5	0,75

Skills

4: A (Excellent), 3, 5: AB (Very good), 3: B (Good), 2,5 : BC (Average) , 2 : C (Fair)

On the table 1, it is indicated that students who have been taught interpersonal skills have better Soft skills and attitude particularly in many key of dimensions of skill, and they have increased their skills significantly. Quick reading, oral and written communication, team building, leadership skill, self confident, and mind mapping are fundamental skills in the Interpersonal skills. These skills are

achieved by practicing and experiencing it regularly. That is why every week in groups with the help of facilitators and teachers, students can improve these skills.

The highest improvement of the dimension skill is team building which emphasizes on team work assignment and cases. Here all the students who have been in one team understand their own roles and system for their teamwork. Hoevermeyer (1993) identified the following five areas as significant to team building effectiveness: 1) team mission, 2) goal achievement, 3) empowerment, 4) open, honest communication, and 5) positive roles and norms. This value was observed by the facilitators as they were working together in a team. They also receive feedback of the performance, individually and as a team. However, students tend to choose one leader at a time, and nobody bothers to change their leader, this causes a lack of improvement in the leadership skills dimension. Students are reluctant to be dominant in the team, rather than that, they mutually agreed to choose one person either it can be their leader or not to be the team symbol. This event affects the team, as if the person the students choose is great, the team will become a great team and vice versa.

Written communication also increased, even though it was the least significant. It was hard to improve students' ability to write their assignment in a report. Comments on how to improve students' writing skills are only given in the paper which usually didn't get to be seen by the students. They only look at their mark, and didn't bother to read the suggestion given by the teachers. In this case, improving written communication might seem difficult. Other than that, students also think that this writing assignment is not as important as other course assignment. They are not working on the writing assignment seriously. So far, some actions have been taken to improve the learning process such as encouraging the students to write a report and opinion in the local newspaper which will be compensated them with excellent mark. Other advices are to have a program which focuses on written communication, which will be delivered by the teachers before the students have to write their report, and then for the follow up, teachers and facilitators will help the students to correct their mistakes, by having discussion on a team. With this solution it is predicted that in the next terms, the students will get good marks in written communication.

V. CONCLUSION

Interpersonal skills' learning is a great method for IT students especially in Information System dept to improve their soft skills and apply it directly by having better communication skills. The results indicate that almost all dimension skills of interpersonal skill are getting better, they are study acceleration, oral communication, written communication, team building, leadership skills, and self-confident. Although the learning method was not perfect, feedback is appreciated from the students and teachers to redesign and renew some programs which are not working properly to deliver the knowledge. Based on the evaluation and observations, students are achieving the main objective of the course by having improvements in their interpersonal

skills which can be seen in the academic record, about half of the students got very good marks.

Interpersonal skills learning could be maximized if there is an IT topic that is combined with interpersonal skills learning, this way students will be interested more. Other than that, one program that makes the student active was soft skills discussion. The topics are simple but have good effects to the students. Yet, in this learning method there was one vital point that is not getting well received by the students, it is written communication. Written communication which is being students daily homework, have a less improvement than the predicted result. Meanwhile, leadership skills also contribute less improvement. With this weakness, it is advisable that facilitators and teachers can encourage the students by using academic rewards for students who have applied to become the leader of the team. To improve written communication skills, it is required a follow up of the paper assignment. Furthermore, in the latest discussion, it would be better if written communication skills are delivered around 20 minutes program to focus on the improvement.

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