

THE IMPLEMENTATION OF PROBLEM-BASED LEARNING AND INQUIRY (PBL) AND COMMUNICATION SKILL TO THE STUDENTS' SOFT SKILLS AND HARD SKILLS

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ABSTRACT

Students are the most valuable assets of the university. Development of intellectual capital and mind shift of the student are some principle challenges faced. As a response to the challenges, Widyatama University, especially the Accounting Department, intends to develop a knowledgeable-based economy. In the context of International Education Standards, personal competency is a crucial matter; thus, the university is systematically accelerating the development of quality intellectual capital. As such, in the recent launching of soft skills in Widyatama University, some soft skills and the strategies undertaken to infuse them into the curriculum of higher education are identified. This paper gives an overview of implementing one of the soft skills approaches. The objective of the study is to examine the implementation of problem-based learning and inquiry (PBL) and communication skill to the students' soft skills and hard skills. The samples of the study were accountancy students who took the Financial Accounting and Management Accounting. The data were collected using purposive sampling approach. There is a difference in the soft skill of students who received treatment and do not get treatment, but not so for hard skill. There was no significant differences in hard skill for students who get treatment.

KEYWORDS

soft skill, problem based learning, communication skill

INTRODUCTION

The vast improvement in business world gives an opening to various work fields including the chance to be a bachelor in economic studies, accountancy studies in particular. In everyday life and professional workplaces, people expend their greatest intellectual effort solving problems. This improvement needs to be responded by educational system so it can generate adequate accountancy bachelors who are ready to be sent into the working world. To achieve this goal, the master design of accountancy education needs to be relevant in link with the working world, in this case the work world for accountancy bachelor.

A high quality of education system for sure is linked tightly with the quality of the human resources itself. This is based on the reality that the output of educational system is human resources which will be used in industries and development of a designated place. The effort to improve on the human resources side can be done through an improvement of educational system which in turn will generate a high quality educational system.

Prior research indicates that substantial change is needed in the accounting curriculum to prepare students for successful careers in the accounting profession. The Bedford Committee Report (American Accounting Association (AAA) argues that, while significant change is occurring in the accounting profession, there has been little change in accounting education. The CEO's of the Big-Eight accounting firms¹ state that "the current environment makes real curricular change essential and necessitates response from a dynamic partnership between practitioners and academicians".

The challenge presented to the executor of education system is the acceptance of their alumnus to be in sync with the standard of today's work world. Alumni are faced with a competition amongst domestic as well as overseas universities. Widyatama University (UTama) is one of the universities which provide a set of study program that will generate alumnus in hope of being accepted in the work world.

Alumni do not only have *hard skill*, but also supported with a set of *soft skill* which benefits them as well. Amongst us there are plenty of examples proving that someone who only has a high degree of education does not necessarily become the one succeeded in the working world. The fact has a tendency to lean otherwise, those with lower educational degree in fact succeeded. Most of the educational program centered on the level of IQ, while the fact states that emotional intelligence like perseverance, initiative, optimism, and adaptability has become a new set of deciding criteria (Ginanjari, 2005).

A meeting with one company's HR division from UTama stated that UTama alumni graduate with high score of GPA but lack *hard skill* and *soft skill*. As an example, they still can not journal well whilst on the soft skill, users complain that the alumnus in their probations usually leave the company without notice, leaving before the contract period is over, giving work confirmation unethically with non-constructive language.

In International Education Standard, it states that personal competence needs to have problem solving analysis and communication skill as one of its necessities because every company will have different characteristics so the ability to analyze well is needed. This thing goes in sync with what the users complain about the alumnus, who lack problem solving analysis especially in accountancy matters, beside the lack of communication skill and their personal strength which leans them towards the tendency of meeting difficulties. Communication skills are essential business tools, as well as a prerequisite for management of global economic organizations and effective government in complex societies (Haslam, 2002).

This is the reason why the extensive development of learning methods integrates the aspect of skills and its effectiveness (Boyce et al. 2001). A learning design method with its core study in accountancy referring to the study curriculum with strategic studies are adjusted to the competency bearer within the study itself in terms of competency achievement set by the curriculum. The formulation of this competency is expected to be achieved by college students after attending this study, with hopes of containing two aspects, which are hard skill and soft skill.

Based on this background, the purpose for this research is to figure out the learning method with soft skill approach to increase each of its students' soft skill in factual.

RESEARCH METHOD

Implementation of learning method with soft skill approach was executed in financial accounting class and management accounting class. Of the 184 people as the subject, 64

people (34.78%) were male and 120 people (65.22%) were female. Research subjects were divided into two groups where soft skills and teaching methods do not get a group of soft skills learning. Research subjects who received treatment (application of PBL) accounted for 93 people (52.17%), while 91 people did not received treatment (49.46%).

The method used in this research is field experiment method, which will be conducted an act in class with a comparison between before and after applications of learning method with soft skill attribute in the studies previously done.

a. *Measuring the Study Achievement*

Measurement of content mastery used was by giving test questions regarding the topic at hand.

b. *Soft Skill Measurement*

Attributes used in this core study where problem solving analysis and communication using columns. The attribute of soft skill measurement used to measure the capability of students' soft skills for problem solving analysis with the use of columns. The aspects measured are the ability of: (1) finding out information, (2) problem identification, (3) analyze and problem solving, (4) initiatives, and (5) decision making and problem solving continuance act. Soft skill measurement attributes for communication skill are: (1) the way of expressing ideas; (2) information delivery both verbal and written towards another individual or group; (3) giving more attention when other people are talking; (4) giving response; and (5) asking.

RESULTS

In terms of execution of learning method using soft skill approach, lecturers explain to the students that learning process will mean a set of learning rules as well as its aim and use by applying methods aforementioned so the students will be ready and fully understood how the learning methods should be executed.

The next step is questionnaire sharing to students for measuring the soft skill ability and implementing Focus Group Discussion (FGD) to find out how far the problem solving analysis and communication skill before the implementation of learning method using soft skill approach. This is done to compare the development of soft skill before and after the implementation.

From the result of before implementation of soft skill ability, majority of students have not yet given a good problem solving analysis and communication skill. Students in terms of communication skill is still perceived as lacking, while the majority of them still struggle in delivering a constructive sentence and lack courage speaking in front of a class. In the ability of problem solving analysis, they still can't analyze a case well enough. For example, when a case is presented regarding accountancy differential, they still cannot give a concise decision on explaining the act taken based on their own calculation.

Measuring the ability of soft skill communication in implementation is done by making FGD. The group discussion is done by splitting the students terms of study fields with the maximum of 4 to 5 persons. With this number, lecturers expect a good team building atmosphere (Stein dan Hurd, 2000). The ability developed in the group is the ability to solve cases and answer questions (problem solving analysis) as well as explain the problems solving including giving opinion in a preceding group's discussion (communication skill).

In the beginning of implementation, a process of interaction between lecturers and students is given to give a better understanding to students regarding the topic at hand. Later the content will be talked through in various cases applicable which entail the students to find a way to solve the problem so it ends up in decision making of business interaction. From this process, the bravery inside the students can be compared to the others (pushing the improvement of communication skill as well as content mastery of the topic in discussion).

In the group discussion based on a trigger material, to find out what kind of knowledge needed to be mastered, students need to conduct the next step which is self study to achieve knowledge and measure how far along they are on mastering that knowledge. This enhances the communication skill and early understanding of hard skill which expected to be formed previously.

A small group discussion is meant to share knowledge, compare, and link what they have found during self-study progress and to find out whether they have grasped a strong basic concept.

Aside from discussion, students need to answer the question given by the lecturer in line with the content of study. From this activity we can analyze:

1. Basic knowledge of students linked with the content adjusted to the topic.
2. Students' ability in expressing their opinions which support the development of communication skill.

After questionnaires have been returned, the activity is done to find out the result after implementation whether there has been an increase in capability of problem solving analysis and communication skill from students using the learning methods implemented.

The instrument used is the rubric. Instrument consists of 12 dimensional measurement with a scale of 5 points. Theoretically, the response from research subjects ranged from 12 to 60. Research subjects with the highest score indicates that the subject has a high soft skill.

In accordance with the experimental design used, the testing tool used in this study was ANOVA, which consisted of the factor Problem Solving and Communication, the final value. In the first sensitivity test carried out by means of Kolmogorov-Smirnov test, testing was conducted to determine whether there is a difference in soft skill and hard skill on the subject to get the PBL method of learning and communication when the subject has the characteristics:

1. Low soft skill, low hard skill
2. Low soft skill, high hard skill
3. High soft skill, low hard skill
4. High soft skill, high hard skill

This variable was measured by using 12-dimensional rubric to each research subject. Preference score obtained is the subject of the research in question to one of the options available. The table below shows an overview of soft skill for each group.

Table 1
Soft skill

Group		Statistic	Std. Error
1	Mean	4,3200	0,5899
	Median	4,0000	
	Varians	8,9766	
	Standard Deviation	2,9961	
	Minimum	2,0000	
	Maximum	10,0000	
2	Mean	3,1268	0,3892
	Median	3,0000	
	Varians	2,0055	
	Standard Deviation	2,0137	
	Minimum	1,0000	
	Maximum	5,0000	

To find out if there is a difference between subjects who received teaching methods and do not, do different test. Different test performed with the Mann-Whitney test for responses to the rubric of research subjects are not normally distributed (p -value <0.05) Mann-Whitney test results showed that the soft skills of the research subjects differ between subjects who had a soft skill that has high with low soft skill. It is listed in the table below:

Table 2
Different test manipulation checks

Grup	Manipulation Checks Group	N		
1	High	58	Mann-Whitney U	1721,000
	Low	35	Z	-3,845
	Total	93	P-value asytmotis	0.0000
2	High	41	Mann-Whitney U	1087,000
	Low	50	Z	-4,725
	Total	91	P-value asytmotis	0.0000

From above table, we can see an increase in students' capability in terms of problem solving analysis and communication skill. In increasing the ability to analyze, questions are given to be discussed. Students become easier to direct and more resourceful on how the logics of students in terms of solving the problems discussed.

There is a difference in the soft skill of students who received treatment and do not get treatment, but not so for hard skill. There was no significant differences hard skill for students who get treatment.

CONCLUSION

Learning method using soft skill approach is implemented in the core studies accountancy which can enhance the students' soft skill and hard skill. Soft skill is focused on increasing, the capability of problem solving analysis and communication skill.

There is a difference in the soft skill of students who received treatment and did not get treatment, but not for hard skill. There was no significant differences hard skill for students who got treatment.

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