

Teach Ethics in Vocational Education: An Experimental Research

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Abstract—The background of this research of ethics learning in vocational education for students of Institute of Technology (STT PLN) is the very importance to give a specific knowledge guide to the students in the future work for Good Corporate and doing clean business in the global environment. The objective of this research is to answer a question, can ethics be taught. The methodology of research applied is experimental research using pre and posttest with control group. The class has two groups of students, first already accepted for work in a company and others are not. The pretest of both groups is significantly different, but in the post test after treatment, the both score of groups are increase significantly with no difference between two groups. The result of research is that the ethics can be taught even in different groups which gave the same high score significantly.

Keywords—ethics, vocational, teaching

I. INTRODUCTION

The ethics with comply the International Standard to the students is very importance for the future work to them. The question is that ethics knowledge can be taught to the student? Successfully research will have impact to find a way in disseminating ethics systematically and planed to the students. Ethics problem will be reduced systematically in the global and international business competition through ethics. Indonesia is the 96 ranking of the corruption according Corruption Perception Index 2017 that considered very low (see Table I). Therefore, the research related with this data is very important.

Welch in [1] stated that as evidenced by the recent revitalization of guidelines for general learning objectives for undergraduate business ethics education is of significance importance today. Robinson and Mescht in [2] stated that found that entrepreneurs are not guided in applying the ethics in their work and must decide for themselves what is right or wrong. Brown in [3] stated that says that as previous studies have found, the inclusion of ethics into undergraduate business programs has been “indiscriminate, unorganized and undisciplined in most North American schools of business”.

Hannafey in [4] states, that during the past twenty years, there has been explosion of new interest in entrepreneurs and their activities. Yet only recently has serious research attention been devoted to the ethical problems encountered by entrepreneurs and their organizations. Entrepreneurs face uniquely complex moral problems related to basic fairness,

personnel and customer relationships, distribution dilemmas, and other challenges. Wood in [5] stated that appear in our scholarly research to have discovered that progress has been made in business ethics, but how much has actually been made on the ground in businesses? In reality, in the world of commerce, we are still seeing the same alleged behaviors by corporations from developed economies that have dogged business for so long: greed, corruption, self-interest and the disinterest in the impact of our actions upon others.

TABLE I. RANK OF THE CORRUPTION

Country	Rank
Burkina Faso	74
Lesotho	74
Tunisia	74
China	77
Serbia	77
Suriname	77
Trinidad and Tobago	77
Ghana	81
India	81
Morocco	81
Turkey	81
Argentina	85
Benin	85
Kosovo	85
Kuwait	85
Solomon Islands	85
Swaziland	85
Albania	91
Bosnia and Herzegovina	91
Guyana	91
Sri Lanka	91
Timor-Leste	91
Brazil	96
Colombia	96
Indonesia	96

ElGamal, *et al.* in [6] stated that said that ethical practices have positive impact on Corporate Governance (CG), and in turn CG has a positive impact on Corporate Social Responsibility (CSR). The results also reveal a mediating effect of CG on the relationship between ethics and CSR.

Monga in [7] stated suggests that “specific characteristics of the formal ethics and legal compliance program matter less than

the broader perceptions of the program’s orientation toward values and ethical aspirations.” This research found that two factors are most important: (1) that ethics is perceived to be important to leadership from executive through supervisor and (2) that employees believe they are treated fairly. It is particularly important that enterprise policies and management actions be consistent and that reward systems support ethical behaviour.

Fisher, *et al.*, [8] states that research and experience over the past 15 years suggest that a primary best practice is to design a business ethics program that goes beyond mere compliance, but promote, where necessary and appropriate, the establishment of codes of conduct for SME lending by banks.

Chavan & Lamba, in [9] study empirically examines the cultural influences on the judgment of Australian, Malaysian and Indian SME managers to whistle blowing as an internal control mechanism. There is however, no discussion in the paper about the significance of the choice of SME managers. Since the findings are at the level of cultural influences, the SME managers appear to be just a sample, with no specific behavioral uniqueness attached to them.

McGowan in [10] mentions that educational researchers are faced with the exploring how students learn and are related addressing the issue of how to best help students and often, educational researchers are interested in determining the effectiveness of some technology or pedagogical technique for use in the classroom, therefore; their ability to do so depend on the quality of the research methodologies used to investigate these treatments.

Types (domains) of learning objectives according to Blooms in [11] stated that consists of cognitive (knowing) objectives which describes the knowledge that learners are to acquire, affective (feeling) objectives which describes the attitudes, feelings, and dispositions that learners are expected to develop and psychomotor (doing) objectives which relates to the manipulative and motor skills that learners are to master. Benjamin Blooms explained the learning process that consists of structure for categorizing competencies, description of skills that must be demonstrated for each level of thinking and action verbs that elicit student responses within that level. In order to determine the competencies, clear objective of learning should be stated.

The most well-known and used model for measuring the effectiveness of training programs was developed [8]. It has since been adapted and modified by a number of writers; however, the basic structure has well stood the test of time. The basic structure of Kirkpatrick’s four-level model is shown here. Level 1 (Reaction); How did participants react to the program? Measurement may use such completed participant feedback questionnaire, informal comments from participants, and focus group sessions with participants. Level 2 (Learning); To what extent did participants improve knowledge and skills and change attitudes as a result of the training? Measurement may use pre- and post-test scores, on-the-job assessments and supervisor reports. Level 3 (Behavior); to what extent did participants change their behaviour back in the workplace as a result of the

training? Measurement may use completed self-assessment questionnaire, on-the-job observation, reports from customers, peers and participant’s manager. Level 4 (Results); what organizational benefits resulted from the training? Measurement may use financial reports, quality inspections and interview with sales manager. To be effective over time, a business ethics program must be a formal plan, because it touches on all aspects of the enterprise operations, human resources, communications, and marketing to name but a few. Formally planning a business ethics program ensures that owners and managers give due consideration to the enterprise’s relevant context, organizational culture, and reasonable stakeholder expectations.

The problem was not clearly answered in developing the formal guide to teach ethics for vocational students in the engineering institutions.

The rest of this paper is organized as follow: Section II describes proposed research method of this work. Section III presents the obtained results and following by discussion in section IV. Finally, Section V concludes this work.

II. PROPOSED METHOD

Material of the ethic class consist of

- 1) Ethics and etiquettes
- 2) Social and association ethics.
- 3) Work and professional ethics, comply to IEEE (Institute of Electrical and Electronics Engineer)
- 4) Corruption and business ethics, comply to SA (Social Audit) 8000
- 5) Plagiarism

The theoretical framework is focusing the students in understanding of ethics. The process of the activities can be drawn in Figure 1 as follow.



Fig. 1. Etics theoretical framework

Campbell and Stanley in [12], the classic experimental research, told that especially in the non equivalent design for group with control group should not be treated. However, these researches applied different approaches with all groups are given by the same treatment (see Figure 2).

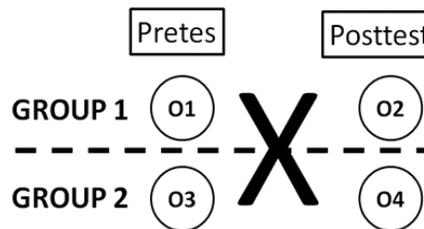


Fig. 2. Research Design

III. RESULT AND DISCUSSION

The object of the experimental research is the students of the vocational education, with $n=16$ that consist of 7 students (group 1) already accepted in a company and 8 students (group 2) from the public. From the above design, hypothesis can be developed as follow :

Hypothesis 1:

There is a significant difference between group 1 and group 2 in the pre test. The statistics test proves that the two groups are difference, with significant level less than 0.05. The result of the pretest is for the Group 1: 6,43 and Group 2: 5,13 from scale of 0 to 10 (see Table II).

TABLE II. ONE-SAMPLE TEST

	95% Confidence Interval of the Difference					
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Pretest	19.094	14	.000	5.73333	5.0893	6.3773

Hypotheses 2:

The treatment of the ethics class can increase the student knowledge significantly, even for different groups. The significant level is less than 0.05. The average score of the pretest before treatment is 5.73 and after treatment 9.67 for all students (see Table III).

TABLE III. PAIRED SAMPLES TEST

	Paired Differences					T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pretest Posttest	-3.9333	1.27988	.33046	-4.64211	-3.22456	-11.902	14	.000

Hypothesis 3:

The treatment by giving the ethics class can improve the score for both two groups equal statistically (see Table IV). The significant level is 0.165 that higher than 0.05, the means that there is no difference in result between two groups. The treatment of the ethics class can improve students successfully whatever the heterogeneity. The average group 1 is 9.86 and group 2 is 9.5 are not significantly difference.

TABLE IV. ANOVA

		Sum of Squares	Df	Mean Square	F	Sig
Posttest	Between Groups	.476	1	.476	2.167	.165
	Within Groups	2.857	13	.220		
	Total	3.333	14			

IV. CONCLUSION

Referring to teach ethics, hypothesis can be developed. General hypothesis is that learning of the ethics can enhance the knowledge for different groups. Hypothesis 1; the difference group will have difference score in the pre-test. The most importance is the hypothesis 2: The difference group will increase the score after treatment or learning and hypothesis 3: there is no difference posttest score from difference group. This research show that ethics class can improve of knowledge understanding of the ethics.

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