

Full Length Research Paper

The analysis attitude of students toward safety with working in shop organization in Rajamangala University of Technology Isan

Wantana Amatariyakul¹ and Chumnong Amatariyakul²

^{1,2}Rajamangala University of Technology Isan, Faculty of Technical Education, 150 Srichan Street, Muang District, Khon Kaen 40000, Thailand.

Accepted 28 October, 2010

The paper investigates the analysis student attitudes toward safety with working in shop organization in Rajamangala University of Technology Isan. Samples group were 440 students who enrolling general in 5 campuses, 12 faculties: Nakhon Ratchasima Center, Khon Kaen Campus, Surin Campus, Kalasin Campus and Sakon Nakhon Campus of the academic year 2008. A composite scale was constructed to measure attitudes toward four dimensions of safety with working in Shop Organization. Hypotheses correlated of attitudes supportive of safety with working in Shop Organization. The questionnaire used in data collection. Results of this research showed that attitudes of students toward safety with working in shop organization were good (69.14%) and moderate (35.19%). When considered separately, it showed that students were having good level of attitudes as much as 66.36%, 64.09%, 67.27% towards causes of accidents, safety management, importance of safety and the way of safety with working in shop organization, respectively and having moderate level of attitudes as much as 27.73%, 23.42% and 13.87% towards the three mentioned categories. The attitudes in instructor showed medium average. The attitudes in policy for administration in Rajamangala University of Technology Isan showed at a higher level. The attitudes were significantly different depending on different program at the level of 0.05.

Keywords: Attitude, safety, shop organization

INTRODUCTION AND LITERATURE

During the 2000s engineering was reported as one of the most dangerous occupational industries in Thailand with approximately 7 deaths per 1,000 workers and over 200,000 disabling machine-related injuries. The vast majority of these incidents occurred to people under age 20 during 2003-2007. Over 1 in 4 of the injuries were incurred by carelessness. This is important data for engineer education programs where on site working in shop organization by both teachers and students are common. Universities also play an important role in preparing an individual for the future, both intellectually and socially. In addition to the cognitive acquisitions, the university can be the center for students' personal, social and intellectual activities and development. Universities

are sources of ideas and learning that can change opinions and behaviors (Eisen and Kearney, 1995). According to the cognitive approach, changing an opinion can have an important role in shaping emotions and behaviors. Therefore, changing a perception is important for the modification of negative behaviors.

Over the recent past, health and safety concerns for student populations in Rajamangala University of Technology Isan have grown in importance. University has complicated this issue in two regards by increasing demands on teachers to improve policy of local control of state-based educational safety in working. These decisions have placed career and technology (vocation-based) programs. This is notably consequential in the case of student safe protection in shop organization with dangerous equipment, as the cause of greatest concern for the health of students has become unintentional injuries. Generally the causes of occupational accidents are classified as unsafe conditions and unsafe behaviors.

*Corresponding author E-mail: gas_mm@hotmail.com

Various researches accept that the safety with working in shop organization affects the safe / unsafe behaviors of the students are influenced by certain organizational and cultural factors. As a long time recognized, important and multifaceted factor in organizations, safety with working can be analyzed as the attitude of students and the priority of the safety together with the safety policies, practices and applications in the workplace. Documented over the years and others, reaffirmed that new teachers were inadequately trained in safety and experienced teachers were even less safety conscious than their professionally young colleagues. Teachers must be aware of what they say and do for they are the ones ultimately responsible for the consequences of their own actions (McCormick, 1994).

Research Objectives

The purpose of this research therefore is determined in this context to investigate the attitude of students towards safety with working in shop organization, Rajamangala University of Technology Isan and exploration in depth, the reasons for student attitudes.

Population and Sampling

The population of the study consisted of students enrolled in Rajamangala University of Technology Isan in 5 campuses: Nakhon Ratchasima Center, Khon Kaen Campus, Surin Campus, Kalasin Campus and Sakon Nakhon Campus of the academic year 2008. The sampling consisted of a total of 440 students enrolled in the faculties of Engineering, Agriculture, and Vocational High Schools.

RESEARCH METHODOLOGY

This is a survey research. The population of which was 5 campuses: Nakhon Ratchasima Center, Khon Kaen Campus, Surin Campus, Kalasin Campus and Sakon Nakhon Campus of the academic year 2008. The study was conducted by Content Analysis Research Technique selected by using stratify random sampling for 8 months from the study of opinion of the 440 students in Rajamangala University of Technology Isan.

The instruments used for this research are interviews and two parts of questionnaire. The first part of questionnaire surveyed the general data and the second part surveyed the attitude of students toward safety with working in shop organization in Rajamangala University of Technology Isan. Questionnaire form contains 78 statements related to measure safety with working in shop organization. All items were measured on a 5-point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). The steps of reliability and validity check of this present study were as follows. First, the instruments which had been constructed based on the purposes of research study were sent to five judges for content validity check. The contents were then adjusted to their advice. Then, these instruments were tried out with fifty students who were the population of the study for construct validity check. Finally, the

instruments were tested by Alpha Cronbach Coefficient for reliability check. In the studies carried out on student sampling, the Cronbach's alpha reliability coefficient of the scale varied between .87-.92 and item-total score correlations varied between .20 and .50. Test re-test reliability coefficient of the scale varied between .54 and .84. Cronbach's alpha reliability coefficient was found to be .82 by the researcher.

STATISTICAL ANALYSES

This section includes the findings about the analysis attitude of university students according to variables such as gender, faculty they are attending, perceived parental attitude, socio-economic level, perceived school achievement and type of high school graduated from.

Data were collected using a two-page questionnaire administered in the lecture of the final week in semester 1, 2008. The students were pursuing their Diploma of Engineering located in the northeastern region of Thailand. Students were informed that the study was anonymous and not part of the assessment regime of the subject. The survey was designed to cover a range of issues identified in the literature as possibly impacting educational outcomes. Students were asked a total of twenty self-developed questions most of which required a response on a five-point Likert scale with 'strongly disagree' and 'strongly agree' at the extremes. This approach has been used previously in the literature which examines teaching and learning methods (Harasim, 1999). Generally a mean closer to five is used by many studies to indicate agreement; however, in this paper a different item format was used, that is, a mean closer to one indicates agreement, to avoid common method bias (Cambell and Fiske, 1959). Twelve statements were adapted from previous research by Maenpaa (2006). This earlier work examined attitude of students toward Safety with working in shop organization in Rajamangala University of Technology Isan. As will be described, the majority of questions focused on safety, socio-economical levels.

RESULTS

Results of this research showed that attitudes of students toward safety with working in shop organization were good (69.14%) and moderate (35.19%). When considered separately, it showed that students were having good level of attitudes as much as 66.36%, 64.09%, 67.27% towards causes of accidents, safety management, importance of safety and the way of safety with working in shop organization, respectively and having moderate level of attitudes as much as 27.73%, 23.42% and 13.87% towards the three mentioned categories (Table 1). The attitudes in instructor showed medium average. The attitudes in policy for administration in Rajamangala University of Technology Isan showed at a higher level. The attitudes were significantly different depending on different program at the level of 0.05.

CONCLUSIONS AND RECOMMENDATIONS

Positive safety attitudes, beliefs and practices of students toward safety with working in shop organization in Rajamangala University of Technology Isan are crucial

Table 1. Percentage for analysis attitude of behaviors of university students according to gender and age.

Gender and age within main sample	number	Percentage
<u>Gender</u>		
Male	386	87.72
Female	54	12.28
<u>Age</u>		
17-18	42	9.54
19-20	173	39.32
21-22	177	40.22
23-24	42	9.55
> 25	6	1.37

Experience in shop organization	number	Percentage
3-4 years	292	66.36
4-5 years	122	27.73
5-6 years	11	2.50
6-7 years	8	1.81
7-8 years	2	0.46
> 8 years	5	1.14

for insuring students educational opportunities are not hampered. The students participating in this study displayed positive concurrence toward common measures to exhibit safety consciousness.

Secondly, it may be inferred from this sample of teachers that age and years of experience may have an effect on student attitude towards safety with working in shop organization. One possibility may be due to them receiving additional pre-service student training.

Finally, continued efforts should be guided towards exploring the significant group differences found in attitudes towards simple and common sense safety measures considered by this instrument. Additional efforts are also needed to improve instrument reliability. Even though these findings are specific to Rajamangala University of Technology Isan where this study is conducted we believe that they are still important because they provide evidence that dimensions of safety with working in shop organization could directly influence the safety attitude of students. We also believe that this study, according to our knowledge, is the first of its kind to investigate the concept of safety in Rajamangala University of Technology Isan. We hope that this study will be refined and comprehensive studies in the future and enhance the urgently needed effectiveness of safety with working in shop organization in Rajamangala University of Technology Isan.

ACKNOWLEDGMENT

The authors would like to recognise Rajamangala University of Technology Isan, Thailand for the funding of this research.

REFERENCES

- Barraket J, Payne AM, Scott G, Cameron L (2000). Equality and the Use of communication and information technology in higher education: A UTS case study department of education, training and Youth affairs evaluations and investigations programme 00/7. Canberra, ACT: Australian Government Publishing Service.
- Bradford P, Porciello M, Balkon N, Backus D (2007). The Blackboard Learning System: The be all and end all in educational instruction? *J. Educ. Technol. Syst* 35(3): 301-314.
- Brow KA, Willis PG, Prussia GE (2000) : "Predicting Safe Employee Behavior in the Steel Industry : Development and Test of A Sociotechnical Model". *J. Oper. Manage.* 18:445-465.
- Cambell D, Fiske D (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychol. Bull.* 56(2):81-105.
- Curtis DD, Lawson MJ (2001). Exploring collaborative online learning.
- Eisen AR, Kearney CA (1995). Practitioner's guide to treating fear and anxiety in children and adolescents: A cognitive-behavioral approach. Jason Aronson, Northvale.
- Good CV (1973). *Dictionary of Education*. New York : Mc. Graw-Hill Book Company.
- Harasim L (1999). A framework for online learning: The virtual-u. *Comput.* 32(9):44-49.
- Harper JG (1984). Analysis of selected variables influencing safety attitudes of agricultural mechanics students. Paper presented at the

- Central Region Research Conference in Agricultural Education, Chicago.
- Hubert D (2000). Safety and health education analysis of Texas first year agriculture teachers. Proceedings of 27th National Agricultural Education Research Conference. San Diego, CA. Pp.118-127.
- James WC (1995). "Safety Values and Safe Practices Among College Students" J. Saf. Res. 26(3);187-195.
- Maenpaa K (2006). Clustering the consumers on the basis of their perceptions of the Internet banking services. Internet Res. 16(3):304-322.
- Simachokdee, Withon. (2005). Engineering and safety in shop organization. Bangkok: Thai-Japan association.
- Stewart TC, Scappaticci L (2005). Making the Connection:A Hybrid Distance Learning Program for Underprepared College Students. US-China Educ. Rev. 2(3).
- Sullivan RL (1990). 16 ways to lawyer-proof your lab. Vocat. Educ. J. 199:20.
- Viswanath V, Morris MG, Gordon DB, Davis FD (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Q. 27(3):425-478.
- Yamame T (1967). Statistics an Introductory Analysis. 2nd ed. New York: Harper & Harper.