

## The Development of Teacher Spirit Preparation Package for Pre-Service Teacher at Vocational Education

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**Abstract:** The Development of Teacher Spirit Package for Pre-Service Teacher at Vocational Education is experimental study which aim to 1) enrich teacher attributes of vocational teaching students according to professional standard of The Teachers' Council of Thailand and 2) develop the activities set to enrich vocational teacher attributes. Contents in the package is selected from integrate 4 contents include: 1) three professional standards from the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013) that are teachership, educational innovation and information technology, and professional ethics; 2) standards of performance according to the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013); 3) desired characteristics of 21st century teachers; and 4) the industrial technician teachers' characteristics: creativity and safety. 133 students was selected by convenience sampling which came from 1st to 4th year, who enrolled in bachelor of industrial education in six majors. Instruments in the study were, first, Teacher Spirit Preparation Package for Pre-Service Teachers at Vocational Education which include teacher handbook and learner handbook which comprise of 3 modules as 'mind cultivating, creative building and teacher fostering'. Second, twelve pre-post activities evaluation forms, and third, a 45 items teacher attributes evaluation form. The instrument quality was adjusted by analyzing content validity by IOC were between 0.80 to 1.00. The reliability was analyzed by Cronbach's Alpha Coefficient which yield .650 to .897 reliability. The study reveals that, as a whole, the mean score of vocational teachers' characteristics of the students who used 'the activity package for enhancing vocational teachers' characteristics' is in the "good" level. Moreover, the mean scores of each characteristics are in the "good" level. And number of the students who 'pass' the activities (mean score over 2.51) were 100 percent in each activity.

**Key words:** *Teacher Spirit Package, Pre-Service Teacher, Vocational Education, Teacher Spirit Preparation*

### 1. INTRODUCTION

Higher education plays an important role in providing both medium and high level manpower, creating and developing new knowledge, researching, delivering academic services, and enhancing Thai art and culture. Higher education institutes are academic centers where wisdoms and scholars congregate. The institutes aim to create quality graduates who hold sufficient skills and potentials to apply their knowledge into their

professions and to encourage the economic and social development of Thailand. Teacher education faculties are a part of higher education that administer teachers into schools and vocational institutes [1].

The essential characteristics of students who study vocational teaching programs are developed in relation with the career goals of vocational teachers. In this study, the researchers set a guideline to enhance these students to possess 'Industrial Habits.' These behaviors

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are common characteristics stated in the education policy of both government and industrial sectors. Since vocational teacher education institutes mostly produce industrial technician teachers, the researchers set two industrial habits, creativity and safety, as major targets in designing an activity package. The package is derived from the belief that vocational teachers need to be creators of both learning innovations and modern innovations that are the basis of country development [2-3].

According to the vocational education and training policy and other studies, it is found that the aims of vocational education are quite different from basic education in both the educational administration and the characteristics of graduates. In order to educate vocational teachers, teaching profession characteristics are included in the curriculum. [4-5].

The Teachers Council of Thailand assign teacher education faculties to provide the students with activities that encourage students' teaching profession characteristics. However, no definite guidelines nor assessments are arranged. Faculty of Technical Education, Rajamangala University of Technology Thanyaburi, attempts to develop the graduates to reach the professional standards of the Teachers' Council of Thailand. Placing importance on this topic, the researchers intend to establish models and guidelines for "the activity package for enhancing vocational teachers' characteristics" which focuses on creativity and safety. This activity package can be a model for vocational teacher education development that strengthens students to be effective vocational manpower in the future.

## **2. OBJECTIVES**

The Development of Teacher Spirit Preparation Package for Pre-Service Teachers at Vocational Education has objectives aim to:

1. Enrich teacher attributes of vocational teaching students according to professional standard of The Teachers' Council of Thailand

2. Develop the activities set to enrich vocational teacher attributes.

## **3. PHILOSOPHY IN PACKAGE DESIGN**

"Teacher Spirit Preparation Package for Pre-service Teacher at Vocational Education" is a part of extracurricular activities for undergraduate students in Bachelor of Science in Technical Education curriculum. Based on structuralism-functionalism approach, it is believed that society is a complex system consisted of structures. People work together to promote solidarity and stability. In addition, according to pragmatism principle, it is believed that human can reach the truth on their own. The principle emphasizes on the practical application of ideas by acting on them to actually test them and experiencing them. Therefore, to encourage teaching profession characteristics of vocational teachers, the activity package is a combination of structural-functional approach and pragmatism principle.

## **4. CONTENT LIMITATION**

Content within "Teacher Spirit Preparation Package for Pre-service Teacher at Vocational Education" is selected from integrate 4 contents include:

1. Three professional standards from the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013) that are teachership, educational innovation and information technology, and professional ethics;
2. Standards of Performance according to the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013);
3. Desired characteristics of 21<sup>st</sup> century teachers; and
4. The industrial technician teachers' characteristics: creativity and safety.

As shown in figure 1.

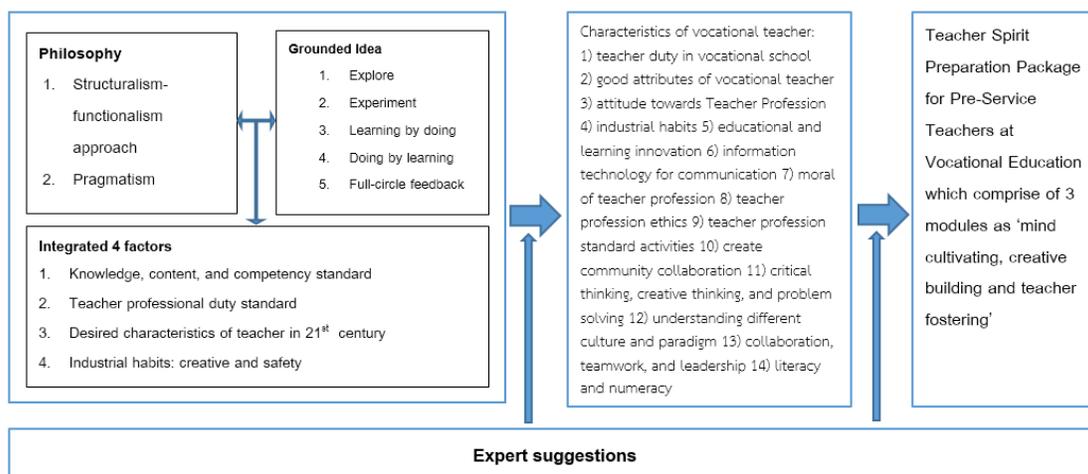


Figure 1: Study framework

## 5. PROCEDURE

### 5.1 Sample

133 students was selected by convenience sampling which came from 1<sup>st</sup> to 4<sup>th</sup> year, who enrolled in bachelor of industrial education in six majors as Civil Engineering, Electrical Engineering, Mechanical Engineer, Industrial Engineer, Computer Engineering and Electronics and Telecommunication Engineering.

### 5.2 Methodology

1. Designing framework for the activity package is developed and 14 goals are set based on structural-functional approach and pragmatism principle together with the integration of four contents. These contents include:

- 1) Three professional standards from the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013) that are teachership, educational innovation and information technology, and professional ethics;
- 2) Standards of Performance according to the Notification of the Teachers Council of Thailand Board on Professional Standards and Ethics B.E. 2556 (2013);
- 3) Desired characteristics of 21<sup>st</sup> century teachers; and
- 4) The industrial technician teachers' characteristics: creativity and safety.

2. A focus-group discussion for teaching experts is held to criticize the framework.
3. The blueprint of activity package that includes three modules – 'Mind Cultivating', 'Creative Building', and 'Teacher Fostering'- is arranged. The students have to join all activities each year. As follow:

1st Year	Mind Cultivating I	'learning teacher work'
	Creative Building I	'media discovering'
	Teacher Fostering I	'community survey'
2 <sup>nd</sup> Year	Mind Cultivating II	'media experiment'
	Creative Building II	'debate'
	Teacher Fostering II	'project planning'
3 <sup>rd</sup> Year	Mind Cultivating III	'professional activities'
	Creative Building III	'media creation'
	Teacher Fostering III	'project creation'
4 <sup>th</sup> Year	Mind Cultivating IV	'teacher work exhibition'
	Creative Building IV	'media exhibitor'
	Teacher Fostering IV	'teaching practice'

4. The activity package blueprint and the professional teaching characteristics assessment are criticized by the experts with the focus on construct validity and content validity.
5. The activity package for enhancing vocational teachers' characteristics is improved.

6. The quasi-experimental study is conducted with a sample group of students.
7. Collected data are analyzed for improvement.

### 5.3 Instruments

Instruments in the study were, first, Teacher Spirit Preparation Package for Pre-Service Teachers at Vocational Education which include teacher handbook and learner handbook which comprise of 3 modules as 'mind cultivating, creative building and teacher fostering' and second, twelve pre-activities and post-activities evaluation forms and a teacher attributes evaluation form.

Teacher Spirit Preparation Package for Pre-Service Teachers at Vocational Education as mind cultivating, creative building and teacher fostering. In each set comprised of four activities which made totally 12 activities for participants to finish, the activities package were assigned according to year of study. Every activities were practiced for three weeks except the mind cultivating that can be practiced throughout a semester and teacher fostering IV which can be practiced for 3 – 4 weeks.

The evaluation form comprised of twelve pre- and post-activity evaluation forms and a teacher attribute form. The teacher attribute evaluation form comprised of 45 questions in ten aspects comprised of 1) teachership; 2) educational innovation and information technology; 3) professional ethics; 4) standards of performance; 5) Desired characteristics of 21<sup>st</sup> century teachers; 6) creativity; 7) safety; 8) innovator; 9) exhibitor; and 10) community collaboration. The instrument quality was adjusted by analyzing content validity by IOC. The result yielded that validity of 45 question were between 0.80 to 1.00. The reliability was analyzed by internal consistency by Cronbach's Alpha Coefficient which yield .650 to .897 reliability.

### 5.4 Data Analysis

Data analyzing was separated in to three parts as;

1. Analyzing attributes that emerge before and after activities participation by mean and standard deviation.

2. Comparing mean of the attributes that emerge between before and after participation in twelve activities by independent t-test.
3. Analyzing vocational teacher attribute by comparing mean and standard deviation with set standard.

## 5. RESULTS

Before participate in Mild Cultivating I, 1<sup>st</sup> year students' attribute mean was 2.47. After the participation, the mean increased to 3.60 significantly (at .05 level). And before participate in Creative Building I, the students attribute mean was 2.28 and increased to 3.67 significantly (at .05 level) after the participation. In Teacher Fostering I, before participation mean was 2.42 and increased to 3.69 significantly (at .05 level) after the participation.

For 2<sup>nd</sup> year students, before participate in Mild Cultivating II, their attribute mean was 2.67 which increased to 3.74 after the participation. In Creative Building II, pre-participation mean was 2.45 and post-participation was 3.51. For Teacher Fostering II the mean increased from 2.51 to 3.80. All results were significant at .05 level.

In 3<sup>rd</sup> year students, their attribute mean before participate in Mild Cultivating III was 2.65 which increased to 3.81 after participation. In aspect of Creative Building III, the mean increased from 2.44 to 3.39 and in Teacher Fostering III, the mean increased from 2.22 to 3.75. All results were significant at .05 level.

For 4<sup>th</sup> year students attribute means in Mild Cultivating IV, Creative Building IV and Teacher Fostering IV increased from 3.78 to 3.95, 3.50 to 3.83 and 3.79 to 4.00 respectively and significantly at .05 level.

The study reveals that, as a whole, the mean score of vocational teachers' characteristics of the students who used 'the activity package for enhancing vocational teachers' characteristics' is in the "good" level. Moreover, the mean scores of each characteristics are in the "good" level. And number of the students who 'pass' the activities (mean score over 2.51) were 100 percent in each activity. As shown in Figure 2.

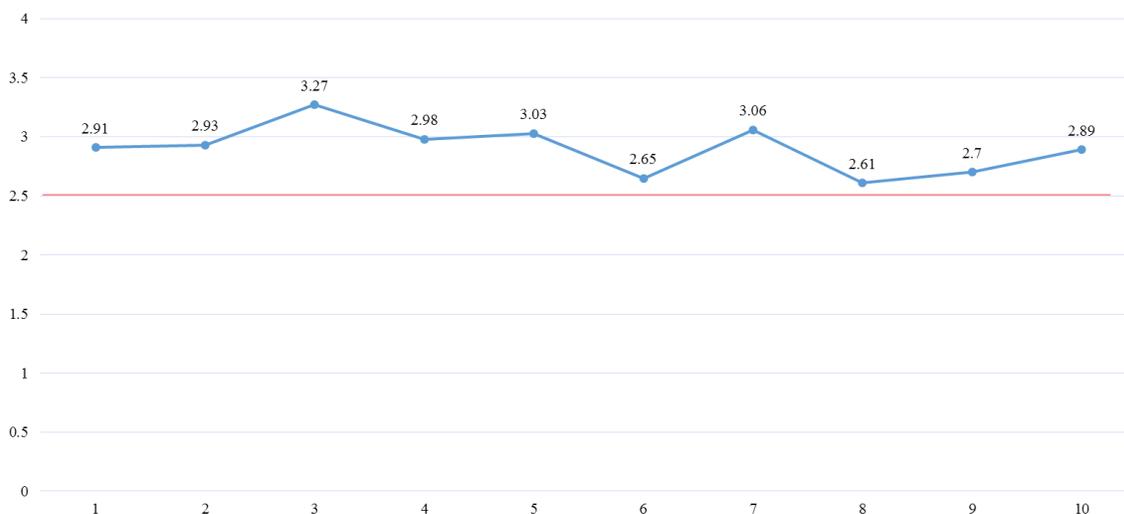


Figure 2: Mean scores of vocational teacher characteristics

## 6. PACKAGE USING SUGGESTIONS

Suggestions for Vocational Education Teacher University to generate using the package are:

1. Vocational Education Teacher University should set 2 hours a week in student learning schedule for using package activities.
2. Most data in the package were from online that changeable all time. Vocational Education Teacher University can compensate similar data in activities.
3. Vocational Education Teacher University should conduct channel for communication between student and teacher such as Face Book etc. to sharing knowledge, data, news for enhancing Professional Learning Community (PLC) in the University.

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