

DEVELOPMENT OF A LEADERSHIP MODEL FOR STUDENTS IN THAI HIGHER EDUCATION INSTITUTIONS OF SCIENCE AND TECHNOLOGY

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Abstract: Leadership development is becoming a critical issue for Thai higher education system since the lack of leadership skills for Thai graduates particularly in the science and technology discipline raises concerns for all sectors involved including stakeholders who expect to recruit the ones with full range of knowledge and capacities. This study aims at developing a leadership model for students in Thai higher education institutions of science and technology to help develop and prepare students to become competent graduates as well as leaders who could gain success in their future. The objectives of this research are: 1) To identify the expected leadership characteristics and practices of undergraduate students of higher education institutions of science and technology in Thailand, 2) To explore the leadership characteristics and practices of undergraduate students of higher education institutions of science and technology in Thailand, 3) To develop a model with the reference to the needed characteristics of undergraduate students of higher education institutions of science and technology in Thailand.

This research was conducted using both qualitative and quantitative methodology. There were four phases for developing the model as follows: 1) documentary research and interviews, 2) survey procedures, 3) draft model development and 4) model validation. The samples for the interviews were selected by purposive sampling techniques while the samples for the survey were selected by the criteria and proportional stratified sampling method. The Student Leadership Practices Inventory questionnaires by Kouzes and Posner were used as an instrument along with the semi-constructed questions for the interviews. The data analysis was done through the synthesis of the documents, the constant comparative method, the descriptive statistics (means and standard deviation) and the connoisseurship model of evaluation.

The major findings were the essential elements which should be composed in the model. From the results, it showed that students needed to develop these components. They were 1) 2 aspects of values, 2) 8 skills and 3) 5 practices needed to be enhanced. The findings also proposed three factors influencing leadership

development including opportunity, motivation and engagement. From the characteristics found in the findings, it guided how to construct the model. The final model was created in form of multilayer circle representing all components that must be enhanced to achieve the goal of the model. With the consent of the focus group experts on the model validation, the model for developing leadership for students in Thai higher education institutions of science and technology was complete and supplemented with the constructed course to apply the model as an implementation to help develop students potentially to become competent leaders in the future.

Keywords: Leadership Model, Students in Thai Higher Education Institutions of Science and Technology

Background of the Study

Science and technology have become a crucial foundation for the country's development in economic, social and politic scenes (Charoenpipatpol, 2002). Satoru posits that science and technology are also identified as a major mechanism for sustaining the development of societies (as cited in Charoenpipatpol, 2002). Also, science and technology play a key role to the improvement of the standard of living, leading to the betterment of the quality of life (Lagowski 1994, in Charoenpipatpol 2002). Apart from its influence on the country's development, science and technology have been fully recognized as an indicator of achievement of the nations' economies as Charoenpipatpol asserts that the competition of knowledge based economies is becoming considerably dependent on the advancement of technologies in response to the economic globalization (2002).

Singh states that for Thailand's success in developing science and technology, having sufficiently scientific and technological manpower is regarded as a vital tool for enabling Thailand's economy to compete other nations potentially (as cited in Charoenpipatpol, 2002). In order to produce the quality competent manpower, higher education institutions play a major role in providing education and training, in particular, the ones specializing science and technology may be considered as a leading group as this is their core missions of developing the quality manpower in the field (Charoenpipatpol, 2002).

Regarding with the major reform of education in 2003, Thai higher education system has been restructured and strengthened its capacity of producing graduates. The Office of the Education Council (OEC), Ministry of Education has set goals of higher education reform and one of the them has emphasized the quality

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