

Development of Competencies and Educational Media Innovation for Students of The Faculty of Education through The Social Engineering Process of Students of The Faculty of Education Suan Sunandha Rajabhat University

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Abstract

The research study titled “Developing Competencies and Creating Educational Innovation Media for Students of the Faculty of Education through the Social Engineering Process” aimed to enhance students’ competencies in developing educational innovation media through the application of the social engineering process. The target group consisted of 70 students from the Faculty of Education, Suan Sunandha Rajabhat University. A questionnaire was employed as the research instrument, and the data were analyzed using percentage, mean, and standard deviation.

The findings revealed that most participants were female (67.15%) and male students accounted for 32.85%. When classified by field of study, 14.28% of the students were enrolled in each of the following programs: English, Thai, Social Studies, General Science, Digital Technology for Education, Mathematics, and Early Childhood Education.

The results indicated that students’ opinions toward the competency development activities for creating educational innovation media through the social engineering process were at a high level. The top three aspects with the highest mean scores were: (1) the created media were appropriate for the learners’ age or grade level, and students acquired knowledge of the five basic tools of social engineering ($\bar{x} = 4.62$); (2) students gained knowledge, concepts, skills, and new experiences in social engineering, enabling them to create their own innovation media for teaching and learning ($\bar{x} = 4.60$); and (3) the media could be effectively applied in actual classroom teaching ($\bar{x} = 4.56$). The lowest mean score indicated that students were moderately able to integrate the acquired knowledge into their teaching subjects ($\bar{x} = 4.54$).

Overall, the study demonstrated that the social engineering process effectively enhanced the competencies of education students in developing innovative educational media applicable to real classroom contexts.

Keywords: Competency Development, Innovative Media Creation, Social Engineering Process

1. Introduction

The Student Development Strategy in Higher Education Institutions of all 38 Rajabhat Universities has distinctive characteristics and focuses on academic and professional development according to standards in knowledge, intellectual skills, numerical analysis skills, communication, and technology usage, as evidenced by general higher education curricula. However, in the digital age, students need to be developed in ethics/morality and interpersonal skills (Soft Skills), which are crucial for daily life and career. The Faculty of Education, Suan Sunandha Rajabhat University (SSRU), is a higher education institution that emphasizes developing students to be ready both academically and in life skills, particularly the essential skills for the teaching profession. Therefore, the Student Affairs Division runs a student leadership development project to promote Soft Skills among students. This involves systematic service activities for students, either individually or in groups, aimed at improving their physical and mental well-being, promoting learning, social living, and student welfare, which helps students be prepared for their studies. It is a part of student development aligned with the higher education student development strategy, promoting social competence known as Soft Skills, which are essential leadership and followership skills that help students succeed and advance in their work, social activities, and daily lives.

Studies have shown that teacher competencies are defined in two types: Core Competencies and Functional Competencies. The assessment of teachers' performance competencies aims to evaluate the performance results of teaching staff and serve as a database for setting the framework for teacher development under the comprehensive teacher development policy, which is conceptually based on the ideas of McClelland (Office of the Civil Service Commission, 2015, pp. 2–3). McClelland, a psychologist from Harvard University, described competency as "a personal characteristic related to performance results, comprising Knowledge, Skills, Ability, and Other Characteristics relevant to the job, and is a behavioral trait that enables personnel within an organization to achieve results that are significantly superior to others in various situations, stemming from deep-seated Motives, Traits, Self-image, and Social role that differ, leading to different work behaviors." This aligns with the new public sector human resource management approach of the Office of the Civil Service Commission, which encourages government agencies to manage human resources according to the Standard for Success framework to achieve organizational goals. Therefore, developing the competencies of teaching staff is extremely important and essential for current educational development (Udomphon, B., 2020, p. 161), who summarized the meaning of professional teaching competency as the necessary and specific knowledge, abilities, skills, and characteristics for the teaching profession, including the capacity to manage teaching and learning and effectively promote student learning outcomes.

Furthermore, research by the Independent Committee for Educational Reform (Independent Committee for Educational Reform, 2020) found that the current situation in producing teacher graduates is problematic, as they lack outstanding abilities or deep and accurate proficiency in the subjects they teach, as well as genuine interest in the teaching profession. Some teacher graduate fields face an oversupply, while others face a shortage. Moreover, teacher graduates are unable to motivate learners or create a conducive learning atmosphere. Classroom management is inefficient, and they cannot clearly demonstrate the essential competencies of a teacher. These problems may stem from the selection process for teacher education entrants, which focuses on quantity over quality. The curriculum emphasizes subjects rather than developing core teacher competencies, with numerous sub- subjects focusing more on theory than practical training, ultimately resulting in teacher graduates failing

to achieve the core competencies of a teacher. In addition, educational personnel in various institutions, including teacher graduates, need to be re-skilled, up-skilled, and new-skilled to become Educational Innovators based on the PTRU Model competency framework and the characteristics of Strong Teachers' competencies.

The Faculty of Education, Suan Sunandha Rajabhat University, is a higher education institution that prioritizes developing students to be ready both academically and in life skills. To promote the development of these characteristics in teacher graduates and educational personnel, and to respond to the 13th National Economic and Social Development Plan, the National Strategy (Level 1 Plan), and the Sustainable Development Goals (SDGs), Goal 4, the researcher at Suan Sunandha Rajabhat University organized the student development project based on professional teaching competencies by developing the competencies and creating educational media innovations for Faculty of Education students through the Social Engineer Process to enable students to have their own innovations and apply them in learning management.

2. Objective

1. To develop students in creating educational innovations through the Social Engineering Process for students of the Faculty of Education, Suan Sunandha Rajabhat University.
2. To enable student teachers to apply the developed educational innovations in their learning management.

3. Methodology

This research is a quantitative research study. The study of the effects of using innovative media in ethics and morality to develop social engineer behaviors of students in the Faculty of Education, Suan Sunandha Rajabhat University, aims to develop teacher student behaviors to become educational innovators based on competency models and to study the effects of using innovative media for students in the Faculty of Education to gain knowledge and understanding in the field. The researchers studied and collected data from the target population in the Faculty of Education, Suan Sunandha Rajabhat University. The researchers followed the steps as follows:

1. Population

The population of this research consisted of students enrolled in the Bachelor of Education Program, Faculty of Education, Suan Sunandha Rajabhat University, in the academic year 2024. The participants were third-year students from 7 programs, with 10 students from each program, totaling 70 students who participated in the project. (The number of students was reported according to their registration status in the Educational Administration Registration System, Suan Sunandha Rajabhat University (2025). Retrieved from <https://sss.ssru.ac.th/dashboard>)

2. Research Instruments

The instrument used in this research was a satisfaction questionnaire on the use of innovative media in ethics and morality for students in the Faculty of Education. In creating the instrument used for data collection, the researchers proceeded as follows:

1. Studied relevant research documents to guide the creation of the questionnaire.
 2. Developed a rating scale questionnaire with 5 levels of opinion, created in Google Forms.
- Quality of the instrument:

The study and development of students to become educational innovators based on the competency-based PTRU Model.

3. Data Collection

1. The researchers explained the purpose of the data collection for this research to the student sample group.
2. The researchers distributed the Google Forms questionnaire through the department heads
3. Collected data from Google Forms for statistical analysis.

4. Data Analysis

The data analysis for this study was performed using a statistical software package. The researchers analyzed and evaluated the data from the questionnaires to find frequency, percentage, mean, and standard deviation.

This research is quantitative. The researchers used various types of data collection instruments to align with the research methodology. The questionnaire details are as follows:

- **Part 1:** Personal information of the respondents, including gender and the type of training participants. The question format was closed-ended, with a single response selection.
- **Part 2:** Personal information of the respondents, including major and the training participants. The question format was closed-ended, with a single response selection.
- **Part 3:** Suggestions and opinions, open-ended questions. The level of opinion on the results of the activities related to the study of the effects of using innovative media in ethics and morality to develop social engineer behaviors of students in the Faculty of Education, Suan Sunandha Rajabhat University.

4. Results

The results of the data analysis obtained from the study on the use of innovative media in ethics and morality to develop social engineering behavior among students of the Faculty of Education, Suan Sunandha Rajabhat University, are presented by the researcher in the form of tables and interpreted accordingly as follows:

1. Analysis of general information of the respondents
2. Analysis of the current conditions of organizing or participating in projects/activities related to the use of innovative media in ethics and morality among students of the Faculty of Education
3. Analysis of the guidelines for organizing projects and social engineering behavior of students in the Faculty of Education

Results of Data Analysis

Analysis of General Information of Respondents

The data was analyzed by calculating percentages, and the results are shown in Table 4.1.

Table 4.1 General Information of the Respondents

General Information	Number (Persons)	Percentage
Gender		
Male	23	32.85
Female	47	67.15
Total	70	100

Field of Study		
Social Studies	10	14.28
Thai Language	10	14.28
English Language	10	14.28
Mathematics	10	14.28
Early Childhood Education	10	14.28
General Science	10	14.28
Educational Digital Technology	10	14.28
Total	70	100

From Table 4.1, the analysis of the general information of the respondents revealed that, when classified by gender, the majority were female, totaling 47 persons or 67.15 percent, while 23 respondents were male, accounting for 32.85 percent. When classified by field of study, it was found that there were 10 students (14.28 percent) each from the English, Thai, Social Studies, General Science, Educational Digital Technology, Mathematics, and Early Childhood Education programs.

The analysis of the implementation of projects/activities or participation in the workshop project on the development of educational innovators for local development based on the PTRU Model — focusing on competency development in creating educational innovation for pre-service teachers through the social engineering process — was conducted among pre-service teachers of the Faculty of Education, Suan Sunandha Rajabhat University. The purpose was to enhance students' competencies and abilities in developing educational innovations through the social engineering process. The data were analyzed using mean and standard deviation, and the results are presented in Table 2.

Table 4.2: Analysis Results of the Status of Organizing/Participating in Projects/Activities for Developing Teacher Students' Competencies in Creating Educational Media and Innovations through the Social Engineer Process, Faculty of Education, Suan Sunandha Rajabhat University.

Aspect of Developing Teacher Students' Competencies in Creating Educational Media and Innovations through the Social Engineer Process, Faculty of Education	$\bar{x}$	S.D.	Interpretation
- Gained new knowledge, concepts, social engineer skills, and experiences from this project/activity.	4.60	0.59	Highest
- Able to apply the knowledge to the courses taught.	4.54	0.63	Highest
- Media are appropriate for the age or grade level of the learners.	4.62	0.58	Highest
- Able to use them in teaching and learning management in educational institutions.	4.56	0.61	Highest
- Teacher students have their own media innovations and can use them in learning management.	4.60	0.55	Highest
- Know the 5 basic skills of a social engineer.	4.62	0.56	Highest
Overall Mean	4.59	0.58	Highest

The analysis of the data from Table 4.2 indicates the respondents' opinions concerning the implementation of activities for developing teacher students' competencies in creating

educational media and innovations through the Social Engineer process at the Faculty of Education, Suan Sunandha Rajabhat University.

When considering the items individually, the results show a high level of agreement across all aspects. The top three aspects ranked by mean score, reflecting the most positive opinions, are: "Media are appropriate for the age or grade level of the learners" and "Students know the 5 basic skills of a social engineer," both receiving the highest mean score ($\bar{x} = 4.62$). Following closely are "Gained new knowledge, concepts, social engineer skills, and new experiences from this project/activity" and "Teacher students have their own media innovations and can use the innovations in learning management," with equal mean scores of ($\bar{x} = 4.60$). The third highest-ranked item is "Able to use them in teaching and learning management in educational institutions" ($\bar{x} = 4.56$).

Conversely, the item with the lowest mean score is "Able to apply the knowledge to the courses taught" ($\bar{x} = 4.54$). Although this item scored the lowest, it still indicates a high level of agreement, suggesting overall success in the competency development activities.

5. Conclusion And Future Work

The results from the research on the Development of Competencies and Creation of Educational Media Innovations for Faculty of Education Students through the Social Engineer Process can be discussed as follows:

The organization of student development activities/projects, aligned with the university's policy and the Student Development Strategy in Higher Education Institutions across all 38 Rajabhat Universities, has distinctive characteristics. It focuses on academic and professional development according to standards in knowledge, intellectual skills, numerical analysis skills, communication, and technology usage, as typically observed in general higher education curricula.

The Development of Competencies and Creation of Educational Media Innovations for Faculty of Education Students through the Social Engineer Process at Suan Sunandha Rajabhat University has the objectives of: Developing teacher students into Educational Innovators based on a competency framework, specifically equipping them with the ability to create media innovations using the Social Engineer process. Enabling teacher students to effectively utilize these media innovations in learning management Plailak, T. (2021). The Faculty of Education, Suan Sunandha Rajabhat University, is a higher education institution that prioritizes developing students to be well-prepared both academically and in life skills. In addition, educational personnel in various institutions, including teacher graduates, need to be re-skilled, up-skilled, and new-skilled to become Educational Innovators based on the PTRU Model competency framework and the characteristics of Strong Teachers' competencies.

The Faculty of Education, Suan Sunandha Rajabhat University, is an institution that emphasizes developing students to be ready both academically and in life skills. To promote the development of these characteristics in teacher graduates and educational personnel, and to respond to the 13th National Economic and Social Development Plan, the National Strategy (Level 1 Plan), and the Sustainable Development Goals (SDGs), Goal 4, Suan Sunandha Rajabhat University organized the Educational Innovator Development Project for Local Development using competency as a base.

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REFERENCES

- Bhiromrat, K. (2024). Development of Innovation Competency in Promoting the Morality and Ethics of Students Teacher, Faculty of Education, Suan Sunandha Rajabhat University. *Journal of Technical Education Development*, 36(129), pp. 78-84.
- J., Thammarat. (2025). Kan Phatthana Samatthana Wijai Khong Naksueksa Wichachip Khru Duai
- Kan Chatkan Rianru Baep Chai Wijai Pen Than Ruam Kap Kan Okbaep Ing Boribot Rongrian [Developing Research Competency of Pre-Service Teachers by Research-Based Learning with School-Context-Based Design]. *Journal of Education Valaya Alongkorn Rajabhat University*, 3(1), 22–37.
- Plailek, T, Kitjarak, T., Meunchong, W., (2021). The Study of Competency in Creating Learning Innovation of English Department's Students, Faculty of Education, Suan Sunandha Rajabhat University. *Journal of Legal Entity Management and Local Innovation*, 7(10), 337-350.
- Udomphon, B., Thanapanyo P., & Rueangsang R. (2020). The development of a model for enhancing integrated-Buddhism based teaching competency among students of the Faculty of Education, Rajabhat University. *Journal of Research and Curriculum Development*, 10(1), 36–55.
- Ountakod, K. (2019). Patcai Haeng Khwam Samret Lae Suntri Thaksalek Khong Phu Nam Tho Kan
- Pramoen Khrongkan Khong Phumnuay Kan Rongphayaban Songserm Sukhaphap Tambon Changwat Kalasin [Success Factors and Leadership Aesthetic Skills Affecting Project Evaluation of Sub-district Health Promoting Hospital Directors, Kalasin Province]. *Khon Kaen University Journal of Public Health Research*, 12(2).
- Sukhsriwong, S. (2010). Kan Chatkan: Chak Mum Mong Nak Borihan [Management: From the Executive's Perspective]. (6th ed.). Bangkok: G.P. Cyber Print Co., Ltd.
- Suttirat, C. (2009). Nawattakam Kan Chatkan Rianru Thi Nen Phurian Pen Samkhan [Innovation of Learner-Centered Learning Management]. Bangkok: Danex Inter corporation Co., Ltd.
- Thongprasit, P. et al. (2020). Rubbaep Kan Phatthana Thaksalek Dan Arom Doi Withi Kan Rianru
- Duai Ton-Eng Samrap Phu Patibat Ngan Suan Na Nai Thurakit Borikan [A Model for Emotional Skills Development Through Self-Directed Learning for Frontline Workers in Service Business]. *Journal of Humanities and Social Sciences Thonburi University*, 14(2).