
Secondary School Agricultural Teachers' Competency in Task Performance, Nakhon Ratchasrima Province, Thailand

Tossapone Ruamchimplee^{1*} Pakkapong Pongsuk² Karn Hongmaneerat³
and Manit Sashiyo⁴

¹Program in Agricultural Education, Faculty of Industry Education and Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; ²Department of Agricultural Education, Faculty of Industry Education and Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; ³Faculty Liberal arts and Science, Nakhon Phanom University, Bangkok, Thailand; ⁴Director, Baan Khaen School, Hora sub-district, Atsamart district, Roi Et province, Thailand.

Tossapone Ruamchimplee, Pakkapong Pongsuk, Karn Hongmaneerat, and Manit Sashiyo. (2017). Secondary School Agricultural Teachers' Competency in Task Performance, Nakhon Ratchasrima Province, Thailand. *International Journal of Agricultural Technology*. 13(7.2): 2099-2107.

This quantitative aimed to explore secondary school agricultural teachers' competency in task performance, Nakhon Ratchasrima province. Population in this study consisted of 42 school directors, 42 Agriculture teachers, and 42 co-teachers. They under the supervision of Secondary School Office Area 31 and Nakhon Ratchasrima Provincial Office of Administrative Organization (42 schools). A set of 5-rating-scale questionnaires was used for data collection and analyzed by using mean, standard deviation, t-test, and One-way ANOVA. Findings showed the following: 1) the respondents under the difference in affiliation had statistically significant difference in task performance competency at .05; 2) the respondents working in a different school size had statistically significant difference in the achievement of task performance at .05; and 3) the respondents working in a different school size had statistically significant difference in work line competency in analyses at .05

Keywords: core competency, work line competency, task performance, secondary school agricultural teacher

Introduction

Agriculture is an important foundation of Thai social and economic system. As a matter of fact, the Thai society is mostly engaged in agriculture. What needs to be done is the quality development of people in the agricultural sector which the Thai government of all era puts the importance on this matter. There is the provision of agricultural subjects in the curricular program of all educational levels. It can be said that educational facilitation is essential to the

* **Coressponding Author:** Tossapone Ruamchimplee; **Email:** tossapone2514@hotmail.com

development of quality of life of Thai farmers. Importantly, the goal of educational facilitation in accordance with the core basic education curriculum, 2008 aimed to develop students to have codes of conduct (righteousness and ethics), desired value, and competency in communication, thought, problem-solving, technology using, and life skills. In fact, basic agricultural education, particularly on the secondary education level is considered to be an important period of agricultural learning. The teaching/learning facilitation should instil student's good attitude towards importance policy agricultural occupations. Hence, the educational policy must be clear and Agriculture teachers must truly have knowledge, experience, and capability. Meanwhile, students learning agriculture must be knowledgeable and skillful in agriculture based on preference of individual (Thipnak, 2013).

During the educational reform (2009-2018), the Thai government promotes Thai people to have quality life-long education. This has 3 main aspects as follows: development of quality of educational standards; learning of Thai people; and an increase in an educational opportunity. This is together with 4 aspects of educational reform framework: 1) quality development of new Thai generations; 2) quality development of teachers in the new age; 3) quality development of schools; and 4) quality development of new managerial administration.

The said educational reform will be successful or not depends on various factor aspects; particularly on Agriculture teachers, other educational personnel, and needed resources. In other words, Agriculture teachers must play important roles in the facilitation of agricultural education to achieve the goals as set. Thus, they must have potential, competency, and good characteristics contributing to the facilitation of agricultural education (Rooncharoen, 2007). Due to importance of Agriculture teachers, the researcher had an idea to explore work competency of Agriculture teachers at secondary schools in Nakhon Ratchasima province. Results of the study can be used for Agriculture teacher development planning which will result in an elevation of standards and quality of Agriculture teachers in terms of the facilitation of teaching/learning process, competency, codes of conduct, and quality development of students.

Objective of the Study

Specifically, this study aimed to explore work performance competency of secondary school Agriculture teachers in Nakhon Ratchasima province.

Review of Related Literature and Conceptual Framework

The “competence” or “competency” concept is different from others. Industry, engineering, and practitioners in industrial plants have developed the process of their job and organizational improvement methods. However, competency concepts originated from psychological research having developed theoretical foundation and empirical experiment verification for a long time (Piriyanalai and Thephatsadin Na Ayutthaya, 2010). When talking about competency, there is reference to McClelland, a professor in Psychology and co-workers who established Mc Ber and Company in the beginning of 1970. During that, they were contacted by a personnel of The US. State Department Foreign Service Information offering assistance in the selection of junior level diplomats by BEI technique. In the study, it was found that the junior level diplomats had good operational competency which differed from those having a moderate level of operational competency in terms of: understanding about individual differences and cultural differences (Cross-cultural inter-personal sensitivity); positive expectations of others; and speed in learning political networks (Office of the Civil Service Commission, 2005). In Thailand. Concepts of competency were used in organizations being network of leading foreign companies before spreading to other leading companies or organizations of the country such as Siam Cement Group, Chin Corporation, Thai bank, and PTT Public Company Limited. In addition, the attentiveness of officials is due to successful utilization of competency concepts in the private sector. The competency form consists of two parts: 1) core competency for civil servant positions of all work groups and 2) work group competency which is different in each work group. This study clang on the competency framework using concepts about main competency and functional competency of office of Teacher Government official and Educational Personnel Committee (2005) as shown in Figure 1.

Scope and Limitation of the Study

1. Population in this study was 42 school directors, 42 Agriculture teachers, and other 42 co-teachers under the supervision of Office of Secondary School Education Area 31 and Nakhon Ratchasima Provincial Office of Administrative Organization (42 schools and 126 persons in total).

2. Variables

- 1) Independent variables i.e.

- Core competency – 1) work achievement, 2) good management, 3) self-development, 4) team work, and 5) ethics and teacher profession code of ethics

- Functional competency – 1) curriculum management, 2) learner development, 3) classroom managerial administration, 4) analyses, 5) leadership, and 6) creation of relationships and coordination with the community

2) Dependent variables were work competency of Secondary school Agriculture teachers

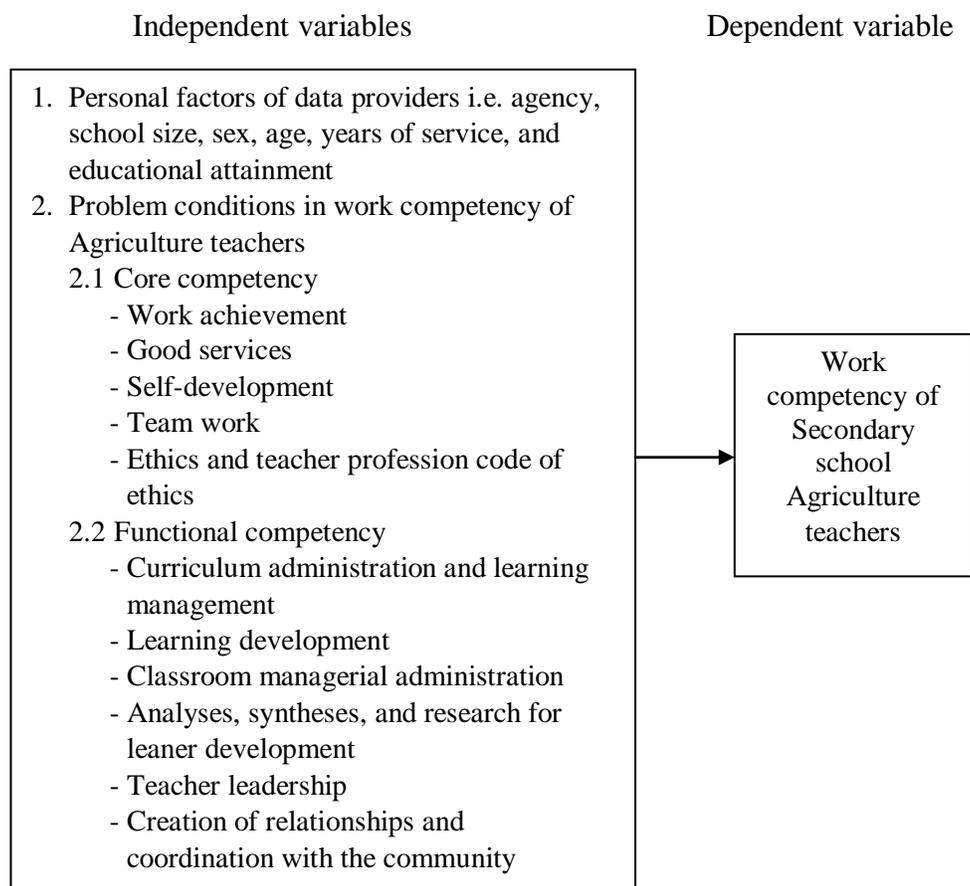


Fig. 1. Conceptual framework of the study

Methodology

1. Questionnaire which consisted of 2 parts:

Part 1. General data of the respondents (Checklist)

Part 2. Work competency of secondary school Agriculture teachers in Nakhon Ratchasrima Province (5-scale-rating questionnaire)

2. Research instrument construction and quality checking method. This was based on the investigation of related concepts, theory, and research then it was analyzed and synthesized regarding content which was consistent with objective of the study for questionnaire drafting. After that, it was checked by 5 specialists for consistent with objective of the study for questionnaire drafting. After that, it was checked by 5 specialists for finding consistency and correctness based on language use and content (Content validity) and the IOC was found at 0.98, improvement was done before data collection.

3. Data collection asking permission from office of Secondary School Education Area 31 and Nakhon Ratchasrima Provincial Administrative Organization Office. Data collection date was appointed (Both self –data collection and mailing).

4. Data analyses

Part 1. An analysis of general data of the respondents and frequency-percentage were used.

Part 2. An analysis of work competency of the Agriculture teachers by using an average mean score (\bar{x}), and standard deviation (S.D.). Besides, t-test (Dependent) and One-way ANOVA were employed by using interpretation criteria of mean from the mathematical equation of Roengprapan (2000). The interval distance was found at 0.80

$$\text{Width of the interval distance} = \frac{\text{A highest score- A lower score}}{\text{A number of intervals}}$$

Score	Scale Limits		Descriptive Equivalents
5	4.21-5.00	=	Highest
4	3.41-4.20	=	High
3	2.61-3.40	=	Moderate
2	1.81-2.60	=	Low
1	1.00-1.80	=	Lowest

Results

More than one-half of the respondents (57.14%) were under the supervision of Office of Secondary School Education Area 31 and the rest (42.86%) were under the supervision of Nakhon Ratchasrima Provincial Office of Administrative Organization. In terms of school size, the respondents worked in

a small school most (42.86%), followed by a big school (30.29%) and a middle school (26.85%). More than one-half of the respondents (51.59%) were female, aged more than 50 years, (41.27%), followed by 40-50 years (32.08%), and 30-40 years (26.65%). Findings showed that operational positions of the school directors, Agriculture teachers, operational positions of the school directors, Agriculture teachers, and other co-teachers were the same in number (33.33%). The respondents' years of service was 10 years and above most (59.92%) and followed by 5-9 years (40.48%). About one-half of the respondents (50.79%) were bachelor's degree holders and the rest were master degree holders (35.48%), and Doctoral degree holders (13.73%), respectively.

The respondents' core competency and functional competency were found at a high level (Table 1)

Table 1. Work competency of secondary school Agriculture teachers in Nakhon Ratchasima province

Competency of Agriculture teachers	Work performance		
	\bar{x}	S.D.	Level
Core competency			
1. Work achievement	4.11	0.22	High
2. Good services	4.12	0.19	High
3. Sub - development	3.81	0.22	High
4. Team Work	4.16	0.19	High
5. Ethics and teacher profession code of ethics	4.17	0.17	High
Functional competency			
1. Curriculum management and learning facilitation	3.89	0.16	High
2. Learner development	4.11	0.16	High
3. Classroom management administration	4.09	0.15	High
4. Analyses	4.10	0.15	High
5. Leadership	4.13	0.08	High
6. Creation of relationships and coordination with the community	3.90	0.23	High

A comparison of work competency of between the Agriculture teachers and their sex, age, supervision agency, current position, school size, years of service, and educational attainment. Results of the study were as follows:

1) There was the difference of the respondents in terms of sex, age, current position, and years of service. However, there was no statistically significant difference between the core competency and functional competency in all of the competency.

2) The difference in supervision agency of the respondents had an effect on the statistically significant difference at 0.01 in terms of work in terms of team work and good services (0.05).

3) The difference in school size of the respondent had an effect on the statistically significant difference at 0.05 in terms of work achievement and analyses (Table 2).

Table 2. A comparison between the Agriculture teachers' work competency and their sex, age, supervision agency, current position, school size, years of service, and educational attainment.

Competency	Sex	Age	Supervision agency	Current Position	School size	Years of service	Educational attainment
	t sig	F sig	t sig	F sig	F sig	F sig	F sig
Core competency							
1. Work achievement	1.27 0.20	0.12 0.94	1.84 0.06	0.63 0.53	3.31 0.02*	0.27 0.75	1.72 0.18
2. Good services	-0.03 0.96	1.09 0.35	2.01 0.04*	1.25 0.28	2.17 0.09	0.35 0.70	2.16 0.11
3. Sub - development	0.42 0.67	0.28 0.83	1.36 0.17	0.39 0.67	0.89 0.44	0.20 0.81	0.02 0.98
4. Team Work	0.93 0.35	0.06 0.98	2.72 0.00**	0.05 0.94	1.71 0.16	0.44 0.64	1.16 0.31
5. Ethics and teacher profession code of ethics	-0.20 0.83	0.18 0.90	1.75 0.08	0.25 0.77	0.84 0.47	0.51 0.59	1.85 0.16
Functional competency							
1. Curriculum management and learning facilitation	0.45 0.65	0.59 0.61	1.62 0.10	0.73 0.48	0.75 0.52	0.64 0.52	0.15 0.85
2. Learner development	1.80 0.07	0.47 0.70	1.46 0.14	0.12 0.88	2.19 0.09	0.42 0.65	0.03 0.96
3. Classroom management administration	1.04 0.29	0.92 0.43	-1.62 0.10	0.42 0.65	0.66 0.57	2.25 0.10	1.49 0.22
4. Analyses	0.01 0.99	0.51 0.67	-0.90 0.36	0.12 0.88	0.08 0.96	0.15 0.85	3.54 0.03*
5. Leadership	-0.90 0.36	1.16 0.32	-0.22 0.82	0.65 0.52	0.29 0.82	0.39 0.67	0.41 0.66
6. Creation of relationships and coordination with the community	1.57 0.11	0.75 0.52	-0.13 0.89	0.64 0.52	0.68 0.56	0.66 0.51	1.12 0.32

*Statistically significant difference at 0.05

**Statistically significant difference at 0.01

Discussion

Core and functional competencies are personality of a person reflecting knowledge, skills, attitudes, benefits, and habit of people in an organization. All of these can support the organization to achieve its goals as set.

Work core competency of the secondary school Agriculture teachers was found at a high level. This was in terms of the following: 1) ethics and teacher profession code of ethics, 2) team work, 3) good services, 4) work achievement, and 5) self-development, respectively.

Functional competency of the secondary school Agriculture teachers was also found at a high level. This was in terms of the following: 1) leadership, 2) learner development, 3) analyses, 4) classroom managerial administration, 5) curriculum management, and 6) creation of relationships and coordination with the community, respectively. Regarding the comparison between the two supervision agencies of the respondents, there were 2 competency aspects found to different: 1) team work and 2) good services. This conformed to Office of the Basic Education Commission (2010) which revealed that team work coordination, assistance, enhancement of morale support, achievement, intention, service willingness, and continual improvement of service system had an effect on good and effective service.

Findings also showed the difference on school size had an effect on the difference in work achievement. That was Agriculture teachers in a big and medium schools needed to prepare teaching/learning activities and creative tasks since these school had more students than small one. It also had an effect systematic on analysis capability of the Agriculture teachers. This conformed to a study of Phinitta, 2004) which revealed that one weak point of small schools is that teachers have a lot of tasks to be accomplished aside from regular teaching where as those big and small schools have less assigned tasks.

Suggestions

1. The core competency in self-development ranked last so school administrators and concerned personnel should support Agriculture teachers to develop themselves such as training and educational trip. Moreover, the Agriculture teachers must be energetic to develop their competency.

2. The functional competency in creating relationships and coordination with the community had the lowest average mean score so school administrators and Agriculture teachers to participate in community activities and it should have integrated teaching with the community.

3. The Agriculture teachers should have themselves together with the development of teaching/learning facilitation integrated with the community, temple, and school.

4. It should have continual research for an assessment of core and functional competencies of educational for sustainable development.

References

- Krejcie, R. and D.W. Morgan. (1970). Determining Sample Size for Research Activities. In Educational and Psychological Measurement. 30: pp. 607-610.
- Office of Basic Education Committee. (2010). Teacher Competency Manual. Bangkok: P.A. Living.
- Office of Civil Servant Commission. (2005). Manual of Core Competency, Explanation, and Examples of Behavior Indicating Core Competency of Civil Servants. Bangkok: P.A. Living.
- Phinitta, U. (2014). Developing Strategies on the Management of Small Schools under the Supervision of Kampaengphet Educational Office Area 1 and 2. Dissertation, Kampaengphet Rajabhat University.
- Phiriyathanalai, S. and Na Ayutthaya, C. (2010). Competency, Comprehension, Smart Using, and Achievement. Bangkok: AP Printing Group.
- Roengprapan, C. (2000). Basic Statistic together with Specimen by Minitab SPSS and SAS. Khonkaen: Khonkaen University.
- Rooncharoen, T. (2007). Professional in Educational Administration and Management. Bangkok: Khao Fang.
- Thipnak, T. (2013). Sufficiency Economy and Agricultural Education. Bangkok: Mean Service Supply Ltd. Partnership.

(Received 22 October 2017 ; accepted 25 November2017)