CHAPTER 5
REVIEW, MAJOR FINDINGS, CONCLUSIONS, AND SUGGESTIONS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Review</td>
<td>334</td>
</tr>
<tr>
<td>5.2 Major findings</td>
<td>342</td>
</tr>
<tr>
<td>5.3 Conclusions</td>
<td>345</td>
</tr>
<tr>
<td>5.4 Suggestions</td>
<td>349</td>
</tr>
</tbody>
</table>
5.1 REVIEW

The present study intended to study under the title: "A STUDY OF TEACHERS' COMPETENCIES UNDER THE REGULATION OF THE PROFESSIONAL STANDARD OF TEACHERS A.D. 2005" There were three objectives of the study as follow:

1. To construct the scale to evaluate the teachers' competencies under the regulation of the professional standard of teachers A.D.2005.

2. To study the level of the teachers' competencies under the regulation of the professional standard of teachers A.D.2005.

3. To compare the mean score of the teachers' competencies under the regulation of the professional standard of teachers A.D.2005 classified by sex, age, teaching experience, educational qualification, level of teaching, subject of teaching, size of school, area of school, type of school.

Two variables were included in the present study:

1. Independent variables consisted of:

   1.1 Sex
   1.2 Age
   1.3 Teaching experience
   1.4 Educational qualification
   1.5 Level of teaching
   1.6 Subject of teaching
   1.7 Size of school
   1.8 Area of school
   1.9 Type of school

2. Dependent variable

   The teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 which divided into nine standards:
Standard 1: Language and Technology for Teachers

1. The ability to apply the correct Thai language in the communication, with regard to the skill in listening, speaking and writing.

2. The ability to apply the skill in the English language or other languages, with regard to the listening, speaking and writing, for the correct communication.

3. The ability to use the basic computer.

Standard 2: The Knowledge on the Curriculum Development

1. The ability in the curriculum analysis.

2. The ability in improving and development the curriculum with diversity.

3. The ability to evaluate the curriculum before and after the application of the curriculum.

4. The ability to devise an effective curriculum.

Standard 3: Pedagogy

1. The ability to assemble each subject for the use in the learning plans of each semester and throughout the semester.

2. The ability to devise the learning to suit the age of learners.

3. The ability to construct the media, to improve the media, and to select the media in the learning support for learners.

4. Prepare activities to support the learning of learners, with the discrimination of their learning levels from the evaluation.

Standard 4: Teacher Psychology

1. The ability to understand the nature of learners.

2. The ability to assist learners in their learning, and to develop to their full capacity.

3. The ability to advise and assist learners to acquire a better quality of life.

4. The ability to promote the talent and the interest of learners.

Standard 5: Educational Evaluation and Measurement

1. The ability to measure and evaluate according to the truth.

2. The ability to apply the evaluation outcome to the improvement of pedagogy and to the curriculum development.
Standard 6: Educational Institute Management
1. The adoption of leadership.
2. The ability to manage the class.
3. The ability to communicate qualitatively.
4. The ability to coordinate the advantage.
5. The ability to apply new innovations to the administration.

Standard 7: Educational Research
1. The ability to apply the research outcome to the learning/teaching.
2. The ability to carry out the research to develop the Learning & teaching, and to develop learners.

Standard 8: Educational Innovation and Information Technology
1. The ability to select, devise, construct, and improve on the innovation for the good learning of learners.
2. The ability to develop the information technology for the good learning of learners.
3. The ability to quest for a variety of learning sources to promote the learning of learners.

Standard 9: Pedagogue
1. To adopt the kindness, affection, and good wishes on learners.
2. To acquire the perseverance and responsibility.
3. To become a person of learning, and the academic leader.
4. To acquire the vision.
5. To acquire the faith in the teacher profession.
6. To pursue the teacher profession etiquette.

There were two questions to be answered:
1. What is the level of teachers' competencies under the regulation of professional standards of teachers of Thailand?
2. Is there the significance of difference between mean scores of teachers' competencies under the regulation of professional standards of teachers of Thailand classified by sex, age, teaching experience, educational qualification, level of teaching,
The researcher established 9 hypothesis in the present study:

1. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of professional standards of teachers A.D. 2005 in total score and in different standards classified by sex.

2. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by age.

3. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by teaching experience.

4. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by educational qualification.

5. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by level of teaching.

6. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by subject of teaching.

7. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by type of school.

8. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by subject of teaching.

9. There will be no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards classified by area of school.
The present study confined to study only the primary and secondary school teachers of Thailand in formal system of education, both in state schools and private schools. The study was further delimited to the sample of schools which given the instruction during academic year 2007. The sample of the study consisted of the primary and secondary schools, which locate in eight provinces of North-Eastern part of Thailand. The subject of teaching in the present study limited to only the teachers who teach in four subjects i.e. Thai language, Science, Social Studies, and Mathematics.

For a correspondent understanding, the researcher assigned the definition of the research as follows:

1. The Competencies referred to the personal knowledge, ability, skill, attitude, and behavior for the professional advantage, to incur the development according to the required purposes.

   The teachers' competencies referred to the knowledge, ability, skill, attitude, and behavior of teachers, that is advantageous to the profession, incurring the development of students in every aspect according to the required purposes.

2. A teacher referred to the person who teaches in the education institute of the primary education and the secondary education, in the private sector and the state sector, of various education areas, and such education institutes manage the education in the Basic Education.

3. Professional Standards referred to the person with a permanent work to earn the living through the teaching or supporting the learning of others in the government or private institutes, with the consciousness, the knowledge, and the skill in the educating.

   The professional standards in the present study referred to the regulation professional standards stipulated by the Secretariat of Teachers' council of Thailand A.D. 2005 which divided into nine standards as follow:

   Standard 1: Language and Technology
   Standard 2: The knowledge on the Curriculum Development
   Standard 3: Pedagogy
   Standard 4: Teacher Psychology
   Standard 5: Educational Evaluation and Measurement
The schools referred to primary and secondary schools which given the instruction in formal system of education. The present study delimited the sample of primary and secondary schools which located in eight provinces in the North-Eastern part of Thailand.

According to the objectives, the present study was mainly focused on finding out the level of teachers' competencies under the regulation of professional standards A.D. 2005. To fulfill the objectives of this study, the researcher decided to make use of survey method. In order to obtain the data to arrive at proper results of the study, the present researcher decided to adopt the descriptive survey technique, which is considered appropriate method of obtaining specific information about the research situation.

The researcher has planned to divide the present study into five chapters. The first chapter deals with the introductory aspect of the study, statement of the problem, objectives of the study, variables of the study, questions to be answered, hypothesis of the study, limitation of the study, definition of the important terms and the chapterization.

The second chapter concerned to the meaning of professional teacher, different aspects of professional teacher, meaning of competencies, teachers' competencies standards. This chapter also present the review of the past studies related to the teachers' competencies.

The third chapter based on the technique selected for the study, tool and characteristics, development of the tool, establishment of discrimination of the tool, establishment of reliability of the tool, establishment of validity of the tool, administration of the tool, technique of analysis of data, statistic used in the study.

The fourth chapter described about the analysis of the data and interpretation. The data collected by the tool was analyzed according to the hypothesis and divided into ten parts as follow:
1. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005.

2. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by sex.

3. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by age.

4. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by teaching experience.

5. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by educational qualification.

6. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by level of teaching.

7. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by subject of teaching.

8. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by size of school.
9. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by area of school.

10. The analysis of the level of the teachers' competencies under the regulation of professional standards of teachers A.D. 2005 and the comparison of the mean scores of the level of the teachers' competencies under the regulation of professional standards of teachers classified by type of school.

The last chapter adopted with the review, the major findings and conclusions as well as the suggestions for further research work.

There is one tool used in the present study i.e. the scale to measure the teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 which comprised of 9 standards i.e. Standard 1: Language and Technology, Standard 2: The knowledge on the Curriculum Development, Standard 3: Pedagogy, Standard 4: Teacher Psychology, Standard 5: Educational Evaluation and Measurement, Standard 6: Educational Institute Management, Standard 7: Educational research, Standard 8: Educational Innovation and Information Technology, and Standard 9: Pedagogue. This scale was constructed by the researcher himself and prepared for the valid scale i.e. the index of validity, discriminative, and reliability. The scale to measure the teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 consisted of 100 statements. Each statement has five levels of agreement of teachers regarding the teachers' competencies i.e. "the most" or "much" or "moderate" or "less" or "the least". To determine the levels of the teachers' competencies, the scores were obtained by summing the marks assigned to the items of the scale. The maximum possible score for each respondent was thus 500 and the minimum score for each respondent was 100. Then the score had divided by number of statements in the scale which were 100. The scores were converted into the criteria i.e. "the most" or "much" or "moderate" or "less" or "the least" level of performance.

The scores of "Low" level of teachers' competencies varies from 1.00- 2.49, the scores of "Moderate" level of teachers' competencies varies from 2.50-3.49, and the scores of "High" level of teachers' competencies varies from 3.50-5.00.
In the present study, the sample was the primary and secondary school teachers in the North-Eastern part of Thailand. There were 1,350 teachers. The total number of teachers classified according to sex, age, educational qualification, teaching experience, level of teaching, subject of teaching, size of school, area of school and type of school.

The data collected by the tool was analyzed according to the hypothesis. The following techniques of analysis of data and the statistical calculations were employed.

1. In order to determine the level of teachers' competencies, mean (X) and standard deviation (S.D.) was calculated.

2. The analysis of variance (ANOVA) was used to test the significance of difference between mean scores of teachers' competencies rated by primary and secondary school teachers belonging to different groups of age, teaching experience, subject of teaching, size of school.

3. The Studentized Range Statistics Test (q) was used just to get the general idea about the difference between mean score of various groups of teachers' competencies rated by secondary school teachers belonging to different groups of age, teaching experience, subject of teaching, size of school.

4. t-test (Independent) was used to test the significance of difference between mean scores of teachers' competencies rated by primary and secondary school teachers belonging to different groups of sex, educational qualification, level of teaching, area of school, and type of school.

5. The 0.05 and 0.01 level of significance were considered satisfactory for the acceptance or rejection of null hypothesis.

6. The frequency distribution, tables were prepared and were placed in the report to present the data comprehensively.

7. The percentage (%) was used to indicate the scores in comparison with 1

5.2 MAJOR FINDINGS

1. The teachers' competencies under the regulation of professional standards A.D. 2005 of teachers of Thailand were at high level (X = 3.86, S.D. = 1.01). There were 9 standards of the teachers' competencies under the regulation of the professional standards A.D. 2005. The highest mean score of the teachers' competencies under the regulation
of the professional standards A.D. 2005 related to the aspect of "pedagogue" ($\bar{X} = 4.26$, S.D. = 0.87) which was at high level, whereas the lowest mean score of the teachers' competencies under the regulation of the professional standards A.D. 2005 related to the aspect of "educational research" ($\bar{X} = 3.68$, S.D. = 0.99) which was at high level.

There were 9 independent variables included in the study i.e. sex, age, teaching experience, educational qualification, level of teaching, subject of teaching, size of school, area of school and type of school. The teachers' competencies under the regulation of the professional standards of teachers A.D. 2005 classified by sex i.e. male and female obtained the total mean score and in different standards were at high level.

2. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of professional standards of teachers A.D. 2005 in total score and in the standards of pedagogy, teacher psychology, educational institute management, educational research classified by sex. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of professional standards of teachers A.D. 2005 in the standards of language and technology for teachers, knowledge on the curriculum development, educational evaluation and measurement, educational innovation and technology and pedagogue classified by sex.

3. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational innovation and technology and pedagogue classified by age. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of teacher psychology and educational research classified by age.

4. There was significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational innovation and information technology and pedagogue. There was no significant difference between the mean
scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the different standards of teacher psychology and educational research classified by teaching experience.

5. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational research, educational innovation and information technology classified by educational qualification. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of teacher psychology and pedagogue classified by educational qualification.

6. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of language and technology for teachers, knowledge on the curriculum development, teacher psychology, educational evaluation and measurement, educational innovation and information technology, and pedagogue classified by level of teaching. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of pedagogy, educational institute management, and educational research classified by level of teaching.

7. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational research, educational innovation and information technology, and pedagogue classified by subject of teaching. There was no significance of difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of teacher psychology classified by subject of teaching.
8. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of language and technology for teachers, knowledge on the curriculum development, pedagogy, teacher psychology, educational institute management, educational innovation and information technology classified by size of school. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of educational evaluation and measurement, educational research, and pedagogy classified by size of school.

9. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in the standards of pedagogy, teacher psychology, educational institute management, educational research, and pedagogy classified by area of school. There was significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in the standards of language and technology for teachers, knowledge on the curriculum development, educational evaluation and measurement, and educational innovation and information technology classified by area of school.

10. There was no significant difference between the mean scores of the level of teachers' competencies under the regulation of the professional standard of teachers A.D. 2005 in total score and in different standards of classified by type of school.

5.3 CONCLUSIONS

From the study, it can be concluded that the teachers' competencies under the regulation of professional standards A.D. 2005 of teachers of Thailand were at high level. There were 9 standards of the teachers' competencies under the regulation of the professional standards A.D. 2005. The highest mean score of the teachers' competencies under the regulation of the professional standards A.D. 2005 related to the aspect of "pedagogy" which was at high level, whereas the lowest mean score of the teachers' competencies under the regulation of the professional standards A.D. 2005 related to the aspect of "educational research" which was at high level.
For better understanding, the following graph presented the level of the teachers’ competencies under the regulation of the professional standards A.D. 2005 in total score and in different standards.

GRAPH 5.1 SUMMARY OF MEAN SCORES OF TEACHERS’ COMPETENCIES
It can be concluded that sex of teachers does not affect on the mean scores of teachers' competencies in total score but it does affect on the mean scores of teachers' competencies in the standard of language and technology for teachers, knowledge on the curriculum development, educational evaluation and measurement, educational information and information technology and pedagogy.

Age does affect on the mean scores of teachers' competencies in total score and in the standard of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational information and information technology and pedagogy.

Teaching experience does affect on the mean scores of teachers' competencies in total score and in the standard of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational information and information technology and pedagogy.

Educational qualification does affect on the mean scores of teachers' competencies in total score and in the standard of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational research, educational information and information technology.

Level of teaching does not affect on the mean scores of teachers' competencies in total score but it does affect on the mean scores of teachers' competencies in the standard of pedagogy, educational institute management and educational research.

Subject of teaching does not affect on the mean scores of teachers' competencies in total score but it does affect on the mean scores of teachers' competencies in the standard of language and technology for teachers, knowledge on the curriculum development, pedagogy, educational evaluation and measurement, educational institute management, educational information and information technology and pedagogy.

Size of school does affect on the mean scores of teachers' competencies in total score and in the standard of language and technology for teachers, knowledge on the
curriculum development, pedagogy, educational psychology, educational institute management, educational information and information technology.

Area of school does not affect on the mean scores of teachers’ competencies in total score but it does effect on the mean scores of teachers’ competencies in the standard of language and technology for teachers, knowledge on the curriculum development, educational evaluation and measurement, educational information and information technology.

Type of school does not affect on the mean scores of teachers’ competencies in total score and in different standards.

It was further seen that age, teaching experience, educational qualification, and size of school does effect on the mean scores of teachers’ competencies in total score.

Sex, age, teaching experience, educational qualification, subject of teaching, size of school and area of school does effect on the mean scores of teachers’ competencies in the standard of "language and technology for teachers" and "knowledge on the curriculum development".

Age, teaching experience, educational qualification, level of teaching, subject of teaching, and size of school does effect on the mean scores of teachers’ competencies in the standard of "pedagogy".

Size of school does effect on the mean scores of teachers’ competencies in the standard of "teacher psychology" whereas the other variables does not affect.

Sex, age, teaching experience, educational qualification, subject of teaching, and area of school does effect on the mean scores of teachers’ competencies in the standard of "educational evaluation and measurement".

Age, teaching experience, educational qualification, level of teaching, subject of teaching, and size of school does effect on the mean scores of teachers’ competencies in the standard of "educational institute management".
Educational qualification, level of teaching, and subject of teaching does effect on the mean scores of teachers' competencies in the standard of "educational institute management".

Age, teaching experience, educational qualification, level of teaching, subject of teaching, and size of school does effect on the mean scores of teachers' competencies in the standard of "educational research".

Sex, age, teaching experience, educational qualification, subject of teaching, and size of school and area of school does effect on the mean scores of teachers' competencies in the standard of "educational innovation and information technology".

Sex, age, teaching experience, and subject of teaching does effect on the mean scores of teachers' competencies in the standard of "pedagogue".

For better understanding, the following table presented the significant difference between mean scores of the teachers' competencies under the regulation of the professional standards A.D. 2005 classified by different variables i.e. sex, age, teaching experience, educational qualification, level of teaching, subject of teaching, size of school, area of school and type of school.

5.4 SUGGESTIONS FOR FURTHER STUDY

(1) There should be the study of the implementation of the teachers' competencies in relation to the National Education Act, 2001 and the educational policy.

(2) There should be the study of the teachers' competencies in relation to the effectiveness of students' achievement.

(3) There should be the study of the attitude of Thai people towards the teachers' competencies under the regulation of the professional standards A.D. 2005.

(4) There should be the study of the achievement of Thai students in different level under the National Education Act, 2001.

(5) There should be the comparison between the essential knowledge and skill of professional teachers and the Thai National Education Act, 2001.

(6) There should be the comparative study of the teachers' competencies in Thailand and in different countries.
(7) There should be the study of the relationship between the teachers' competencies and the school quality.