

A COMPARATIVE STUDY OF TEACHER SELF-ASSESSMENT ON TEACHER QUALITY AMONG DEMOGRAPHIC FACTORS IN SAINT GABRIEL FOUNDATION'S SCHOOLS

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Abstract: The challenge of the globalization that enhances the students to face a huge competition in their future means that the teachers have an important role to prepare students' readiness for this challenge. Therefore, the researcher intended to seek an international assessment to evaluate the teacher quality in terms of self-development. The main purposes of this study are to examine the level of teacher quality which was obtained from the teachers' self-assessment on teacher quality relative to the teachers' demographic factors and to compare the differences of teacher self-assessment on teacher quality according to gender, nationality and year of experience of teaching. The participants of this study were 324 out of 461, teachers from Assumption College School and Saint Gabriel College. The researcher selected Self-assessment Instrument for Teacher Evaluation II (SITE II) to be used as an instrument which contains five factors as follows; subject matter knowledge, instructional planning, and strategies assessment, learning environment and communication. The results of this research can be stated that the overall teachers have high level of teacher quality. Further, there was no significant difference in the teacher quality based on gender and year of experience of teaching. However, the results show a significant difference between Thai and Non-Thai teachers. In addition, recommendations for teachers, school administrators, and further study have also been provided.

Keywords: Self-assessment on Teacher Quality, Teacher Quality, Saint Gabriel Foundation's School.

Introduction

The quality of teacher became a critical issues in Thailand as the report by (Ratchanee, 2013) analyzed the problem and found the quality of teachers was lacking. The following are examples of the findings:

1. In her research of Amartayakul Kindergarten, the researcher found that only three percent of the teachers interviewed were able to answer a mathematical question correctly and write correct English sentences at the 7th grade level.

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2. The lack of techniques in teaching could not create learning engagement and motivate the students to learn as follows case in each subject.
3. Work overloaded of teachers forced them to spend their times with many tasks not related to the students' learning.

The crisis of teacher quality is also represented through the students' outcome especially from various international score tests. As the survey by The Trends in International Mathematics and Science Study (TIMSS) in 2014 that was carried out with the target group of Thai students in grade 8 who studied with teachers who had less than 5 years of experience of teaching. The results showed that only 20% of them had studied with the teacher who was confident in teaching design and 55% of them had studied with a teacher who emphasized on memorizing formula and methods in every class. This result illustrates that the new generation of Thai teachers tend unprepared in terms of subject knowledge and teaching skills (Chiangkul, 2014).

Improving the teacher development process is a concerned for the reformation of education in order to prepare quality human resources for a global society. Thamrongthanyawong (2014) said "Teachers are an important factor of quality education so the quality of a teacher is very important". Cultivating teachers' quality is an important issue that was mentioned by government of Thailand and experience educators.

The researcher found an interesting study of developed and validated of Self-assessment Instrument for Teacher Evaluation (SITE) which is called Self-assessment Instrument for Teacher Evaluation (SITE II) (Akram & Zepeda, 2015). SITE was previously developed by the National Professional Standard for Teachers in Pakistan and UNESCO in 2008 which aim to seek for the teacher evaluation standard that was appropriate with international teacher standard and seek for an alternate evaluators' view rather than an administrators' view. SITE II contains five main elements such as Subject Matter Knowledge, Instructional Planning and Strategies, Assessment, Classroom Environment, and Effective Communication.

The researcher used this standard in application with school in Thailand which studied the demographic factors correlate with the level of teacher quality. The selected schools are Assumption College School and Saint Gabriel College School that under the supervised of Saint Gabriel Foundation.

Research Objectives

There are three objectives:

1. To identify the demographics factors of the teachers in Saint Gabriel Foundation schools in terms of gender, nationality and year of experience of teaching.
2. To examine the level of teacher self- assessment on teacher quality according to demographic factors
 - 2.1. To examine the level of teacher self- assessment on teacher quality according to gender.
 - 2.2. To examine the level of teacher self- assessment on teacher quality according to nationality.
 - 2.3. To examine the level of teacher self- assessment on teacher quality according to year of experience of teaching.

3. To compare the significant differences of teacher self-assessment on teacher quality according to gender, nationality and year of experience of teaching.

Literature Review

Framework of Teacher Assessment

Danielson (1997) identified that the framework of teaching is the aspects of teacher's responsibilities that have been documented throughout studies and theoretical research as developed student learning outcome. Not only the possible description of practice but this framework also defined the responsibilities that teachers should know and be able to do in terms of professional development.

There are 22 components of teaching activities which clustered in to four domains of teaching responsibilities: planning and preparation (Domain 1), classroom environment (Domain 2), Instruction (Domain 3), and professional responsibilities (Domain 4). There are two or five of distinct aspects in one domain and it also composed of sub element in each component. (Quality of Effective Teacher by James H. Stronge)

Self-assessment Instrument for Teacher Evaluation II (SITE II)

As the researcher mentioned about the application of the framework of Self-assessment Instrument for Teacher Evaluation II (SITE II) to use for assess the teacher quality in Saint Gabriel School and Assumption College School which this part reviewed more about the importance elements in terms of enhancing teacher competences. SITE II consists of five factors were defined to measure the quality of teacher as follows:

1. Subject Matter Knowledge
2. Instruction Planning and Strategies
3. Assessment
4. Learning Environment
5. Effective Communication (Akram & Zepeda, 2015)

Subject Matter Knowledge

Subject matter knowledge is the one of teacher factors that contributes to student learning and achievement. (Stronge, 2010) Subject matter knowledge stands for the teachers' understanding of the subject content she/he teaches (Gudmundsdottir, 1987). Subject Matter Knowledge is relevant to teacher's understanding of subject information, concepts, principles, and pedagogical thinking and decision making (Stronge, 2010). Danielson (1996) acknowledged about the knowledge of content and pedagogy is the sub element within first domain of his framework of profession practice. Danielson (1996) defined that the teacher is a person who can provide them the accurate information about subject when they find any suspicions.

Instruction Planning and Strategies

The other key element of effective teacher is instructional planning and Strategies that teacher should know how to prepare the most effective teaching in order to enhance student learning. In accordance with Stronge (2007) and Tomlinson (1999)

stated that instruction planning and strategies are the use of various instructional strategies and techniques to develop student learning (Stronge, 2010; Tomlinson, 1999b). Shulman (1986) defined that effective teacher would present strategies that advantageous the learners understand. Effective teachers play the roles of encouragement, stay constant in keeping students on duty, and their involvement, desire, and keep students' concentrate on their lessons (Stronge et al., 2007)

Assessment

The researcher applied the perspective by Stronge (2010) to analyze the definition about assessment that focuses on two perspectives.

First perspective defines assessment as a product according to these ideas. Assessment is "a formal attempt to determine students' status with respect to educational variables of interest" (Popham, 2002, p. 363). Jones (2005) stated that assessment for learning is learners' progress information to encourages them to take action to improve their performance. In addition, teachers require to construct learning opportunities which learners grow along their steps and the necessity of performance of enhancing activities (Jones, 2005).

Second perspective defines assessment as a process according to these following ideas. The second perspective defines assessment as "the process of collecting, synthesizing, and interpreting information to aid in classroom decision-making" (Airasian, 1994, p. 266).

Learning Environment

To be an effective teacher they need to respect their students, connect with them, and create the environment that support students learning (Danielson, 1996). The engaging and encouraged learning environment is needed in order to support student growth (Stronge, 2010).

Relevant research found that in a constructive learning environment, performance of teachers cultivate functional lay out and material installation for highest useful, and creative classroom rules and process (Evertson, 1985; Stronge et al., 2007). As of the study by Kunter, Baumert, and Koller (2007) with secondary school mathematics classes found that as the students clearly perceive the rule and teacher monitoring have positive impact on their improvement of academic interest.

As we perceive the classroom is a learning community so the students as the members who participate in this society which should empower the learning performance in the community. The students demonstrate their physical environment engaging by these following actions such as preparing for student's exhibition, arrange the furniture to accommodate a group work, and moving the supplies for better flow in classroom.

Effective Communication

As the statement by Stronge and Tucker (2003) defined that effective teachers are competent deliver the content to students, demonstrate common language, active listening and interact with positive way, create and provide various form of communication between school and family, and pursue the school conduct including communicate of student information. The technique and of verbal, nonverbal and

written communication tactics and instruments, and coordination and relationship with students and families are required for effective teachers (Government-of-Pakistan, 2009). Performance teachers define ideas in normal and systematic way, and state the content corresponding to age and potential of learners (Stronge, 2010).

Background of Saint Gabriel Foundation Schools

The researcher conducted this study by using two schools which are Assumption College and Saint Gabriel College as sample. The two schools were selected because these two schools were established in the beginning period of Saint Gabriel's Foundation which lifted the standard of education system in Thailand. Thus, there are very interesting histories and long experiences in terms of education that could represent the quality of instruction in this study. Moreover, these schools' success could be represented by the success of alumni who became the top leader in various fields of work (Alumni SG '75, 2010).

The Effect of Demographic Factor on the Teacher Quality

Gender

There were several studies which mentioned that gender could affect student learning. The study by Antecol, Eren, & Ozbeklik (2013) found that there was a positive impact of female teacher towards female student's learning outcomes. It is in accordance with Haley, Johnson, & Kuennen (2007) which presented that students could be more inspired to learning by the teacher who has the same gender with them. Furthermore, male and female teachers normally have different approaches in teaching such as, male teachers will take more time on teaching rather than female teachers especially for math and science subject, and will cover more curriculum in those subjects.

Goldhaber and Brewer (2000) found that there is no effect or impact of teacher's gender towards students' learning. A few studies also indicated that teachers do not pay attention to the assessment score of students who share the same gender (de Zeeuw et al., 2014). In accordance to Haley, Johnson, & Kuennen (2013), the researcher contended that the male teachers tend to have high level of teacher self-assessment on teacher quality rather than female teachers.

Nationality

The nationality of teacher is one of the interesting demographic factors that could affect teacher quality. Stroter (2008) conducted a study with two ethnic groups of teacher and student, Hispanic and White, which the same and different ethnic between teacher and student in mathematics class were examined. The result reveals that there is no effect of teacher's race towards students' performance.

However, there are several studies illustrated that the effects arise from the teacher and students' race. The result from the study, which focused on the differences of learning achievement of both white and minority (i.e., black and Hispanic) students who share and do not share their racial/ethnic designations with teachers, showed that students tend to perceive more negatively with the different races of teacher. However, minority seem to be heedless with the different races of teacher (Dee, 2005).

Year of Experience of Teaching

The experience of teacher is an another interesting factor that can impact to teache quality in terms of enhance student learning outcomes. The new teachers tend to have less effective than experience teachers but they can be rapidly develop themselves in their first year of career (Rice, 2010). The experience of teaching also impact to professional retaintion regarding to the study found that less-experienced teacher have tend to leave the profession than high experienced teacher as the result from study presented that between 40 and 50 percent of new teachers depart from their job within the first five year of their career (Ingersoll, 2012).

The other study find that the limited returns in each year of experience rapidly disappear after first three to five years (Boyd, 2008). The study about performance development with surrounded experienced teachers has performed mingle results according to study conducted with 20 years of experience can performed effective than no experience teachers but they are not effective than 5 years experience teachers (Rice, 2010).

Conceptual Framework

This study compared the teacher self-assessment on teacher quality among demographics factors of the teachers in two schools, namely Saint Gabriel School and Assumption College School, Bankrak by used Self-assessment Instrument for Teacher Evaluation II (SITE II)

The independent variables are the demographic of instructor’s gender, nationality, and Year of experience of teaching to use to identify the quality teacher factors. In this research, the conceptual framework is as follow;

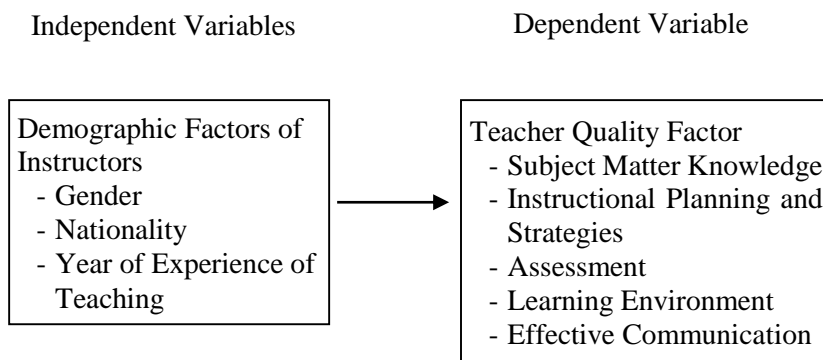


Figure 1: Conceptual Framework of This Study

Instrument

The researcher uses the Self-assessment Instrument for Teacher Evaluation II (SITE II) which developed and validated by Muhammad Akram and Sally J. Zepeda (2015) from the university of Education, Lahore, Pakistan for this study.

The research instrument of this research provides two parts of questionnaires by the first part to collect the demographic factors of teachers and second part of the

questionnaire which includes twenty-eight questions. The overall reliability of the questionnaire high ($\alpha=.94$).

Population

There are 16 schools under supervision of Saint Gabriel Foundation. The population of this study would be the teachers in Saint Gabriel School and Assumption College School who teach in grade 7- grade 12. As develop and validated from Self-assessment Instrument for Teacher Evaluation (SITE) that designed by National Professional Standards for Teachers in Pakistan and developed by Ministry of Education, Pakistan (2009).

Findings

The findings are clarified and presented according to the research objectives.

Research Objectives One

To identify the demographics factors of the teachers in Saint Gabriel Foundation schools in terms of gender, nationality and year of experience of teaching.

Table 1 presents the percentage of gender and the numbers of male and female teachers that were surveyed. A total of 324 teachers were surveyed in this research, 130 male teachers (40.1%) and 194 female teachers (59.9%).

Table 1: Frequency and Percentage of the Teachers Categorized by Gender

Gender	Frequency	Percentage
Male	130	40.1
Female	194	59.9
Total	324	100

Table 2 presents the segment of teachers based on their nationalities. The researcher divided the nationality of teachers into Thai and Non-Thai. The large-scale is Thai nationality at 283 teachers, which represents for 87.3% of the sample and Non-Thai nationality at 41 teachers, which represents for 12.7% of the sample.

Table 2: Frequency and Percentage of the Teachers Categorized by Nationality

Nationality of The Teachers	Frequency	Percentage
Thai	283	87.3
Non-Thai	41	12.7
Total	324	100

Table 3 presents the segment of teachers based on their year of experience of teaching. The researcher divided the year of experience of teaching into two categories, firstly one to ten years experiences and more than 10 years experiences. The results show that the numbers of teachers who have been teaching from one year to ten years is 168 teachers, which represents for 51.9% of the sample and teachers who have been teaching for more than 10 years is 156 teachers, which represents for 48.1% of the sample.

Table 3: Frequency and Percentage of the Teachers Categorized by Experience of Teaching

Year of Experience of Teaching of The Teachers	Frequency	Percentage
1 – 10 years	168	51.9
More than 10 Years	156	48.1
Total	324	100

Research Objective Two

The second objective is to examine the level of teacher self- assessment on teacher quality according to demographic factors.

Table 4: Mean, Standard Deviation and Interpretation of Teachers' Self-Assessment on Teacher Quality Categorize by Gender, Nationality and Year of Experience of Teaching

	Mean	S.D.	Interpretation
Male	4.23	.49	High
Female	4.27	.58	High
Total			High
Thai	4.26	.51	High
Non-Thai	4.25	.75	High
Total			High
1 – 10 years	4.25	.49	High
More than 10 Years	4.26	.61	High
Total			High

Table 4 represented mean, standard deviation and interpretation of the teacher self-assessment on teacher quality categorize by gender, nationality and year of experience of teaching. It's shows that the level of teacher self- assessment on teacher quality is high for all categories: gender, nationality and year of experience of teaching

Research Objective Three

The third objective is to compare the significant differences of teacher self-assessment on teacher quality according to gender, nationality and year of experience of teaching. The researcher employed the independent sample t-test to test the data whether the teacher quality is statistically significant between teacher's genders, nationalities and year of experience of teaching. Five aspects of teacher quality, i.e. 1) subject matter knowledge, 2) instruction planning and strategies, 3) assessment, 4) learning environment, and 5) communication, were surveyed and analyzed. The research findings of objective three are presented in tables 5,6 and 7.

Table 5: Comparison of the Teacher Self-Assessment on Teacher Quality between Genders of Teachers in Saint Gabriel Foundation's Schools (male: n=130 and female: n=194)

Teacher Quality	Gender	Mean	S.D.	t	Sig.
Subject Matter Knowledge	Male	4.2433	.49570	2.163	.142
	Female	4.02957	.72881		
Instruction Planning and Strategies	Male	4.2011	.55704	.246	.620
	Female	4.2231	.62531		
Assessment	Male	4.1215	.59741	.723	.396
	Female	4.2103	.65110		
Learning Environment	Male	4.2758	.58852	1.211	.272
	Female	4.3161	.68084		
Communication	Male	4.2897	.61756	.389	.533
	Female	4.3213	.69737		
Overall Teacher Quality	Male	4.2268	.49678	1.574	.210
	Female	4.2738	.57947		

Based on the value of t-test (sig 2-tailed test) shown in table 5, it can be concluded that at the significance level of 0.05 there is no significant difference of teacher self-assessment on the teacher quality between male and female.

This result is opposite to the research hypothesis, which refers to the study of Haley, Johnson, & Kuennen (2013), that there is a significant difference between male and female teacher regarding level of teacher self-assessment on teacher quality. The result supports the study of Goldhaber & Brewer (2000) which stated that there is no effect of teachers' gender towards student's learning.

Table 6: Comparison of the Teacher Self-Assessment on Teacher Quality between Nationalities of Teachers in Saint Gabriel Foundation's School (Thai: n=283 and Non-Thai: n=41)

Teacher Quality	Nationality	Mean	S.D.	t	Sig.
Subject Matter Knowledge	Thai	4.2977	.63007	1.723	.190
	Non-Thai	4.1159	.72961		
Instruction Planning and Strategies	Thai	4.2161	.57059	3.223	.074
	Non-Thai	4.2021	.76996		
Assessment	Thai	4.1760	.58757	7.746	.006
	Non-Thai	4.1659	.88193		
Learning Environment	Thai	4.3078	.62317	.972	.325
	Non-Thai	4.2537	.78361		
Communication	Thai	4.2780	.63556	1.222	.270
	Non-Thai	4.5203	.82344		
Overall Teacher Quality	Thai	4.2554	.51349	4.866	.028
	Non-Thai	4.2516	.74808		

From table 6 it can be concluded that Thai teachers possess better teaching quality in term of assessment than Non-Thai teachers because mean of assessment

for Thai and Non-Thai groups are 4.176 and 4.1659 respectively. In addition, at the significance level of 0.05 overall teacher quality, which was obtained from the teacher self-assessment, is statistically different between Thai and Non-Thai teachers. Mean of overall teacher quality for Thai and Non-Thai groups are 4.2554 and 4.2516 respectively; therefore, it can be concluded that Thai teachers possess overall teacher quality than Non-Thai teachers.

Based on the value of t-test (sig 2-tailed test) shown in the table 11, it indicates that there is a significant difference between Thai and Non-Thai teachers in the assessment aspects.

This result supports the research hypothesis which states that there is a significant difference between different nationalities of teacher regarding level of teacher self-assessment on teacher quality. Moreover, it is in line with the study of Egalite (2014) which explained about the different impact from the difference of teachers' races. The study stated that students tend to be more concentrated with the teachers who share their races rather than the teacher who does not share their races, and this creates the positive impact on teacher quality.

Table 7: Comparison of the Teacher Self-Assessment on Teacher Quality between Group of Teachers in Saint Gabriel Foundation's Schools with Different Year of Experience of Teaching (experience 1- 10 years: n=168 and experience more than 10 years: n=156)

Teacher Quality	Year of Experience of Teaching	Mean	S.D.	t	Sig.
Subject Matter Knowledge	1-10 years	4.2574	.66125	2.739	.099
	More than 10 years	4.2933	.62888		
Instruction Planning and Strategies	1-10 years	4.2015	.56807	1.453	.229
	More than 10 years	4.2280	.63032		
Assessment	1-10	4.1750	.56788	3.298	.070
	More than 10 years	4.1744	.69383		
Learning Environment	1-10 years	4.2970	.59104	2.315	.129
	More than 10 years	4.3051	.69929		
Communication	1-10 years	4.2956	.64167	.040	.842
	More than 10 years	4.3226	.69243		
Overall Teacher Quality	1-10 years	4.2457	.48702	2.679	.103
	More than 10 years	4.2647	.60682		

Based on the value of t-test (sig 2-tailed test) presented in the table 7, it can be seen that there is no significant difference of the teacher self-assessment on teacher quality between group of teachers with 10 years and more than 10 years experiences of teaching at the significance level of 0.05.

The result is opposite to the research hypothesis which asserts that there is a significant difference between different level of teaching experience, proxy by number of year of teaching, concerning level of teacher self-assessment on teacher quality. This result is supported by the study of Zhang (2008) which affirmed that level of teaching experience has no effect to student achievement.

Discussion

Demographic Factor Impact to Teacher Quality

As the research hypothesis stated about there are differences of teacher quality according to their gender, year of experience of teaching and nationality. The result shown that there are no significant different in teachers' gender and year of experience of teaching but found that there is significant difference in overall teacher quality based on nationality, which Thai teachers possess higher teacher quality level had higher level than Non- Thai teachers. According to study of the learning and instruction problem in English Program in Assumption College Thonburi can reflect the overall problem that affect to the level of overall teacher quality. The study stated there were concerned issues of Non-Thai teacher as follow;

1. Not all Non-Thai teachers who teach in English Program were native speakers because most of Non-Thai teacher who are native speakers were not graduated from the relevant subject knowledge.
2. The difference in working styles and culture created conflict among Thai and Non-Thai teachers that must be clear in area of task and responsibilities. This also the one reason of high level of turnover for Non-Thai teachers.
3. Some of Non-Thai teachers were lack of teaching knowledge and skills because they didn't graduate from the relevant field of teaching and more focused on high salary and welfare (Thonburi, 2015).

The Overall Teacher Quality

According to the result of survey, the level of teacher quality is at high level in all five aspects of teacher quality i.e. subject matter knowledge, instruction planning and strategies, assessment, learning environment, and communication. The high level of teacher quality in all five aspects can reflect the teacher development policy of Saint Gabriel Foundation's school administrators. In 2011, Saint Gabriel's Foundation announced the policy of school administration which covered academic administrative and schools' facility and financial management (Foundation, 2011). The academic administrative policy reinforced the school to use of English language in teaching for main subjects such as English, Mathematics, Religion and Culture, Science and Social Science from grade 1 to grade 12. Moreover, the learning assessment of these subjects must be designed by the assigned committee from Saint Gabriel's Foundation who collaborated with international institutions. In order to accomplish the goal, all schools need to prepare development plan for their teachers which Saint Gabriel's Foundation would support the knowledge & skills training of teachers and the Foundation would assess the teacher quality.

References

- Airasian, P. W., & Gullickson, A. (1994). Examination of teacher self-assessment. *Journal of Personnel Evaluation in Education*, 8(2), 266.
- Akram, M., & Zepeda, S. J. (2015). Development and Validation of a Teacher Self-assessment Instrument. *Research and Reflection in Education*, 9, 134-148.
- Airasian, P. W., & Gullickson, A. (1994). Examination of teacher self-assessment. *Journal of Personnel Evaluation in Education*, 8(2), 266.

- Boyd, D., Lankford, H., Loeb, S., Rockoff, J., & Wyckoff, J. (2008). The narrowing gap in New York City teacher qualifications and its implications for student achievement in high-poverty schools. *Journal of Policy Analysis and Management*, 27(4), 810.
- Chiangkul, V. (2014). *Education Situation in Thailand: How to Reform Thailand's Education to serve 21st Century?* Retrieved from <http://www.moc.moe.go.th/upload/68e2a13707.pdf>
- Danielson, C. (2011). *Enhancing professional practice: A framework for teaching*. ASCD.
- Dee, T. S. (2005). A teacher like me: Does race, ethnicity, or gender matter?. *The American economic review*, 95(2), 158-165.
- De Zeeuw, E. L., van Beijsterveldt, C. E., Glasner, T. J., Bartels, M., de Geus, E. J., & Boomsma, D. I. (2014). Do children perform and behave better at school when taught by same-gender teachers? *Learning and Individual Differences*, 36, 152-156.
- Evertson, C. M. (1985). Training Teachers in Classroom Management: An Experimental Study in Secondary School Classroom. *The Journal of Education Research*, 79(1), 51-58.
- Goldhaber, D. D., & Brewer, D. J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational evaluation and policy analysis*, 22(2), 129-145.
- Government-of-Pakistan. (2009). *National Education Policy*. Islamabad, Pakistan: Islamabad Ministry of Education.
- Haley, M. R., Johnson, M. F., & Kuennen, E. W. (2007). Student and professor gender effects in introductory business statistics. *J Stat Educ*, 15, 1-19.
- Ingersoll, R. (2012). *Beginning teacher induction: What the data tell us*.
- Jones, C. A. (2005). *Assessment for learning*. London, UK: Learning and Skills Development Agency.
- Popham, W. J. (2002). *Classroom Management: What Teachers need to know*. Boston, USA: Allyn & Bacon.
- Ratchanee, A. (2013). *Teacher Problems and Teacher Quality*. Retrieved September 23, 2013, from Amatyakul School www.amatyakulschool.com/บทความวิจัยนี้.doc
- Rice, J. K. (2010). The Impact of Teacher Experience: Examining the Evidence and Policy Implications. Brief No. 11. *National Center for Analysis of Longitudinal Data in Education Research*, 1. Retrieved from <http://files.eric.ed.gov/fulltext/ED511988.pdf>
- Shulman, L. S. (1986). *Those Who Understand: Knowledge Growth in Teaching*. Retrieved from <http://www.jstor.org/stable/1175860> .
- Stronge, J. H. (2010). *Effective Teachers = Student Achievement: What the Research Says*. New York, USA: Eye on Education.
- Stronge, J. H., & Tucker, P. D. (2000). *Teacher Evaluation and Student Achievement*. Texas, USA: National Education Association.
- Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2007). What is the relationship between teacher quality and student achievement? An exploratory

- study. *Journal of personnel evaluation in education*, 20(3), 165-184. doi: 10.1007/s11092-008-9053-z
- Stroter, A. D. (2008). *The effects of teacher-student racial and ethnic congruence on student math learning*.
- Thonburi, R. C. O. E. P. O. A. C. (2015). *The Study of Learning and Instruction in English Program* Retrieved from http://swis.act.ac.th/html_edu/act/temp_emp_research/2703.pdf
- Tomlinson, C. A. (1999a). *The differentiated classroom : responding to the needs of all learners*. Alexandria, Va, USA: Association for Supervision and Curriculum Development.
- Zhang, D. (2008). The effects of teacher education level, teaching experience, and teaching behaviors on student science achievement. *Graduate Theses and Dissertations*, 155.