

# A Study of Self and Professional Development, Teacher Efficacy, and Resilience Quotient over the Beginning Teachers Who Studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn

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**Abstract:** *The aims of this research are as follows: (1) to study the professional and self-development, teacher efficacy, and resilience quotient among beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn and worked in rural schools or in remote rural areas; and (2) to compare professional and self-development, teacher efficacy, and resilience quotient for beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn, with differences in gender, major, number of teaching years, school type, teaching characteristics, subjects taught, and number of teaching hours per week. The sample consisted of 113 beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn and worked in rural schools or remote rural areas from four generations and selected by the simple random sampling technique. The research tools were three sets of a six point rating scale (0-5 points) which included the following: (1) 24-items on professional and self-development; (2) 24-items on teacher efficacy; and (3) a 42-item on resilience quotient. The reliability of these tools was high, with an overall alpha coefficient score of 0.986, 0.919 and 0.992. The statistics for data analysis were descriptive statistics, a Mann-Whitney U Test, and a Kruskal Wallis Test. The results of study revealed that: (1) professional and self-development, teacher efficacy, and resilience quotient among beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn were at a high level as teacher efficacy at the highest level ( $M=4.20$ ,  $SD=.05$ ) followed by resilience quotient ( $M=3.63$ ,  $SD=.86$ ) and professional and self-development ( $M=3.54$ ,  $SD=.96$ ), respectively; and (2) beginning teachers with teacher efficacy had a different number of teaching years had different levels of professional and self-development, resilience quotient, and different school types.*

**Keywords:** *Professional and self-development, Teacher efficacy, Resilience quotient*

## Introduction

Her Royal Highness Princess Maha Chakri Sirindhorn has initiated a student project in the royal patronage since 1988 by encouraging students who have completed compulsory education but lack opportunities for further education to have the opportunity to study at a higher level to have knowledge, skills, and experience for professional performance and bring all back to develop their own local domicile by granting scholarships from Mathayomsuksa 1 until completing a bachelor's degree. Implementation of the project to date, there are 1,804 students in the royal patronage studying, 1,349 graduated with a bachelor's degree and 10 graduated with a master's degree. On the way of students studying, Her Royal Highness Princess Maha Chakri Sirindhorn has assigned students to do a variety of activities to develop themselves for academics, characteristics, moral and ethics; for example, summer novice ordination and intensive meditation practice for boy students and for girl students, they study more to have a strong basic knowledge including the service and training in various ways. Those make the students knowledgeable, ethical, be loyal and be grateful for Her Majesty's grace, social responsibility, being praised and admired by people involved in general, in accordance with the needs of society in order to get quality young people to join in the development of the country (Prawit Erawan, 2019).

Of the total number of students under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn, there are a number of graduates under a bachelor's degree in education with appropriate qualifications selected to be recruited and appointed as

government teachers and educational personnel, assistant teacher positions in schools under the Office of the Basic Education Commission and most of them are in rural schools or remote rural areas that are in their domicile provinces. Therefore, Her Royal Highness Princess Maha Chakri Sirindhorn has established a project to improve the quality of life and professional advancement of the new generation of teachers and has named the project “Kharuvathanavithee”. The project purpose is to continue Her Royal Highness Princess Maha Chakri Sirindhorn’s wish to develop new generation teachers, promote the development of quality of life for the new generation of teachers, build a strong and sustainable teacher development system and create advancement in academic position and teaching profession for such new generation teachers (Prawit Erawan, 2019).

However, before developing the new teachers, the project people have done the research to investigate needs of self-development and professional development of the beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn. It revealed that the needs of self-development and professional development were classified into 3 aspects; including 1) the characteristics of being a good and effective teacher with 6 indicators, 2) social skills and school work with 6 indicators, 3) professional competence of teachers with 12 indicators, totaling 24 indicators. These young teachers viewed that their competency were at a moderate level for 8 items; including (3) able to use computer and package program to operate effectively, (5) able to use English in daily life, (7) knowledgeable and able to perform other duties in school, (13) able to use innovative teaching in various techniques and challenge students' learning, (16) able to prepare and assess school curriculum, (17) able to practice vocational skills for students fitted with the community context, (18) able to do classroom research, and (21) able to manage teaching in classrooms with special children studying together with normal children. And the others apart, they viewed that their competence was at a high level, anyway they wanted to have self-development at a high level in all items with the means over 3.50 except for the item (12) able to adapt to school colleagues with a moderate level. When the priority needs index (PNI) was in consideration, it revealed that the beginning teachers had the needs to support their development for 17 items out of 24 items except for (2) have health skills, can take care of themselves and advise others, (6) able to practice in accordance with the professional ethics of teachers, (8) understand and be able to comply with government regulations, (9) able to build partnerships and work with communities, (10) create collaborations with parents to promote learning and take care of students, (11) able to listen to others and communicate through creative speaking and writing, and (12) able to adapt to school colleagues (Prawit Erawan, 2019).

From the research results, it led to the design of the potential development of such new teachers, for example, a training activity on job and school development for the new teachers during 6-11 September 2020 at the Karnmanee Palace Hotel, Bangkok, online learning exchange of each region, and various online training on topics related to continuous professional development. (Office of Personnel and Legal Management System Development, 2021) Therefore, to study the results of development, follow up and support, the project implementation committee agreed that the study should be conducted to measure the level of self and professional development of the beginning teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn to be information for designing activities to develop new generation teachers continuously to be able to manage learning and develop learners to learn more effectively.

As the results of this study would be used to design activities to develop this group of teachers continuously, it aims to study the teacher efficacy. This is because qualified teachers are those who are able to present lessons with confidence resulting in positive learning

outcomes and support interests and challenges over the students to make their own career choices (CTQ, 2006 cited in Bakar, Mohamed and Zakaria, 2012). Apart of understanding the content and knowledge including teaching skills, teachers should have confidence in transferring knowledge and skills to learners for more positive learning outcomes. Beliefs about a teacher's ability to practice teaching successfully are known as "Teacher Efficacy" (Tschannen-Moran, Hoy, and Hoy, 1998). Teacher efficacy is very crucial in learning management for students and may be more important than the others (Baker, Mohamed, and Zakaria, 2012). The teacher efficacy is characteristics of the teacher who believes in his ability to plan learning management successfully that is confident that he could manage learning efficiently and tends to have positive attitude (Larrivee and Cook, 1979; Soodak and Podell, 1994 cited in Martinez, 2003). And teachers with a high level of teacher efficacy in teaching are convinced that they can motivate students to learn and have better self-training than those with low teacher efficacy in teaching (Soodak et al, 1998 cited in Martinze, 2003). Therefore, the study of teacher efficacy over beginning teachers will reveal the level of such variables at high or low to find guidelines and determine activities to promote and develop to have higher potential. However, the components of teacher efficacy in his teaching are various types, for example, Gibson and Dembo classified into 2 components; Personal teaching efficacy: PTE and General teaching efficacy: GTE (Gibson and Dembo, 1984 cited in Gavora, 2010); Tschannen-Moran and Woolfolk Hoy (2001) classified into 3 components; Student engagement, Instructional strategies, and Classroom management. This research employs the components under Tschannen-Moran and Woolfolk Hoy (2001).

In addition, these beginning teachers after graduation have to go to work in schools in difficult conditions, in the remote rural countryside, or in diverse community cultures. They must adapt to new working conditions and school colleagues and face the pressure that was expected because they were scholarship students in the royal patronage. These factors required this new group of teachers to have emotional and mental immunity or known as RQ (Resilience Quotient) or called as mental health power by Department of Mental Health which is the most important thing that everyone has. It is because RQ is the emotional and mental ability to adjust and recover back to normal after experiencing a crisis or situation that causes difficulties in life. It is one of the qualities that helps a person overcome obstacles and lead a happy life. Moreover, many people with mental health powers can use the crisis as an opportunity to improve their cognition, mind and life living after the crisis has passed (Department of Mental Health, 2020). The Individuals with high RQ levels are able to adapt to such problems successfully (Khoshouei, 2009 cited in Waraporn Erawan, 2010) and can perform activities normally and be able to overcome obstacles or risks while others can't do (Masten and Coatswort, 1998 cited in Ingrid, 2006 cited in Waraporn Erawan, 2010).

From the reasons mentioned above, it can be seen that the three variables including; self and professional development, teacher efficacy, and resilient quotient are very important in the teaching profession and life living of the new generation of teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn. Therefore, the researcher wanted to study the level of the three variables and to compare the three variables of the beginning teachers who studied in Her Royal Highness with difference of gender, graduation major, number of teaching years, school type, characteristics of teaching, subjects taught, and the number of teaching hours per week to ensure continuity of research, as Prawit Erawan (2019) has studied as a guideline and can use the research results to be the information for planning the development and promotion of new generation of teachers who studied under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn in the future. The research objectives were 1) to study the level of self and professional

development, teacher efficacy, and resilience quotient over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn working in rural schools or in remote rural areas. 2) To compare self and professional development, teacher efficacy, and resilience quotient over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn with the differences of gender, graduation major, number of teaching years, school type, characteristics of teaching, subjects taught, and number of teaching hours per week.

## Research methodology

The methodology was survey research with following process:

### 1. Population and sample

Population was a group of 153 beginning teachers from 4 generations (11 from the first, 30 from the second, 68 from the third, and 44 from the fourth) studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn working in rural schools or in remote rural areas. Sample was a group of 113 beginning teachers from 4 generations obtained by simple random sampling technique. The researcher determined the sample size through Krejcie and Morgan's ready-made tables (Krejcie and Morgan, 1970) of 111 people, and to ensure that the sample was representative of the population and prevent data loss, therefore, the researcher increased the sample to 120 beginning teachers, but the data were returned for 113 or 94.17%.

### 2. Research tools

There were 3 sets of 6-level rating scale (0=None, 1=Lowest, 2=Low, 3=Moderate, 4=High, 5=Highest) questionnaires including; 1) 24 items on Self and Professional Development divided into 3 components: 1.1) Characteristics of being a good and effective teacher, 1.2) Social skills and working in schools, and 1.3) Teacher professional competencies, 2) 24 items on Teacher Efficacy divided into 3 components: 2.1) Student engagement, 2.2) Instructional strategies, and 2.3) Classroom management, and 3) 42 items on Resilience Quotient divided into 5 components: 3.1) To cope with emotion, 3.2) Patience, 3.3) Commitment to life and future, 3.4) Optimism 3.5) Faith in living. All three tools were assessed for the index of item objective congruence (IOC) by 6 experts who are teachers in higher education or academics with expertise in educational research, curriculum and instruction, psychology and educational guidance, as well as educational measurement and evaluation with working experience of not less than 5 years. The IOC on a set of Self and Professional Development was from 0.67 to 1.00, the IOC on a set of Teacher Efficacy was from 0.67 to 1.00, and the IOC on a set of Resilience Quotient was from 0.83 to 1.00. The scoring criteria for all three tools were calculated by sizing the score range for each step, then it was used to determine the score in each range which the score range size was (highest-lowest score) /6 therefore, the range size was (5-0) /6 that was 0.83. (Wattana Sunthornchai, 2021). Therefore, the score for each range size was as follows:

Level	Score Range	Interpretation
1	0.00-0.82	Not having self and professional development, teacher efficacy, resilience quotient
2	0.83-1.65	Having self and professional development, teacher efficacy, resilience quotient at the lowest level
3	1.66-2.48	Having self and professional development, teacher efficacy, resilience quotient at a low level
4	2.49-3.31	Having self and professional development, teacher efficacy, resilience quotient at a moderate level
5	3.32-4.34	Having self and professional development, teacher efficacy, resilience quotient at a high level
6	4.35-5.00	Having self and professional development, teacher efficacy, resilience quotient at the highest level

### 3. Data Collection

The researcher conducted in the first semester of the academic year 2021 by sending a letter requesting courtesy from the Faculty of Education, Mahasarakham University to request assistance to collect the data from the agency of the sample, coordinating with the sample group and sending the google form link to the sample group to answer via online system. The researcher had set the registration before taking the questionnaire and limited to answering only once taking 2 weeks (1 – 15 August 2021). When the data were returned, the researcher analyzes them based on the research objectives.

### 4. Data Analysis

4.1 Fundamental data analysis, the researcher used descriptive statistics such as number, percentage, mean, and standard deviation for the fundamental data analysis of the sample group as well as the 3 sets of rating scale questionnaire.

4.2 Hypothesis testing, the researchers examined the statistical preliminary agreement, including distribution of data through Kolmogorov-Smimov that was found to have a statistical significant level of .05, indicating that the data collected had an abnormal distribution resulting in non-compliance with the statistical preliminary agreement. Therefore, the researcher chose nonparametric statistics in conducting a hypothesis test in research, this is because nonparametric statistics are reference statistics as distribution free and It can be used to analyze both large and small samples, can be used with the data with the rating scales (Suphamon Chansakul and Suchada Bowonkitiwong, 2017) as follows:

4.2.1 Mann-Whitney U Test was used to test the differences of means of self and professional development, teacher efficacy, and resilience quotient over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn, classified into gender (male/female), graduation major (science/social sciences).

4.2.2 Kruskal Wallis Test was used to test the differences of 1) number of teaching years (1 year, 2 years and more than 3 years), 2) school type (primary school, expanding education school, and secondary school) 3) characteristics of teaching (class teaching, subject teaching, mixed-class and mixed-subject teaching, and subject teaching with mixed-class) 4) subjects taught (subject of graduation major, other subject of graduation major, and subject and other subject of graduation major), and 5) number of teaching hours per week (less than 15 hours/week, 15-20 hours/week, and more than 20 hours/week)

## Research results

The researcher presented the data analyses as followings:

1. General information of samples classified by variables over characteristics and teaching conditions. The results of analysis revealed that the samples were 20 male and 93 female teachers as 17.7% and 82.3%, respectively, with the most from the north of 80 people as 70.8%. Most of the samples were under social sciences of 76 people as 67.3% and had more than 3 years teaching experience of 70 people as 61.9%. The samples teaching in secondary schools were 50 people as 44.2%, those 47 teachers with the characteristics of teaching as class teaching and subject teaching were equal, as 41.6% equal as well, and most of which teaching subjects of graduation major as 53.1%. In addition, most of the samples had number of teaching hours more than 20 hours/week of 77 people as 68.1%, as shown in Table 1.

Table 1 Numbers and percentages over the beginning teachers classified into characteristics and teaching conditions variables

Characteristics and Teaching Conditions Variables	North		South		Central		Northeast		Total	
	N	%	N	%	N	%	N	%	N	%
Gender										
Male	16	80.0	2	10.0	1	5.0	1	5.0	20	17.7
Female	64	68.8	11	11.8	11	11.8	7	7.5	93	82.3
Graduation Major										
Science	25	67.6	5	13.5	6	16.2	1	2.7	37	32.7
Social sciences	55	72.4	8	10.5	6	7.9	7	9.2	76	67.3
Number of Teaching Years										
1 Year	16	94.1	0	.0	1	5.9	0	.0	17	15.0
2 Years	24	92.3	0	.0	0	.0	2	7.7	26	23.0
3 Years	40	57.1	13	18.6	11	15.7	6	8.6	70	61.9
School Type										
Primary school	35	74.5	6	12.8	2	4.3	4	8.5	47	41.6
Expanding education school	5	31.2	3	18.8	6	37.5	2	12.5	16	14.2
Secondary school	40	80.0	4	8.0	4	8.0	2	4.0	50	44.2
Characteristics of Teaching										
Class teaching	39	83.0	2	4.3	3	6.4	3	6.4	47	41.6
Subject teaching	28	59.6	8	17.0	7	14.9	4	8.5	47	41.6
Mixed-class and mixed-subject teaching	12	70.6	2	11.8	2	11.8	1	5.9	17	15.0
Subject teaching with mixed-class	1	50.0	1	50.0	0	.0	0	.0	2	1.8
Subject Taught										
Subject of graduation major	38	63.3	9	15.0	7	11.7	6	10.0	60	53.1
Other subject of graduation major	16	80.0	1	5.0	3	15.0	0	.0	20	17.7
Subject and other subject of graduation major	26	78.8	3	9.1	2	6.1	2	6.1	33	29.2
Number of Teaching Hours Per Week										
Less than 15 hours/week	2	66.7	1	33.3	0	.0	0	.0	3	2.7
15-20 hours/week	22	66.7	3	9.1	8	24.2	0	10.4	33	29.2
More than 20 hours/week	56	72.7	9	11.7	4	5.2	8		77	68.1
Total	80	70.8	13	11.5	12	10.6	8	7.1	113	100

2. The result of the level of self and professional development, teacher efficacy, and resilience quotient over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn working in rural schools or in remote rural areas revealed as following:

Self and professional development, teacher efficacy, and resilience quotient over 113 beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn were at a high level as teacher efficacy with the most ( $M=4.20$ ,  $SD=.05$ ) followed by resilience quotient ( $M=3.63$ ,  $SD=.86$ ) and the least of self and professional development ( $M=3.54$ ,  $SD=.96$ ). When skewness: SK was in consideration, it showed that all 3 factors were at left skewness or negative skewness at the

statistically significant level of .05, especially, resilience quotient with the highest negative (SK=1.05). In term of SE SK, all characteristics were equal to 0.23, indicating that the majority of teachers scored above average. However, standard error could be used to create confidence intervals of skewness and kurtosis, i.e. if the data had a normal distribution, the 95% confidence intervals of skewness and kurtosis could be obtained by the following formulas;  $Skewness \pm 1.96(SE\ Skew)$  and  $Kurtosis \pm 1.96(SE\ Kurt)$ , respectively. If the 95% confidence interval covered zero, then the normal distribution at the .05 statistical significant level indicated that this set of data was symmetrical or the distribution was insignificantly skewed or normal distribution with 95% confidence intervals (Wattana Soonthornthai, 2011 cited in Waraporn Erawan, 2010). From the analysis results, it showed the 95% confidence intervals over the skewness of the patience variable covering zero (-0.39 to 0.51) indicating that this variable had a statistically significant normal curve distribution at the .05 level with a confidence interval of 95%, but other variables showed negative skewness with a confidence interval of 95% indicating that most teachers' scores were above average.

In case of Kurtosis: KU, it showed that self and professional development were negative kurtosis (-0.14), but the teacher efficacy and resilient quotient were positive kurtosis (0.02 equality) as the SE SK of all variables showed the same value of 0.45. When calculating the confidence intervals 95% of the kurtosis, it revealed that the confidence intervals 95% of all variables covered zero indicating that the data had a normal distribution curve with confidence intervals of 95% as shown in Table 2.

Table 2 Mean, standard deviation, skewness, kurtosis of self and professional development, teacher efficacy, and resilience quotient

Characteristics	<i>M</i>	<i>SD</i>	Inter- preting	SK	SE SK	Confidence Intervals of 95% of SK	KU	SE SK	Confidence Intervals of 95% of KU
1. Self and Professional Development	3.54	.96	High	-.94*	.23	-1.39 to -.49	-.14	.45	-1.02 to 0.74
1.1. Characteristics of being a good and effective teacher	3.32	.97	High	-.82*	.23	-1.27 to -.37	-.22	.45	-1.10 to 0.66
1.2 Social skills and working in schools	3.84	1.06	High	-.89*	.23	-1.34 to -.44	-.32	.45...	-1.20 to 0.56
1.3 Teacher professional competencies	3.47	.94	high	-.80*	.23	-1.25 to -.35	-.15	.45	-1.03 to 0.73
2. Teacher Efficacy	4.20	.50	High	-.51*	.23	-0.96 to -.06	.02	.45	-1.02 to 0.74
2.1. Student engagement	4.31	.52	High	-.65*	.23	-1.10 to -.20	.42	.45	-1.10 to 0.66
2.2 Instructional strategies	4.14	.56	High	-.52*	.23	-0.97 to -.07	.29	.45	-1.20 to 0.56
2.3 Classroom management	4.16	.61	high	-.43*	.23	-0.88 to -.02	.32	.45	-1.03 to 0.73
3. Resilience Quotient	3.63	.86	High	-1.05*	.23	-1.50 to -.60	.02	.45	-0.86 to 0.90
3.1 To cope with emotion	3.53	.86	High	-1.15*	.23	-1.60 to -.70	.29	.45	-0.59 to 1.17
3.2 Patience	2.97	.43	Moderate	.06	.23	-0.39 to 0.51	-.38	.45	-1.26 to 0.50
3.3 Commitment to life and future	3.77	1.10	High	-.93*	.23	-1.38 to -.48	-.28	.45	-1.16 to 0.60
3.4 Optimism	3.92	1.06	High	-.99*	.23	-1.44 to -.54	-.12	.45	-1.00 to 0.76
3.5 Faith in living.	3.94	1.08	High	-.99*	.23	-1.44 to -.54	-.22	.45	-1.10 to 0.66

3. The results of comparing self and professional development, teacher efficacy, and resilience over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn with differences of gender, graduation major, number of teaching years, school type, teaching characteristics, subject taught, and number of teaching hours per week.

3.1 The results of comparing self and professional development, teacher efficacy, and resilience over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn with differences of gender and graduation major through Man-Whitney U Test found that: (As shown in Table 3)

3.1.1 Self and professional development, teacher efficacy, and resilience over the beginning teachers of both males and females were not different.

3.1.2 Self and professional development, teacher efficacy, and resilience over the beginning teachers of both graduation major on science and social sciences were not different.

Table 3 Testing the differences of means of self and professional development, teacher efficacy, and resilience quotient over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn with differences of gender and graduation major through Man-Whitney U Test

Variables	Self and Professional Development		Teacher Efficacy		Resilience Quotient	
	1	2	1	2	1	2
Groups*						
Gender N	20	93	20	93	20	93
Mean Rank	55.50	57.32	62.58	55.80	58.80	56.61
Sum of Ranks	1110.00	5331.00	1251.50	5189.50	1176.00	5265.00
Mann-Whitney U	900.00		818.50		894.00	
Sig.	0.821		0.401		0.787	
Graduation Major N	37	76	37	76	37	76
Mean Rank	55.34	57.81	55.91	57.53	53.35	58.78
Sum of Ranks	2047.50	4393.50	2068.50	4372.50	1974.00	4467.00
Mann-Whitney U	1344.50		1365.50		1271.00	
Sig.	0.707		0.804		0.409	

Note: \*Gender: 1= Male and 2= Female; Graduation Major: 1 = Science and 2= Social Sciences

3.2 The results of comparing self and professional development, teacher efficacy, and resilience over the beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn with differences of number of teaching years, school type, teaching characteristics, subject taught, and number of teaching hours per week through Kruskal Walls Test found that: (As shown in Table 4)

3.2.1 The self and professional development and resilience quotient over the beginning teachers with different number of teaching years were different at the statistically significant level of .05 as those with more than 3 years of teaching had self and professional development as well as resilience quotient at the highest but the teacher efficacy of which was not different.

3.2.2 The resilience quotient over the beginning teachers teaching in primary school, expanding education school, and secondary school was different at the statistically significant level of .05 as those teaching in primary school had teacher efficacy the highest but the self and professional development and resilience quotient of which were not different.

3.2.3 The self and professional development, teacher efficacy, and resilience quotient over the beginning teachers with teaching less than 15 hours/week, 15-20 hours/week, and more than 20 hours/week were not different.

3.2.4 The self and professional development, teacher efficacy, and resilience quotient over the beginning teachers teaching subject of graduation major, other subject of graduation major, and subject and the other subject of graduation major were not different.

3.2.5 The self and professional development, teacher efficacy, and resilience quotient over the beginning teachers teaching with class teaching, subject teaching, as well as mixed-class and mixed-subject teaching were not different.



Table 4 The testing results of mean differences over self and professional development, teacher efficacy, and resilience quotient classified by teaching condition variables through Kruskal-Wallis Test

Variables Groups*	Self and Professional Development				Teacher Efficacy				Resilience Quotient			
	1	2	3	4	1	2	3	4	1	2	3	4
Number of Teaching Years (N)	17	26	70		17	26	70		17	26	70	
Mean Rank	44.62	42.92	65.24		49.59	49.33	61.15		52.12	41.96	63.77	
Kruskal-Wallis H	11.660				3.722				8.846			
Df	2				2				2			
Sig.	0.003**				0.155				0.012*			
School Type (N)	47	16	50		47	16	50		47	16	50	
Mean Rank	56.19	64.19	55.49		66.82	43.69	52.03		57.70	61.81	54.80	
Kruskal-Wallis H	0.908				8.049				0.592			
Df	2				2				2			
Sig.	0.635				0.018*				0.774			
Number of Teaching Hours (N)	3	33	77		3	33	77		3	33	77	
Mean Rank	36.50	53.50	59.30		47.50	56.32	57.66		31.33	51.86	60.20	
Kruskal-Wallis H	1.932				0.299				3.388			
Df	2				2				2			
Sig.	0.381				0.861				0.184			
Subject Taught (N)	60	20	33		60	20	33		60	20	33	
Mean Rank	55.48	57.93	59.20		54.78	52.53	63.76		55.26	54.13	61.91	
Kruskal-Wallis H	0.293				2.063				1.064			
Df	2				2				2			
Sig.	0.864				0.357				0.587			
Teaching Characteristics (N)	47	74	17	2	47	74	17	2	47	74	17	2
Mean Rank	54.19	55.13	64.18	106.0	60.40	50.86	61.25	81.25	54.93	56.90	59.44	87.25
Kruskal-Wallis H	5.792				3.620				1.988			
Df	3				3				3			
Sig.	0.122				0.306				0.575			

Note: \* the statistical significant level of 0.05, \*\* the statistical significant level of 0.01 and Groups\* refers to Number of teaching years: 1 year, 2 years, and more than 3 years; School type: 1= Primary school, 2=Expanding education school, 3=Secondary school; Characteristics of teaching: 1=Class teaching, 2=Subject teaching, 3=Mixed class and mixed subject teaching; Subject teaching: 1= the subject of graduation major 2= the other subject of graduation major, 3= the subject and the other subject of graduation major; Number of teaching hours: 1= Less than 15 hours/week, 2= 15-20 hours/week, and 3= More than 20 hours/week

In conclusion, it showed that the self and professional development was different only in the number of teaching years variable, teacher efficacy was different in the school type variable and the resilient quotient was different in the number of teaching years variable as well as shown in Table 5.

Table 5 Self and Professional Development, Teacher Efficacy, and Resilient Quotient over Differences of Characteristics and Teaching Conditions

	Gender	Graduation Major	Number of Teaching Years	School Type	Number of Teaching Hours	Subject Taught	Characteristics of Teaching
Self and Professional Development	Not different	Not different	Different	Not different	Not different	Not different	Not different
Teacher Efficacy	Not different	Not different	Not different	Different	Not different	Not different	Not different
Resilient Quotient	Not different	Not different	Different	Not different	Not different	Not different	Not different

## Discussion

The researcher had discussion the research results as followings:

1. The 113 beginning teachers who studied under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn had self and professional development, teacher efficacy, and resilient quotient at a high level. As these young teachers were the students under Her Royal Highness Princess Maha Chakri Sirindhorn who has assigned the students to engage in a variety of activities to develop themselves academically and physically, morals and ethics, for example, the summer novice ordination for male and Dharma practice training for female students. Bringing students to study more to have a strong basic knowledge including various types of service and training enhance the students in the royal patronage to have knowledge, morality, loyalty and enlightenment in Her Majesty's grace, social responsibility, which have been honored and admired by people involved in general. It is in accordance with the needs of society in order to get quality young people to join in the country's further development. And when being appointed as a teacher, it also improves the quality of life and professional advancement of the new generation of teachers under the project. "Kruwattanawithi" that fulfills Her Royal Highness Princess Maha Chakri Sirindhorn wishes in developing the new generation of teachers, promoting the development of quality of life of the new generation of teachers, creating a strong and sustainable teacher development system, and creating advancements in academic positions and teaching professions for such new teachers (Prawit Eraworn, 2019). In addition, the project was implemented in the first phase of the new teacher's entry into the profession at the first 2 - 5 years, which is an appropriate and sufficient period to ensure that the new teacher has sufficient competence and skills in teaching, engaging class management, performing lesson plan and work, developing and making teaching media, having time management, working with colleagues, and coordinating with parents confidently (Eisenman & Thornton, 1999). Besides, Huling-Austin and others (1989) pointed out that the beginning of teaching in schools for self-improvement is a crucial moment in the transition from college life to working life, a teacher must have a continuing professional learning experience. And there are the results of studies showing that if there is good support and guidance during the beginning of the teaching career, this can affect long-term rates of professional retention, competence, values and teacher efficacy of beginning teachers (Smith & Ingersoll, 2004; Wong, 2004; Baker, Mohamed and Zakaria, 2012). This is consistent with the research of Suwetha Rerkkasem and others (2008) who studied with teachers of private schools in Ayutthaya province and found that they practiced according to professional standards at a high level when the duration of their work was increased. And also being consistent with the research results of Nisa Laheem and Suntree Wanphaothai (n.d.) who found that teachers under the Primary Education Area Satun had the high level of opinions about the performance of the professional standards. Besides it is consistent with Bakar, Mohamed and Zakaria (2012) who found that specific training programs resulted in an increase teaching efficacy in student teachers.

2. The self and professional development were found to differ only in the number of teaching years variable. This is because more experienced teachers gain more knowledge and teaching skills and may achieve excellent success and these positive changes are a key feature of professional development (Jackson, 1992 cited in Doghonadze, 2016). The beginning teachers tend to be aware of their shortcomings and has greater professional development needs than more experienced teachers, especially in teaching skills and classroom management (Jenson, et al., 2012). It is consistent with Sariyildiz (2017) who found that teachers with more teaching experience than the beginning teachers were

perceived more towards self-initiated professional development on participation in self-assessment of teaching, skills, knowledge and willingness to develop themselves while the new teachers will try to keep up with the changes and develop themselves to be proficient in the language. It is consistent with Suweetha Rerkkasem, et al, (2008) who studied the performance of teacher vocational standards in private schools in Ayutthaya province and found that private school teachers with different working experiences had adherence to professional standards of private school teachers in Ayutthaya province in overall and self-performing aspect significantly different at the .05 level and it's consistent with the research of Nisa Laheem and Suntree Wannaphairau (n.d.) who found that the teachers under the Primary Education Area Satun with different working experiences had different opinions on performance based on professional standards at the statistical significant level of .05.

3. The teacher efficacy was found differences between teachers working in different school types. Teachers working in primary schools had mean at the highest followed by secondary schools and expanding education schools, respectively. This is the result of educational management at the primary education level and secondary education level that are different. That is, teaching at the primary level is an integrated learning style or learning through various fun activities appropriate with the age. Most primary school teachers are class teachers, in some schools, 1 class teacher may teach all subjects, moreover, teaching activities will focus on students' participation in classroom activities by focusing on the learner as the center. Therefore, there is a chance to have access to learning more happily while at the secondary level, teachers are subject teachers with the teaching management focusing more on the content of each subject and tend to focus more on narrative teaching (Chotika Kangsan, 2021), that's why teachers may lack confidence in explaining such in-depth content. However, there was no difference in teacher efficacy between males and females and it's consistent with Bedia (2015) finding that 678 teachers in primary and secondary schools in Turkey with different genders and teaching experiences were found to have not different teacher efficacy.

4. Resilience quotient was found to differ among teachers with different number of teaching years as teachers teaching 3 years having the highest mean of resilience quotient. This research result was consistent with the working conditions of teachers as the teachers with a lot of teaching experiences are faced with a variety of stressful situations and conflicts as well as the much-anticipated work experience (Polat & Iskender, 2018) that provides them the opportunities for self-training or finding solutions in teaching or working situations, adjusting to coworkers and the students' parents that were more than those with less teaching jobs. The findings of this study are consistent with Yalcin (2013 cited in Polat & Aikander, 2018) who found that teachers with a higher age and work experience had higher levels of resilience quotient. However, there are research findings that age and experience have no effect on resilience quotient depending on the condition and context of the subjects studied (Harrison et al., 2002; Chan, 2003; Maddi et al., 2006; Sezgin, 2009; Sezgin, 2012; Genc, 2014 cited in Polat & Iskender, 2018). The suggestions for applying the research results were 1) From the research results, teachers with different working experiences had different levels of self and professional development. Therefore, it is necessary to continually develop this new generation of teachers during induction period which various countries set a suitable period of about 2-5 years, aiming to continuously build professional experience in various field. 2) The results of the research found that the teacher efficacy over the beginning teachers teaching in primary and secondary schools was different. Therefore, in the development of teachers, the development activities for teachers teaching at different levels should be designed in accordance with the abilities of different teachers by focusing on development activities that create higher teacher efficacy of new teachers teaching in

secondary schools. 3) From the research, it was found that the teacher's resilient quotient differed according to the number of teaching years, therefore, during the induction period, it is necessary to have a process of supervising or supporting teachers put into new jobs during the first year to be able to support work and life until having higher resilient quotient.

The suggestions for further research composed of 1) There should be a follow-up study of new teacher development every year during the induction period of the first 5 years to study the factors, processes, and guidelines of teacher development to have professional skills and quality of life according to the goals of the project. 2) There should be research and development of activities or development frameworks to enhance the teacher efficacy of new teachers teaching in secondary schools to be more effective.

## Conclusion

Self and professional development, teacher efficacy, and resilience quotient is an important factor for being a professional teacher. According to the findings of this study, teachers with different working experiences had different levels of self and professional development as well as resilience quotient. Therefore, new generation of teachers should be developed during the first 5 years of work through process of motivation, coaching, supervising or supporting teachers and they should have opportunity to choose a method of self-development according to their needs such as seminars, training activities, or workshops. In addition, different school type made different teacher efficacy, so the development activities for teachers teaching at different levels and should be designed to appropriate the school context.

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