



SELF-EFFICACY AND PROFESSIONAL DEVELOPMENT: AN INVESTIGATION OF MUSIC TEACHERS IN PRIMARY AND SECONDARY SCHOOLS IN CHINA

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ABSTRACT

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In an era where teachers are increasingly expected to perform at their level best, issues of self-efficacy and professional development continue to be an area of continuous debate. A random sample of primary and secondary school teachers in five cities in mainland China was selected to respond to the self-evaluation questionnaire, and 300 valid questionnaires were collected. The research was carried out to (1) investigate the levels of self-efficacy of music teachers in primary and secondary schools, (2) determine the factors that influenced music teachers' self-efficacy, and (3) explore the relationship between teachers' self-efficacy and professional development. The data were analysed using descriptive statistics, T-test, analysis of variance, and regression. First, the results showed that the mean value of music teachers' self-efficacy was 7.16. Second, the middle school teachers reported lower self-efficacy compared to teachers in the primary schools. Third, although teachers aged between 20 to 50 years old reached their highest level of self-efficacy, it decreased to a lower value after an extended period. Additionally, the study also revealed a significant difference in self-efficacy among teachers with different teaching experiences. Although educational backgrounds, gender, and training hours did not influence self-efficacy, a positive correlation was reported between self-efficacy and professional development. Prospective research might better consider developing music teachers' self-efficacy and education across primary and secondary schools.

Contribution/Originality: This research provides a quantitative perspective to the positive relationship between self-efficacy and professional development. While research on music teachers' self-efficacy has been conducted in neighboring Hong Kong, the factors affecting self-efficacy among music teachers in mainland China is lacking. This research significantly contributes to closing this research gap.

1. INTRODUCTION

Change and reform in education are vital in ensuring meaningful and continuous educational advancement. Often these changes are reflected in a teacher's efficacy and their ability to innovate and self-evaluate their teaching process to improve the teaching and learning experience in the classroom. Self-efficacy generally refers to a person's belief in his or her ability to successfully perform a particular task (Bandura, 2001). Self-efficacy has been regarded as one of the most powerful motivational indicators of how well a person is able to harness and improve their performance.

Existing studies have explored the contribution of factors influencing teachers' self-efficacy across different regions and backgrounds (Klassen & Chiu, 2010; West & Frey-Clark, 2019). Additionally, there have been a number of publications that look at the relationship between self-efficacy and a teachers' professional development (Bray-Clark & Bates, 2003; De Vries, 2017; Zhao & Li, 2006). Although theories attach great importance to the influence of self-efficacy on music teachers' professional development, quantitative research in this area is currently under-investigation particularly within China. In China today, many young teachers lack the necessary knowledge and skills required to transition from student to educator. This has consequently resulted in teachers lacking confidence to teach (De Vries, 2017). In the United States, about 33% of new public-school teachers leave the job in less than a year, and nearly 50% of new teachers abandon the occupation after only five years due to an inability to continuously meet the job requirement (Hamilton, 2007; Wagoner, 2011). While such data is available within countries like the US, such information is lacking within China. Therefore, it is necessary to conduct research to identify the factors influencing self-efficacy to improve teachers' self-efficacy and guide their professional development to ensure prolonged service within this vocation.

In order to address the gap, 300 Chinese primary and secondary school music teachers were identified to participate in this self-efficacy study. The following aspects were analyzed and discussed: 1) the differences of self-efficacy under different influencing factors and 2) the relationship between self-efficacy and professional development. The research was guided by the following research questions:

1. What are the self-efficacy levels among primary and secondary school music teachers?
2. What are the differences in self-efficacy of music teachers in terms of sociodemographic backgrounds (gender, age, teaching experiences, education background, types of schools, and teacher training hours)?
3. What is the relationship between music teachers' self-efficacy and professional development?

2. LITERATURE REVIEW

Previous studies posit that teachers' self-efficacy is generally associated with the confidence or beliefs that they have concerning their ability to successfully manage or complete teaching tasks (Tschannen-Moran, Hoy, & Hoy, 1998). First, self-efficacy affected teachers' perception of success; as, teachers with high self-efficacy were reported to participate actively in tasks. Conversely, research has also shown that low self-efficacy may have led them to avoid tasks (Bandura, 1997; Garvis, 2013). Secondly, teachers with a greater sense of self-efficacy were 1) more enthusiastic about teaching, 2) more confident in their ability to succeed, and 3) more involved in organizing effective courses to achieve the desired teaching objectives (Woolfolk & Hoy, 1990). Thirdly, the higher the teachers' self-efficacy, the better the students' performance (Bray-Clark & Bates, 2003; WestEd, 2000). These results seem to confirm the role of self-efficacy in teachers' professional development. However, it is important to note that self-efficacy is also influenced by many complex factors (Biasutti & Concina, 2018; De Vries, 2017; Wagoner, 2011). For example, De Vries (2017) reported that self-efficacy across primary and secondary school music teachers was inadequate owing to several factors that influenced their self-efficacy development.

2.1. Factors that Influence Music Teachers' Self-Efficacy

In Bandura's social learning theory, self-efficacy is derived from successful experiences; teaching experiences are important to determine music teachers' self-efficacy, apart from other factors such as gender, age, social environment, and school management (Wagoner, 2011). Wolters and Daugherty (2007) found that music teachers' teaching experiences affected their self-efficacy, teaching strategies, and classroom management abilities. Nevertheless, Wagoner (2011) reported no significant differences in the self-efficacy of American music teachers in the context of gender, teaching stage, and teaching experiences. Another study in the United States found that within 23 years of teaching experiences, music teachers' self-efficacy increased with greater teaching experiences. However, self-efficacy began to decline after 23 years of teaching experiences (Klassen & Chiu, 2010). Biasutti and

Concina (2018) reported similar results through a design of a multidimensional model that predicted music teachers' self-efficacy. Predictors of music teachers' self-efficacy were musical abilities, social interaction abilities, teaching experiences, and gender.

2.2. Self-Efficacy and Professional Development of Music Teachers

Several studies demonstrated that self-efficacy determined teachers' educational enthusiasm and work innovation. Teachers with high self-efficacy generally 1) invest more enthusiasm and energy in educational work, 2) actively work towards educational reforms, and 3) devote themselves to professional development. Nevertheless, a number of research have revealed that teachers with low self-efficacy generally react negatively to educational reforms and their professional development is slow (Bandura, 1997; Garvis, 2013; Schwarzer, Schmitz, & Tang, 2000).

In recent years, studies on music teachers' self-efficacy in professional development have gained more attention in academic research. Studies have confirmed that teachers with less than five years of working experience generally demonstrate a low sense of self-efficacy. As such, self-efficacy training might better be conducted in the first five years of work to ensure teachers' stability and good development throughout their teaching career (Bandura, 1997; Wagoner, 2011). Studies have also shown that primary and secondary school music teachers face varying degrees of self-efficacy challenges in their professional development. Teachers need to gain confidence in music teaching by observing successful teaching and engaging in conversations with expert teachers (De Vries, 2017). Effective professional development training could also improve teachers' teaching confidence and classroom management abilities (Karimi, 2011). Furthermore, teachers' training might better offer self-efficacy, beliefs in musical ability, social skills to reduce negative emotions, and different methods of teaching music (Biasutti & Concina, 2018). These results that emphasized teachers' judgment confirm the role of self-efficacy in teachers' professional development but the relationship between the two concepts need to be further explored. Specifically, research on the influence of self-efficacy on the professional development of primary and secondary school music teachers is under-investigated.

3. RESEARCH METHODS

A sample of 300 primary and secondary school teachers in five cities in mainland China using non-probability sampling was selected to respond to the questionnaire using a self-evaluation method. Among them, 269 were female teachers and 31 male teachers, Of the total number of participants, 54% were 30 to 40 years old, while 24.66% were under 30 years old.

It is theoretically acknowledged that in the past, self-evaluations were considered too subjective and that self-evaluations failed to reflect objectively on the real-world context of teacher development due to the cognitive deviation of self-evaluations. Nevertheless, self-evaluations work as internal mechanisms to promote teachers' self-reflection and self-diagnosis (Sun & Jiang, 2008). Through self-evaluations, teachers generally 1) diagnose their teaching duties, 2) find their shortcomings in teaching design and practice, and 3) reflect on teaching to support their continuous career progression. Good self-evaluation systems are conducive to teachers' self-diagnosis. Self-evaluations, as opposed to external evaluations, are measured based on teachers' practice and educational ideas. Thus, teachers could accept and relate to the results.

Deficiencies in teaching design and education concepts can be captured through self-evaluations. For the need of internal progress, teachers will 1) think about deficiencies in certain aspects and 2) continue to learn and improve their professional development levels. Studies exhibited two commonly used methods of self-evaluation, namely, self-evaluation questionnaires and self-evaluation narratives. This study which emphasized the self-efficacy of music teachers adopted self-evaluation questionnaires.

3.1. Preparation of Pre-Test Questionnaires

The questionnaires that were administered incorporated items from 1) *Self-Evaluation Questionnaires for Music Teachers* by Professor Chen of National Taichung University and 2) the self-efficacy question items compiled by Professor Leung from The Education University of Hong Kong (Leung, 2008). The questionnaires were divided into the following five sections: (1) teachers' teaching attitudes, (2) curriculum design methods, (3) professional music abilities, (4) self-improvement channels, and (5) self-efficacy. The preliminary 41 item questionnaires comprised 31 Likert-scale questions and ten items on sociodemographic backgrounds. Sections one, two, three, and four of the questionnaires employed five-point Likert scales ("completely disapproving", "basically disapproving", "generally approving", "basically approving", and "completely approving"). Items on self-efficacy were determined based on scores of one ("very unconfident") to ten ("very confident"). Participants provided consent to collect information and use the data solely for the research.

Professor Chen of National Taichung University and Professor Cui of Zhejiang Conservatory of Music were invited to evaluate and modify the original questionnaire content. Electronic questionnaires were designed using the internet survey tool, *Wenjuan.com* and the preliminary questionnaires were administered to 26 music teachers. The results were analyzed using exploratory factor analysis, principal component analysis, and variance maximum orthogonal rotation methods. Subsequently, some items were removed based on the factor loadings. Items with loading values lower than 0.40 were removed. Finally, 22 Likert-scale items and 10 items on sociodemographic backgrounds were retained.

3.2. The Formal Questionnaire

Questionnaires were administered using a random sampling technique among elementary and middle school music teachers from Hangzhou, Yantai, Xiamen, Changsha, and Jinan of China. The study reported that 300 valid questionnaires were returned and exploratory factor analysis was conducted. Bartlett test value was 4273.381, $P = 0.000$. KMO coefficient of sample sampling appropriateness was 0.953. Therefore, the questionnaires were suitable for factor analysis.

3.3. Reliability and Validity Analysis

The Cronbach's Alpha value of this study was 0.937 while the total variance interpretation of 68.292% indicated high questionnaire reliability.

Table 1. Descriptive statistics of music teachers' sociodemographic information.

Demographic Information		N	%
Gender	Female	269	89.67
	Male	31	10.33
Age	Under 30 years	74	24.66
	30 to 40 years	162	54.00
	41 to 50 years	56	18.67
	over 50 years	8	2.67
Teaching experiences (number of experiences)	Under five years	73	24.33
	Six to ten years	77	25.67
	11 to 20 years	103	34.33
	Over 20 years	47	15.67
Education qualification	Bachelor's degree	267	89.00
	Master's degree	26	8.67
	College degree	7	2.33
Teaching grades	Primary school	184	61.33
	Secondary school	116	38.67
Teacher training hours	Under 30 hours	55	18.33
	30-60 hours	89	29.67
	Over 60 hours	156	52.00
Total	-	300	100

Good content was indicated through the involvement of experts who removed and modified the items and the alignment of the study with the literature and national standards. The factor analysis results demonstrated how the teachers' self-evaluation bore a resemblance to the theoretical conception and good structural validity. [Table 1](#) shows the demographic information about the participants.

3.4. Data Analyses

Data analyses were performed using the Statistical Package for Social Science (IBM, SPSS 26.0) software. Different methods of data analysis were used for different topics. First, the average scores of self-efficacy levels of primary and secondary school music teachers were used to answer the first research question. Second, standard deviation, T-test, and variance analysis were used to analyze the factors that affected self-efficacy, which answer the research question two. With self-efficacy as the independent variable and professional development as the dependent variable, regression analysis was used to explore the relationship between both variables to answer research question three.

4. RESEARCH RESULTS

4.1. Question 1. What Are the Self-Efficacy Levels Among Primary and Secondary School Music Teachers?

The self-efficacy questions were adapted from Professor ([Leung, 2008](#)) inquiry: "Assuming that there is a public lecture involving the participation of many teachers from the city, how confident are you to accomplish the task?" A total of 300 questionnaire samples were returned. By calculating the average scores, the overall self-efficacy mean value of middle school and primary school teachers was 7.16. The questionnaires revealed that 47 teachers indicated a score of six, while 47 teachers indicated scores of seven and eight. However, 65 teachers (21.67%) indicated a score of ten points. The teachers who indicated scores of more than seven accounted for 62% of the total number with an average value of 7.16. Therefore, the results may indicate that the overall self-efficacy of music teachers was high.

4.2. Question 2. What Are the Differences in Self-Efficacy of Music Teachers in Terms of Sociodemographic Backgrounds?

(1) The variables that were significantly associated with self-efficacy included age, types of school, and teaching experiences. As shown in [Table 2](#), there was a significant difference in teachers' self-efficacy according to the different types of schools ($F [1, 299] = 3.272$ $P = 0.006$). A total of 184 primary school music teachers were surveyed and the mean value of self-efficacy was 7.44 ($SD = 2.082$), a mean value that was higher than that of the secondary school music teachers (Mean = 6.71, $SD = 2.439$).

There were also significant differences in self-efficacy among teachers of different ages ($F [1, 299] = 3.217$ $P = 0.017$). Four age groups were considered 1) under 30, 2) 31 to 40, 3) 41 to 50, and 4) over 50. Music teachers aged 41-50 scored the highest in the context of self-efficacy ($M = 7.80$) but teachers under 30 years old scored the lowest ($M = 6.55$). Notably, self-efficacy did not increase with age and self-efficacy fell to a low among teachers aged 50 years old and above.

Teachers with various teaching experiences demonstrated significant differences in self-efficacy ($F [1, 299] = 3.467$ $P = 0.023$). Music teachers were divided into groups who had 1) less than five years of experience, 2) six to ten years of experience, 3) 11 to 20 years of experience, and 4) more than 20 years of experience. Music teachers who were engaged in music teaching for more than 20 years had the highest self-efficacy scores ($M = 7.60$), while music teachers with less than 5 years of experience recorded the lowest self-efficacy scores ($M = 6.70$). The self-efficacy of music teachers increased as the teachers gained more experience.

(2) The variables that were not significantly associated with self-efficacy included gender, educational background, and teacher training hours. 269 female teachers ($M = 7.07$, $SD = 2.19$) and 31 male teachers ($M = 7.90$, $SD = 2.65$) participated in this research. There were significantly more female than male music teachers. Male teachers, as opposed to female teachers, demonstrated higher self-efficacy mean values. There were no statistically

significant differences in self-efficacy between male and female music teachers ($F [1,299] = 1.988, P = 0.051$). Second, the items on the educational background were divided into teachers with master's, bachelor's, and junior college degrees. Overall, there were 26 teachers with master's degrees ($M = 7.42$), 267 teachers with bachelor's degrees ($M = 7.14$), and seven teachers with junior college degrees ($M = 6.86$). Findings showed that, teachers with master's degrees scored the highest on the self-efficacy scale, while teachers with junior college degrees reported the lowest. However, education backgrounds had no statistically significant influence on self-efficacy ($F [1,299] = 0.251, P = 0.778$).

Table 2. The differences in self-efficacy of music teachers in terms of age, teaching experiences, and types of schools.

Variables	Items	N	Mean	F	p
Types of schools	Secondary school	116	6.71	3.272 **	0.006
	Primary school	184	7.44		
Age	Under 30 years old	74	6.55	3.467*	0.017
	30-40 years old	162	7.19		
	41-50 years old	56	7.80		
	Over 50 years old	8	7.50		
Teaching experience	Under five years	73	6.70	3.217*	0.023
	Six-ten years	77	6.82		
	11-20 years	103	7.53		
	Over 20 years	47	7.60		

Note: * $p < 0.05$; ** $p < 0.01$.

Teacher training hours were divided into three categories: 1) less than 30 hours, 2) 30-60 hours, and 3) more than 60 hours. There were 55 teachers with less than 30 hours of training ($M = 6.73$), 89 teachers with 30 to 60 hours ($M = 6.93$), and 156 teachers with more than 60 hours of training ($M = 7.44$). It should be noted here that teachers' self-efficacy was higher with longer hours that were spent on participating in teacher training activities. Although teacher training might influence teachers' sense of self-efficacy, their relationship was not statistically significant ($F [1,299] = 2.670, P = 0.071$).

4.3. What is the Relationship Between Music Teachers' Self-Efficacy and Professional Development?

The questionnaires mainly examined teachers' professional development from four aspects: 1) teachers' teaching attitudes, 2) curriculum design methods, 3) professional music abilities, and 4) self-improvement channels. The mean value of the professional development was 4.23 points. The mean values of each aspect of the professional development is reflected in Table 3. Three important points could be deduced from these results: 1) the score on curriculum design methods was higher compared to other aspects, 2) the teachers might have attached more importance to curriculum design methods, and 3) the teachers might not be confident in specific music skills and that they lack corresponding training. Therefore, different aspects of professional development revealed different results.

Table 3. The mean value of four parts of music teachers' professional development:

Teachers' teaching attitudes	Curriculum design methods	Professional music abilities	Self-improvement channels
4.13	4.52	4.10	4.16

Table 4 discusses the regression analysis between self-efficacy and professional development. Teachers' self-efficacy was considered as the independent variable while professional development functioned as the dependent variable. The adjusted R Square value is 0.270; R square reflects the fitting degree of the regression equation; the

value is required to be between 0 to 1. F value is an important index to reflect the regression effect. In linear regression, the final F value should be more than 3.86; the F value of this study is 111.54, more than 3.86, indicating that the results of this regression analysis have a strong influence. In addition, the correlation coefficient between independent variable and dependent variable $\beta = 0.522$, significance p value is 0.000 (See Table 4.). Based on the analysis, it was concluded that the music teachers' self-efficacy reported a positive correlation with professional development. In other words, when a teachers' self-efficacy improved, the degree of professional development also saw an improvement.

Table 4 shows the regression analysis between self-efficacy and professional development:

Table 4. The regression analysis between self-efficacy and professional development.

Dependent	Predictive variables	Adjusted R Square	β	p	F
Professional development	Self-efficacy	0.270	0.522	0.000	111.54**

Note **p < 0.01.

5. DISCUSSION

Music teachers in the primary and secondary schools scored high on self-efficacy components. The factors that influenced teachers' self-efficacy included types of schools, age, and teaching experiences. However, gender, educational background, and training hours were not associated with teachers' self-efficacy. A positive correlation was however reported between teachers' self-efficacy and professional development.

5.1. Factors That Affected Music Teachers' Self-Efficacy

The levels of music teachers' self-efficacy in these five cities were high ($M = 7.16$). Self-efficacy was significantly different among music teachers in different types of schools. The mean value of self-efficacy among primary school teachers was 7.44, a value that was higher than that of middle school teachers (6.71). The present results contradicted an earlier study by Wagoner (2011) on self-efficacy; Wagoner (2011) found no significant differences in self-efficacy between middle school and primary school teachers in the United States. First, these discrepancies might be attributed to the characteristics of subjects; Wagoner (2011) studied American school teachers, while the current investigation involved Chinese teachers with different social backgrounds. Second, it has been reported that teacher training time affects self-efficacy. As such, music teaching in China middle schools are occasionally de-emphasized due to the preoccupation with other majors. Given the pressure of juggling priorities from junior high schools to senior high schools or from senior high schools to universities, it is difficult to guarantee the adequacy of music lesson teaching hours in middle schools. Therefore, it can be concluded that due to the deficiency in teaching practice, self-efficacy among middle and primary school music teachers is low.

In the investigation that emphasized music teachers, teaching experiences determined self-efficacy. First, it was found that the self-efficacy of music teachers improved with an extended number of years of teaching experiences. Specifically, teachers with "more than 20 years of teaching experience" scored 7.60 on the self-efficacy scale, as opposed to teachers with "less than five years of teaching experience" (6.70) (see Figure 1). Second, self-efficacy is considerably higher among teachers with 11 to 20 years of experience. It is theoretically acknowledged that Chinese teachers typically remain active at work due to high levels of self-efficacy when they are between 34 and 44 years old with an average age of 24 years old. Teachers who are guided and supported in their professional development during the phase in which they are most passionate could teach exceptionally in their careers.

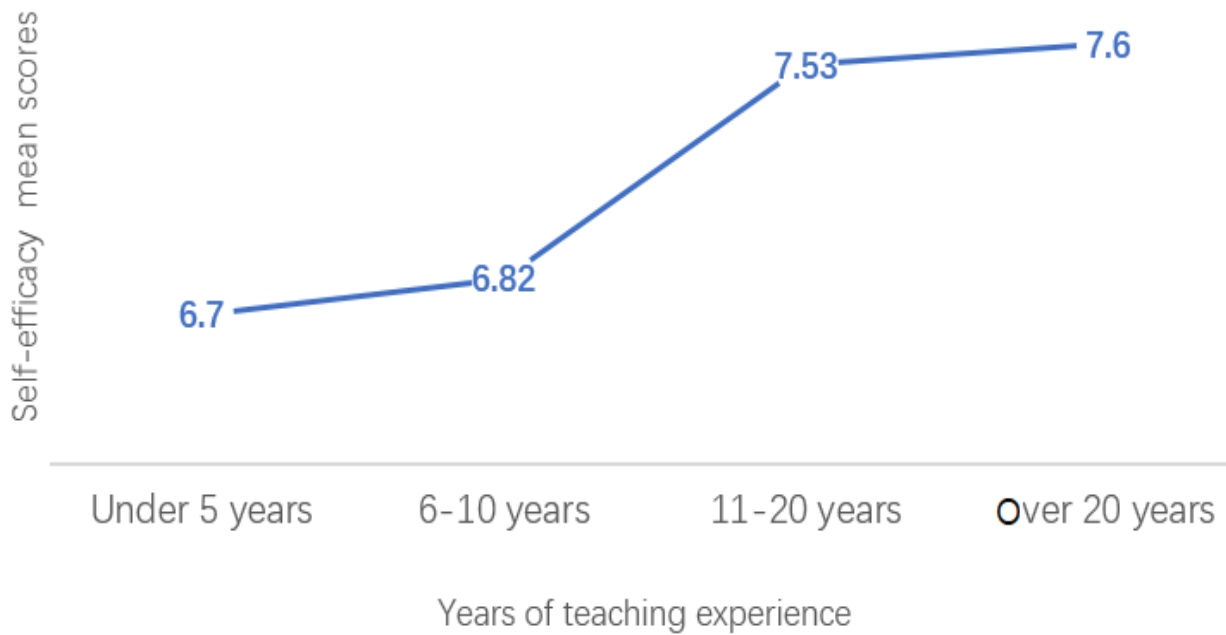


Figure 1. Mean scores that demonstrate the relationship between years of teaching experiences and self-efficacy.

Teachers' self-efficacy was also significantly influenced by age. In this survey, teachers aged between 40 and 50 years old reported the highest level of self-efficacy (7.80). At the age of 20 to 50 years old, music teachers' self-efficacy was also considerably higher. However, self-efficacy is slightly lower among teachers aged 50 years old and above (see Figure 2). Thus, the result bears a resemblance to Klassen and Chiu (2010) investigation; Klassen and Chiu (2010) reported that music teachers' self-efficacy cut-off point is at 23 years of teaching experience. In other words, teachers' self-efficacy remains steadily higher across a period of 23 years but begins to fall to a low after this period (Klassen & Chiu, 2010). One possible explanation may be the lack of further progress in professional development as teachers reach the age of 50 years old. Although teachers who are 50 years old and above may fall short of teaching 'enthusiasm,' they are typically assigned management duties. As more attention is directed towards nurturing young teachers due to their low self-efficacy levels, ageing teachers' self-efficacy may be perceived as negatively affected. Therefore, schools might better pay specific attention to training teachers at their early career stage to develop higher levels of self-efficacy (Bandura, 1997).

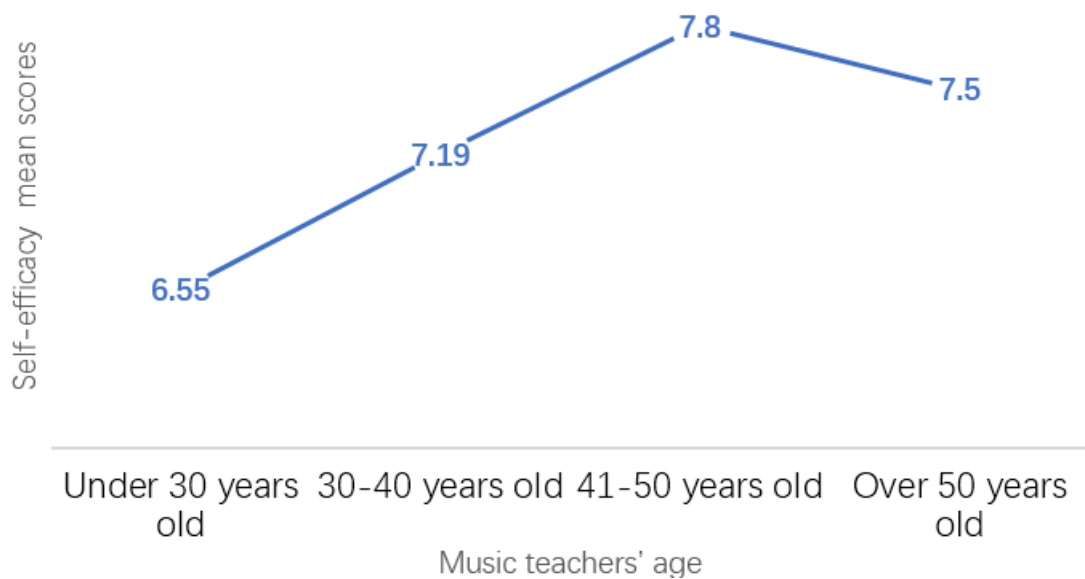


Figure 2. Mean scores that demonstrate the relationship between music teachers' age and self-efficacy.

Other variables, such as gender, educational background, and training hours reported no significant effect on music teachers' self-efficacy. The mean value of male teachers was higher ($M=7.90$) than that of female teachers ($M=7.07$). However, there were no significant differences in self-efficacy between the male and female teachers, a result that bears a resemblance to [Wagoner \(2011\)](#) research.

Teachers' self-efficacy is high across teachers with advanced education. Specifically, teachers with master's degrees had the highest self-efficacy in comparison to teachers with junior college education, who scored the lowest. Although the educational background might influence music teachers' self-efficacy, the effect of educational background on self-efficacy was not reported as statistically significant.

The surveys also reported that teachers' sense of self-efficacy is high with longer hours of training. [Watson \(2006\)](#) and [Karimi \(2011\)](#) pointed out that teachers' training significantly affected their sense of self-efficacy. [Karimi \(2011\)](#) reported that professional training plans influenced teachers' sense of self-efficacy. However, no statistically significant effects were reported on the effects of teacher training time on teachers' self-efficacy in this study. Teachers' sense of self-efficacy could be significantly improved through enhancing teaching content knowledge, teaching strategies, and classroom management experience. The discrepancy between the current investigation and past studies may have been caused by: 1) the lack of training content on improving self-efficacy and 2) the suspicion raised on the current training that supposedly meets the demands of teachers' development ([Li & Cui, 2020](#)).

5.2. Self-Efficacy and Professional Development of Music Teachers

Regression analysis showed that there was a significant positive correlation between the music teachers' self-efficacy and professional development ($F [1,299] = 111.54, P = 0.000, \beta = 0.522$). In other words, the higher the level of self-efficacy, the higher the level of professional development. The reported relationship between self-efficacy and professional development bears a resemblance to past studies ([Bandura, 1997](#); [Cai, Shen, & Li, 2018](#); [Wagoner, 2011](#)). Therefore, professional development was central to the prediction target and self-efficacy that functioned as the prediction variable through Scatter with Fit Line Modelling in SPSS. [Figure 3](#) shows the Scatter with Fit Line for professional development based on self-efficacy.

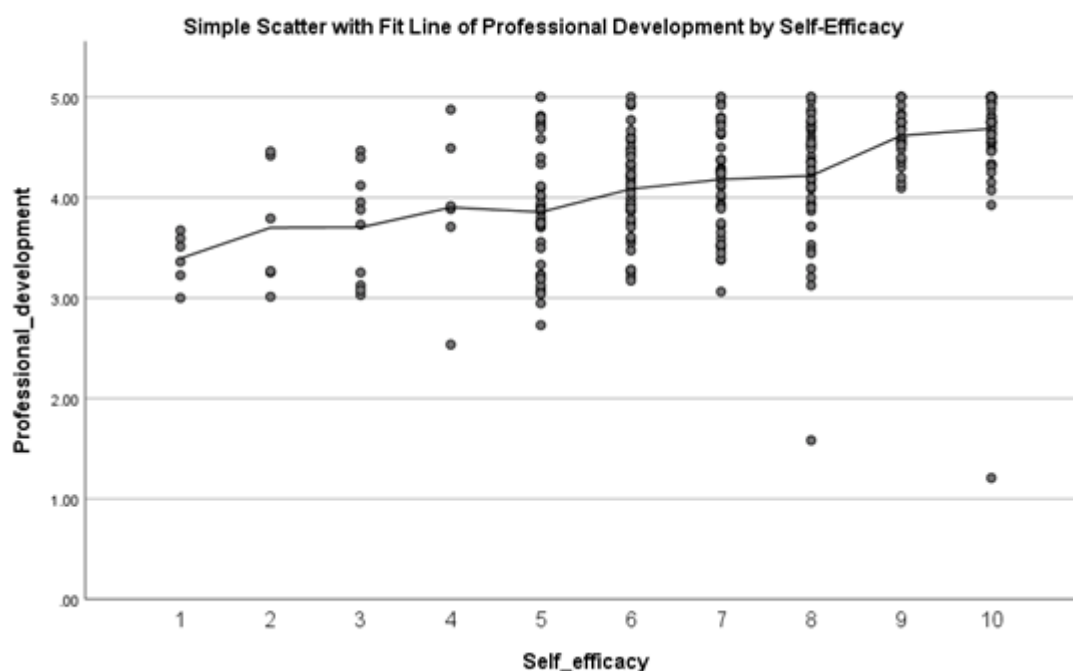


Figure 3. Positive correlation between music teachers' self-efficacy and professional development.

6. LIMITATIONS

First, the study is limited due to the scope of theoretical contribution, specifically on the development of teachers' expertise. It is necessary to further explore the path of self-efficacy that determines professional development and demonstrate the educational mechanism to help teachers obtain the motivation for long-term sustainable teaching growth. Second, all the data employed in this study were collected through self-assessment. Third, the results of the study might not be generalizable to the self-efficacy and professional development of music teachers in rural schools because the questionnaires were administered only to teachers in economically developed areas in China. Future research can look at expanding from the findings of this research to be applied on a different demography of teachers.

7. CONCLUSION AND RECOMMENDATIONS

This investigation highlighted 1) the relationship between self-efficacy and professional development across primary and secondary school music teachers, 2) the factors that influenced self-efficacy. Theoretical research and practice of music teachers' professional development attach great importance to the results as elucidated in this study. First, this study confirms the effects of music teachers' self-efficacy on professional development. Second, the development of teachers' self-efficacy is influenced by teaching experiences, age, and types of schools. Therefore, it is established that self-efficacy is a key predictor of the intermediary role between teaching and professional development.

Secondly, suggestions from policymakers, school management, training, and stakeholders might better be considered to help improve teachers' self-efficacy. To improve teachers' self-efficacy is to provide support to teachers' professional development, particularly providing a platform for teachers to experience success and accomplishments in their teaching careers. Therefore, teachers might 1) find a sense of happiness in teaching, 2) improve the sense of self-efficacy, 3) develop lifelong learning, and 4) promote good educational and professional development.

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