

11th ASIAN Conference on Environment-Behaviour Studies

Primula Beach Hotel, Kuala Terengganu, Malaysia, 14-16 Jul 2023

Correlation between University Music Teachers' Self-efficacy and Autonomous Learning

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Abstract

Music instructors' self-efficacy and autonomous learning impact their professional growth at the university and play an essential part in developing high-level music education. This study aims to look into the current state of university music instructors' self-efficacy and autonomous learning and analyses the link between them. The survey findings include that university music instructors' self-efficacy is greater overall, and the status quo of university music teachers' autonomous learning at the medium level is powerful for autonomous learning motivation.

Keywords: Teachers' Self-efficacy; Autonomous Learning

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DOI: <https://doi.org/10.21834/e-bpj.v8i25.4836>

1.0 Introduction

1.1 A country's progress requires talent, and talent growth needs education. As a result, the implementation effect of education impacts the overall development of society. Universities are vital for developing the abilities of organizations. University instructors are powerful educational forces. They are on the front lines of education, and their influence on pupils is immediate. Teachers' self-efficacy influences their behavior and instructional effectiveness. Music instructors' self-efficacy and autonomous learning impact their professional growth at the university and play an essential part in developing high-level music education. Meanwhile, University professors, on the other hand, are frequently prone to failures in teaching work owing to a lack of work and teaching experience and a lack of self-confidence, leading to a decline in teaching efficacy. On the other hand, the independent learning of music teachers in universities is the premise to promote the comprehensive development of teachers. Teachers should constantly update The Times's subject knowledge, teaching skills, educational ideas, and information to cultivate students' learning abilities. Teachers think while learning, combine the theory in the book with their teaching practice, and gradually improve their teaching ability. There is a need for further research on the self-efficacy and independent learning of college music professors.

1.2 This study examines the current state of college music instructors' self-efficacy and autonomous learning and analyzes the link between college music teachers' self-efficacy and independent learning. Providing answers to the following research questions:

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RQ1. What is the current state of self-efficacy among university music teachers?

RQ2. What is the current state of autonomous learning among university music teachers?

RQ3. What is the link between self-efficacy and autonomous learning among university music teachers?

2.0 Literature Review

The purpose of this part is to review the teaching self-efficacy theory and autonomous learning.

2.1 Bandura is a crucial figure in social learning theory. He suggested three-way interaction determinism, which states that cognition, behavior, and environmental interaction influence human behavior. Bandura is more interested in the subjective aspects of human beings, as well as the cognitive aspects. The evolution of social cognitive theory resulted in the self-efficacy view. Self-efficacy is not a specific ability or skill but rather the strength of a person's conviction in a particular command, which impacts whether or not an individual will attempt to deal with challenging situations and tasks. When a person believes he can effectively deal with problems, he will actively take action to deal with them.

Self-efficacy refers to an individual's belief that their behavior can achieve specific results, and this belief is a judgment of their ability to complete a particular task, as well as a subjective evaluation of the effect of the behavior (Bandura, 1977). Moreover, Bandura divided self-efficacy into two parts: the ability to judge whether an individual can successfully achieve a particular effect and pay necessary behaviors, which is referred to as efficacy expectation, and the estimation of whether a particular behavior will lead to a specific result, which is referred to as outcome expectation. The difference between the two is that, while individuals believe that a particular behavior will produce a specific effect if they doubt their ability to perform the behavior, their behavior is unlikely to be affected by the result expectation, and they will respond differently, resulting in different results. Bandura thought that instructors' levels of self-efficacy would not only change their way of thinking but would also directly or indirectly affect their choice of behaviors, amount of effort, and accomplishment performance, all of which would dramatically influence students' learning.

Most research has been conducted on general and individual teaching efficacy and has been dominant for a long time, based on Bandura's theory of social cognition and self-efficacy. With the advancement of research on teaching self-efficacy, Tschannen - Moran proposed a new theoretical model based on the predecessors. They believe that the teaching task and context interact with teachers to the teaching ability of self-awareness and the effectiveness of specific teaching task requirements, and the theory focuses on emphasizing teachers' teaching efficacy (Tschannen-Moran & Hoy, 2001).

Bandura argued that four things impacted self-efficacy. The most influential source of practical information is subject experience, which relates to the individual's experience. The expertise received through seeing the achievement of people similar to you is known as vicarious experience. Individuals can learn about their talents by visiting how others perform. Verbal persuasion is used to persuade someone that they can reach the desired results. Physiological and emotional arousal is when people frequently depend on their bodily and emotional experiences while evaluating their talents (Wang & Guo, 2015).

The source of teachers' self-efficacy is frequently Bandura's self-efficacy. The degree to which teachers think they can complete tasks and meet educational goals is their level of self-efficacy. Teachers' self-efficacy is their belief in their ability to plan, execute, and effectively complete the prescribed responsibilities in a specific situation (Zhang, 2020).

Teacher self-efficacy includes general educational efficacy and individual educational efficacy. General educational effectiveness reflects teachers' available views and judgments on the relationship between teaching and learning and the role of education in teaching (Lin, 1999).

2.2 Autonomous learning is also called Independent learning. Holec (1981) proposed that learners should take full responsibility for their learning status, including setting goals, determining learning content, self-monitoring, and self-evaluation. The independent learning in this stage emphasizes the independent independence of learners. Pang (2003) summarized self-directed learning as generally referring to the process or ability of an individual to consciously determine learning goals, formulate learning plans, choose learning methods, monitor learning processes, and evaluate learning results. Huang (2007) claims that Independent learning means learners have a clear learning purpose, a clear learning goal, and a combination of good learning content, correct learning methods, timely learning monitoring, and learning evaluation, and make full use of learning resources and with certain external conditions or environmental support, self-regulate and overcome various difficulties in learning. The experience of constantly transcending oneself to acquire new knowledge eventually leads to a change of mind and the perfection of wisdom.

Wu (2010) proposed the self-directed learning mode for English teachers and proposed the definition of self-directed learning for English teachers; according to their own subject knowledge and teaching needs, English teachers choose learning content and effective learning methods purposefully, monitor themselves, regulate and utilize time and environmental resources during the learning process, and self-evaluate learning results after learning. Moreover, apply the content to the teaching to improve English teaching skills. During and after independent learning, English teachers have a successful experience and motivate themselves to continue independent learning.

There is much research on teachers' self-efficacy and autonomous learning. Still, there needs to be more attention on the relationship between college music teachers' self-efficacy and independent learning. Although there are studies on the relationship between college teachers' self-efficacy and autonomous learning, there needs to be more research on the relationship between college music teachers' self-efficacy and autonomous learning. To this end, the researchers will investigate the relationship between self-efficacy and independent learning among college music teachers in Nanjing, Jiangsu Province, to provide targeted empirical support for the

professional development of college music teachers. In the study, the researcher believes reflection is essential in teachers' autonomous learning. University music teachers should critically reflect on their learning, when, where, how, and what resources to use to enhance independent learning and learning experience. Combined with the views of other experts and scholars, the researcher concludes that autonomous learning is the use of cognition and metacognition by learners under the self-driven motivation of learning strategy, the process of monitoring the learning process to achieve the automation of learning behavior.

3.0 Methodology

3.1 The study uses convenient sampling to pick 100 college music instructors in Nanjing, Jiangsu, China. Data was gathered using questionnaires and interviews and analyzed using SPSS 26.0 software.

3.2 The instrument comprises a questionnaire and interview; the Questionnaire is ready to be filled out by the responder. The Questionnaire was utilized with permission from the institution for this study. This Questionnaire was translated into Chinese and adapted to the present situation.

3.2.1 Questionnaire

The Questionnaire is divided into three parts. The first part is population information statistics, which mainly investigates the gender, age, grade, teaching age, professional title, and educational background of the test subjects.

The second part is the College music teachers' self-efficacy questionnaire, which contains the following items: I am capable of managing the music class schedule, articulating student requirements and expectations, promptly addressing classroom emergencies, and integrating students' prior knowledge with new concepts effectively, etc. The self-efficacy Questionnaire of college music teachers adopts a five-level Likert scale, with the test options ranging from 1=completely cannot to 5=definitely can. University Music Teacher Self-Learning Questionnaire also uses a five-level Likert scale, with test options ranging from 1=completely inconsistent to 5=completely consistent. The mean value of the scale is 3. If the mean value of a particular dimension is greater than or equal to 3, it indicates that the size is in the medium degree; if it is greater than 4, it suggests that the degree is high. The Questionnaire on the Self-Efficacy of College Music Teachers in this study is based on the Ohio State Teacher Efficacy Scale of Tschannen-Morana & Woolfolk Hoy (2001).

The third component is the Independent Learning Questionnaire for College Music Teachers, which consists of inquiries regarding how to learn independently, what content to study independently, reasons for learning, learning duration, and learning materials during the learning process, etc. The survey questionnaire utilized a convenient sampling method and was distributed to music teachers in Nanjing universities through paper questionnaires. A total of 152 questionnaires were distributed, of which 152 were collected. Invalid questionnaires were removed, resulting in 140 remaining valid questionnaires. The questionnaire recovery rate was 100% and the valid questionnaire rate was 92.1%. The paper sent to the University of Music teachers. The questionnaire data analysis mainly uses SPSS26.0 software. Frequency analysis was used to analyze the basic information of the samples; descriptive statistics were used to analyze the self-efficacy of the models and the status quo of independent learning; correlation analysis was used to analyze the relationship between the self-efficacy of the samples and independent learning, and linear regression (stepwise regression) was used to analyze the critical predictors of the dimensions of the self-efficacy of the models and independent learning.

3.2.2 Interview outline

The interview is used as a supplemental questionnaire to investigate college music teachers' self-efficacy and autonomous learning; ten college music teachers were selected for the interview. The designed interview outline mainly consists of two parts: the first part examines the basic information of the interviewed teachers, and the second part is the interview questions: Are you confident about your music teaching work? What can be done to improve your confidence in music teaching? Can you often study independently? Why? What is your favorite (or most frequent) method of independent learning? Can independent learning improve your classroom teaching? Can you improve your teaching confidence? Can your school, family, etc., provide an independent learning environment? What do you think is the biggest obstacle to your independent learning? What kind of help would you like if you wanted to ensure that you study independently? The researcher recorded the interview process, translated the recording content into text, adopted the content analysis, and processed interview data.

4.0 Findings

Through questionnaires and interviews, the main findings of this study are as follows

4.1 The self-efficacy of university music teachers is higher overall

Based on the data in Table 4.1, the average overall self-efficacy score for college music teachers is 4.1923 (with a minimum score of 4). Additionally, the average score for each dimension falls between 3.8 and 4.4, which suggests that most college teachers have a strong sense of self-efficacy. Furthermore, the standard deviation for each measurement ranges between 0.4 and 0.58, indicating that music teachers' perceptions of their teaching abilities are relatively consistent. University music teachers had the lowest sense of efficacy in student management. Although a solid intrinsic incentive exists for independent learning, the techniques, time, process, and environment need improvement. University music professors often need to be more active in their education.

Table 4.1 The total mean value of college music teachers' self-efficacy and the mean value of each dimension

	Number	Minimum	Maximum	Mean	Standard Deviation
Classroom organization and management	140	2.00	5.00	4.3826	.49941
Textbook processing ability	140	2.23	5.00	4.2025	.46664
Teaching skill	140	2.90	5.00	4.1706	.44408
Interaction between teachers and students、 parents	140	2.40	5.00	4.2992	.49596
Student management	140	2.32	5.00	3.8821	.58365
Total self-efficacy	140	3.01	5.00	4.1923	.40640
Valid N	140				

4.2 The overall college music teachers' autonomous learning is at a medium level

The overall status quo of independent learning of college music teachers is shown in Table 4.2. The total mean value of independent learning is 3.9687 ($M \geq 3$), the mean value of other dimensions is between 3.7-4.3, and the standard deviation is between 0.51 and 0.85, indicating that the overall status quo of independent learning of college music teachers is at a medium level. Moreover, most teachers have different views on the status quo of independent learning. According to the interview results, 7 teachers (70%) said that they would do independent learning, while 3 teachers (30%) said that they would not do independent learning, think that there are not many learning opportunities, or they are very passive in learning.

Table 4.2 The total mean value of independent learning of college music teachers and the mean value of each dimension

	Number	Minimum	Maximum	Mean	Standard Deviation
Learning method	140	2.33	5.00	3.8005	.62197
Learning context	140	2.01	5.00	4.1077	.55801
Learning motivation	140	2.32	5.00	4.2540	.58695
Learning time	140	1.01	5.00	3.7654	.85468
Learning process	140	1.00	5.00	3.7312	.79225
Learning environment	140	1.00	5.00	3.8536	.80496
Learning evaluation	140	2.01	5.00	4.1564	.52678
Total value of independent learning	140	2.35	5.00	3.9687	.51246
Valid N	140				

4.3 There is a significant positive association between self-efficacy and autonomous learning among college music professors, and the two impact and support one other. To be more specific, it can promote instructors' autonomy by increasing their teaching skills effectiveness, students' input efficacy, teaching material processing efficacy, and interaction efficacy with students or parents. Teachers' self-efficacy will be influenced by their choice of self-learning material, learning methods, learning motivation, and learning evaluation abilities.

5.0 Discussion

University music professors play a critical role in implementing music instruction and advocate for college music education reform. The judgment or confidence of college music teachers in their educational workability influences their independent learning, development motivation, teaching behavior, teaching achievement, educational emotion, physical and mental health, students' academic performance, learning efficacy, and learning motivation.

5.1 This study finds a significant positive correlation between college music teachers' self-efficacy and independent learning in general and in all dimensions. Specifically, improving college music teachers' self-learning can enhance their efficacy in teaching skills, student input, textbook processing, and interaction with students or parents. Enhancing teachers' self-efficacy will affect teachers' choice of self-learning content, change learning methods, enhance learning motivation, and improve learning evaluation ability. The results of this study are consistent with those of previous studies. In teaching, music teachers with high self-efficacy will invest more enthusiasm in education, they actively learn and strive to find ways to solve teaching problems, so their autonomous learning status is better; Music teachers in colleges and universities can find ways to solve problems after independent learning, which can increase their professional knowledge, improve teaching skills, make the classroom rich and exciting, and improve students' learning interest and music performance. These successful teaching results can enable music teachers to obtain mastery experiences and enhance their self-efficacy.

5.2 However, this study also found that the overall self-efficacy of music teachers in colleges and universities is relatively high, while independent learning is in the intermediate state. Most of them are passive learning because the teaching and research activities, teaching reflection, and even training that music teachers often participate in are carried out under the arrangements or requirements of schools. This result is because teachers' self-directed learning is influenced by learning methods, learning time, learning process, and learning environment. However, teachers' less learning time, less guaranteed learning process and learning resources, and more tired work will affect teachers' convenient and passive learning modes in independent learning. The study cannot thoroughly validate the experiment's results because of the small number of experimental samples and the limited time available.

6.0 Conclusion & Recommendations

According to the study, college music teachers' self-efficacy and autonomous learning status were moderately satisfactory. However, their students' involvement efficacy, learning process, learning environment, learning time, and independent learning methods require improvement. The researchers have recommended the following suggestions to address these issues.

6.1 Improve the efficacy of college music teachers in the student involvement dimension.

6.1.1 Improve the mastery experience of college music teachers. In this study, the teacher's student engagement efficacy refers to the belief that music teachers help students at all levels to actively engage in learning, which is closely related to the teacher's independent learning.

6.1.2 Train university music teachers as role models. Vicarious experience is an observer's belief in his ability enhanced by observing teachers with similar abilities successfully overcome difficulties through efforts.

6.1.3 Keep a good attitude and positive emotions. When facing students with music learning difficulties, college music teachers should be calm, consider the perspective of students, try to set learning tasks for students in their recent development zone, and help them solve difficulties through mentoring or cooperative learning

6.2 Improve the internal and external conditions of independent learning for music teachers in universities

6.2.1 Provide the external conditions for the independent study of college music teachers

First, provide time and place for independent learning. To ensure the independent study of college music teachers, colleges and universities should provide them with learning time, appropriately reduce the work pressure on teachers, or reduce the work unrelated to education. In addition, individual differences affect the learning style of college music teachers; some teachers like to learn together and supervise each other. Universities can provide teachers with fixed learning places to increase the time and energy of music teachers.

Second, improve the methods and environment of independent learning. To enhance teachers' independent learning methods, colleges and universities can provide music teachers with independent learning resources and excellent teaching video websites to ensure that teachers have sufficient learning resources and provide teachers with an independent learning environment.

6.2.2 The internal strategy of training college music teachers to study independently

Learn to spot problems. The problem stems from teachers' daily teaching. Music teachers in colleges and universities should always maintain the internal motivation of learning, deeply reflect on the existing issues in teaching, learning for the sake of education, promote teaching by understanding, determine the solution to the problem after clarifying the learning task, and then constantly monitor the learning process to make the learning happen, and finally evaluate the answer to the problem.

6.3 Construct the professional learning community of college music teachers

The learning carried out by teachers' professional learning community is a kind of learning that faces practical problems, sublimes educational experience, gathers mature wisdom, and shares successful practice. College music teachers participate in the professional learning community, discuss teaching problems together, carry out research topics, observe each other in the classroom, promote teachers' reflection on teaching, and improve teaching ability. In addition, a professional learning community for music teachers will be established to facilitate novice teachers and experienced teachers to learn from each other and share wisdom.

Following previous studies, this study investigates the relationship between college music teachers' self-efficacy and independent learning based on teacher professional development. It suggests suggestions for improving college music teachers' self-efficacy and independent learning. At the same time, this study also has some technical problems, such as the small sample size of the questionnaire survey or the lack of technology to guide the test subjects to complete the interview, resulting in a small number of music teachers who do not fully understand the purpose of the survey and do not fully express their ideas. The researchers suggest that future studies should continue to investigate the relationship between self-efficacy and autonomous learning of college music teachers from a longitudinal perspective.

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