

Exploring Academic Self-efficacy in Piano Practice among Students at Preschool Colleges in China

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Abstract

Piano Practice is an important course for students who study at preschool colleges in China, and academic self-efficacy is strongly associated with academic performance. Nevertheless, currently, little is studied about the academic self-efficacy of students in this course. The purpose of this study was to explore academic self-efficacy in piano practice among students who study at preschool colleges in China. This study employed a qualitative approach to achieve the purpose. Three students were interviewed via Wechat using words. An interview guideline was created for the purpose of conducting interviews. Data were copied and grouped to identify codings, categories, and themes. The findings illustrated that students optimistically deal with the problems that they encounter when practicing piano, and they have a relatively positive academic self-efficacy, and their academic self-efficacy could be

influenced by their practice experience. The current study provides beneficial insights to the academic self-efficacy in piano practice among students. The findings will allow the school, teachers, and students to take action to improve the situation.

Keywords: Academic Self-efficacy, Piano Practice, Students, Preschool Colleges, Interview

Introduction

According to the Chinese Ministry of Education (2010), there are still some issues with early childhood education and rural primary schooling in China, including a lack of resources, inadequate investment, and uneven development between urban and rural areas. Since 2010, the Chinese government has introduced and put into effect a number of measures, one after another, to address these issues and better promote the development of preschool education and rural primary education. The decision to become a kindergarten or primary school teacher in a rural area is strongly encouraged among college students (Li Yufei, 2020; Li Jingmei, 2020; Bai, 2014).

Preschool colleges has been committed to training excellent kindergarten teachers and primary school teachers for many years. In order to achieve this goal, in addition to cultural courses, preschool colleges also offers many skills courses, including singing, dancing, piano practice, and so on. However, many students have never practiced the piano before and are at an age of fun, so they often complain. Most of the students are from the countryside, few of them have touched the piano before entering the school, and many students have never seen the piano at all. Piano playing is a complex and meticulous coherent movement, which requires the eyes to quickly recognize several notes in the two-line staff and direct the left and right hands to play on the correct phoneme of the piano. During this period, performers should also pay attention to the change of music rhythm, the feeling of touching the keys of fingers, the emotional expression of music, and so on. In order to achieve these requirements, students need to pay a lot of time and energy to practice many times.

As most of the students have no piano foundation, and skill exercises are relatively boring, most students lack the perseverance needed for skill practices. They often come to the piano room with confidence and become discouraged after ten minutes of practice. In this case, many students feel difficult and bored. Academic self-efficacy is a fatal factor for academic performance. If a student thinks he is good at some academic tasks and has high academic self-efficacy, this will influence his academic performance positively.

On the contrary, a student who has low academic self-efficacy doesn't have enough confidence when he involves in academic tasks, and this will influence his academic performance negatively. In fact, academic self-efficacy in piano practicing among students at preschool colleges is not as good as supposed. So, this is the problem that needs to be solved.

Literature Review

Academic Self-efficacy

Academic self-efficacy is an important factor to promote students' learning effectiveness, and it is also one of the hotspots in the current educational psychology research. Yokoyama (2019); Zaihua (2011) and others have discussed that there are two basic types of self-efficacy, including general self-efficacy and special self-efficacy. General self-efficacy is the individual's coping state in the face of all situations in life and the challenging attitude in the face of new things. Academic self-efficacy is a special sense of self-efficacy.

According to Carboni (1990), learning behavior self-efficacy refers to whether students can take effective measures and methods to achieve predictions and goals when

faced with learning tasks. Academic self-efficacy belongs to students' state and self-confidence in the field of learning, including confidence and determination of their ability to complete academic tasks, which is a personal judgment of whether they can complete academic tasks. It is also the internal motivation for students to complete learning tasks smoothly.

Schunk (1989) discussed that students' efforts in the face of learning tasks and personal problem-solving ability have an important impact on individual academic self-efficacy. For the improvement of students' sense of self-efficacy, educators can improve their self-consciousness through ideological education.

A large number of previous studies have shown that students' academic self-efficacy has a strong relationship with their academic performance (Robbins et al., 2004; Richardson et al., 2012; Honicke et al., 2016). Research has found that higher academic self-efficacy is associated with better academic performance.

At present, academic self-efficacy is regarded as the most important

Influencing factor, and it is also the main factor affecting students' academic performance. As a result, students' academic performance will improve if their academic self-efficacy is raised.

Factors of Academic Self-efficacy in Piano Practice

Four key elements often have an impact on self-efficacy: verbal persuasion, which is appraisal or feedback from others; enactive mastery experience, which is hands-on experience; vicarious experiences, which are experiences of others; stress, emotion, mood, pain, and weariness are examples of physiological and emotional states (Bandura, 1977).

In addition to the four factors mentioned above, there are other factors of academic self-efficacy in piano practice.

The Level of Difficulty of Music

The degree of difficulty of students' repertoire affects their self-efficacy. If degree of difficulty is much higher than the student's own performance level, the students are easy to feel frustrated.

Teachers' Contribution to the Development of Academic Self-Efficacy

Teachers play a key role in developing students' positive self-efficacy by training them to use different learning strategies (Schunk, 1995).

Goal setting: The teacher should let the students know the tasks to be completed in the classroom and give them feedback on the progress towards the goals. It also motivates students to set short-term goals to reinforce their sense of responsibility and prevent procrastination.

Strategy training: Teachers should formulate teaching plans and train students to use specific strategies to improve their academic performance. Think aloud techniques or strategy verbalization could be used to accomplish this (Schunk, 1995). This can increase students' awareness of the basic content of the task, stimulate their ability to encode and remember, and help them be more organized in their work and better in control of their studies.

Modeling: Teachers can use modeled cognitive strategies and self-regulation techniques to modify students' learning and motivation (Zimmerman, 2000). For

example, giving students a model to use existing cognitive strategies for homework will have a positive effect on students' motivation and learning.

Feedback: Teachers often give timely feedback to students, giving them the opportunity to evaluate their own progress. As a result, their academic performance will improve.

Whether teachers individualize the teaching approach to each person's aptitude, personality and interest affects students' sense of self-efficacy. The arrangement of competent repertoire according to the actual piano level will make the students always have a more successful piano learning experience and help to improve their sense of self-efficacy. If teachers assign piano repertoire beyond the current level of students for a long time, so that students can get a relatively failed piano practice experience for a long time, it will lead to a lower sense of self-efficacy in piano learning.

The completion and efficiency of piano homework of normal college students affect their sense of self-efficacy. Students' review to lessons and learning efficiency in piano lessons are important factors that affect their sense of self-efficacy at this stage. If students have a positive and relaxed learning attitude and strong interest in learning, it means that students have higher level of self-efficacy. On the other hand, attention should be payed to those students who return to class poorly and respond more passively. It is found that when students have a low sense of self-efficacy in piano practice, they should make corresponding repertoire adjustments in time, temporarily abandon tracks that have not achieved results for a long time, and choose tracks with relatively simple techniques and shorter lengths to adjust, so that students can improve their sense of self-efficacy in relaxed learning tasks.

Whether the teacher dynamically adjusts the progress of piano learning affects the sense of self-efficacy of normal college students. Teachers' dynamic adjustment of progress according to students' piano practice and learning situation is helpful for students to improve their sense of self-efficacy.

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Teachers maybe could use cooperative learning in their teaching. The effect of cooperative learning on academic self-efficacy in the basic piano course was studied by Zhong et al. in 2021. The convenience sampling method was used to select the students from a higher vocational class of preschool education major in Liuzhou City Vocational College as the research object. After basic information investigation, the students were divided into experimental group (n = 24) and control group (n = 28), the level of academic self-efficacy of the students in each group was evaluated 3 months before and after the intervention. Before the intervention, there was no discernible difference in the two groups' academic self-efficacy scores ($P > 0.05$). After three months of intervention, the observation group's academic self-efficacy score was higher than the control group's ($P < 0.05$) (Zhong, 2021)

Piano teaching in normal universities can be improved by using strengthening technology correctly. Therefore, when using strengthening technology, teachers should do the following: the strengthening methods should be targeted, vary from person to person; be

good at observing and understanding students and cultivate and strengthen students' "peak experience". In addition, it is necessary to avoid the problems of single strengthening mode, non-specific strengthening object, too urgent strengthening and so on (Li, 2012).

Objectives

The purpose of this study was to explore the academic self-efficacy in piano practice among students at preschool colleges in China. It was anticipated that through a better understanding of how students develop their academic self-efficacy in piano practice and overcome difficulties, targeted and useful suggestions could be put forward. To this end, the following research questions are addressed:

1. What is the understanding about academic self-efficacy in piano practice among students at Fuyang Preschool College?
2. How do students develop their academic self-efficacy in piano practice?
3. How do students deal with the problems that they encounter in piano practice?

Methods

The purpose of this case study was to explore academic self-efficacy in piano practice among students at Fuyang Preschool College. Three research questions were addressed by the study in an effort to comprehend this : (a) What is the understanding about academic self-efficacy in piano practice among students at Fuyang Preschool College?(b) How do students develop their academic self-efficacy in piano practice? (c) How do students deal with the problems that they encounter in piano practice?

This chapter provides an overview of the research design, a description of the research sample, a discussion of data collection and analysis procedures, and a discussion of issues of trustworthiness.

Research Design

This investigation was a case study using qualitative research methods. The data were collected by using in-depth, semi-structured interviews.

In the researchers' view, from a qualitative point of view, these basic assumptions and main features are good. Its responsibilities include: (a) comprehending the mechanisms by which events and actions happen, (b) gaining a grasp of context, (c) facilitation communication between researchers and participants, (d) adopting a descriptive stance, and (e) retaining design flexibility.

Case studies investigate bounded social phenomena (or phenomena) from multiple perspectives, be they social units or system such as a program, event, institution, organization, or community (Lichtman, 2014; Stake, 1995, 2005; Yin, 2018). The goal is to provide understanding and in-depth insight into professional practice, policy development, and community or social action (Creswell&Poth,2018).

On the basis of qualitative analysis, a case study design was best for the study .

Sampling

By applying specific criteria to the selection of informants, purposive sampling was adopted. Participants had to (1) have been taking piano practice course this semester ; (2) be willing to take part in this study.

Wechat was used to contact informants. After obtaining the consent of the participants, the time, date and place of data collection will be set. The goal of the study and the method

of data collection were briefly described before to the interview. The information of informants was presented in Table 1.

Table 1

Informant Profile

| Pseudonym | Gender | Major |
|-----------|--------|--------------------------|
| Xing | Female | Primary school education |
| Li | Male | Primary school education |
| He | Male | Preschool education |

Data Collection and Analysis

At the interviews, at first, a brief introduction, appreciation for participants' help, the purpose of the research, and the procedure of the interview were explained to the informants. This was done to build an intimate rapport with the informants, which in turn makes them more willing to share information during an actual interview.

Afterwards, the interviews used semi-structured questions that the researchers had prepared before the interviews for further interviews. The researchers asked questions via WeChat by words, and the informants wrote down by words, too.

Each interview's data was then evaluated to identify codes, categories, and themes that were then manually identified. In order to manage and analyse the data more quickly, Nvivo software was employed.

The NVivo searching features enable the researcher to query their data at a specific level. Furthermore, it can improve the rigor of the analytical procedure by confirming (or not) some of the researcher's own impressions. However, due to the flexibility and creativity of these topics, this software does not handle the correctness and reliability of the topics in data analysis very well. Researchers must be aware of the value of manual and electronic tools in analyzing and managing quality data, rather than specific tools, have an open mind; and give full play to the strengths of these tools (Welsh, 2002).

Trustworthiness

A concept called trustworthiness can be used to assess a study's validity, reliability, and ability to examine its intended topic. Merriam et al (2016) suggested that a description can be compared with an explanation to see if it matches the description. Validity is a key feature of qualitative research, because the accuracy of the results is judged from the perspective of the researcher, participants, or readers. (Creswell and Poth, 2018).

In this study, an audit trail, member checks, and peer examination are used to achieved validity. Audit trail is a method used by researchers in all stages of data collection and analysis (Creswell & Poth, 2018). In addition, the researcher must also be responsible for proposal preparation, interviews, question formation, data collection, and data analysis. In order to ensure consistency in the interpretation of the data, member checks are employed to reconnect the researcher with the informants (Silverman, 2013). The study's informants were then contacted for clarification of the facts of the findings. As recommended by Creswell and Poth (2018), peer assessment was also employed to obtain feedback and consultation from a number of youth experts in order to confirm data analysis and interpretation.

Results and Discussion

The findings illustrated that students have a relatively positive academic self-efficacy, and they optimistically deal with the difficulties that they encounter when practicing piano, and their academic self-efficacy could be influenced by their practice experience.

Four themes were found from the interview sessions to address the study topics. This consisted of four themes: (1) academic self-efficacy and learning interest in piano practice, (2) factors influencing academic self-efficacy, (3) what difficulties students may encounter, and (4) how students overcome the difficulties. The classification shown in Table 2 provides more explanation of themes and categories.

Table 2

Themes and Categories

| Theme | Category |
|--|---|
| (1) Academic self-efficacy and learning interest in piano practice | (a) find playing piano difficult (b) can learn well (b) learning interest (a) difficulties of Music |
| (2) Factors influencing academic self-efficacy | (b) efforts and Patience (c) enactive Mastery Experiences (d) vicarious Experiences (a) can't understand the music (b) use the wrong fingering (c) rhythm is wrong |
| (3) Difficulties students may encounter | (d) The two hands are not coordinated (e) the fingers are not flexible (f) play the wrong sound (g) learn slowly (h) the effect of playing is not good (a) ask the teacher, or a classmate |
| (4) How students overcome the difficulties | (b) record the video of the teacher's teaching (c) practice more, and try again and again |

After analyzing data by using Nvivo, a model was drawn, as presented in Figure 1.

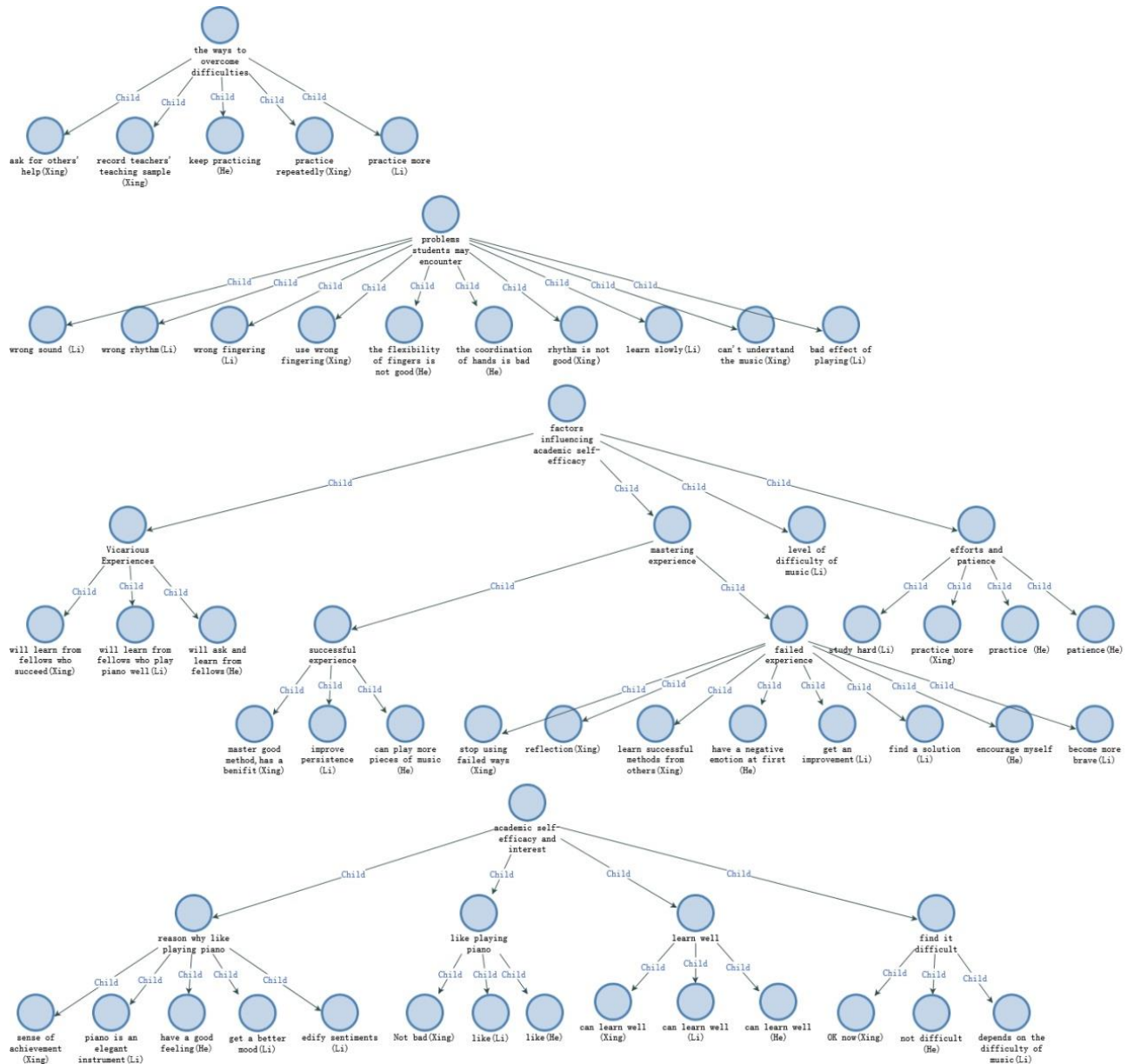


Figure 1
Academic Self-efficacy in Piano Practice

Academic self-efficacy and learning interest in piano practice

From the data collected after interviews, the findings showed that interviewees had a relatively positive academic self-efficacy in piano practice in general. Xing establishes a positive sense of academic self-efficacy after overcoming initial difficulties. She stated:

"It's OK now. When I first read the music, I couldn't understand it, but after the teacher taught it, I just had to practice more. I think I can learn the piano well because first of all, there is nothing difficult in the world to learn the basics well and listen to the lessons carefully. In fact, sometimes I feel successful and have a great sense of achievement after I can play, but there are some difficult pieces of music that take a lot of time to practice, and after practicing for a long time, I get a little impatient, but when I can play, it feels great."

Li also has a positive academic self-efficacy, and showed his interest in piano. He stated that:

"If I study hard, I think I can learn it well. Because I also like the piano. I like it. A very elegant musical instrument. After learning it well, it edifies people's sentiments. The piano is so good that it allows me to immerse myself in it and forget all my troubles."

He has strong confidence in piano practice and enjoys playing piano. He stated:

"It's not difficult. I can play well as long as I practice. I can learn well, because I have the patience. I like it. As soon as I sit there, I feel that kind of feeling comes up, and I also like music."

The development of academic self-efficacy

The development of academic self-efficacy is dynamic and changing. There are many factors influencing the development of academic self-efficacy. Interviewees affirmed that the difficulties of music, their efforts, patience, successful and unsuccessful experience foregoing, and other classmates with the same level as theirs were influential.

The Difficulties of Music

If the music is difficult to be versed and frustrates a student, the student is easy to lose confidence, and if a piece of music is easy to play, the student will feel relaxed, as Li stated:

"It depends on the level of difficulty of playing a piece of music. It will feel easy to play a piece of simple music, but if it is difficult, it will feel hard."

Efforts and Patience

All participants mentioned their efforts, they expressed their point of view that they need to make efforts to learn to play the piano well. For example, Xing stated:

"I think I can learn the piano well because first of all, there is nothing difficult in the world to learn the basic knowledge well and listen to the lessons carefully."

Patience is also mentioned by He:

"I can learn well because I have the patience."

Enactive Mastery Experiences

Students can acquire more confidence from successful experience and develop the belief that they can do better, as Xing stated:

"If I master a good method, I will get twice the result with half the effort."

Successful experience could help develop students' good quality, as Li told:

"It can improve my persistence and the perseverance I should have to do something."

Students assure themselves that once they acquire an ability they can try more, as He stated:

"For example, after I am able to identify notes, I can practice my favorite music by myself."

Failed experiences may frustrate students at first, but if students can adjust their perspective and mood to be positive, they can achieve improvement as well. He and Li told:

"Sometimes I want to give up, but after a while, I think, if I don't learn it, I won't learn it, and I won't get over it by myself, then I try to overcome the difficulty."

"I can find a way from it, and then I can become more and more brave, and play better, and improve it according to the experience of failure."

The ability of being good at reflection is important, as Xing stated:

"I think there is some influence that I will deliberately stop using those failed experiences and learn from those who have been successful to compare their successful experiences, and then reflect on why I have this failure experience."

Mastery experiences are considered to be the most significant source of efficacy (Bandura, 1977a). When self-efficacy is established, individuals can apply it to similar learning situations. When self-efficacy increases, the closer the above situation is, the greater the impact (Bandura & Adams, 1977).

Vicarious Experiences

Participants all agreed that if they saw students with the same level as theirs, and if the fellows practice hard and make progress, they will learn from the fellows, as Xing stated:

"Yes, we should keep up with better people. "

Difficulties students may encounter

Many students have not practiced the piano before, so practicing the piano is a great challenge, and students encounter a lot of difficulties. Xing stated:

"I can't understand the music, or I use the wrong fingering. Sometimes my sense of rhythm is not very good."

The lack of flexibility and coordination of the fingers can also cause difficulties, as He stated:

"The two hands are not coordinated and the fingers are not flexible."

Li stated in more detail:

"That's a lot. For example, the fingering is wrong. The rhythm is wrong. I feel that the effect of playing is not as good as I want to play. And I will play the wrong sound or learn slowly because of the flexibility of the hands."

How students overcome the difficulties

Facing these challenges, interviews adopted different methods. Xing told:

"Ask the teacher, or a classmate, when the teacher is teaching, I will almost record the video of the teacher's teaching, and just watch it over and over again when I don't know how to do it."

Li and He both emphasized the importance of practice:

"I will practice more, play more and practice more to enhance the memory of the song. And then I can master it."

"Keep practicing, and try to play the rhythm."

Conclusion

The findings illustrated that students optimistically deal with the problems that they encounter when practicing piano, and they have a relatively positive academic self-efficacy, and their academic self-efficacy could be influenced by their practice experience. Students' past success or failure experience has both a positive and negative impact on the later piano practice at the same time, mainly depends on what angle the students use to look at it. If students persist in practice and turn failure into motivation, they can still maintain an optimistic and positive attitude, then it will also have a positive impact at the same time.

Students have encountered some difficulties in piano practice, and when they encounter difficulties, they will probably adjust their mindset, keep on practicing, and believe that they can overcome the difficulties.

Colleges and teachers should provide more help to students.

Implications of The Research

The current study provides beneficial insights of the academic self-efficacy in piano practice among students. The findings will allow the school, teachers, and students to take action to improve the situation. By illuminating the dynamic process of academic self-efficacy development and how students exert effort when faced with challenges, this study offers a novel contribution.

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