

Piano Teachers' Guidance Strategies: An Exploratory Investigation into Promoting Student Self-Direction

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Abstracts

With the change of educational philosophy, piano learning is not only a process of cultivating artistic skills, but also requires students to have good self-direction. This study explored the role of piano teachers in developing students' self-direction skills with the aim of identifying key factors that influence students' independent learning. A qualitative research method was used to collect data on teachers' efforts to enhance students' self-directed competence through personalised feedback, emotional support and professional development training. The study selected 16 piano teachers aged 25 to 45 years old from a local piano training center with at least 2 years of teaching experience as research subjects. Findings showed that teachers' emotional support and professional training significantly improved students' self-directed learning and musical expression. Based on the findings, this paper suggests new teaching strategies to improve the quality of instruction and enhance the student learning experience.

Keywords: Self-Directed Learning, Piano Teaching, Emotional Support, Teaching Strategies, Professional Development

Introduction

Through literature review, under the national innovation and development policy strategy, the goal of piano teaching is to cultivate "compound" talents (Zou & Chang, 2021). However, in educational practice, students are overly dependent on teachers in the learning process and lack the ability to learn independently, resulting in limited teaching results (Tayeb Bey & Rebah, 2020). Students often do not have effective learning plans and strategies when practicing independently, cannot evaluate their own learning status, and lack the ability to solve problems, which affects the overall teaching quality. Therefore, improving students' self-guidance ability has become a key issue that needs to be urgently addressed in piano teaching (Jock, 2023).

Modern piano teaching is not only about imparting musical skills, but also an important part of quality education (Zhu, 2019). Different from the traditional teaching model that focuses on skill training, modern piano teaching emphasizes students' understanding and exploration of musical works (Han, 2021). This means that teachers not only shoulder the responsibility of technical guidance, but also need to guide students to deeply understand the emotions and connotations behind the music, so as to enhance their thinking depth and artistic perception. Self-guidance ability plays a key role in students' learning process, especially in the long-term learning process, this ability can effectively help students explore, reflect and adjust their learning strategies independently. (Bolhuis & Voeten, 2001). Research shows that self-guidance ability has a profound impact on students' learning outcomes and long-term development (Morris, 2019).

Piano, as an art course, requires students to be constantly engaged in daily practice, which is not only a process of skill accumulation, but also a process of developing students' self-directed learning ability. Enhancing self-direction helps students plan their learning, set goals, choose appropriate learning strategies, and improve their learning outcomes (Schunk & Ertmer, 2000). Teachers should help students develop more independent learning skills through appropriate teaching practices and support, thus providing more room for progress in future learning. Therefore, it is crucial to explore flexible and effective teaching methods to develop students' self-directed skills.

The aim of this study is to explore the key role of piano teachers in developing students' self-directed skills and to make targeted pedagogical recommendations to optimise the learning process and enhance students' learning outcomes and experiences.

Literature Review

The purpose of this paper is to explore the key role of piano teachers in cultivating students' self-direction ability, and to analyse the current status of research at home and abroad. By sorting out the relevant literature, this paper discusses the shortcomings of current research and proposes future research directions to provide theoretical basis and reference for piano education practice.

Status of International Research

Self-regulated learning (SRL) refers to the ability of students to actively manage and regulate their own thinking, motivation and behavior during the learning process (Zimmerman, 1989). As Zimmerman (1989), pointed out, SRL is an important factor for students to achieve good results (Butler & Winne, 1995). Foreign research usually combines theory and practice to discuss how teachers can help students improve their self-direction ability and put forward some practical teaching strategies and methods (Grow, 1991). These studies emphasize the initiative of students in self-regulated learning. Teachers are more supporters who help and guide students' self-regulated learning, while students are the protagonists who control their own learning process. (Bary & Rees, 2006). In the classroom, the role of teachers has gradually changed from "people who impart knowledge" to "guides and supporters of learning". Through guidance, encouragement and feedback, teachers can help students learn better on their own (Bolhuis & Voeten, 2001). In addition, foreign studies have also discussed how teachers can use technology to support students' autonomous learning, such as online platforms, personalized learning software, virtual laboratories and other technical tools to

provide students with more learning resources (Kim et al., 2014). Interdisciplinary research, such as the combination of educational psychology, cognitive science and educational technology, has also deepened our understanding of the development of students' self-direction ability (Bannert et al., 2017). In music education, teachers can help students develop their self-direction ability by playing a more active role in guidance, especially in piano teaching, where the perspective of personalized teaching is particularly important (Andrews, 2012). Good teacher-student relationships, strategies that support self-cognition, and teaching methods such as collaborative discussions can also help cultivate students' self-direction ability and promote their healthy psychological and emotional development (Coutts, 2019).

Current Status of Local Research

Compared with foreign countries, domestic research on piano teachers' ability to promote students' self-direction is relatively limited, but it has gradually attracted the attention of scholars in recent years. Domestic research has increasingly attached importance to autonomous learning in art and music education, reflecting the high attention paid by the education community to cultivating students' autonomous learning ability (Feng, 2006). With the continuous deepening of basic education curriculum reform, classroom teaching activities and teacher-student interaction have gradually become the focus of curriculum and teaching theory research (Lou, 2021). Under the background of the epidemic, some scholars have explored how teachers can improve students' autonomous learning ability in a home environment and put forward specific teaching strategies (Yu & Gu, 2022; Zuo et al., 2024).

Domestic research has also explored how to promote autonomous learning in primary and secondary school music education through the implementation of the new curriculum standards, especially in the field of piano teaching. For example, taking a piano teacher at a university in Guangzhou as an example, the study explored how to improve the creativity of piano performance by cultivating students' imagination and autonomous expression ability, and especially emphasized the importance of non-classical music teaching in cultivating students' self-direction ability (Zheng & Leung, 2021). Research has shown that these measures can significantly improve the quality of piano teaching in colleges and universities through strategies such as goal setting, transformation of teacher roles, optimization of teaching design, and promotion of student autonomous learning (Huang, 2023). Based on a case study of Chinese piano students, the study also emphasized the role of self-regulated learning (SRL) in music practice, pointing out that the guiding role played by teachers in this process is crucial (Zhang & Leung, 2023). Scholars also pointed out that in order to improve the professional level of Chinese music teachers, piano training must be strengthened because it plays a key role in cultivating students' independent thinking and problem-solving abilities (Korchahina & Chzheniui, 2021).

Research Gaps

Although there have been studies exploring the role of piano teachers in developing students' independent learning ability, there are still some research gaps. Existing studies have focused on the transformation of the teacher's role, the role of teaching strategies in promoting independent learning, and the supporting role of technological means. In contrast, domestic studies have gradually focused on the new curriculum standards and non-classical music teaching on the enhancement of independent learning ability, especially in the context of the

epidemic, and teachers' strategies to promote students' independent learning at home have also attracted much attention. Although self-regulated learning (SRL) is seen as a key factor, less research has been conducted on teachers' personal attributes and emotional support on the development of students' self-directed competence. In addition, the effectiveness of teacher professional development and training in enhancing students' self-directed learning has not been fully explored. Future research should fill these gaps and provide piano teachers with more comprehensive support in developing students' self-directed learning abilities.

Methodology

Research Design

This study employed qualitative research methods to explore the impact of piano teachers' emotional support, personal attributes, and professional development and training on students' self-direction abilities through open-ended questionnaires, in-depth interviews, and classroom observations. The study focuses on understanding the role of these factors in the actual teaching process and analyses in depth their impact on students' self-direction skills.

Research Problem

To guide the exploration of this study, the following are the key questions on which the study focuses:

Research question 1: How do piano teachers' emotional support and personal attributes affect their students' ability to self-direct?

Research question 2: How does the professional development and training of piano teachers affect their ability to develop student self-direction?

Sampling Strategy

Purposive sampling strategy was used in this study to ensure that the sample was typical and representative. The study population consisted of 16 piano teachers between the ages of 25 and 45 with at least 2 years of teaching experience. Teachers were selected on the basis of their teaching backgrounds and differences in experience in order to explore the impact of emotional support, personal attributes and professional development. This strategy helped to analyse in depth the differences in teaching in different contexts. Recruitment was carried out through collaboration with local piano training centres, and some participants were extended through initial participant referrals.

Data Collection Methods

Three main data collection methods were used in this study: open-ended questionnaires, in-depth interviews and classroom observations. In order to ensure the plurality and comprehensiveness of the data collection, the research process cross validated the data collected by each method through the triangulation method, which increased the credibility of the study and the reliability of the results.

1. Open-Ended Questionnaire

This study used a self-administered questionnaire designed to collect teachers' views on emotional support, personal attributes and professional development. The design of the questionnaire was based on the relevant theoretical frameworks in the existing literature and incorporated the practical needs of this study to ensure that the questions covered the research topic comprehensively. The questionnaire covered how teachers apply emotional

support in the teaching and learning process, how they demonstrate their personal attributes, and the impact of their training experience on students' self-directed competence.

In order to ensure the validity and credibility of the form, the author invited five experts in the field to review the form during the design stage, which included music education scholars and teachers with rich piano teaching experience. The experts' review focused on the reasonableness of the question content and the degree of comprehensive coverage of the research questions. The form was also tested on a small scale with themes that targeted several teachers with similar backgrounds to the formal participants. The results of the themes indicated that some of the questions needed to be expressed more clearly to reduce ambiguity, so the author adjusted the form prior to formal release. The entire process ensured that the form accurately reflected the research themes and reduced potential errors.

2. In-depth Interviews

To further supplement the data from the open-ended questionnaire, in-depth interviews were conducted with selected teachers for this study. Interviewees were selected based on the representativeness of the questionnaire results to ensure a diverse and typical sample. A semi-structured interview outline was used, and the interview questions were expanded based on the key themes in the open-ended questionnaire, focusing on how teachers use emotional support, personalised teaching strategies, and professional skills to help students improve their self-directedness in the actual classroom. The length of the interviews was approximately 15 to 20 minutes each, and all interviews were conducted with the informed consent of the participants and were audio-recorded after consent was obtained. Interview data were then transcribed verbatim to ensure accuracy and completeness. In addition, the interview outlines were validated with small-scale pilot interviews to ensure the clarity and relevance of the interview questions.

3. Classroom Observation

Classroom observation systematically records teachers' behaviour in actual teaching situations, with particular attention to the application of emotional support, personalised teaching strategies and professional training. Observations covered how teachers provided emotional support to students in real-life teaching situations, how they helped students learn independently through their professional skills, and how they adapted their teaching strategies to suit students' individual needs.

To ensure standardisation of the observation process, the study used a pre-designed observation form that contained theoretically validated observation indicators. These indicators included, but were not limited to, the frequency and manner of emotional support, specific manifestations of student self-directed behaviours, and teachers' use of their professional development skills in teaching. By standardising the observation process, the study avoided subjective bias in observations and ensured consistency across observers. To further enhance the credibility of the data, the researcher compiled and initially analysed the records immediately after each observation to avoid missing or biased information.

Data Analysis Methods

1. Coding and Thematic Analysis

The open-ended questionnaire and interview data will be transcribed verbatim and inductively coded. The initial coding framework is based on the research questions and covers the themes of emotional support, personalised teaching and professional training. The coding process was conducted in an iterative manner to ensure that representative core themes were extracted from the data. To improve the accuracy and systematicity of the analysis, the study will use qualitative analysis software such as NVivo to aid coding and thematic analysis.

2. Triangulation Validation and Membership Checking

To ensure the credibility of the findings, this study adopts the triangulation validation method to ensure the consistency and comprehensiveness of the conclusions through the cross-validation of the three data sources: questionnaires, interviews and classroom observations. At the same time, some of the interview results will be fed back to the participating teachers for member checking to confirm that the researcher's interpretation matches the actual situation.

Data Collection Procedures

1. Recruitment and Informed Consent

Recruitment of study participants was facilitated by a local piano training centre. Participants read a detailed informed consent form prior to the study, which included the purpose of the study, the process, the experience of participation, and data confidentiality measures. Participants signed the informed consent form voluntarily with an understanding of the study.

2. Questionnaire and Interview Administration

The questionnaire was posted online and participants submitted their responses anonymously. Afterwards, the researcher selected some teachers for further in-depth interviews based on the results of the questionnaire. The interviews were conducted through face-to-face communication between the researcher and the participating teachers and were audio-recorded and transcribed with the participants' consent.

3. Implementation of Classroom Observations

Classroom observations focused on recording teachers' behaviour in different teaching situations. The authors compiled and analysed the observations after class to ensure the completeness and accuracy of the data.

Research Findings and Analyses

This study collected a large amount of qualitative data through open-ended questionnaires, teacher interviews and classroom observations, and the main findings of the study are shown in detail below. In order to make the results clearer, the data from questionnaires, interviews and classroom observations are categorised and summarised in this section.

Results of the Open-Ended Questionnaire

The study began with an open-ended questionnaire to collect data from 16 piano teachers on emotional support, personal attributes, and professional development and training. By analysing the key questions in the questionnaire, several categories of major themes were extracted.

Table 1

Research Question 1: How do piano teachers' emotional support and personal traits affect students' ability to self-direct?

Question No.	questionnaire question	Number of responses	Representative answers (2)
1	How do you recognise the emotional needs of your students in the piano classroom? (e.g., how students behave when they are struggling, depressed or unmotivated)	16	Response 1: I am able to quickly detect if a student is frustrated or confused by their facial expressions and hesitation in playing. Response 2: When students repeatedly make mistakes or show uneasiness, I realise that they may be experiencing emotional problems.
2	What specific responses have you taken when piano students have emotional problems? Please provide teaching examples of how you have been supportive.	16	Response 1: I usually pause the exercise and talk to the students privately to find out how they feel and encourage them to start again. Response 2: If students are depressed, I will adjust the difficulty of the in-class tasks and give them appropriate support through individual conversations.
3	How do you think your emotional support affects piano students' attitudes to learning and independent practice? (e.g. boosted self-confidence, etc.)	16	Response 1: Emotional support quickly helped students regain their confidence and motivated them to practice piano more actively after lessons. Response 2: Through my support, students felt understood and were willing to face greater playing challenges and increase the frequency of independent practice.
4	Which of your personality traits do you think would be most helpful to piano students in developing their self-directed skills?	16	Response 1: My patience helps students to stay calm when playing complex pieces, which gradually builds up their confidence in learning on their own.

	(e.g., patience, motivation, etc.)		Response 2: My positivity makes students feel at ease when learning piano, which helps them to be more willing to solve problems independently.
5	Please provide examples of how your personality traits manifest themselves specifically in piano teaching, especially when instructing students to think independently and solve problems.	16	Response 1: I often develop independence by allowing students to find their own solutions before giving hints when mistakes occur. Response 2: I will set small challenging tasks to encourage students to explore how to improve their playing technique on their own and provide support when needed.
6	How do your personality traits affect your students? Are there any students who show more independence because of your traits? Please describe specific examples.	16	Response 1: A student who had been dependent began to organise exercises independently with my encouragement and made significant progress. Response 2: My support allowed the student to gradually dare to take responsibility for his studies and show greater independence.
7	How would you rate your effectiveness in providing emotional support? Do you believe that these supports have had a long-term impact on students' ability to self-direct?	16	Response 1: My emotional support boosted my students' long-term autonomy and made them more motivated to learn piano. Response 2: Students feedback that emotional support helps them cope with stress in piano practice and maintain ongoing motivation to learn.
8	Describe a specific example of piano instruction that illustrates how emotional support enhances a student's	16	Response 1: A student who had given up practising due to the pressure of a competition gradually regained his confidence and

	ability to be self-directed. Did the student become more organised?		practised on his own through my encouragement and task breakdown. Response 2: Through regular emotional support, a student learnt how to plan his practice time effectively and manage his own progress.
9	How do you balance emotional support with academic instruction in piano teaching? How do these supports affect students' motivation to learn?	16	Response 1: I would help the student maintain motivation and achieve piano playing goals through a combination of emotional support and academic guidance. Response 2: Through emotional support and timely technical feedback, the student's motivation and piano playing ability were enhanced.

The results of the questionnaire showed that the emotional support and personality traits of the piano teachers significantly influenced the students' ability to self-direct. The traits of patience and positivity helped students regain confidence in the face of emotional challenges and promoted motivation to practice independently. Through emotional support and personalised teaching strategies, teachers effectively promoted students' autonomy and independent thinking.

Table 2

Research Question 2: How does the professional development and training of piano teachers affect their ability to develop student self-direction?

Question No.	questionnaire question	Number of responses	Representative answers (2)
1	What professional trainings related to piano teaching have you attended? Did these trainings cover how to develop students' self-guidance skills?	16	Response 1: I attended training on piano instructional design and music psychology, which included modules on how to guide students to practice independently. Response 2: I attended training on self-directed learning strategies, which focused on how to help piano students manage their own learning time and content.
2	After attending the training, how have you adapted your approach to piano teaching to better develop self-direction in your students? (e.g. introduction of new teaching strategies, improved practice programmes, increased guidance for independent thinking)	16	Response 1: I have included more self-reflection sessions in the piano practice programme, encouraging students to record their feelings and points for improvement after practice. Response 2: I have adjusted the teaching content to give students more freedom in choosing their own learning content and practice schedule.
3	Have you attempted to apply knowledge from the training directly to the piano classroom to promote student self-direction? Please describe specifically the impact of these applications on student learning outcomes.	16	Response 1: I introduced the strategy of phased practice so that students gradually learnt to plan the content and goals of their practice independently, which was very effective.

			Response 2: I used a reflective journal where students self-assessed after lessons, which effectively improved the quality and independence of their practice.
4	What piano teaching strategies have been most helpful in improving students' self-directed skills after training? Please illustrate with an example of successful teaching.	16	Response 1: A regular independent practice programme helped a student to learn how to plan and manage his practice time, and the progress was remarkable. Response 2: By breaking down complex piano practice tasks, a student gradually moved from being dependent on the teacher to being able to perform complex practice tasks independently.
5	Do you believe that your professional development has had a significant effect on the development of student self-direction? If so, please describe in detail how these roles have been manifested.	16	Response 1: Professional development has enabled me to design self-directed learning plans that are more responsive to my students' individual needs and help them manage the content of their practice more effectively. Response 2: By learning new feedback and reflection techniques, my students have demonstrated greater motivation and autonomy in their practice.
6	In your piano teaching practice, did students' self-	16	Response 1: After adapting the strategy,

	management and independent practice improve significantly as you adapted your teaching strategies? Please illustrate with specific examples.		students began to practice independently after school more frequently and their independence increased significantly. Response 2: By introducing independent learning objectives, students were able to better organise their practice time after school and manage their progress more effectively.
7	What methods do you use in your piano classroom (e.g., question-led, open-ended tasks, independent practice goals) to promote self-reflection and independent problem solving?	16	Response 1: I set open-ended questions in each piano lesson and asked students to think independently about solutions and discuss them in class. Response 2: I used a self-assessment form to help students record their learning process after each piano practice and to reflect and improve.
8	Give an example of a successful feedback process and describe how the student made self-adjustments and improved self-direction after the feedback.	16	Response 1: After a practice session, I pointed out a student's deficiencies through written feedback, and the student adjusted his practice methods based on the feedback and showed very significant improvement. Response 2: After receiving verbal feedback, the student thought independently about ways to improve and showed improvement in the next practice session.

9	How would you rate the overall effectiveness of your teaching in promoting students' self-directed skills through professional development? What is the long-term impact of these strategies?	16	Response 1: Through continued professional development, my teaching strategies continue to motivate students to become independent learners with significant long-term results. Response 2: These strategies have helped students acquire better self-study skills, and the long-term effects of their learning have been significant.
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The questionnaire data showed that teachers significantly improved students' self-directed skills through professional development and training. Through the introduction of reflective journals, staged tasks, and self-selection strategies, teachers were able to more effectively help students to independently plan and reflect on the content of their exercises, prompting them to demonstrate higher levels of autonomy and self-management in the learning process.

Results of the Interviews

In order to gain more in-depth insights, the author selected six of the 16 teachers for in-depth interviews. The interviews further supplemented the questionnaire data and provided more detailed case descriptions.

Research Question 1: How do piano teachers' emotional support and personal attributes affect students' ability to self-direct?

Q: How do you use your personal traits (such as patience or motivation) to boost your students' self-confidence and motivate them to practice independently when helping them face emotional difficulties?

Teacher A replied, 'My patience plays a key role in teaching piano. Students tend to lose confidence when playing complex pieces, especially when they make repeated mistakes. At this point I would let them break down the problems gradually, focus on the bars and gradually build up a sense of success. Through patient guidance and constant encouragement, I see my students gradually regain their confidence and are able to practise more independently. My positive attitude is also passed on to them, helping them to stay optimistic and not give up easily even when they encounter challenges.'

Q: When providing emotional support, how do you ensure that your students are able to accomplish the technical goals in piano learning? And how do you balance emotional support with technical requirements?

Teacher B responded, 'I would first go over the student's emotional needs to make sure they know I understand how they feel. Then, I would slowly turn my attention to technical goals, such as in a particular playing technique or section related to association. I also usually break the goal down into smaller steps so that the student can find confidence by accomplishing these small goals step by step. In this way, the student can make progress in piano technique while receiving emotional support.'

Q: Have you ever encountered a situation where, through emotional support, your students were able to gradually transition from being dependent on you to practising more autonomously? Can you share a specific example?

Teacher C replied, 'Yes. There was a 9-year-old student who was very dependent on my guidance when he first started practising and had no confidence in himself. Through my continuous emotional support and encouraging him to solve problems on his own, he slowly learnt to analyse the pieces and make practice plans independently. After a few months, he was not only able to prepare his repertoire independently, but also took the initiative to register for piano competitions, no longer needing too much help from me, and his progress was remarkable.'

The interviews revealed that teachers' patience and motivation played an important role in dealing with students' emotional challenges. Teacher A helped students find confidence and gradually practise independently by stringing together questions and constantly encouraging them. Teacher B met students' emotional needs and pushed them to progress technically by breaking down the technical objectives. Teacher C's case demonstrated that emotional support can help students move from being dependent on the teacher to gradually transition to independent learning. These results demonstrate that teachers' emotional support and personal attributes play an important role in enhancing students' self-direction.

Research Question 2: How does the professional development and training of piano teachers affect their ability to develop student self-direction?

Q: What new teaching strategies have you introduced as a result of your professional training related to piano teaching? How do these strategies help students to become more independent and reflective thinkers?

Teacher D replied, 'After the training, I introduced the strategy of "practice logs" in which students kept a daily record of their piano practice and the challenges they encountered. This method enabled students to systematically reflect on their progress and helped them to think independently about how to improve their playing skills. Through this process of self-reflection, students begin to be able to be more proactive in finding solutions to their problems rather than relying on my prompts.'

Q: What adjustments in the training have you found to be the most significant in improving piano students' ability to instruct themselves? Can you share an example of successful teaching?

Teacher E replied, 'After the training, I started to practice the repertoire in stages and encouraged students to set goals for self-assessment according to different stages. For example, when learning a longer piano piece, students are instructed to complete the first few sections of the piece before gradually progressing to the whole piece. One student learnt to organise his time independently and gradually improved his practice efficiency through this phased approach. In the end, he not only mastered the entire piece, but also significantly improved his self-management skills.'

Q: Do you improve your piano students' self-adjustment skills by using the feedback techniques you learnt in the training? Is it effective?

Teacher F replied, 'Yes, the personalised feedback approach I learnt in my training was very useful. I would provide students with detailed written feedback, pointing out specific parts they needed to improve and giving some suggestions for independent practice. One student adjusted his practice style through the feedback I provided and drastically improved his playing skills in a short period of time. He made significant progress in his next lesson and learned to assess problems in his practice on his own.'

After attending professional training, teachers introduced teaching strategies such as practice logs, assessments and staged practice, which effectively enhanced students' self-reflection and self-management skills. Practice logs help students to reflect on their daily practice, while staged practice helps students to organise their practice time in a rational manner, gradually improving their learning efficiency and management skills. Personalised feedback enables students to improve their skills quickly and learn to conduct self-assessment. These teaching strategies promote students' self-directed skills to a great extent.

Summaries

The results of the interviews show that teachers' emotional support, personal attributes and professional training play a very important role in enhancing students' self-direction. Through emotional support, students can be helped to make a gradual transition from teacher dependence to self-directed learning. Teachers were also able to adopt new teaching methods such as practice logs, staged practice and personalised feedback by attending professional development training to help students manage their practice more effectively and improve their self-reflective skills, and students not only progressed in their skills, but also learned how to think independently and manage their learning process. The results of these interviews illustrate the importance of emotional support and professional training when piano teachers develop students' self-directed skills.

Classroom Observation Results

Classroom Observation Case 1: The Effects of Teachers' Emotional Support and Personal Attributes on Students' Self-Direction Skills

During the study, the researcher observed an 11-year-old piano student in a beginner piano class at a local piano training centre who kept making mistakes while playing an exercise piece. When the student's mood gradually became anxious and restless, the teacher, G, was quick to notice the student's change in mood and paused the exercise to have some communication with the student. The teacher first acknowledged the student's feelings and used positive

words to show understanding and support to the student. Then, instead of pointing out the error directly, the teacher suggested breaking the whole piece into sections and practising only a small part at a time. The teacher patiently guided the students to focus on each small part of the exercise, helping them to gradually build up their confidence. As the exercises progressed, the students' emotions slowly calmed down and their playing became more fluent. After the lesson, the teacher asked the students to record their feelings and difficulties in their practice journals, and encouraged them to think about what to do next.

This observation shows how the teacher helped students overcome their uneasiness through emotional support and patience, and gradually improved their ability to practise independently. By breaking down complex tasks into small goals and allowing students to focus on each small part, the teacher effectively helped students restore their confidence and motivated them to complete the exercises more independently. This approach not only enhances students' independence in learning, but also brings them a positive experience in learning and motivation for further learning. The teacher's emotional support, understanding and patience enabled the students to face the challenges of learning with greater ease. The use of practice journals also helped students to better develop their self-reflection skills, helping them to analyse problems independently after the lesson and enhancing their independent learning skills. This process is not only helpful for the current learning task, but also provides a good foundation for students to solve problems independently and summarise their learning progress in the future.

Through this teaching case, the important role of teachers' emotional support and patience in students' self-directed development can be appreciated. By layering tasks and using practice journals, the teacher not only helped the students to solve their current technical challenges, but also developed their long-term self-reflection skills.

Classroom Observation Case 2: The Impact of Teachers' Professional Development and Training on Students' Self-Direction Skills

The researcher observed during the study period in an advanced piano class at a local piano training centre where a piano student was learning an extremely complex piece with many technical difficulties. In this class, Teacher H first asked the student to record the focus of the day's practice and the difficulties encountered through a practice log. Then, using the staged goal-setting method learnt in the training, the teacher broke down this complex piece into several parts and asked the students to complete the practice goals for each stage step by step. At the end of each stage of practice, the teacher encourages students to self-assess their performance and identify areas for improvement. At the same time, the teacher helps students identify improved learning solutions through personalised feedback and encourages them to solve problems on their own in the next exercises. After several exercises, students gradually mastered how to break down complex learning difficulties and gained a sense of achievement after completing each stage, showing greater autonomy and self-confidence.

This classroom observation demonstrated how the instructional strategies applied by the teacher after attending the professional training were effective in enhancing students' self-direction. Staged exercises and self-assessment tools helped students plan their learning tasks better and enhanced their self-management skills. By setting small goals, students were able

to solve problems independently and felt a sense of achievement at each stage of the process, enhancing their learning initiative and self-confidence. Personalised feedback from the teacher allowed students more space to improve their playing skills and reflect on their performance at each stage. This approach effectively develops students' independent thinking and problem-solving skills. Through the flexible use of teaching strategies from the professional training, the teacher successfully enhanced students' self-direction and fully utilised the positive impact of the professional training on teaching and learning outcomes.

Teacher H's instructional strategies not only help students successfully complete their current learning tasks, but also provide them with a solid foundation for future learning. By setting goals in stages and developing the ability to self-assess, these strategies can continue to have a positive impact on students' future learning and practice.

Summary

We can see from these two classroom observations the positive impact of the teacher on students' self-directed skills through emotional support and professional training strategies. Whether it was helping students build confidence through emotional support or enhancing students' independent learning skills through staged practice and personalised feedback, teachers demonstrated effective teaching strategies to enhance students' motivation and self-management skills. These observations further validate the critical role of teachers in developing students' self-directed competence and provide valuable references for future teaching.

Discussion

The findings illuminate core factors in both research questions and indicate that teachers can significantly improve students' self-direction skills through emotional support and receiving professional development training. Specifically, teachers' emotional support, especially patience, encouragement and support, are important factors in stimulating students' self-learning motivation and improving self-direction abilities. This is consistent with the self-determination theory proposed by Ryan & Deci (2000). This theory emphasizes that emotional support can enhance students' intrinsic motivation (Ruzek et al., 2016). The findings of this study further validate this. The positive feedback and emotional support provided by teachers in class increased students' self-confidence, and students' self-direction abilities were also significantly improved through teachers' motivating interactions, which also expanded the application of self-determination theory in piano education. application.

The existing literature has limited research on the role of professional development training for piano teachers in cultivating students' self-guidance abilities. However, the research data of this study showed that teachers made significant progress in their teaching practice after receiving professional development training. The training not only enhances teachers' abilities in the application of teaching strategies, but also improves teachers' classroom management skills and responsiveness to students' needs. Teachers learn advanced teaching concepts and methods through training, allowing them to adjust teaching strategies more effectively. These teaching strategies have produced significant effects on the cultivation of students' self-direction abilities. This finding is consistent with relevant literature in the field of music education. Research shows that when teachers adjust teaching strategies according to students' different learning conditions, they can not only improve learning effects, but also

significantly stimulate students' intrinsic motivation (Taylor & Ntoumanis, 2007). The results of this study further support this view. The adjustment of personalized teaching strategies can help students better plan learning tasks and improve their self-problem-solving abilities. At the same time, by setting stage goals and using strategies such as scoring logs, teachers can provide more precise guidance, thereby promoting students' progress in self-management and independent learning. This is consistent with the guided learning theory of Schunk and Zimmerman (2008), that is, through task layering and support, students can gradually master self-regulation skills, thereby improving autonomous learning abilities (Sakiz, 2008). In addition, the training also improved teachers' classroom management capabilities and created a more harmonious and positive classroom environment, thereby better promoting the development of students' self-guidance abilities. After training, teachers are relatively more sensitive to students' needs and can more accurately identify and meet students' specific needs in the development of self-guidance abilities.

This study provides new insights into piano teaching and verifies the key role of teacher emotional support and professional development training in improving students' self-direction ability. It is suggested that piano teachers should pay more attention to emotional support in teaching, and educational institutions should also strengthen teacher professional development training to improve teaching effectiveness.

Conclusions

Through this study, the authors found that piano teachers helped students overcome emotional barriers to learning through emotional support, which enhanced students' motivation to learn independently; teachers enhanced students' self-reflection and management skills through professional training and effective use of new teaching strategies. The balance between emotional support and technical instruction is also crucial in piano teaching, which provides a valuable empirical basis for teachers to use individualised strategies and emotional support in their practice.

Limitations of the study

While this study produced some valuable conclusions, there are limitations. The sample size was small, with only 16 teachers surveyed, which may affect the generalisability of the results. The study relied heavily on self-reports and classroom observations, and the data may be subjectively biased. The study was limited to the field of piano teaching and the findings may not be applicable to other subjects or forms of teaching.

Future research could consider expanding the sample size and validating the findings of this study in other disciplines and educational contexts. Further research could also explore the long-term effects of different teacher training models on teaching strategies and student self-direction skills. Research could also delve deeper into the differences in the role of emotional support versus technology instruction across student populations (e.g., age, learning level).

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