

Exploring Influencing Factors of Interactive Teaching Decision-Making Level Among Novice Junior High School Music Teachers

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Abstract: This study investigates the factors influencing interactive teaching decision-making level among novice music teachers in junior high schools, a fundamental skill that spans the entire music teaching process. Focusing on classroom instruction and student learning, the study addresses two primary questions: (1) What factors affect the interactive teaching decision-making of novice music teachers? (2) How do these factors vary by gender, educational background, and teaching experience? A questionnaire survey of novice music teachers in Boshan, China, was conducted, and the collected data were analyzed using SPSSAU software. The findings indicate that student response is the most influential factor, while evaluation is the least. Comparative analysis shows that novice teachers with 2-3 years of teaching experience rank higher in classroom resilience and teaching skills, whereas those with 0-2 years score higher in classroom management. Nonparametric statistics further illuminate differences in interactive decision-making by teaching experience. The study suggests that novice music teachers should prioritize student responses, enhance classroom resilience and teaching skills, and emphasize classroom evaluation and reflection. These insights aim to improve decision-making processes and support the professional development of novice music teachers.

Keywords: Novice Music Teachers; Teaching Decision-Making; Junior High School; Influencing Factors.

1. Introduction

Music education is widely recognized as a critical component of the educational experience, significantly influencing students' learning outcomes and the overall quality of education [12]. Teaching decision-making within the classroom plays a crucial role in shaping these outcomes, particularly for music teachers who must navigate complex interactions during instruction. For novice music teachers, however, these challenges are amplified due to limited experience and professional knowledge [3]. Interactive decision-making—where teachers must make quick, effective decisions to foster classroom instruction and enhance student engagement—is especially demanding for novice educators [10].

Novice music teachers must continuously adapt their approaches by communicating with students, diagnosing and addressing problems, and making timely decisions that draw upon their teaching skills, understanding of student needs, classroom resilience, and management abilities [11]. Effective decision-making is influenced by how well teachers monitor student cues, such as behavioral issues and learning challenges [6]. Additionally, the classroom atmosphere and environment play a supporting role in guiding these decisions [5]. Despite the significance of these factors, research on the interactive decision-making of novice music teachers remains limited, highlighting a gap that necessitates further empirical investigation.

This study aims to explore the influencing factors of interactive teaching decision-making level among novice music teachers in junior high schools, examining how these factors differ by gender, educational background, and teaching experience. By addressing these gaps, the research seeks to offer insights that can enhance the professional

development and decision-making levels of novice music teachers.

2. Literature Review

Teaching decision-making level of teachers: Teaching decision-making level of teachers refers to the various decisions made by teachers during the teaching process, including setting teaching goals, selecting teaching content, and teaching methods, etc. As early as the 1970s, educationist Hunter [1] began studying teachers' teaching decision-making. Teachers' teaching decision-making refers to the various decisions teachers make during the teaching process, including setting teaching goals, selecting teaching content, and teaching methods, etc. Westerman [7] proposed the theory of teaching decision-making, clearly dividing the process of teaching decision-making into three stages: pre-active, interactive, and post-active. This study focuses on the interactive stage of teacher-student classroom interaction decision-making. Teachers interact with students in accordance with the planned path of pre-class decision-making, and if unexpected situations or contexts arise during teacher-student classroom interaction, teachers need to make corresponding decisions [5].

Teaching decision-making level of music teachers: It is a fundamental teaching skill that runs through the entire process of music classroom interaction teaching decision-making. In recent years, with the introduction of the new curriculum music standards in China, more and more scholars have begun to study the teaching decision-making level of music teachers [4]. In China, teachers with less than 3 years of teaching experience are considered novice teachers, and 0-2 years are considered as initial novice teachers, while 2-3 years are considered as proficient novice teachers [8]. Research has shown that teaching experience is one of the important factors

affecting teachers' teaching decision-making. An experienced teacher is able to better deal with various teaching situations and make more reasonable and effective teaching decisions. However, for novice music teachers, they lack sufficient teaching experience and professional knowledge, and need to gradually accumulate it through practice. At the same time, Rao [6] believed that factors such as different educational backgrounds, gender, and cultural factors also influence teachers' teaching decision-making level.

In addition, factors related to teacher-student interaction and classroom environment are the two most important factors influencing interaction decision-making level. Teacher-student interaction includes all activities between teachers and students in the classroom, which can generally be divided into student responses, teaching skills, classroom adaptability (practical wisdom), classroom management, evaluation, and other factors [4]. Classroom environment includes factors such as equipment and instruments, classroom atmosphere, etc. [10]. Student responses include their answers, questions, opinions, behaviors, and other aspects. These responses can help teachers better understand students' learning situations and needs, and accordingly adjust teaching strategies and methods to make new decisions.

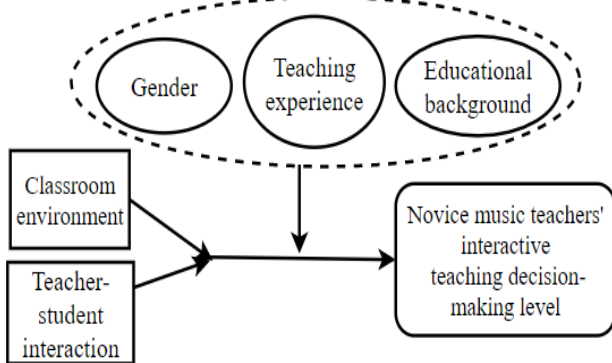


Figure 1. Research framework

Research Framework Description: Figure 1 illustrates how teacher-student interaction and classroom environment influence the level of interactive decision-making, with gender, education level, and teaching experience serving as mediating variables that moderate this relationship.

In summary, studying the factors influencing the classroom interaction decision-making level of novice music teachers is of great practical significance for improving the quality of music education and promoting the professional development of novice teachers.

3. Method

This study used a questionnaire survey to investigate a total of 30 novice music teachers in 10 junior high schools in the suburbs of Jinan, China. The sample consisted of 8 male and 22 female novice music teachers, aged 23 to 30, with 0-3 years of teaching experience and undergraduate or graduate education backgrounds.

The questionnaire used a Likert 5-point scale, where 1=strongly disagree and 5=strongly agree, to assess different factors. After collecting data, descriptive analysis and non-parametric statistics were conducted using SPSSAU software.

3.1. Survey Development

Due to the limited quantitative research on this topic, the questionnaire was developed based on previous empirical

studies. The authors used 20 questions from Jiang's [2] questionnaire on factors influencing high school English teachers' interactive decision-making and 20 questions from Yu's (2018) questionnaire on factors influencing novice English teachers' interactive decision-making as the foundation. The questionnaire was then optimized by two experts in music education, integrating it with the music discipline, resulting in a 23-item survey. The aim was to understand various factors influencing music teaching. The two factors, teacher-student interaction, and classroom environment, that influence interactive decision-making by teachers include a total of seven dimensions, which are: 1) student reaction, 2) classroom adaptability (practical wisdom), 3) teaching skills, 4) classroom management, 5) equipment and instruments, 6) classroom atmosphere, 7) evaluation (See appendix table 2). The original questionnaire had a Cronbach's alpha coefficient of 0.853-0.906, and the revised questionnaire had a Cronbach's alpha coefficient of 0.866, KMO (Kaiser-Meyer-Olkin)=0.82, indicating high reliability and validity.

4. Results

All participants completed the questionnaire, resulting in a response rate of 100%. Descriptive analysis using SPSSAU showed that all items had an impact on teachers' interactive decision-making. In non-parametric statistical analysis, significant differences were found among novice music teachers in factors such as classroom management, student feedback, teaching skills, classroom adaptability (practical wisdom), and evaluation. The mean values were higher than the median values. In rank order analysis, student feedback was found to be the most influential factor, while evaluation was the least influential factor.

Table 1. Ranking of Factors Influencing Teaching Decisions among Novice Music Teachers with Different Teaching Experiences

0-2 Teaching experience		2-3 Teaching experience			
Factors rank	M	Std.	Factors rank	M	Std.
Student reaction	4.85	.39	Student reaction	4.84	.387
Classroom management	4.84	.74	Classroom adaptability (practical wisdom)	4.83	.79
Classroom adaptability (practical wisdom)	4.8	.81	Teaching skills	4.77	.82
Teaching skills	4.76	1.29	Classroom management	4.67	1.12
Equipment and instruments	4.66	1.09	Equipment and instruments	4.6	1.07
Classroom atmosphere	4.5	1.033	Classroom atmosphere	4.39	.99
Evaluation	4.43	1.28	Evaluation	4.36	1.28

N = 30, M=Mean, Std.= Standard Deviation

For the second question, when comparing differences between novice music teachers of different genders and education backgrounds using the Mann-Whitney U test, the results were generally consistent. However, novice music teachers with 2-3 years of teaching experience had higher rankings in classroom adaptability (practical wisdom) and teaching skills compared to those with 0-2 years of

experience. Novice music teachers with 0-2 years of teaching experience had higher rankings in classroom management compared to those with 2--3 years of experience.

5. Discussion

Based on the research findings, all seven factors have a significant impact on novice music teachers' instructional decision-making, with student response being the most influential factor, consistent with the results of Yang's [9] study. Therefore, teachers should pay attention to observing and providing feedback on student responses during the teaching process to adjust teaching strategies and methods in a timely manner. In addition, teachers' classroom adaptability and teaching skills are also important factors affecting instructional quality, especially for novice teachers with less teaching experience. Therefore, teachers need to constantly improve their teaching skills and adaptability.

Regarding the second question, there are differences in influential factors among novice music teachers of different genders, educational backgrounds, and teaching experiences. No significant differences were found in gender and educational background. Compared to novice teachers with 0-2 years of teaching experience, skilled novice teachers with 2-3 years of teaching experience ranked higher in classroom adaptability and teaching skills. Classroom management factors were more important for novice music teachers with 0-2 years of teaching experience. This suggests that as teaching experience accumulates, more attention is paid to teaching rather than classroom discipline, consistent with the results of Jiang's [2] study. Novice teachers should focus on accumulating experience to improve instructional quality.

The limitation of this study is the small sample size in the local area. The authors acknowledge the relatively small sample size (N=30), which may lead to some differences in results. However, this also reflects the scarcity of novice music teachers and the imbalance of educational resources in the region. For future research in this field, the authors recommend expanding the sample size, broadening the participant pool, and obtaining responses from teachers with more balanced demographic backgrounds.

6. Implements

This quantitative study provides a reference for research on music teacher decision-making. Through questionnaire surveys, it was found that novice music teachers prioritize student response [4]. It also showed that the accumulation of teaching experience by novice music teachers can have different impacts on decision-making. Therefore, novice music teachers should observe and provide feedback on student behavior during teaching, adjust teaching strategies and methods in a timely manner to improve instructional quality. Teachers need to constantly improve their teaching skills and adaptability, especially for novice teachers with less teaching experience. Governments and educational institutions should pay attention to pre-service training and development of novice music teachers, with a focus on improving classroom adaptability and teaching skills.

With the development of the times, global education policies and China's new music curriculum standards both emphasize the instructional decision-making of music

teachers, which remains a global hotspot issue [5]. Therefore, understanding which factors most directly influence music teachers' instructional planning may prove to be increasingly important in helping novice and pre-service teachers meet emerging expectations [10]. Reassessing professional development and addressing specific issues of novice educators can enhance all teachers' understanding and reflection on instructional preparation.

7. Ethical Approval

Conducting research requires not only expertise and diligence, but also honesty and integrity. This is done to recognize and protect the rights of human subjects. For research to be ethical, the right to self-determination, anonymity, confidentiality, and informed consent will be observed. The research has been conducted with the oral permission of the staff and students at B university. The participants were provided with informed consent prior to completing the questionnaire and participating in the experiment. Subjects are informed of the purpose of the study, the procedures used to collect the data, and are assured that there are no potential risks or costs.

Competing Interests

The authors declare no competing interests.

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