ISSN: 0000-0000 (O)
0000-0000 (P)

Original Research Article

A study on the adaptability of the BOPPPS teaching model in art skill courses in colleges and universities—Taking vocal music courses for preschool education as an example

Zhiyan Liu[1,2], Seungjin Lee[2(Corresponding author)]
[1] *Nanchang Institute of Technology, Nanchang, Jiangxi, 330088, China*
[2] *Sehan University, Mokpo, Jeollanam-do, 58613, South Korea*

Abstract: The BOPPPS teaching model is goal-oriented, emphasizes participatory learning and closed-loop feedback, and is highly compatible with the practical attributes of art skill courses. Taking the vocal music course for preschool education majors as the research object, this paper analyzes the current problems in teaching such as vague objectives, single methods and lagging evaluation, explores the adaptive paths of the BOPPPS model in the six links of bridge-in, objective, pre-assessment, participatory learning, post-assessment and summary, and constructs a modular teaching framework suitable for art skill courses . Research shows that the BOPPPS model can effectively improve classroom participation, strengthen the integration of skill training and teaching practice, and provide a referable paradigm for the reform of art skill courses in colleges and universities.

Keywords: BOPPPS teaching model; art skill courses; preschool education; vocal music teaching; blended teaching

1. Introduction

Against the background of educational digital transformation and normal professional certification, art skill courses in colleges and universities are faced with three educational needs: Skill training, practical application and aesthetic education infiltration. The vocal music course for preschool education majors has both artistic skill and professional practicality. It is necessary to consolidate students' singing foundation and cultivate their abilities in organizing children's music activities, playing and singing children's songs, and teaching demonstration. Traditional vocal music classes are mostly teacher-demonstrated and student-imitated, with problems such as vague objectives, insufficient interaction and single evaluation, which are difficult to adapt to the professional competence requirements of preschool education.

Originated from the Canadian teacher skill training system, the BOPPPS teaching model includes six links: Bridge-in, objective, pre-assessment, participatory learning, post-assessment and summary. It is student-centered and emphasizes closed-loop teaching and instant feedback. The model has shown good adaptability in design, medical and education courses, but its systematic application and adaptability research in art skill courses in colleges and universities[1], especially vocal music courses for preschool education, still need to be deepened. Based on the characteristics of vocal music courses for preschool education, this paper explores the adaptive logic and implementation strategies of the BOPPPS model, providing theoretical and practical references for improving the quality and efficiency of art skill courses.

2. Adaptability analysis of the BOPPPS teaching model and vocal music courses for preschool education

2.1. High consistency between course characteristics and the core of the model

The vocal music course for preschool education has three attributes: Skill, practicality and professionalism. It requires students not only to master basic skills such as vocalization, intonation and rhythm, but also to have professional abilities such as singing children's songs, designing children's music activities and integrating playing and singing. Starting with clear objectives, centering on participatory learning and

guaranteeing by closed-loop evaluation, the BOPPPS model highly matches the integrated demand of "practice, performance and teaching" in vocal music courses. The model emphasizes measurable objectives, interactive processes and timely feedback, which can solve the dilemma of traditional skill courses that "emphasize skills over application and results over process"[2] .

2.2. Link design adapts to the teaching laws of vocal music courses

The six links of BOPPPS can be seamlessly connected with the teaching process of vocal music courses . The bridge-in link stimulates interest through children's song cases and preschool teaching scenarios; the objective link clarifies the three-dimensional goals of skills, practice and aesthetic education; the pre-assessment link diagnoses pre-existing abilities such as vocalization foundation, intonation and rhythm; the participatory learning link integrates group singing practice, simulated teaching and playing and singing training; the post-assessment link tests skill mastery and teaching application effects; the summary link realizes knowledge sorting and reflection improvement. This structured design not only conforms to the gradual law of skill training, but also highlights the professional orientation of preschool education.

2.3. Expanded adaptability in blended teaching scenarios

Empowered by digital technology, the BOPPPS model can be deeply integrated with online and offline blended teaching. Online platforms are used for pre-assessment, resource push and homework submission; offline classes focus on skill guidance, interactive practice and practical comment, breaking through the time and space constraints of traditional vocal music courses, and taking into account large-scale teaching and personalized guidance. This adaptability enables it to cope with the practical challenges of vocal music courses for preschool education, such as large differences in students' foundations, limited class hours and strong practical needs.

3. Implementation path of the BOPPPS model in vocal music courses for preschool education

3.1. Precise bridge-in: Activate learning motivation and connect professional scenarios

The bridge-in link focuses on situation creation, problem-driven and case display, quickly focusing on the theme and connecting with the reality of preschool teaching[3] . Teachers can play videos of kindergarten music activities, display classic children's song teaching clips, or set questions such as "how to use simple vocal skills to teach children to sing melodies accurately", binding skill learning with professional scenarios. The duration of bridge-in is controlled at 5-8 minutes, balancing fun and orientation, activating students' learning willingness and laying a foundation for subsequent links[4] .

3.2. Clear objectives: Align with post competence and refine measurable indicators

The objective link follows the principles of specificity, measurability, achievability, relevance and time-bound, and aligns with the professional competence requirements of preschool education. The course objectives are divided into three dimensions: Knowledge objectives to master the principles of children's vocal music teaching and norms of children's song singing; skill objectives to achieve standardized vocalization, children's song playing and singing, and children's activity organization; literacy objectives to cultivate music aesthetics, professional responsibility and aesthetic education awareness. The objectives are communicated to students in clear language, making teaching and learning clearly targeted and avoiding the vague problems of traditional objectives[5] .

3.3. Scientific pre-assessment: Diagnose basic differences and implement stratified teaching

The pre-assessment link adopts online questionnaires, on-site quizzes and skill spot checks to quickly diagnose students' vocal music foundations, including vocal methods, intonation and rhythm, children's song accumulation, teaching cognition and other dimensions . According to the pre-assessment results, students are divided into basic level, improved level and advanced level, providing a basis for stratified teaching. For students with weak foundations, focus on vocal correction and children's song introduction; for students with good foundations, strengthen the integration of playing and singing and teaching design, so as to teach students in accordance with their aptitude and solve the contradictions of "insufficient learning" and "unable to keep up" in collective classes.

3.4. Participatory learning: Diversified interaction to strengthen the integration of skills and practice

Participatory learning is the core of the BOPPPS model, adopting group cooperation, simulated teaching, project-driven and playing and singing training to highlight students' dominant position. Students are divided into groups to carry out children's song practice, teaching clip simulation and playing and singing coordination training, with teachers touring to guide and correct errors instantly; a micro-project of "children's vocal music activity design" is designed to let students complete the whole process of song selection, teaching design and on-site simulation, transforming vocal music skills into teaching abilities. Multimedia resources and music software are integrated to assist vocal training and children's song adaptation, improving the fun and effectiveness of learning.

3.5. Effective post-assessment: Multi-dimensional inspection to match learning achievements

The post-assessment link adopts skill display, simulated teaching, homework submission and other forms to test the achievement of objectives. Skill tests focus on vocalization, intonation and children's song singing; practical tests examine children's teaching clip demonstration and playing and singing abilities; theoretical tests cover common sense of children's vocal music teaching. Post-assessment pays attention to process performance and application ability rather than single singing skills, and the evaluation criteria are consistent with the professional needs of preschool education to ensure that the evaluation results truly reflect learning effectiveness.

3.6. Summary and reflection: Closed-loop improvement to promote continuous progress

The summary link is completed by teachers and students together. Teachers sort out the core knowledge and skill points and emphasize key and difficult points; students conduct self-reflection to summarize progress and deficiencies. Teachers give personalized improvement suggestions based on post-assessment and classroom performance, push expanded resources and assign stratified after-class tasks, forming a complete closed loop of "learning-assessment-feedback-improvement". At the same time, students are guided to connect with preschool teaching practice, strengthen professional cognition, and realize the simultaneous improvement of skill learning and professional literacy.

4. Implementation effectiveness and problem reflection

4.1. Implementation effectiveness

To intuitively present the application effect of the BOPPPS model, a one-semester teaching comparison was conducted between the experimental class (taught with BOPPPS) and the control class (taught with traditional methods), with the results shown in **Table 1**.

Table 1. Comparison ofteaching effects between BOPPPS and traditional teaching (n=86).

Evaluation Dimensions	Average Score of Traditional Teaching (Full Score 100)	Average Score of BOPPPS Teaching (Full Score 100)	Improvement Margin
Classroom Active Participation	62.35	89.72	27.37
Mastery of Vocal Skills	70.18	86.45	16.27
Practical Ability in Playing and Singing Children's Songs	65.42	88.13	22.71
Ability to Design Children's Music Activities	61.79	85.66	23.87
Learning Satisfaction	68.50	92.30	23.80

After the application of the BOPPPS model in vocal music courses for preschool education, classroom participation, skill mastery rate and practical ability have been significantly improved. The structured links make teaching objectives clearer and processes more standardized, effectively solving the problems of insufficient interaction and lagging evaluation in traditional classrooms. Participatory learning and stratified teaching take into account individual differences, and students' core professional abilities such as children's song playing and singing and preschool teaching demonstration have been significantly enhanced. The closed-loop feedback mechanism helps teachers adjust teaching strategies in a timely manner to achieve continuous improvement, which is in line with the concept of normal professional certification.

4.2. Existing problems

In practice, there are still problems such as unreasonable time allocation in some links, difficult

organization of participatory learning and insufficient refinement of evaluation standards. Some teachers do not have a deep understanding of the model and implement the links in a formal way; excessive differences in students' foundations increase the difficulty of implementing stratified teaching; the connection between online and offline links is not smooth enough, affecting the overall teaching efficiency. These problems need to be solved in subsequent practice through optimized design, strengthened training and improved resources.

5. Conclusion and prospect

The time allocation and implementation essentials of the six BOPPPS components in vocal music courses for preschool education directly affect teaching quality. A standardized configuration formed based on classroom practice is shown in **Table 2**.

Table 2. Component design and time allocation of the BOPPPS model in vocal music courses for preschool education.

Component Name	Core Tasks	Recommended Duration	Implementation Essentials
Bridge-in	Stimulate interest through situations, connect professional scenarios	5–8 minutes	Children's song cases, preschool teaching videos, problem-driven instruction
Objective	Clarify three-dimensional measurable objectives, align with post competence	3–5 minutes	Specify objectives in knowledge, skills, and literacy
Pre-assessment	Diagnose foundations, divide into stratified groups	5–7 minutes	Online questionnaires, in-class quizzes, random skill checks
Participatory Learning	Group singing practice, simulated teaching, project training	20–25 minutes	Playing and singing drills, preschool teaching simulation, multimedia assistance
Post-assessment	Assess learning outcomes, provide feedback on problems	8–10 minutes	Skill demonstrations, teaching presentations, in-class assessments
Summary	Sort out key points, reflect for improvement, assign tasks	5–7 minutes	Teacher-student joint evaluation, personalized suggestions, stratified homework

With the advantages of clear objectives, complete links, sufficient interaction and timely feedback, the BOPPPS teaching model is highly compatible with art skill courses in colleges and universities and has a good application prospect in vocal music courses for preschool education. The model can effectively integrate skill training, practical teaching and aesthetic education infiltration, improve teaching quality and educational effectiveness, and provide a feasible path for the reform of art skill courses.

Future research can further combine the OBE concept and virtual simulation technology to optimize the application of the BOPPPS model in art skill courses, and build a blended teaching mode more suitable for professional needs; improve the diversified evaluation system, strengthen process evaluation and practical evaluation, promote the popularization and application of the model in more art skill courses, and help colleges and universities cultivate high-quality applied art talents.

About the author

Corresponding author: Seungjin Lee.

References

[1] Liu, X. (2019). A study on the application of the BOPPPS teaching method and the cultivation of preschool education majors' abilities. *Contemporary Education Research and Teaching Practice*, (13), 42-43.

[2] Song, S., Wang, Y., Jiao, R. Z., & Zhou, J. H. (2026). A discussion on the implementation of online and offline blended teaching based on the BOPPPS teaching model — Taking preschool education as an example. *Academic Education*, (04), 148-150.

[3] Guo, L. L. (2021). Practical exploration of college vocal music courses based on the BOPPPS teaching concept. *Journal of Qiqihar Teachers College*, (01), 125-126.

[4] Lu, F. F. (2025). Reshaping of the BOPPPS model in the blended teaching practice of folk song singing courses. *Drama Film Journal*, (04), 134-135.

[5] Wu, Z. (2024). A study on the teaching reform of vocal music courses for preschool education majors under the guidance of the OBE concept. *Modern Music*, (05), 38-40.