

Teaching Research Design of Guzheng "Fighting the Typhoon"

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Abstract. Learning guzheng has gradually evolved into a cultural phenomenon that not only sweeps across the country but also exerts influence overseas. However, traditional guzheng teaching is characterized by monotonous methodologies, lack of engaging elements, and insufficient cultivation of musical expressiveness as well as artistic sensibility. Therefore, grounded in constructivist theory and using "Fighting the Typhoon" as a case study, this paper develops a teaching design aimed at enhancing the quality of guzheng instruction, fostering students' autonomous learning capacity, and nurturing their musical innovation skills.

Keywords: Guzheng; Fighting the Typhoon; Instructional Design.

1. Introduction

In the teaching of Guzheng art, the content tends to be monotonous and the methodologies rather outdated. Excessive emphasis is placed on score reading and technical drills, often at the expense of higher-level innovation and development that preserves the vitality of traditional Guzheng art. As a result, the artistic charm and cultural depth of the Guzheng are frequently overlooked, significantly undermining the effectiveness of its pedagogy. Moreover, the practical teaching of Guzheng often relies on a one-on-one instructional model, where the teacher demonstrates and the student imitates. This unilateral approach lacks interactivity, making it difficult for students to appreciate the melodic variations in ensemble playing or collaborative performances. Such a method can easily lead to disengagement and fails to sustain long-term interest, ultimately diminishing the appeal of Guzheng music.

Additionally, Guzheng instruction tends to overemphasize technical proficiency, offering few opportunities for students to engage in creative expression. While learners may become skilled at performing certain pieces, their understanding and interpretation of the music often remain superficial. This results in performances lacking emotional depth, musical expressiveness, and innovative flair, thereby restricting the cultivation of students' creativity and overall musical literacy. To address these issues, this study adopts a constructivist theoretical framework and uses the piece *Fighting the Typhoon* as a case study to design a pedagogical research model.

2. Constructivist Theory

2.1 Definition of Constructivism

Constructivism emphasizes that learning is an active process of meaning construction and social interaction [1]. It encompasses perspectives on knowledge, learning, and the learner. In terms of the view of knowledge, constructivism highlights its dynamic nature: knowledge is a form of human interpretation and hypothesis, constantly evolving. It does not precisely encapsulate the laws of the world; instead, it must be recreated according to specific contexts in practical situations. As students engage with knowledge, their differing experiences and backgrounds lead to diverse interpretations [2]. This necessitates a tailored approach in Guzheng teaching, where instruction is adapted to individual students, and diverse scenarios are created to deepen their understanding of music.

The view of learning posits that it occurs within a sociocultural context, where individuals actively construct their knowledge and experiences through interactions with objects and people [3]. By integrating new experiences with prior knowledge in a bidirectional process, students enrich, expand, and transform their understanding. This perspective underscores the proactive, interactive, and situational nature of knowledge construction, offering significant insights for Guzheng pedagogy.

The view of the learner emphasizes the richness and diversity of students' experiential worlds. Thus, constructivism suggests a shift away from the unidirectional "teacher demonstrates, student imitates" model in Guzheng teaching. Instead, teachers should enhance interactivity through activities such as ensemble performances and observations. By creating contextual scenarios and posing questions, they can guide students to appreciate the charm of music and independently explore solutions. While respecting original compositions, students should be encouraged to engage in "secondary creation," fostering their musical creativity and expressive abilities.

2.2 Elements of Constructivism

Constructivism consists of four elements: "context", "collaboration", "communication" and "meaning construction". Therefore, guzheng teaching should not be confined to dull finger practice and isolated piece playing. First of all, teachers should consciously create diverse musical scenarios. For instance, when teaching "Evening Song of Fishermen", the scenes of the setting sun and the rippling lake are presented through pictures and videos, and the poetic meaning behind them is explained to draw students into the artistic conception of the music. By posing questions such as "How can the process of raindrops growing from small to large and then stopping be depicted on a guzheng?" Guide students to explore and create by using different fingering techniques (such as scraping and tapping) and dynamics. Secondly, teachers organize ensemble and ensemble classes, group lessons, observation meetings, and small concerts, etc., to enable students to listen to each other, communicate, evaluate and learn. Through interactive learning among students, the initiative of students in learning is enhanced. "Meaning construction" is the ultimate goal of the entire learning process, that is, students combine new knowledge with their own existing experiences to form a profound and personalized understanding of knowledge. That is to say, teachers create scenarios and promote interactive learning among students, enabling them to combine the emotions expressed by the music with their own emotions and experiences, so that they can empathize and feel as if they were right there, generating an extremely strong emotional resonance. In this way, students can transform abstract musical ideas into emotional elements with storylines, enhancing the expressiveness of music and the appeal of guzheng performance.

2.3 Constructivist Teaching Strategies

Constructivist teaching strategies include Scaffolding Instruction, Cognitive Apprenticeship, Anchored Instruction, Random Access Instruction, and Social Constructivist Teaching strategies [4]. Scaffolding Instruction involves guiding students to construct a knowledge framework. Based on students' experiences and characteristics, complex knowledge is broken down into simpler components to facilitate understanding. These elements are then integrated into the students' existing knowledge framework, promoting the completion of knowledge construction [5]. Cognitive Apprenticeship guides students in transferring and reflecting on knowledge, enabling them to progress from "imitative performance" to "interpretive performance," and ultimately developing independent musical expression skills [6]. For example, students may use the same portamento to play both Jasmine Flower and Nanniwan, experiencing how the glide should be slow and soft in lyrical pieces (like a sigh) and quick and crisp in cheerful pieces (like a bounce). This guides students to understand the contextual adaptability of techniques. Anchored Instruction is centered around engaging real-world events or problems (the "anchor"), allowing learners to actively acquire knowledge and apply skills in the process of problem-solving [7]. For instance, the teacher might pose a core task (the anchor): "Create a Guzheng accompaniment for a Tang poem." By asking questions such as "What is the tone of this Tang poem?" and "What kind of timbre should be used to express specific emotions?" students are driven to actively explore a range of knowledge and skills. Random Access Instruction emphasizes repeated engagement with the same core concept at different times, in varying contexts, with diverse purposes, and from multiple perspectives. This approach aims to achieve advanced knowledge acquisition and enable flexible transfer and application of knowledge [7].

2.4 Research Status

Research on guzheng pedagogy spans multiple dimensions, including technical skill training, teaching methodologies, learner characteristics, textbook and curriculum design, musical expressiveness, and cultural inheritance. For instance, Li Enzhong and Jing Mengyuan investigated the performance techniques of the guzheng concerto *Journey to the Desert*. They highlighted that *Journey to the Desert* breaks from the traditional pentatonic scale characteristics of the guzheng, incorporating strong exotic flavors, and emphasized the use of techniques such as double finger shaking, dotted rhythm, and slapstick[8]. Liu Tong provided a detailed analysis of the musical structure, register selection, tempo and dynamics, and performance techniques of the *Fight the Tiger up the Mountain*[9]. Li Huicong conducted a study titled "Applying International Music Pedagogy in Guzheng Teaching." In it, she explored through case studies the application of the Dalcroze, Kodály, Orff, and Suzuki methods in guzheng instruction [10]. In the article "The Role and Practice of Group Guzheng Lessons in Adolescent Music Education," Gu Changli developed a composite teaching model tailored to practical needs by striking a balance between group and individual instruction [11]. In "A Practical Study on Group Guzheng Teaching," Yang Zitong examined and summarized the challenges and issues facing the 'group lesson' model in its current development. Subsequently, specific teaching methods and models for group guzheng instruction in primary schools were proposed [11]. In the article "Research on the '1+1' Guzheng Basic Teaching Method," Ma Ling delved into the advantages and theoretical foundations of this method and articulated its core instructional framework [12].

Based on the literature, this paper identifies a scarcity of research integrating constructivism with guzheng pedagogy. Traditional guzheng teaching often faces issues such as waning student interest, lack of sustained motivation, narrow musical literacy, uniform training that stifles individuality, and insufficient cultivation of creativity. This approach risks producing mere "technicians" rather than fostering students' capacity for creative artistic expression. Constructivism offers an effective pathway to address these challenges. Therefore, integrating constructivist theory with guzheng teaching represents not only an innovation in methodology but also a return to and respect for the essential nature of guzheng art, underscoring its profound necessity.

3. Teaching Design for the Guzheng Piece "*Fighting the Typhoon*"

3.1 Introduction to "*Fighting the Typhoon*"

The guzheng piece "*Fighting the Typhoon*" is a solo composition created by Wang Changyuan in 1965. Inspired by her experience at the Shanghai docks where she witnessed workers battling a typhoon, she originally named the piece "Emergency Rescue." It was later renamed "*Fighting the Typhoon*" on the suggestion of Professor Tan Shuzhen to better reflect the spirit of active resistance. The piece consists of five sections. The first section depicts the bustling scene of the docks; the second portrays the typhoon's assault, threatening the safety of the cargo; the third section, the central part of the piece, uses recurring and varied thematic material to convey the intense atmosphere of the dockworkers struggling against the typhoon; the fourth section reveals the workers' relief and pride after overcoming the natural disaster as the skies clear; and the fifth section revisits the melody of the first, but with a more fervent atmosphere, showing the workers returning to their busy labor. The music is grand and powerful, with vivid musical imagery—fast passages are tense, while slow passages are lyrical and beautiful. The piece employs various innovative techniques such as sweeping tremolo, lunmo, Glissando, and pressed tremolo, moving away from the traditional gentle and slow playing style of the guzheng. It enables the instrument to produce a powerful sound of the era, marking a new chapter in the development of guzheng art.

3.2 Teaching Objectives

Learn guzheng performance techniques: sweeping tremolo and slide up .

Understand how musical elements (rhythm, tempo, dynamics, timbre) in "Fighting the Typhoon" express emotions and scenes.

3.3 Teaching Process and Methods

Students will develop an appreciation for Fighting the Typhoon and learn the performing techniques of sweeping tremolo and slide up by engaging in scenario creation, group discussions, and exploratory activities.

Contextualized Learning: Use the historical anecdote: In 1097 during the Song Dynasty, Su Dongpo was exiled to Danzhou, Hainan Island. One autumn evening, a fierce wind suddenly arose. A guest knocked on his door, warning him of the ominous sea air and the approaching typhoon, urging him to prepare. Before the words faded, the courtyard fell eerily silent, with dried leaves rustling, birds crying in alarm, and frightened beasts fleeing. Suddenly, the violent wind burst open doors and windows, tore off tiles, split houses, struck massive rocks, and uprooted tall trees. Su Dongpo, trembling with fear, his hair standing on end, held his breath and moved cautiously. He repeatedly shifted his bed at night and consulted tortoise shells for divination by day. Only after three days did the typhoon subside.

Meaning Construction: Guide students to connect new performance techniques with their existing musical experiences, facilitating initial understanding, appreciation, and learning of sweeping tremolo and slide up. For example, if students have already mastered the ascending portamento technique while learning "Purple Bamboo Melody," they can transfer this skill to performing "Fighting the Typhoon."

Collaboration and Communication: Utilize group discussions, ensemble rehearsals, and other forms of interaction to promote collaborative construction of knowledge and skills among students.

4. Teaching Strategies for "*Fighting the Typhoon*" in Guzheng Instruction

Phase 1: Scenario Establishment and Holistic Perception

(Anchored Instruction + Social Constructivism)

Objective: Stimulate learning interest, establish musical imagery, and set the "anchor" for learning.

Anchor Core Question:

"How can we use guzheng music to tell an exciting story of 'humans struggling against and ultimately triumphing over a natural disaster'?"

Present Real-World Context:

Utilize multimedia platforms such as Xiaohongshu, Douyin, and Doubao to first present students with the creative background of Fighting the Typhoon: scenes of dockworkers laboring, the fury of the typhoon—howling winds, torrential rains, and towering waves—allowing students to intuitively grasp the typhoon's impact on human labor and empathize with the emotional shifts of the dockworkers battling the storm.

Construct Musical Narrative:

Fighting the Typhoon possesses strong dramatic and visual qualities. Therefore, it is essential to help students build a clear musical narrative, linking the piece's five core sections to a compelling storyline, so that each technical challenge in performance becomes a highlight of the musical storytelling.

Act I: Morning Harbor — Busy and Orderly Labor

(At the beginning of the piece)

The Story Begins: "Imagine a early morning at the harbor. The sun has just risen, and the sea glimmers with light. The workers have already begun their day—shouting work chants, moving cargo, cranes operating rhythmically—the entire dock is filled with vitality and strength."

Musical Expression: Steady and robust rhythms convey the workers' firm footsteps and the cadence of labor. Bright and lyrical melodies depict the clear sky and the cheerful mood of the people.

Act II: Sudden Change — The Typhoon Warning

(The music begins to change, introducing dissonance and rapid passages)

Plot Twist: "Look, the first dark clouds drift in from the horizon. The wind begins to howl, the waves grow restless, and the once-orderly dock shows signs of panic. The typhoon is coming! This is the warning of disaster—the atmosphere instantly turns tense."

Musical Expression: Accelerating tempo and increasing dynamics illustrate the strengthening wind and rolling dark clouds. Dissonant chords and glissandi mimic the roar of the gale and the crashing of waves. The music shifts from its earlier stability and brightness to turbulence, creating the urgency of "a storm is about to break amidst the rising wind."

Act III: Unity in Battle — The Fierce Struggle

(The allegro and most technically demanding section of the piece)

Climax of the Story:

"Now, the typhoon strikes head-on! The storm seems to devour everything in its path. Yet, the workers do not retreat. United as one, they engage in a desperate struggle against the natural disaster! Some strive to reinforce the cables, others risk their safety to salvage supplies—this is the ultimate test of strength, courage, and will."

Musical Expression:

Rapid techniques such as sweeping tremolo and lunmo emulate the ferocity of the wind and the intensity of the rain, as well as the rapidly shifting, heart-pounding scenes of humans battling the storm. Powerful chords and rhythms convey the workers' resolute strides and collective strength as they press forward against the gale.

Act IV: The First Light — Clearing After the Rain

(The music becomes calm and lyrical)

Resolution:

"The wind gradually subsides; the rain slowly stops. Dark clouds part, and a ray of sunlight once again bathes the land. After the fierce battle, the dock lies in disarray, but the crisis has passed. Exhausted, the workers look at one another, their faces breaking into relieved smiles, their hearts filled with the tranquility and reflection that follows survival."

Musical Expression:

A slow, spacious largo melody depicts the serene scene after the rain and the people's eased emotions. Smooth, singing fingerings mimic a sigh of relief, painting a warm scene akin to sunlight gently embracing the earth.

Act V: Song of Victory — Celebration and Rebuilding

(The brilliant finale)

Triumphant Conclusion:

"Look! The workers raise their arms in cheers of victory! They have not only protected their home but also conquered the fear within. The dock quickly restores order, and people's faces glow with pride and joy. Songs and laughter once again echo across the harbor."

Musical Expression:

The piece returns to the main theme, with increased tempo and enhanced dynamics, expressing the people's immense pride and elation. Resplendent chords and bright timbres create an atmosphere of triumph and celebration.

Collaborative Discussion (Social Constructivism):

Organize small-group discussions among students: Which sounds in the music imitate the wind? Which passages convey the workers' tense, busy rhythm? What emotions are evoked in the victorious section? Through discussion, students collectively construct a preliminary understanding of the piece and a shared mental schema of its musical imagery—a process of social knowledge building.

Phase Two: Layered Deconstruction and Technical Mastery
(Scaffolded Instruction + Cognitive Apprenticeship Strategies)

Objective: Enable students to progressively master core techniques.

Building "Scaffolds" (Scaffolded Instruction):

Task Decomposition: Break the piece into sections or even phrases, prioritizing practice of core technical segments: rapid finger sequences in the allegro section, sweeping tremolo, and pressed tremolo in the typhoon section. Take sweeping tremolo as an example: In *Fighting the Typhoon*, sweeping tremolo is used to depict the intense struggle between the dockworkers and the typhoon. The technique combines a thumb-picking with a strumming, where the middle finger simultaneously hooks or sweeps an octave note while maintaining the thumb tremolo's hand shape and method.

The middle finger sweeps, the thumb splits, supports, splits, supports (the strumming of the middle finger should be synchronized with the first thumb splits). The first step is to spread the middle finger and get ready for sweeping tremolo. With the wrist facing up and the index finger pinching the thumb, get ready to tremolo. The second step is to perform both the thumb split and the middle finger sweep simultaneously. The third step is to return to the thumb tremolo hand position and play supports, splits, supports. When playing the split support, the force and duration should be uniform, and the number of split supports is fixed. After completing the strumming action slowly, adjust the hand position and then practice the second sweeping tremolo. In addition, when you first start practicing, you should focus on tremolo. Pay attention to the coordination between strumming and tremolo. Avoid situations such as interrupted tremolo or misaligned strumming.

Sequence Practice:

After basic sweeping tremolo training, introduce patterned sequences to enhance coordination. Measures 110 – 141 of *Fighting the Typhoon* consist of extended sweeping tremolo passages that drive the music to its climax. Repeated practice solidifies muscle memory for these fingerings.

Demonstration, Coaching, and Articulation (Cognitive Apprenticeship Strategies):

Teacher Demonstration: The teacher demonstrates not only correct execution but also the “expert” thinking process. For instance, during sweeping tremolo, the teacher specifically explains the playing techniques: “Watch how my wrist stays relaxed and active—I’m not ‘pounding’ the strings, but ‘sweeping’ away rainwater. My focus starts on the thumb’s sweep, while the index finger’s tremolo follows naturally from momentum.”

Emphasize the direction and origin of force in sweeping: use wrist power to guide the fingers, moving toward the palm rather than straight down. The thumb’s split supports should be even and distinct. The sweep is to highlight the rhythm of tremolo. The sound of sweep should not be louder than that of tremolo, which would affect the smoothness of the melodic lines.

Guided Practice:

Observe students closely and provide immediate, personalized feedback. For example: “This glissando sounds stiff—try releasing arm weight into the strings, keep fingertips firm, like a gust of wind approaching from afar.” Address common issues in sweeping tremolo, such as lack of synchronization between the sweep and tremolo. Teacher encourage students to verbalize their sensations and difficulties, externalizing implicit cognitive processes for precise guidance.

Phase Three: Deep Understanding and Artistic Interpretation

(Random Access Instruction + Social Constructivism)

Objective: Cultivate artistic expressiveness.

Random Access Instruction: Guide students to listen to different performers’ interpretations of *Fighting the Typhoon* and explore how varied approaches shape the music’s emotional impact. Some performers (e.g., early-generation artists like Wang Changyuan) emphasize power and stability—steady tempos and solid dynamics in fast passages—highlighting the workers’ resilience. Younger performers may prioritize dramatic effect, using subtle rubato and exaggerated dynamic shifts to enhance the imagery of storm and struggle. In rapid finger sequences and sweeping tremolo, some artists pursue clarity and articulation, while others aim for momentum and thickness of sound, using wrist-arm coordination to convey the typhoon’s force. In lyrical sections (e.g., “labor scene” or “after

the storm”), some incorporate vibrato and portamento for warmth and rustic simplicity; others preserve melodic purity through cleaner phrasing. Traditional interpreters align closely with the work’s historical context, conveying solemnity and collective determination. Modern performers may inject personal artistry, intensifying the “human vs. nature” tension or closing with heightened exuberance to symbolize reconstruction. By comparing versions, students discuss which interpretations best reflect the spirit of “fighting” in the piece.

Collaboration and Reflection (Social Constructivism):

Shift from teacher-led guidance to peer-driven learning through competitions, multi-source feedback, and group activities. In small groups, one student performs while others assess dimensions such as technical accuracy, dynamic control, and expressive delivery. Encourage advanced students to guide peers facing difficulties. Through explanation and demonstration, both deepen their understanding of the music.

5. Conclusion

A guzheng curriculum designed around constructivist principles shifts the student's role from passive technique learner to active knowledge builder, integrating skill, thinking, and interest into a cohesive learning process. Students explore questions like “How does plucking force influence tone color?” and deduce how to control sound for emotional expression—becoming true constructors of knowledge. Learning connects technique to culture, context, and emotion. In the case study of *Fighting the Typhoon*, students first investigate “What does a typhoon sound like?” then consider “How can sweeping tremolo or glissando mimic wind and rain?” This situates technical learning within a broader understanding of the piece’s background and imagery. Group work and open challenges develop musical perception, creative expression, and self-directed learning—ultimately inspiring lasting student engagement and initiative.

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