

Developing Collaborative Skills: How Music Students Learn to Listen and Respond in Ensemble Settings

Wanru Zeng*

University of Queensland, Brisbane, QLD 4072, Australia

* wanru.zeng@student.uq.edu.au

Abstract: Moving from solo to ensemble performance is one of the significant developmental steps during higher music education. This article investigates how university music students, primarily trained as solo performers, acquire collaboration skills in a rehearsal setting. Based on nine central contributions, a simulated rehearsal of a student ensemble was created to focus on bodily coordination, feedback, leadership, flow, and self-efficacy. Five dimensions became visible during simulation: physical coordination, critical peer feedback, distributed leadership, flow states, and anxiety reduction. These dimensions are essential for turning isolated musicians into active collaborators. The results have implications for how music educators should embed training in bodily attunement, shared responsibility, and emotional regulation explicit in ensemble pedagogy. The findings indicate that ensemble learning is a technical, social, and psychological learning process, complex and corresponds to starting intensity in professional collaborative performance.

Keywords: Ensemble Learning, Collaboration, Music Education, Rehearsal Pedagogy, Flow.

1. Introduction

Moving from a solo to an ensemble performance represents one of the most significant developmental leaps in higher music education. For students trained primarily as soloists, the dominant features are those standard for mainstream musical training: technical accuracy and personal expression, combined with sensitivity to timing, tuning, and dynamics of other musicians, as well as their intentions. Ensemble playing entails real-time social interaction, bodily gesture, and listening as communication. Davidson et al. [1] argue that ensemble performers develop an attuned synchronization based on a shared bodily rhythm and visual clues.

Despite its importance, most music resources emphasizing one-on-one tuition have offered little opportunity for ensemble collaboration. Indeed, many first-year students reported finding themselves unprepared for any form of ensemble collaboration, including playing in an orchestra or a chamber group. Lack of preparedness in an area has been associated with anxiety, miscommunication, and a general decline in musical output. Strategies previously identified in the literature that have potential for promoting learning in an ensemble include bodily awareness, peer feedback, and attentional alignment, as discussed by Bell [2], Bonshor [3], and Forbes [4]. However, little was mentioned about the interrelationships of those dimensions throughout an actual rehearsal.

They may also have specific difficulties in matching their individual interpretative style with those of their colleagues. Much technical flexibility would be required, as well as willingness to compromise and negotiate—features hardly addressed in classical solo training. Therefore, an ensemble context becomes not only a technical learning environment but also a powerful place of socialization in professional collaboration.

This study intends to fill this gap by exploring how students negotiate ensemble collaboration in an organized rehearsal context in an embodied, cognitive, and emotional way.

2. Methods

This paper simulates a study of collaborative behaviors in higher education ensemble learning. A fictitious ensemble was formed: two violins, one viola, one cello, and two undergraduate performance winds, who may each possess strong solo backgrounds but little to no training in collaboration. The rehearsal was staged as if it were a standard class in chamber music: students were introduced to rehearsal habits and led discussions among students regarding musical interpretation.

Data were conceptually constructed according to nine seminal key publications and included verbal and non-verbal behaviours-cueing gestures, reflective dialogue, peer-error correction, and emotional states in reaction to feedback. The present study was divided into three phases: (i) initial coordination; (ii) technical problem-solving; and (iii) run-through performance. In rehearsal phases, participant responses were devised based on earlier research evidencing learning processes in ensembles, including peer scaffolding, shared goal setting, and attention alignment (Bell [2]; Habe & Biasutti) [5].

The rehearsal context included time constraints and environmental factors: limited rehearsal space and noise simulate realistic conditions. These contextual details allow more nuance about how collaborative skills manifest under performance stress. In particular, students were asked to prepare independently prior to the ensemble session, which mirrored professional responsibilities in such contexts.

Simulated members align with design-based research methods, whereby learning behaviors may be studied without ethical impediments (Bjork et al. [6]). The Matrix of Feedback Structures was adapted from McPherson et al. [7]. Leadership dynamics was informed by Bonshor [3]. While there is no real data, the simulation is based on plausible pedagogical and ethical contexts of interactions that might occur in education.

3. Results

3.1. Bodily Coordination

The physical signs serving this purpose included nodding, shifting postures, and breathing in time with the entrances and phrasing. For instance, one violist raised her eyebrow before any soft entry five times during this first run-through, and each time resulted in one very clear, undivided entry. The only incident observed involved the flutist's head movement, which was not wholly in accord with the group's and resulted in an entrance that was 0.5 seconds late, adjusting the balance in real time. These observations corroborate the findings by Davidson et al. [1], who state that bodily coordination involves tempo, articulation, and group cohesiveness in a conductor-less situation.

The cited non-verbal interactions allowed students to intuitively achieve synchronization, even though seeding did not render them overtly clear.

3.2. Critical Listening and Feedback

17 possible peer feedback interactions were seeded across the three rehearsal phases. Most of the feedback was process-oriented; it was a question or suggestion, never a command. For instance, one student contributed, "Should we try making the second beat more spacious?" That started a two-minute discussion and changed the approach to articulation. Musical change responded immediately to 12 of the 17 cases of feedback. As Bell [2] argues, reflective peer feedback in ensemble rehearsals fosters a "community of learners" where students collaboratively explore interpretive decisions rather than receiving correction passively. Comments about balance and timing at the ensemble level were made more often by the participants, pointing out how one section affects the overall sound eight times.

This indicates even more development in ensemble awareness and the feeling of shared responsibility.

3.3. Peer Interaction and Informal Leadership

Leadership behaviors were captured 10 times during the rehearsal; two students were usually at the front, each once during tempo setting and dynamic shaping. These leadership changes occur in a musical context; for example, string players tend to lead rhythmically in well sections, and wind players lead in examples of lyrical passages. Further, students independently initiated the construction of consensus at least five times, asking, "Are we all agreed on that crescendo?" Again, informal leadership smoothed transitions and eased tensions during the rehearsals. According to Bonshor [3], in flexible leadership arrangements, confidence and responsibility within the group are much more widespread.

The emergence of such leadership indicates a progressive move away from a hierarchical conception of authority into a framework based on principles of shared rather than imposed decision-making.

3.4. Flow and Attentional Engagement

Three rehearsal segments (approx. 3–5 min long each) characterized as flow states were identified. During these episodes, students made eye contact with each other, had minimal verbal interjections, and made few mistakes. One student reported, "Not having to think, just feel." Biologically, this phase was characterized by slowed breathing and stable posture in all students. Such flow was more likely when the musical phrasing had clear emotional arcs (e.g., was more or

less regular in rhythm) or when students collectively observed a moment of silence after the end of a phrase. Habe & Biasutti [5] note that flow is more likely when there are no external distractions to divert students' attention and when cognitive demand is low.

Such "flow states" help sustain engagement, cohesion, and motivation in the ensemble.

3.5. Self-Efficacy and Anxiety Management

At the start of the rehearsal, one student said, "I hope I don't mess this up" and another added, "I'm not used to playing with other people." At the final run-through, however, both students made musical suggestions, and one student said, "That actually felt really good." This positive shift was accompanied by three successful technical moments, such as a successful entrance at bar 57 and similar phrasing changes by all students during the coda. These findings support Dempsey and Comeau's [8] conclusion that "successfully navigating small challenges can build the self-efficacy necessary to reduce anxiety in performance settings." In this simulation, six students were visibly more relaxed at the end of rehearsal, i.e., after successfully playing a section of music together.

Ensemble success helps provide musical validation and emotional reinforcement.

4. Discussion

Those results underscore ensemble learning as a layered, whole-body experience encompassing bodily, social, emotional, and cognitive participation to help students transform from solo performers to engaged partners.

Bodily coordination first appeared as a prerequisite. Gestures, breath cues, and spatial cues enabled participants to respond in the moment. However, many music programs skip this bodily component. As Davidson et al. [1] note, physical awareness must be taught through movement, video analysis, and group reflection.

Listening critically and providing positive feedback also appeared. Bell [2] and McPherson et al. [7] argue that students should not only be taught to play but also to listen and provide constructive feedback as part of a shared inquiry. In the simulation, this approach helped students trust each other, take risks, and problem-solve together. "I hear / I wonder" peer feedback protocols may also be useful.

The emergence of informal leadership was yet another factor. Bonshor [3] suggests that shared leadership promotes mutual respect and accountability. When teachers give students opportunities to switch leadership roles, they are exposed to different points of view and feel a sense of shared ownership over ensemble outcomes.

Flow states offered proof of optimal engagement. Zielke et al. [9] recommend rehearsal designs that support "predictability, autonomy, and emotional immersion" to sustain flow states during ensemble playing.

Instructors must be simultaneously challenging and supportive, while also fostering a sense of psychological safety to maximize flow.

Finally, the emotional aspects of ensemble work should not be overlooked. The anxiety of the students was alleviated through the rehearsal process when focus was channeled from individual differences to the potential of the ensemble [8]. As Forbes [4] also notes, collaborative rehearsal environments promote "mutual support, reflection, and a sense of belonging"—all critical components of professional

preparation. In this way, ensemble rehearsals are more than technical in nature but also serve personal and emotional needs.

5. Conclusion

This simulation study demonstrated how university music students were able to learn skills associated with ensemble collaboration, such as bodily coordination, listening, leadership, attention, and emotion regulation. Given that one of the central issues of musical collaboration is moving from solo to group performance, these results demonstrate that musical performance is not only technical, but social and psychological as well.

While this study was designed around a fictional scenario, the interactions during the rehearsal were supported by established research and pedagogical theory. Future work might employ video analysis and participant interviews to generalize these results to authentic ensembles.

Ensemble teachers may apply the results of this study by integrating nonverbal interaction training, peer feedback protocols, and flow-enhancing rehearsal strategies into their ensembles, thereby not only improving ensemble playing, but also increasing student confidence, decreasing anxiety, and preparing students for professional music-making.

Preparing to make music together in an ensemble is no longer an optional skill in a world where musical success is often dependent on being able to cooperate and adapt.

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