# Final Lit Review

**Tuned In- A Digital Approach To Intonation**

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EDLD 5305

Dr. Johnson

April 21, 2025

## Literature Review

**Previous UIL Scores**

The Pike Middle School Band participates in the University Interscholastic League (UIL) Concert and Sightreading evaluation each year. During this evaluation, three judges assess each band in both concert and sightreading, assigning scores ranging from 1 (superior) to 5 (poor). The Pike Middle School Band has consistently received a score of a 2 or an excellent since 2020. According to the UIL rubric, the most significant challenge students face is intonation- both individually and within sections of the ensemble. To address this, the proposed solution is to provide the band with a set of iPads, iPad cases, charging stations, microphone clips, and a subscription to the Tonal Energy app. With this technology, the gap between an "excellent" rating and a "superior" rating will narrow and students will be provided with a better musical education.

**Teaching Intonation Skills**

Intonation individually and within sections is one of the most difficult skills to develop in young musicians. However, it is one of the most important aspects of instrumental instruction in band classrooms (Springer, Schlegel, & Lewis, 2021, p. 483). Students must master three key components: hearing and matching the pitch, adjusting embouchure for matching pitch, and using the tuner to make necessary adjustments. Furthermore, having a variety of instructional tools increases the probability that the students will play in tune during rehearsals and performances (Silvey, Nápoles, & Springer, 2019, pg. 393). Students also need multiple practice opportunities in the classroom to refine their intonation (Dunbar, 2016, p. 39). Another effective strategy is giving students more control of their individual playing, which creates more ownership and responsibility in the ensemble process (Speer, 2012, p. 4). Since the UIL rubric

evaluates tuning based on the overall ensemble performance students must demonstrate proper pitch recognition, both individually and in groups to earn a superior rating.

**Technology-Based Intonation Strategies**

One innovative solution to the problem of teaching intonation to young musicians is incorporating the Tonal Energy App on iPads in the classroom. This app immediately provides visual feedback by displaying a smiley face if the pitch is centered. When the pitch is not centered, the app offers a visual guide, helping students adjust either their embouchure or their instrument to correct the pitch.  This instant feedback enhances student learning during rehearsals by allowing for real-time corrections to embouchure and pitch (Palazón & Giráldez, 2018, p. 456). Aural skills are a fundamental portion of intonation, and integrating tablets into rehearsals will help students to improve their ear training skills (Riley, 2018, p. 83). Additionally, this technology supports students with physical limitations by providing accessible and immediate visual feedback during rehearsals (Carlisle, 2014, pg. 16). Beyond intonation, using iPads in school creates more opportunities for students to increase their musical literacy in an interactive and structured environment (Fick & Bulgren, 2022, p. 4). By incorporating the Tonal Energy app into daily classroom activities, students become more engaged in rehearsals, gain valuable ear training experience, and develop stronger music theory skills. These improvements ultimately lead to better intonation, stronger performances, and higher ratings at UIL evaluations.

**iPads, Tonal Energy, And Ensemble Confidence**

By integrating iPads and the Tonal Energy app into daily classroom activities, students who may have felt hesitant about joining the Pike band will feel more comfortable in the music classroom. At the same time, all students will build greater confidence in their musical abilities

and develop a deeper understanding of how their individual parts contribute to the ensemble as a whole. Through group activities that emphasize "we over me" students will work toward shared goals and recognize the importance of collaboration within the band (Johnston, 2013, p. 70). Additionally, technology has made a positive impact on students with disabilities and the use of iPads and Tonal Energy app provide new ways for students to connect to the band curriculum, allowing them to feel more included and supported in the classroom (Draper, 2024, p. 41). This integration empowers all students to gain confidence while discovering their musical talents io(Order, 2015, p. 2). By integrating iPads and the Tonal Energy app Pike band students will enjoy a fun, innovative, and transformative musical journey (Riley, 2016, p. 9). Ultimately, this technological integration will enhance students' self-confidence and musical abilities, allowing them to create more meaningful and musical performances. These performances will ultimately lead to higher ratings at the UIL evaluations in the future.

**Closing the Gap to Superior Ratings with Technology**

By integrating iPads and the Tonal Energy app into daily instruction, students in the Pike Band program will strengthen their intonation skills, build confidence, collaborate effectively with their peers, and achieve stronger performances at UIL evaluations. Teaching intonation skills is one of the most crucial components of instrumental instruction, and students will benefit from receiving immediate visual feedback during rehearsals that keeps them actively engaged in rehearsals. This technology will allow students to learn how to adjust their embouchure and instrument to better match pitch individually and within the ensemble. Additionally, the use of iPads and the Tonal Energy app will enhance students' aural skills and musical literacy while fostering greater confidence and a deeper understanding of how their part contributes to the overall ensemble. By equipping students with these valuable tools to improve their intonation

and musicality, the Pike Band program will elevate its performance quality and close the gap between excellent and superior ratings at UIL.

References

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# Updated Lit Review

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# Original Lit Review with Comments from Dr. J