



ISSN: 2146-1961

Altun, F. & Karahan, S. A. (2024). Evaluation of Used Melodies in Musical Aptitude Assessment in Terms of Inclusivity and Developmental Appropriateness, *International Journal of Eurasia Social Sciences (IJOESS)*, 15(58), 1603-1618.

DOI: <http://dx.doi.org/10.35826/ijoess.4549>

ArticleType: Research Article

EVALUATION OF USED MELODIES IN MUSICAL APTITUDE ASSESMENT IN TERMS OF INCLUSIVITY AND DEVELOPMENTAL APPROPRIATENESS

Fırat ALTUN

Assist. Prof. Dr, Harran Üniversitesi, Şanlıurfa, Türkiye, firataltun@harran.edu.tr
ORCID: 0000-0002-2435-4909

Ahmet Suat KARAHAN

Assoc.Prof.Dr,Harran Üniversitesi, Şanlıurfa, ahmetsuatkarahan@harran.edu.tr
ORCID: 0000-0001-7494-4678

Received: 05.06.2024

Accepted: 14.11.2024

Published: 01.12.2024

ABSTRACT

This study examines the alignment of melodic and rhythmic expressions used in identifying musical talent in Turkish music with contemporary music theory pedagogy, emphasising inclusivity, developmental appropriateness, and cultural diversity. Traditional assessments have predominantly focused on technical skills like pitch and rhythm production, rooted in early psychological theories that prioritise cognitive competence. In contrast, current pedagogical approaches advocate for a holistic framework, suggesting that rhythmic and melodic determinants should encompass diverse musical traditions and acknowledge students' varied cultural backgrounds. Aligning talent identification methods with modern pedagogical principles is critical for cultivating a more inclusive generation of musicians. Data were collected from 120 melodic and rhythmic phrases provided by music educators of all levels at a regional seminar. These phrases were analysed for compliance with modern educational principles, considering criteria such as representation of various musical traditions, suitability for different developmental stages, and alignment with inclusive educational practices. Findings revealed that the musical materials used are predominantly based on Western music, with limited representation of Turkey's diverse musical traditions like *makam* music and folk melodies, and insufficient complexity to engage more advanced students. This indicates a need for more inclusive and differentiated assessment strategies that better reflect different musical contexts and developmental stages. The study underscores the necessity of developing comprehensive evaluation frameworks that integrate a broader spectrum of musical traditions to promote an inclusive and effective music talent identification system in Turkey. Future research should focus on developing specific strategies that enhance the inclusivity and pedagogical value of musical talent assessments and promote the widespread adoption of appropriate identification systems. Addressing these needs could enable the education system to better recognise and nurture the diverse musical talents within the student population, leading to a richer and more culturally diverse musical environment.

Keywords: Musical aptitude assessment, Contemporary music theory pedagogy, Turkish music education, Inclusive music education

Corresponded Author: Assist.Prof.Dr., Fırat Altun, Harran Üniversitesi, firataltun@harran.edu.tr

Ethics Committee Approval: Social Sciences Ethics Committee of Harran University dated on 11.02.2024 under the reference number 2024/43

Plagiarism/Ethics: This article has been reviewed by at least two referees and has been confirmed to comply with research and publication ethics, containing no plagiarism.

INTRODUCTION

Evaluating musical ability has been a key area of interest in the field of music education for more than one hundred years, helping teachers recognise students' aptitude in music. Typically, these evaluations have focused mainly on technical abilities, such as reproducing pitch and rhythm, which were seen as key indicators of musical aptitude. Based on psychological research, cognitive abilities and technical skills were considered core aspects of musical aptitude (Radocy & Boyle, 2012). This emphasis on measurable outcomes led to the development of assessments like the Seashore Tests of Musical Ability, which were grounded in behaviourist theories (Seashore, 1919; Radocy & Boyle, 2012).

However, recent changes in music theory pedagogy advocate for a more holistic discipline that encompasses broader musical skills and acknowledges students' diverse cultural backgrounds and stages of development (VanHandel, 2023; Ewell, 2023). These changes contribute to an increasingly prominent call for more inclusivity and cultural diversity in music education, contrasting with the previous formal focus on technicality. Current teaching recommendations propose that musical aptitude assessments should accommodate a range of musical traditions and the developmental stages of learners, not just technical aspects (Campbell & Wiggins, 2013; Abril, 2013).

Despite these developments, there is a lack of empirical research on how these teaching principles are translated into the evaluation of musical aptitude in non-Western contexts like Turkey. Most previous research has focused on teachers' attitudes regarding musical aptitude or the possible consequences of such teaching changes for didactic methods, without specifically examining the actual content and strategies used in tests.

The current study aims to address this gap by identifying the specific melodic and rhythmic phrases that Turkish music educators employ in their assessments. Unlike earlier research that largely relied on educators' perspectives, this study collects concrete examples of phrases currently used in evaluations. This direct approach allows for a comprehensive examination of assessment modalities, providing explanations for the foundational basis and cultural influences on these formats.

Theoretical Foundations of Contemporary Music Theory Pedagogy

This study builds on ideas proposed in theoretical work and directly investigates how contemporary pedagogical principles are realised within assessment materials. The results will help to understand whether current teaching practices align with the goals of inclusiveness, cultural diversity, and developmentally appropriate practice that now form part of best practice in music theory pedagogy. Understanding these alignments or discrepancies can inform future education policy and practice, potentially leading to a more equitable music education for all students.

Current trends in teaching music theory reflect a broader approach to inclusivity and cultural diversity within the discipline of education. This transition acknowledges the limitations of a heavily Western-oriented approach that has traditionally dominated music education. Scholars such as Philip Ewell (2023) advocate for

the decolonisation of music theory by critiquing Western classical norms and promoting the inclusion of non-Western musical forms in curricula. Implementing such reforms will not merely expand the curriculum but change how music theory is taught and understood. Including, for example, Turkish music traditions can broaden students' cultural perspectives and validate musical forms beyond the Western standpoint. When educators' assessment practices are situated within this more pluralistic and culturally responsive pedagogical framework, assessments can become more inclusive for students (VanHandel, 2023; Snodgrass, 2020).

Advocating for a broader spectrum of music in education necessitates restructuring how music theory itself is taught and understood. According to VanHandel (2023), embracing educational pluralism—which honours a multitude of perspectives and worldviews—is essential when developing music theory curricula for today's students. This approach encourages teachers to include a variety of musical genres, including jazz and non-Western forms, not just Western classical music, in the study of theory (Sarath, Myers, & Campbell, 2017). Educators can achieve this by connecting students' everyday musical experiences with traditional music theory study (Snodgrass, 2020). A music theory pedagogy that values musical traditions apart from the European tradition will require companion assessment tools, which may need modification to better reflect an inclusive perspective of what counts as successful and relevant learning for a more diverse population.

Another important feature of music theory pedagogy in recent decades is the focus on age appropriateness, drawn from concepts regarding cognitive and emotional development as outlined by McPherson and Welch (2018). According to Radocy and Boyle (2012), mental abilities such as pitch discrimination test the capacity of music perception assessments "in terms of separate factors including pitches, melodies, duration, rhythm." They assert that these are fundamental at the beginning of music education because they provide foundational knowledge for further understanding at more advanced levels. Contemporary trends in music theory pedagogy increasingly argue that diagnostic and formative assessments need to work in harmony with the general stages of learners' development to be accessible yet still challenging.

In addition to developing the technical ability of students, this approach aims to make them feel emotionally connected with learning music. Accordingly, tests of musical aptitude should adapt to include these developmental aspects to provide a more comprehensive approach and an authentic evaluation of students' musical skills. Radocy and Boyle (2012) emphasise the importance of emotional reactions in music education; experiences must produce more than just cognitive processes but also emotions and affections. This aligns with contemporary educational developments favouring a holistic understanding of music education and the role that emotional engagement plays in learning (Juslin & Sloboda, 2010). Therefore, musical experiences should be designed to elicit emotions because emotions can enhance learning and recall by making the content more relatable (Gabrielsson & Juslin, 1996). Consequently, evaluations of musical aptitude should include emotional and affective aspects to provide a broader view of emerging skills and how these abilities have developed.

The Role of Assessment in Contemporary Music Education

Assessments play a crucial role in the implementation of these pedagogical principles, serving as a means of measuring students' progress and potential. However, traditional methods of musical aptitude assessment, which often rely on standardised tests and other conventional measures, may not fully align with the inclusive and developmentally appropriate approaches now advocated by scholars. Radocy and Boyle (2012) note that many of these traditional assessments were developed in an era when behaviourist theories dominated educational psychology, emphasising observable behaviours and outcomes. The historical background clarifies why many traditional evaluations, in music heavily focus on tasks that involve replicating pitches or rhythms—such as copying a melody or rhythm pattern verbatim. This highlights the importance of reassessing the tools and methods used to evaluate abilities (Parkes & Burrack 2020).

A particular area of concern pertains to identifying and describing rhythmic phrases in assessments of aptitude. While both aspects are crucial for music instruction it may not always capture the musical experiences that individual students bring or consider their developmental stages, in music learning. As a result of this approach, by educators could be selecting tunes and beats that they are familiar with without considering whether these choices are appropriate for the students under evaluation. Now referring to Ewell (2023) this method can perpetuate biases that already exist. May restrict the inclusivity of individuals in music education.

Furthermore, prioritizing musical aspects in evaluations could put students from non-Western backgrounds like Turkey at a disadvantage since they might not be as accustomed, to these traditions. In exploring how materials can influence rhythmic and melodic perception developmentally raises inquiries well. McPherson and Welch (2018) propose that assessments should be more detailed, by introducing patterns or melodic structures during the initial stages of a students' growth. Historically speaking such assessments relied heavily on theories. Predominantly emphasized basic musical components to assess aptitude potential (Radocy & Boyle 2012). Without taking these aspects into account could cause the current evaluations to give an outcome, for everyone without reflecting the musical aptitude of students and could result in parents and teachers offering inadequate assistance.

Challenges in Current Practice and the Aim of the Study

Despite advancements, in music theory education methods and practices over the years there still seems to be a difference between the teaching approaches and how courses are actually structured and delivered in reality. Numerous educators persist in employing evaluation techniques that may not effectively captivate students or assess their skills in alignment, with teaching goals. The perpetuation of methods might be linked to theories that have long upheld the importance of honing technical prowess (Radocy & Boyle 2012). This gap underlines the necessity, for an exploration into the assessment of skills (Snodgrass 2020).

The ongoing study seeks to delve into how music educators evaluate aptitude through rhythmic phrases while ensuring inclusivity and developmental appropriateness, across different musical genres. To fill this void in research knowledge a survey was conducted among Turkish music teachers to understand how their unique

cultural perspectives influence the effectiveness of assessment practices. This study seeks to investigate whether the music employed in these evaluations adheres to the principles outlined in existing literature concerning melodies and rhythmic patterns usage. Through this research outcome discussion will enrich dialogues in music education by shedding light on how teaching music theory can be tailored to cater to the requirements of contemporary students.

METHOD

Research Model

A systematic approach was adopted in this study to examine the alignment of rhythmic and melodic phrases in music aptitude assessments with contemporary pedagogical standards. This approach involved **content analysis** of actual assessment materials provided by music educators, a method suitable for systematically describing and interpreting textual and visual data (Krippendorff, 2013).

Research Group

The population of this study is Music Teachers who works in Turkey. The sample group was obtained after hosting regional seminars for active music teachers on musical aptitude in Şanlıurfa, Turkey, data were collected from attending music teachers. While earlier studies often derived data from educators' opinions (e.g., Hallam, 2010), this research aimed to obtain concrete examples of the melodic and rhythmic phrases educators used to evaluate students. The participating teachers provided the examples in handwritten form. These examples were manually transcribed and encoded into a CSV file, allowing for systematic analysis of the data (Creswell & Creswell, 2018). This method enabled the data to be analysed objectively in terms of the materials themselves, providing direct insight into current practices.

Participants

Data was collected from 200 music teachers attending a music aptitude workshop, in Turkey's region with 80 individuals choosing not to take part after understanding the study's goal. The 120 remaining participants shared rhythmic phrases commonly used for evaluating students' skills. These samples were gathered together manually into a CSV file, for examination. This manual process was created to capture an overview of the present assessment methods employed.

Materials

In this research, we analysed 120 files to investigate different types of musical features. We successfully extracted and processed all 120 melodies without errors. The main data included musical phrases that participants provided in the form of written scores. These files included both melodic and rhythmic phrases used for assessing a person's musical aptitude.

Analytical Procedures

In our analysis of the phrases used during evaluations we focused on pitch intervals and their frequency distribution to gain insights, into structure intricacies and stylistic elements present, in the melodies under study. For instance, a predominance of major seconds may suggest an anticipated melody while an abundance of larger intervals could indicate a more intricate composition style. McPherson and Welch (2018) highlighted the significance of enhancing students' listening and pitch accuracy skills through the inclusion of intervals, in phrases to support their musical development progression effectively.

We examined the distribution of scale degrees in melodies to gain insights into their patterns and structures; recognizing these scale degrees plays a role in discerning a melody's relationship, to the central key and its overall harmonic backdrop. This evaluation assists, in determining if the tunes are appropriate, for school levels and encompass a variety of musical customs (Parkes & Burrack 2020). The intricacy of expressions was deduced through an analysis of value.

Rhythm holds importance in a students' capacity to execute and grasp frameworks effectively. We investigated whether the rhythmic sequences employed in evaluations support the enhancement of timing and rhythmic precision as highlighted by Reese and Shouldice (2019).

Analyzing the note positions, within a measure to determine syncopation and melodic phrasing is crucial for enhancing students timing and rhythmic precision in music education (Reese & Shouldice 2019). By incorporating beat placements like beat and syncopated rhythms into their practice routines ensures that students develop a well-rounded sense of rhythm awareness and musicality.

Moreover, the range of the melodies was assessed to determine their suitability, for vocalists or instrumental performers. The tessitura term relates to the pitch range in a melody. Plays a crucial role, in keeping the melodic content within a suitable range that is neither too high nor too low for students to perform comfortably. Align the tessitura with students' instrumental capabilities to ensure they deliver their most accurate performances (as per Lively in 2015). An analysis of the frequency of keys and modes in phrases was conducted to ascertain the usage of keys or modes, in melodic phrases. To gauge the diversity of keys and modes, in the assessment materials is crucial for assessing how students are exposed to tonalities and musical environments effectively. It is vital to incorporate a range of keys and modes, into music education to enhance students' ability to hear music clearly and adapt musically (Snodgrass 2020). We examined the patterns to grasp the structure of the tunes – whether they mostly rise or fall in pitch or stay at a consistent level. The structure of a melody has an impact, on its memorability and emotional depth. Can influence how it is performed and experienced by listeners according to McPherson and Welch (2018). They highlight the importance of shapes in enhancing the expressiveness and interpretive possibilities of a composition.

Furthermore, studying the placement of syncopated beats within melodies is essential, for improving students' proficiency in handling rhythms and offbeat patterns. VanHandel (2023) discusses the importance of including syncopated rhythms, in both modern music education practices. He conducted analyses to cover the rhythmic

aspects commonly examined in music skill evaluations while ensuring they align with teaching methods and aid in musical skill enhancement. Measures such as mean, median and mode along with deviation were used to analyse each variable. Frequency distribution statistics, for all factors were calculated using percentiles. Visualized as bar graphs to show how these musical elements are spread throughout the dataset.

Data Analysis

We used Python libraries, like pandas to analyse the gathered information and employed matplotlib and seaborn for creating visualizations of the data gathered from components we studied in detail. Our focus was on elements such as intervals and scale degrees alongside rhythms and beat placements and characteristics, like pitch range (tessitura) key signatures and modes used in the music pieces we examined. This thorough method guaranteed that the study encompassed a perspective, on existing assessment methods and offered, in depth insights into how they adhere to educational standards.

Ethical Considerations

The research conducted in this study was approved by the Social Sciences Ethics Committee of Harran University dated on 11.02.2024 under the reference number 2024/43. Followed guidelines, for studying human subjects and managing data effectively. All music educators who took part in the research gave their informed consent before submitting their assessment materials. Ensured that all data were anonymized. The study adhered to principles such as participation and the rights of anonymity and withdrawal to safeguard participants interests, throughout the research process.

Statistical Analysis

Statistical analysis was conducted using Python libraries to evaluate the distribution of musical elements in the assessment materials. Descriptive statistics were calculated to summarise the frequency and distribution of musical elements such as intervals, scale degrees, rhythmic values, and beat positions. The pandas library (McKinney, 2010) was used for data manipulation and organisation, while the collections.Counter class from Python's standard library was employed to compute the frequency counts of each musical element.

FINDINGS

Interval Frequency

The analysis of interval frequency indicated a predominant use of major seconds (M2), constituting 46.79% of all intervals analysed. This was followed by minor seconds (m2) at 14.41% and perfect unisons (P1) at 18.29%. These findings suggest a preference for simpler, more accessible intervals in assessments, potentially reflecting an emphasis on basic technical skills. However, the limited variety of intervals, with less frequent use of thirds and larger intervals, indicates a need for more diverse assessment materials that challenge students at various developmental stages. The data also showed a strong preference for the key of C major, appearing in 65.83% of the assessment phrases, further highlighting the Western-centric bias in current practices.

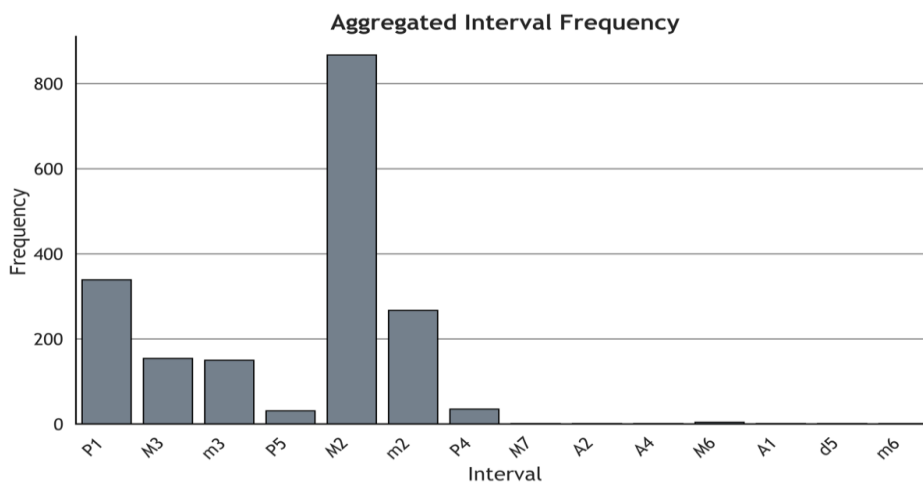


Figure 1 Interval frequency in musical aptitude assessments.

Scale Degree Frequency

The distribution of scale degrees showed that the tonic (degree 1) was present in 18.35% of the phrases, while the mediant (degree 3) and dominant (degree 5) were the most common, appearing in 25.19% and 19.11% of cases, respectively. The second and fourth degrees were also relatively frequent, occurring in 15.66% and 15.81% of the phrases, respectively. The sixth and seventh degrees were less common, representing 3.55% and 2.33% of the scale degrees analysed.

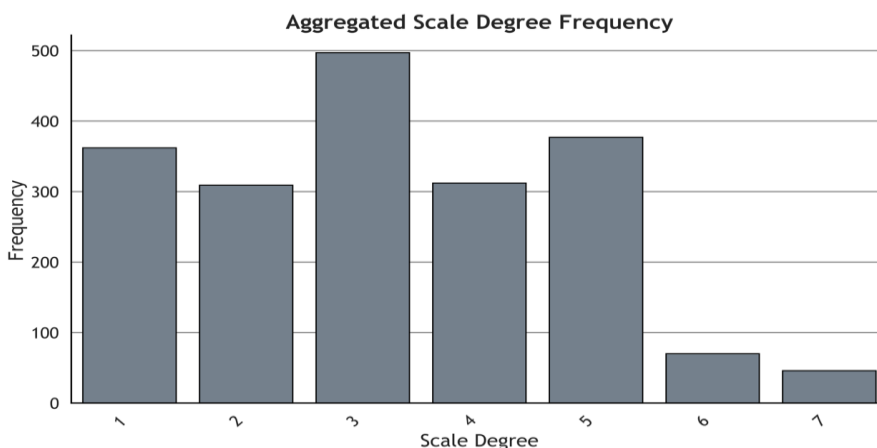


Figure 2 Scale degree frequency in assessment phrases.

Rhythmic Values

Rhythmic analysis indicated that quarter notes and eighth notes dominated the assessment phrases, representing 31.68% and 52.99% of the rhythmic values, respectively. Half notes and sixteenth notes were less frequent, comprising 4.92% and 9.80% of the rhythms, respectively. Complex rhythms, such as dotted notes and triplets, were used minimally, suggesting a preference for simpler rhythmic structures in the assessment materials.

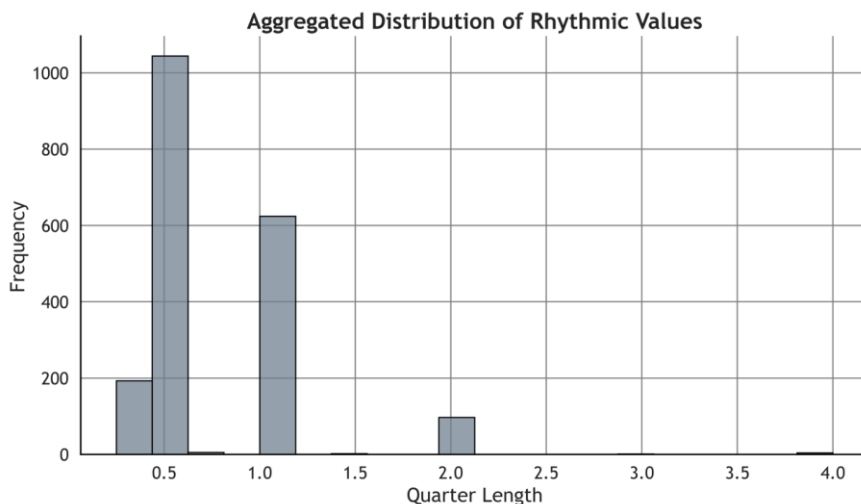


Figure 3. Rhythmic values in assessment materials.

Beat Positions

The placement of notes within measures showed a preference for strong beats, with beat 1.0 and beat 2.0 accounting for 26.03% and 22.93% of notes, respectively. Syncopation was also present, with beat 1.5 and beat 2.5 representing 12.73% and 12.02% of the notes. Weaker beats, such as beat 3.5 and beat 4.75, were less commonly used, each comprising less than 1% of the total note placements. (see Figure 4).

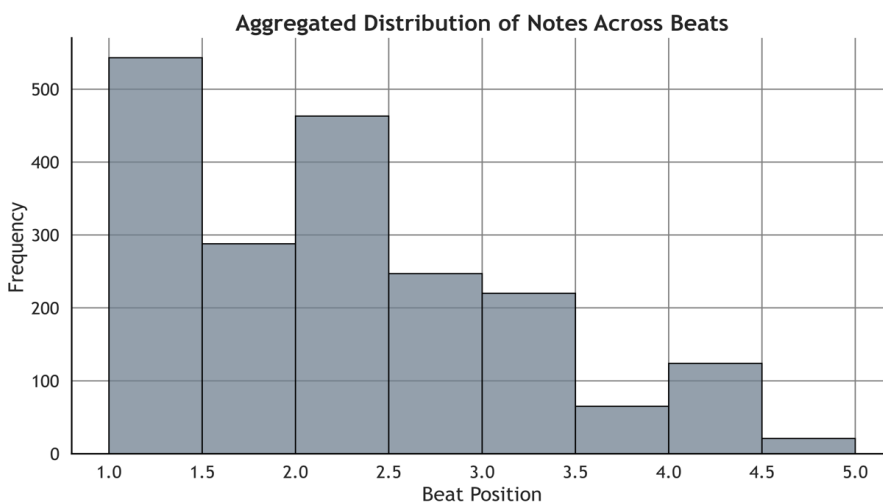


Figure 4. Distribution of notes across beat positions.

Tessitura (pitch range)

The tessitura analysis indicated a concentration of notes within the middle register. The most frequently used pitches were E4 (20.07%), G4 (18.45%), and C4 (15.21%), reflecting a tendency to keep the assessment phrases within a comfortable vocal or instrumental range. Higher pitches, such as C5 (2.99%) and B4 (4.21%), were used less often, suggesting a focus on accessibility for students with varying levels of experience.

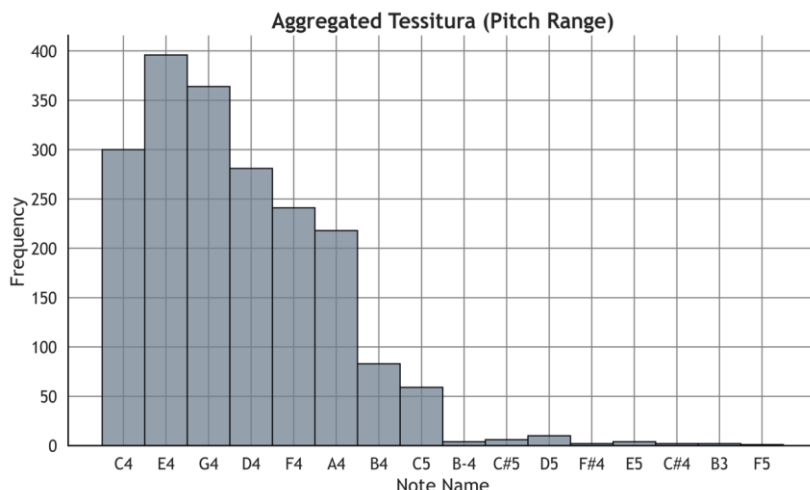


Figure 5 Pitch range in assessment materials.

Key and Mode Frequency

The key analysis showed a clear preference for C major, which appeared in 65.83% of the assessment phrases. A minor (15.00%) and D minor (9.17%) were the next most common keys, while other keys, such as E minor, G major, and F major, appeared less frequently. The predominance of C major suggests an inclination towards simpler tonalities, likely to facilitate ease of learning and assessment.

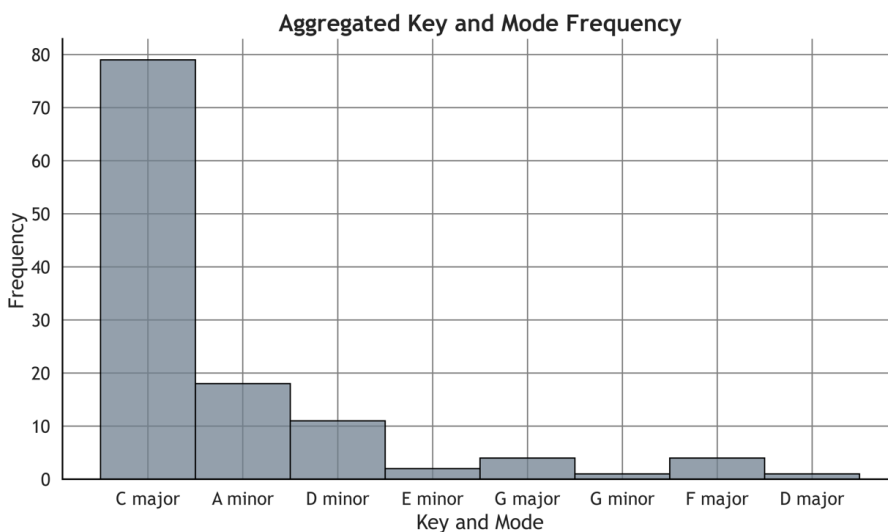


Figure 6 Key and mode usage in assessment materials.

Melodic Contours

Melodic contour analysis revealed that descending contours were slightly more prevalent, representing 41.12% of the phrases, while ascending contours accounted for 40.58%. Phrases with repeated pitches, where the contour remained the same, constituted 18.29% of the total. This balance between ascending and descending contours reflects a varied approach to melodic construction in the assessment materials.

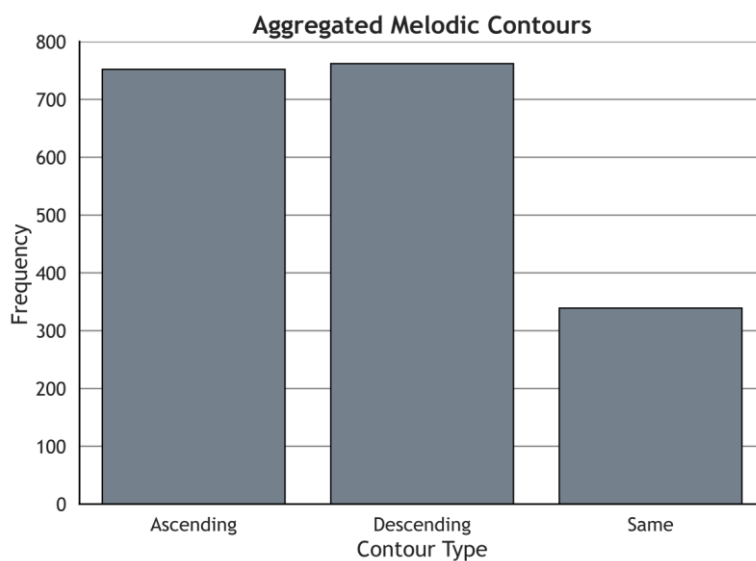


Figure 7. Melodic contours in assessment phrases.

Syncopated Beat Positions

Syncopation was observed in numerous assessment phrases, with the most common syncopated positions being beat 1.5 (37.63%) and beat 2.5 (35.53%). Other syncopated positions, such as beat 3.5 and beat 4.5, were less frequent. The presence of syncopation suggests that while rhythmic complexity was introduced, it was managed in a way that remained accessible to students (see Figure 8).

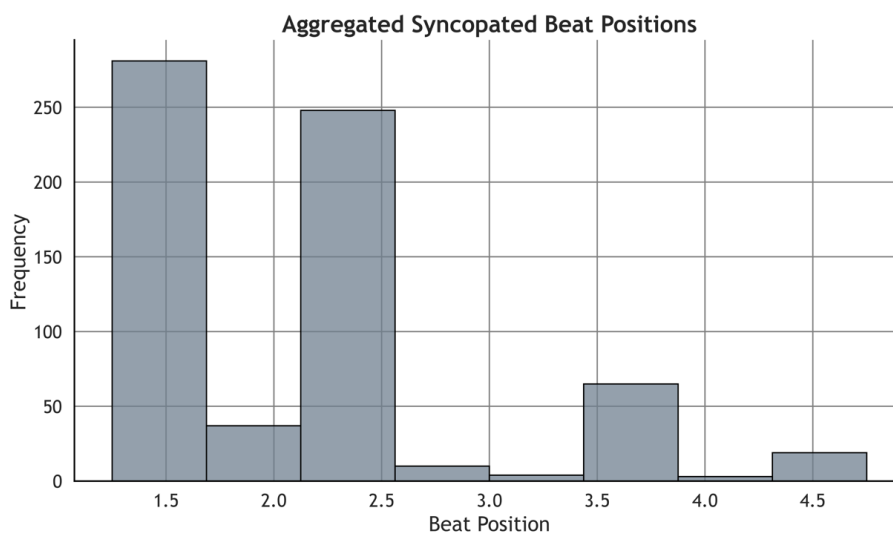


Figure 8. Syncopated beat positions in assessment materials.

CONCLUSION and DISCUSSION

The purpose of this study was to examine the extent to which the practices of Turkish music educators align with contemporary pedagogical standards, specifically inclusivity and developmental appropriateness. Through an examination of the rhythmic expressions employed in evaluations this research delves into practical considerations rather than dwelling solely on theoretical educational concepts. The results suggest a

preference, for norms, in the assessment content of music related studies potentially overlooking the tapestry of musical heritage found in Turkey. Such a reliance might put students with Western musical upbringings at a disadvantage underscoring the importance of developing assessment models that embrace the diverse cultural backgrounds of all students.

In addition, to this point is that while the current methods appear suitable for learners in terms of being developmentally appropriate. There might be a gap in challenging students who are more advanced in their studies This suggests a necessity for a broader range of assessment methods customized to various skill levels which could help facilitate continuous musical development Examining the evaluation materials themselves gives us a glimpse into how educators view things and their strategies, for teaching music.

Inclusivity in Musical Aptitude Assessments

The research emphasizes the reliance, on standards in the assessment materials by frequently incorporating major second intervals and favoritism towards the C major key. This tendency reflects a favoritism towards music education that has been questioned for its lack of diversity in contemporary discussions (as noted by Ewell in 2023). Campbell and Wiggins (2013) similarly observed a tendency in music education to prioritize practices, over regional and native musical genres globally. The focus, on this aspect could put students who come from Western musical backgrounds at a disadvantage in culturally diverse environments such as Turkey because of the dominant reliance on Western music theory in assessments.

Studies have shown that integrating a range of traditions into music instruction can enhance student engagement and academic achievement (Wiggins, 2015). According to research by Sarrazin (2016) students displayed a level of interest. Improved comprehension of rhythm when educators incorporated African drumming, into their teaching methods. The results indicate that by including styles, in evaluations we can create a fairer system that acknowledges students diverse cultural backgrounds effectively and supports the promotion of inclusivity, in education as advocated by Radocy and Boyle (2012).

Developmental Appropriateness of Assessment Materials

The results concerning the patterns of rhythm and range of pitches indicate that the current assessment methods are, in line with recommendations for development stages in music education. Highlighting patterns like quarter and eighth notes and taking into account common pitch ranges shows a deliberate attempt to design evaluation materials that are user friendly for beginners. This approach aims to provide resources that're enjoyable for those new, to music education while avoiding overwhelming them with intricate details or challenges. Radocy and Boyle (2012) highlight the importance of focusing on building skills such, as pitch recognition and rhythm in the initial phases of music education as they serve as the building blocks, for a more profound musical comprehension It's worth noting that the assessments conducted have shown some shortcomings in assessing a wide range of skills As there is a lack of complex rhythmic structures and a restricted range of pitches covered in these assessments it raises concerns that the current tools may not fully challenge advanced learners which could potentially impede their musical progress

McPherson and Welch (2018) highlight the significance of customizing teaching methods to meet the proficiency levels of students. Suggest using assessment tools that provide suitable challenges, for everyone, in the classroom. Hallams research (2010) agrees with this perspective by suggesting that inadequate challenges can hinder students motivation and learning progress. To tackle this challenge effectively h'll educators ought to design assessments that offer levels of complexity to aid the development of all students—whether they are novice learners or advanced musicians.

Implications for Pedagogical Practices and Policy

The outcomes of this study have implications for music education approaches and policies. Firstly, there is a clear need to expand the range of content in assessments to better reflect the diverse cultural backgrounds of students. This involves integrating a spectrum of musical traditions into the curriculum, particularly those that are underrepresented in mainstream practices, such as non-Western music. Teachers can create an inclusive learning environment that recognises and values the diverse musical backgrounds of each student.

Furthermore, enhancing the appropriateness of assessment materials for different stages of development is crucial. Offering a wider range of difficulty levels can be achieved by designing distinct assessment tracks tailored for beginners and advanced learners or incorporating assessments that adjust to individual students' skill levels. These methods ensure that each student receives an appropriate level of challenge and support in their musical growth, creating a more effective and fair learning environment. Research conducted by Hargreaves et al. (2003) demonstrates that personalised content delivered through adaptive learning approaches can greatly improve learning outcomes.

Additionally, nurturing creativity and analytical thinking in the evaluation process should be a key objective. Teachers and policymakers should focus on designing assessment activities that promote critical thinking and creativity. This may include incorporating open-ended tasks that encourage students to compose their own music or analyse existing musical pieces. Through these methods, assessments can be more engaging and foster a deeper understanding of music among students.

Limitations of the Study

While this study offers valuable insights, its findings should be considered in light of certain limitations. The data were gathered mainly from a specific group of Turkish music educators and may not reflect the full spectrum of teaching methods nationwide. The sample size, while adequate for this analysis, could limit the generalisability of the results. Additionally, relying on self-reported assessment tools could lead to bias, as educators might choose examples that showcase their preferred methods instead of their typical ones. Furthermore, the study concentrated solely on written assessment materials, which might not encompass all assessment methods, especially performance-based evaluations. Future research should involve a more diverse group of educators and integrate observational techniques to gain a deeper insight into musical aptitude assessment practices in Turkey.

SUGGESTIONS

Future research efforts should focus on creating and implementing evaluation methods that cover a wide range of music genres and meet the needs of students at varying skill levels. Research should investigate how these inclusive assessment practices impact student engagement and learning outcomes. This investigation might offer strategies for improving music education systems to be fair and effective in developing diverse musical aptitudes.

Moreover, future research could explore the long-term effects of employing varied evaluation methods on the development of students with different skill levels. This may include monitoring students' progress over time to observe their advancement through different assessment techniques or conducting experiments to understand the influence of various evaluations on educational achievements. Exploring these factors will offer insights into improving music instruction to accommodate a broader spectrum of abilities in an equitable and efficient way.

This research contributes to the discourse on music education by analysing Turkish educators' methods for assessing musical aptitude. By identifying the strengths and areas for improvement in current methodologies, the study lays the groundwork for future advancements in alignment with modern pedagogical standards. The results emphasise the importance of reassessing current methods, highlighting the potential to enhance music education for all students with more inclusive, developmentally appropriate, and creativity-driven assessments. Future studies should investigate the creation of assessment models that cover a wider range of music styles and accommodate learners at various skill levels, ensuring that music instruction is fair and effective.

REFERENCES

- Abeles, H. F., Hoffer, C. R., & Klotman, R. H. (1994). *Foundations of Music Education* (2nd ed.). Schirmer Books.
- Allsup, R. E. (2013). The compositional turn in music education: From closed forms to open texts. *Composing our future: Preparing music educators to teach composition*, 57-70.
- Campbell, P. S., & Wiggins, T. (2013). Giving voice to children. *The Oxford handbook of children's musical cultures*, 2, 1-28.
- Davidson, R., & Lupton, M. (2016). 'It makes you think anything is possible': Representing diversity in music theory pedagogy. *British Journal of Music Education*, 33(2), 175–189.
Doi:10.1017/S0265051716000115
- Ewell, P. (2023). *On Music Theory, and Making Music More Welcoming for Everyone*. University of Michigan Press.
- Hallam, S. (2010). 21st century conceptions of musical ability. *Psychology of Music*, 38(3), 308-330.
<https://doi.org/10.1177/0305735609351922>
- Hargreaves, D. J., Marshall, N. A., & North, A. C. (2003). Music education in the twenty-first century: a psychological perspective. *British Journal of Music Education*, 20(2), 147–163.
Doi:10.1017/S0265051703005357

- Hickey, M. (2009). Can improvisation be 'taught'? A call for free improvisation in our schools. *International Journal of Music Education*, 27(4), 285-299. <https://doi.org/10.1177/0255761409345442>
- Hunter, J. D. (2007). Matplotlib: A 2D graphics environment. *Computing in science & engineering*, 9(03), 90-95.
- Juslin, P. N., & Sloboda, J. A. (Eds.). (2010). *Handbook of Music and Emotion: Theory, Research, Applications*. Oxford University Press.
- Krippendorff, K. (2013). *Content Analysis: An Introduction to Its Methodology* (3rd ed.). Sage Publications.
- Lively, M. (2015). Critical Thinking and the Pedagogy of Music Theory. *Inquiry: Critical Thinking Across the Disciplines*, 30(3), 59-68. <https://doi.org/10.5840/inquiryct201530318>
- McKinney, W. (2010, June). Data structures for statistical computing in Python. In *SciPy* (Vol. 445, No. 1, pp. 51-56).
- McPherson, G., & Welch, G. (Eds.). (2018). *Music Learning and Teaching in Infancy, Childhood, and Adolescence: An Oxford Handbook of Music Education, Volume 2*. Oxford University Press.
- Parkes, K. A., & Burrack, F. (2020). *Developing and applying assessments in the music classroom*. Routledge.
- Radocy, R. E., & Boyle, J. D. (2012). *Psychological Foundations of Musical Behavior*. Charles C Thomas Publisher.
- Sarrazin, N. (2016). *Music and the Child*. Open SUNY Textbooks.
- Sarath, E. W., Myers, D. E., & Campbell, P. S. (2017). *Redefining Music Studies in an Age of Change: Creativity, Diversity, and Integration*. Routledge.
- Seashore, C. E. (1919). *The Psychology of Musical Talent*. Silver, Burdett and Company.
- Snodgrass, J. (2020). *Teaching music theory: New voices and approaches*. Oxford University Press.
- VanHandel, Leigh (2012) "What Can Music Theory Pedagogy Learn From Mathematics Pedagogy?," *Journal of Music Theory Pedagogy*: Vol. 26, Article 6. Available at: <https://digitalcollections.lipscomb.edu/jmtp/vol26/iss1/6>
- Waskom, M. L. (2021). Seaborn: statistical data visualization. *Journal of Open Source Software*, 6(60), 3021. doi:10.125/joss.03021

Ethics Statement: This article complies with the journal's submission guidelines, publication principles, research and publication ethics rules, and the journal's code of ethics. The authors bear full responsibility for any potential violations related to the article. Ethical approval for the study was obtained from the Social Sciences Ethics Committee of Harran University, as per the decision dated 11 February 2024, numbered 2024/43.

Declaration of Author(s)' Contribution Rate: This article has been written by two authors and contribution rate of %50 per each author.

CONTRIBUTION RATE	CONTRIBUTORS
Idea or Notion	Firat ALTUN
Literature Review	Firat ALTUN - Ahmet Suat KARAHAN
Yöntem	Firat ALTUN
Data Collecting	Firat ALTUN - Ahmet Suat KARAHAN
Data Analysis	Firat ALTUN
Findings	Firat ALTUN - Ahmet Suat KARAHAN
Discussion and Commentary	Firat ALTUN - Ahmet Suat KARAHAN

Funding: The authors received no financial support for the research, authorship, and/or publication of this article.

Informed Consent Statement: Informed consent was obtained from all music educators who participated in the study. Participation was voluntary, and all data were collected and analysed in accordance with ethical guidelines for educational research.

Data Availability Statement: The datasets employed in this study are not publicly accessible. For any enquiries or requests pertaining to the datasets, please contact the corresponding author.

Acknowledgments: The authors have no acknowledgements to declare.

Conflict of Interest: The authors declare that there are no conflicts of interest regarding the publication of this article.



This study is licensed under CC BY (<https://creativecommons.org/licenses/by/4.0/deed.en>).

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of IJOESS and/or the editor(s). IJOESS and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.