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## The Preparation of Music Teacher Educators to Use and Teach Assessment

Preparing to become a music teacher educator is a complex process and one component of this process should be learning to model, demonstrate, and teach assessment practices to preservice music educators. The purpose of this exploratory qualitative study was to discover how, and to what extent, music teacher educators (MTEs) are educated about assessment. A secondary purpose was to uncover whether related concerns or assurances exist within the context of music teacher education for MTEs. Respondents ( $N = 149$ ) completed a questionnaire designed to determine music teacher educators' preparation to use and teach assessment. We found that more respondents had experience with assessment preparation at the graduate level, rather than the undergraduate level. Respondents described multiple concerns with the sequence and importance of assessment in their preparation and education experiences. Recommendations for enhancing music teacher educator preparation, specifically with respect to assessment, and suggestions for future research are given.

*Keywords: music teacher educator, assessment, teacher preparation*

### Introduction

Assessment preparation for teaching and learning is a prominent topic of interest within general education scholarship (DeLuca & Bellara, 2013). Teacher preparation is a complex process that involves systematic sequencing of content knowledge and pedagogical knowledge (Grossman, Hammerness, & McDonald, 2009). Likewise, music teacher preparation is equally, and as some researchers may contend, more complex (Forrester, 2018). It stands to reason that assessment preparation for music teaching and learning may also be a topic of interest

within the music teacher preparation literature. Preparing music teacher educators (MTEs) to teach assessment is of equal importance and given the existing accountability movement within the United States (DeLuca & Bellara, 2013), MTE assessment preparation is an arena open for inquiry.

## Review of Literature

Wells and Humphreys (1991) revealed that, nationally, music teacher educators desired to engage in research about preparing music teachers and wanted to know more about the work of becoming a MTE. Wells and Humphreys also determined that almost half of those MTEs surveyed were interested in receiving methods course information and in accessing clearinghouse services. Since then, the Society for Music Teacher Education (see [www.smtte.us](http://www.smtte.us)) was launched as music teacher educators formed their own association with the purpose of improving the quality of teaching and research examining music teacher education.

It seems that becoming a music teacher educator, like any other educational position, can be a complex path to navigate for many individuals adopting a new teacher-educator identity and several concomitant skills, such as teaching how to teach, student teaching supervision, and teaching young adult learners. The skillset needed to assess higher education music education student learning in this area is rarely examined. Several researchers (i.e., Draves & Koops, 2011; Martin, 2016; Pellegrino, Conway, & Millican, 2018) have pointed to the general difficulties MTEs may face with respect to this career path. Pellegrino and her colleagues (Pellegrino, Conway, et al., 2018) examined the promotion and tenure processes of MTEs, finding that MTEs understood three aspects of their professional identity: (a) teacher educator, (b) researcher, and (c) musician. Their mixed-methods study illustrated that MTEs ( $N = 124$ ) reported mentoring played an important role in their professional development; yet, the participants did not report specific elements that made up their well-established MTE identity.

Draves and Koops (2011) reported that mentoring, specifically peer mentoring, is beneficial to MTEs in order to “help new music teacher educators both cope with and succeed in their new professional environment” (p. 67); however, they did not specifically examine mentoring with respect to assessment. Pellegrino, Conway, et al. (2018) reported that imposter syndrome (feeling anxious or fearful of being exposed as a fraud) was more prevalent around the issue of conducting research, within a MTE’s researcher identity, but assessment did not specifically surface in their data.

In another study, Martin (2016) examined doctoral music education students ( $N = 124$ ) to identify how better to cultivate future teacher educators’ identity and

found that general levels of confidence in doctoral students for future teaching as a music teacher educator were highest for the role of “training and mentoring future K–12 teachers” (p. 21). Most future MTEs felt that the most valuable experiences in their doctoral degrees were teaching undergraduates, taking specific music education coursework, and engaging in/learning about research. While this study was general in nature, it raises a question: what are doctoral students learning in their coursework that specifically prepares them for the multi-faceted coursework they will be expected to teach as a music teacher educator? Teachout (2005) voiced this concern earlier by asking, “What are we doing differently with our doctoral student(s) to prepare them to train the next generation of music teachers?” (p. 3). As we have stated, the skills needed to assess higher education music education student learning have not been examined and we posit that while there are studies about becoming a MTE, there is not enough known about what MTEs are learning that will prepare them to use and teach assessment.

In a narrative study documenting emerging teacher educator identities, Bond and Koops (2014) reported that identity emerges and growth occurs with mentoring and self-reflection. One of the two MTEs in this narrative study reported “the more you do something, the more comfortable you become” (p. 42); and in one instance, she discussed assessment. Assessment was positioned amongst instances that caused “angst” in the form of “conflicts over grading” (p. 42) and while assessment was not the focus of Bonds and Koops’ study, one MTE shared that she re-articulated her teaching and learning philosophies during conversations around teaching progress and grading. It is plausible that her experience with assessment may be similar to other MTEs.

Pellegrino, Sweet, Kastner, and Russell (2014) suggested that recently graduated doctoral students who are beginning their collegiate careers may experience self-doubt and fear of failure, a difficulty finding balance, and the need for professional development communities. The authors suggested more experiences, models, and mentoring would create confidence in developing teacher skills, research expectations, and balance. We might expect this to also hold true with respect to developing teacher skills in assessment. Access to methods course syllabi among MTEs (as suggested by Wells & Humphreys, 1991) may ease some of the shared concerns raised by other researchers (Bonds & Koops, 2014; Martin, 2016; Pellegrino, Conway et al., 2018). In a different study, Pellegrino, Kastner, Reese, and Russell (2018) investigated professional development communities of music teacher educators ( $N = 5$ ) and reported the perceived benefits and impacts that improved MTE induction from a doctoral student to a MTE, such as increased feelings of empowerment and new understandings of oneself as a MTE.

In exploring beliefs about policy in the work of MTEs, Aguilar and Richerme (2016) reported that only 12% of the MTEs they surveyed ( $N = 81$ ) identified the relationship between “student assessments and teacher evaluation” (p. 43) as important for the undergraduate preservice music teacher curriculum. MTEs additionally reported low levels of personal levels of knowledge about assessment in nonmusic subjects. We suggest that this finding may indicate that assessment policy, broadly speaking, is simply not an area of focus for MTEs. Kelly and VanWeelden (2017) conducted a survey of MTEs in Canada and the United States ( $N = 42$ ) to identify the methods and experiences used to educate future MTEs. Thirty-six (86%) MTEs reported that they created assessments (real or theoretical) for assignments used within music education classes; however, the authors did not reveal the extent to which the MTEs had opportunities to develop their assessment skills. We submit that Kelly and VanWeelden’s study demonstrates that more information is needed about what experiences and methods are used at the doctoral level to educate future MTEs.

There is a great deal of information about assessment practices in music at the K–12 level and in the applied studio (for an extensive overview, please see Brophy, 2019). Russell and Austin (2010) examined the assessment practices of K–12 teachers and Burrack and Parkes (2018) outlined the underlying research supporting the use of newly developed assessments in K–12 settings but sufficient research has not been conducted in MTEs’ preparation with assessment. Standerfer (2016) suggested higher education courses focus on curriculum and assessment specifically and she proposed that decision-making, collaboration, and reflection should be interspersed throughout coursework including peer- and self-assessments. Asmus (2016) recommended that assessment concepts and techniques be integrated into music teacher education courses, such as secondary instrument courses, methods courses, and student teaching.

These suggestions and recommendations, respectively, may assume that the MTEs teaching assessment courses have had appropriate preparation and possess knowledge of adequate assessment strategies themselves. Despite the breadth of researchers investigating MTEs course-loads, their experiences, professional identity, mentoring, and professional development, these studies do not allow us to concretely ascertain what 21st century MTEs know, based on their preparation to be MTEs, with respect to assessment practices in music settings.

### *Framework*

Within the general education literature, researchers have raised concerns about what teacher educators should know and be able to do (Goodwin, Smith,

Souto-Manning, Cheruvu, Tan, Reed, & Taveras, 2014). These scholars note that there is “a common notion that a good teacher will also make a good teacher educator” (citing Korthaen, Loughran, & Lunenberg, 2005, p. 110). This notion is also reflected in the music teacher education literature (Thorgersen, Johansen, & Juntunen, 2016), where music teacher educators’ professional ideals and classroom practices (Hammerness, 2006) were connected to their teaching traditions to ascertain their conceptions of “good music pedagogy” (p. 56).

Goodwin et al. (2014) lamented a general lack of empirical research regarding teacher educator preparation and saw promise in teacher educators’ examination of their own practice. They provided a useful conceptual framework for this work, built upon teaching. They argued for three conceptions of teacher educator learning and knowing, based in heuristics for teacher education, stemming from the work of Cochran-Smith and Lytle (1999). Goodwin et al. (2014) proposed the following three forms of knowledge: (a) *knowledge-for-practice*: acquired from doctoral preparation and coursework; (b) *knowledge-in-practice*: acquired via experience on the job in one’s own experiences or the observation of others’ experiences; and (c) *knowledge-of-practice*: teacher educators conducting or participating in research about teacher educators.

Our study itself may be seen as an example of the third form of knowledge (*knowledge-of-practice*), while the goal of our study is to uncover the first form of knowledge (*knowledge-for-practice*). Our goal is to determine how music teacher educators have developed *knowledge-for-practice* specifically around assessment and how they feel prepared for their role as a music teacher educator.

The preparation of music teacher educators has been examined over the past decade with some frequency, giving attention to the role and preparation processes of the MTE (Bond & Koops, 2014; Draves & Koops, 2011; Kelly & Van-Weelden, 2017; Pellegrino et al. 2014, Pellegrino, Conway et al., 2018; Teachout, 2005). However, assessment, as part of music teacher preparation, has not been exclusively examined. Given the importance of assessment in both the K–12 and higher education contexts in the current age of accountability, the purpose of our qualitative study was to determine how music teacher educators are educated specifically about assessment and to uncover their related ideas within the context of preservice music teacher education. Therefore, the following two research questions were posed:

- How do music teacher educators describe their assessment preparation?
- What are music teacher educators’ concerns or reassurances about their preparation to use and teach assessment?

## Method

In our exploratory study, we sought to determine how MTEs are educated about assessment and uncover their thoughts about their own assessment preparation within the context of preservice music teacher education. We chose what Merriam and Tisdell (2016) label as a basic qualitative design, and past research in music education has employed similar designs (Conway, 2014; Conway, Edgar, Hansen, & Palmer, 2014; Conway, Hansen, Edgar, & Palmer, 2015; Pellegrino, 2015; Pellegrino, Kastner, Reese, & Russell, 2018). For our investigation, we primarily considered the preparation recollections MTEs have about assessment, within the context of their current positions as MTEs.

The research questions for our research were aimed at using distinctive theoretical frameworks and methodologies to examine varying assessment perceptions and preparation of MTEs. We designed the current study to complement another study (Parkes & Rawlings, 2019, in review) by specifically exploring the descriptions about assessment preparation using the Goodwin et al. (2014) framework as our conceptual framework, focused on the preparation of music teacher educators and their *knowledge-for-practice*. We designed and developed a large questionnaire utilizing rigorous standards from the field of survey methodology (see Fowler, 2014).

Respondents were asked to estimate and describe their perceptions and concerns about assessment preparation through four closed- and probing open-response items (please see the Appendix for the survey items used in this study). Other demographic information was collected, such as rank, experience, school location. Questionnaires were electronically administered via Qualtrics and safeguards were implemented for participant confidentiality, (e.g. removing any identifying information given in open-responses such as school names or locations).

### *Respondents*

We sent out an invitation email to 1,500 MTEs listed at NASM accredited institutions. We received 149 completed questionnaires indicating an overall response rate of almost 9.8% which, as we indicated previously (Parkes & Rawlings, 2019, in review), shows a margin of error for the sample mean of +/- 7.6% (*CI*: 95%). Respondents ( $N = 149$ ) were 77 women, 69 men, 2 gender non-conforming, and 1 non-response from across the United States. Respondents varied by their university faculty post (6.0% adjunct – part-time, 22.8% career line – full-time, 17.4% tenure-track/non-tenured, 53.7% tenure-track/tenured). Eighty-eight percent of the respondents classified themselves as White (non-Hispanic), 2.7% Black or African-American, 2.7% Other, 2.0% Asian, 1.3% American Indian or Alaska Native, 1.3% Hispanic, 0.7% Pacific Islander, 1.3% declined to answer.

Many respondents ( $n = 95$ , 63.8%) held Ph.D.s, 18 (12.%) held Ed.D.s, 14 (9.4%) held D.M.A. or D.M. degrees, 12 (8.1%) held M.M.E. or M.M. degrees, two (1.3%) held M.A. or M.A.T. degrees, three (2%) held M.Mus. performance-specific degrees, and five (3.4%) held some other type of degree that was not disclosed. Many respondents reported that they graduated prior to 2008 ( $n = 85$ ) and three people did not report when they graduated. The remaining ( $n = 61$ ) graduated after 2008. The respondents were moderately nationally representative, from 38 states, and the representativeness of the sample is as follows: Alabama ( $n = 3$ ), Arizona ( $n = 1$ ), Arkansas ( $n = 4$ ), California ( $n = 2$ ), Colorado ( $n = 4$ ), Connecticut ( $n = 2$ ), Florida ( $n = 9$ ), Georgia ( $n = 5$ ), Hawaii ( $n = 1$ ), Idaho ( $n = 2$ ), Illinois ( $n = 7$ ), Indiana ( $n = 6$ ), Iowa ( $n = 3$ ), Kansas ( $n = 4$ ), Kentucky ( $n = 2$ ), Maryland ( $n = 1$ ), Massachusetts ( $n = 4$ ), Michigan ( $n = 4$ ), Minnesota ( $n = 5$ ), Mississippi ( $n = 1$ ), Missouri ( $n = 2$ ), Nevada ( $n = 1$ ), New Hampshire ( $n = 1$ ), New Jersey ( $n = 3$ ), New Mexico ( $n = 2$ ), New York ( $n = 5$ ), North Carolina ( $n = 7$ ), Ohio ( $n = 8$ ), Pennsylvania ( $n = 4$ ), South Carolina ( $n = 4$ ), South Dakota ( $n = 1$ ), Tennessee ( $n = 3$ ), Texas ( $n = 11$ ), Utah ( $n = 6$ ), Virginia ( $n = 3$ ), Washington ( $n = 2$ ), West Virginia ( $n = 2$ ), and Wisconsin ( $n = 6$ ), with the remaining eight respondents declining to give their state information.

### *Data Analysis*

To facilitate cross-sectional analysis of these data, we used computer-assisted qualitative data analysis software to organize the large qualitative data file. Prior to qualitative data analysis, we created a data project in NVivo 11.3 for Mac and participant data were then prepared and imported from Qualtrics into NVivo. Author 2 used the software to execute the data analysis protocol found below independently of Author 1, who printed and coded the participant data file.

Our analysis protocol was framed within a long-term interaction with these data and we purposefully chose to use content analysis as our primary analytic strategy (Patton, 2015). Content analysis is described as “any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” (Patton, 2015, p. 541). To complement this strategy, we selected analytic induction as a confirmatory approach to content analysis (Patton, 2015). Our final codes converged based on internal homogeneity and external heterogeneity (Guba, 1978; Patton, 2015).

### *Reflexivity and Trustworthiness*

Roulston (2014) explicated many reasons for identifying one’s subjectivities with regards to qualitative research in music education. In this spirit, we report

that we are music teacher educators with expertise related to assessment, measurement, and evaluation. We have contemporary expertise with experience teaching undergraduate and graduate coursework in music education assessment. As an approach to build internal credibility for the analysis of these data, we independently agreed on the final coding structure. In addition, we asked an external reviewer (also an experienced music educator researcher) to review the data transcripts, coding framework, and categorizations as a means of confirming our interpretation of these data (Merriam & Tisdell, 2016). The Institutional Review Board approved this study and determined it was exempt from oversight.

## Results

### *How do Music Teacher Educators Describe their Assessment Preparation?*

For determining multiple dimensions of assessment preparation, we asked four descriptive questions about whether MTEs received assessment preparation, but also when and what it entailed. First, we asked if MTEs took a formal course in assessment during their undergraduate coursework. Many respondents ( $n = 107$ , 71.8%) reported not having a formal course in assessment and 22 (14.8%) did not remember taking one. Respondents ( $n = 20$ , 13.4%) that remembered taking a formal undergraduate course shared those details. Of those respondents, 15 (of the 20) reported taking their assessment course from the requisite College/School/Department of Education with few assessment techniques being discussed within music education coursework. These courses were focused on content related to testing, measurement, and evaluation with little application to music. One respondent wrote “the course struggled to address assessment practices in music, with many references to ‘You probably can’t do this in a music class’ (I later found that this was not the case)”.

Four respondents reported having assessment topics integrated throughout their undergraduate music education coursework (e.g., error detection, rubrics) and two of these respondents remarked having a devoted course to assessment specifically in music education. One respondent who took the course in music education mentioned, “The class was centered around general music. There were no field experiences and we did not create our own assessments. I left that class thinking that assessment equals testing and recording results.” While this one comment is not representative of all MTEs or their preparation, this comment may indicate a misunderstanding about the definition of assessment. Lastly, one respondent indicated receiving assessment education within culminating curricular event, student teaching. They wrote:



*During my elementary general music placement, my cooperating teacher used ongoing observation and a rating scale...check, check plus, check minus. During my high school band student teaching placement, my cooperating teacher (band) used playing tests as summative assessments. He used the playing test results for seating. He did not use a rubric and I do not think that he even had a rating scale!*

We also asked respondents about their graduate assessment coursework. Eleven (7.4%) respondents did not recall having a graduate course in assessment. Seventy-five (50.3%) reported not having an assessment course during their graduate education. Sixty-three (42.3%) reported taking a formal course in their graduate study. Of those respondents who had a graduate course ( $n = 63$ ), 43 reported taking their graduate assessment course from within the music education department with others ( $n = 17$ ) reported taking a course from the requisite College/School/Department of Education. Thirteen respondents (of the  $n = 63$ ) specifically noted taking a measurement course during graduate studies. A measurement course typically deals with applications, theories, and skills in the fields of research methodology, statistical analyses, program evaluation, and measurement or psychometrics. For instance, one participant remarked, “The tests and measurement course I took examined different ways to measure many aspects of music teaching and learning. It was probably more research-focused, but I feel the skills transferred to measuring musical achievement in the classroom.” Another participant specifically mentioned the content: “We explored performance-based and non performance-based assessment options – although much of what we did was based on statistical analysis.”

Alternatively, an assessment course typically may only focus on the process of measuring student learning (e.g., classroom assessment development), but it can include a few of the formal measurement skills found in measurement courses. Of the respondents that took an assessment course within the music education department, the nature of the graduate courses was more focused. The focus was on testing, analysis, grade reports, performance assessment, measurement, and evaluation of musical behavior.

Half of the respondents ( $n = 75$ , 50.3%) did not have a formal graduate education course related to assessment and respondents remarked that assessment was not a major focus of coursework during their studies because of the historical context of music teacher education during the late 1990s. One respondent indicated “Assessment was just becoming a topic of interest during my graduate study.” Another participant remarked “I graduated my doctoral program right before the big assessment push.”

Of all respondents, 55.7% ( $n = 83$ ) reported taking a course (at either graduate or undergraduate levels) in assessment. When asked how prepared they felt to teach assessment, 76% ( $n = 114$ ) responded. This means that some individuals rated general preparation even though they might not have remembered taking a course. They reported feeling prepared for teaching assessment extremely well ( $n = 20$ ), very well ( $n = 27$ ), and moderately well ( $n = 26$ ). The remaining sample of respondents reported that they were prepared slightly well ( $n = 18$ ), minimally well ( $n = 5$ ), and not well at all ( $n = 18$ ). Although it seems that many respondents believe that they were prepared positively to some degree for teaching assessment, some MTEs do not share this view at all. Therefore, we cannot conclusively report that the MTEs answering this question in our study feel equally prepared to use and teach assessment.

### *What are the Concerns or Reassurances MTEs Report about their Preparation for Assessment?*

While just over half of the MTEs ( $n = 76$ , 51.0%) in this study did not report any concerns or have comments about their preparation in assessment, almost half the MTEs ( $n = 73$ , 48.0%) in our study shared details of their preparation for teaching assessment with 10 respondents sharing comments rather than concerns. Among the respondents that had concerns ( $n = 63$ , 42.3%), prominent concerns were related to how MTEs sequence assessment design within music education coursework and a perceived lack of importance for assessment teaching. Respondents believed that from their experience, current MTEs should develop a pedagogy for teaching assessment within music education coursework. There were multiple reasons mentioned, including “One does not need a course in undergrad or graduate studies to learn quality assessment practices. [Assessment] content can/should, however, be embedded in other (methods/research/pedagogy) courses.” Another participant remarked, “We would love to offer undergraduates a music assessment course, but are limited in what we can add to our curriculum without overloading students with credits.”

MTE respondents reported a perceived lack of importance in assessment pedagogy. Assessment pedagogy can be seen as teaching using assessment strategies or teaching assessment strategies to others, or both together. From these data, there was a prominent theme of public school music teacher colleagues not valuing assessment. One participant wrote “Cooperating Teacher models often do not use assessment and downplay its importance in the classroom.” Another respondent commented, “There is a lot of push back from music teachers in the schools to allow my students to do the assessments when doing practicum and clinical practice.”

An additionally prominent theme was centered on the levels of interest and resiliency with acquiring assessment knowledge and pedagogy. One respondent stated, “My ability to teach assessment is largely predicated on my own interest, experience, and professional development rather than on any coursework during my degree programs.” This statement brings up an idea that some MTEs may possess a temperament for, or at least an affinity for, assessment. Another respondent remarked:

*I really learned most of my assessment ideas and techniques as a practicing music educator. I worked in a district that had really high standards for assessment and documentation of data. I also worked with colleagues who were dedicated to developing assessments for our students that would help us track their progress and inform our curriculum. From there, I did a lot of independent study and used (and modified) those ideas in my practice for several years.*

While this participant used their in-service teaching experience to develop their knowledge about assessment through colleague interaction and independent study, another participant mentioned that:

*My personal development as an evaluator came largely through professional development as a K–12 teacher for 15 years. Assessment was a major component of district initiatives, and extensive PD experiences were done to create understanding of assessment practices. Pursuing National Board certification made me critically aware of both the need for assessment and the various approaches I could use to assessment within my own classroom. Perhaps most formatively, serving as an administrator in part responsible for delivering PD pushed me to self-educate about assessment practices so that I could appropriately design activities for my own faculty.*

Whether respondents reported seeking out additional content through district frameworks and initiatives, independent investigation, or interest, the theme of curiosity and resiliency is clear through our respondents’ comments.

## Discussion

The results of our study indicate some problematic issues in the preparation of MTEs, specifically with assessment. Findings for the first research question highlight that, for most of the MTEs in our study, their undergraduate education did not include a formal assessment course. Those MTEs that did have an undergraduate coursework experience placed within the College of Education did not have a course within the music department. Asmus (2016) and Standerfer (2016)

have made persuasive cases for the implementation of undergraduate music education curricula to support preservice student experiences learning about assessment. We suggest that perhaps this needs to occur at the undergraduate level embedded across music education coursework rather than a stand-alone course.

Perhaps experiences with assessment in music education should be rooted earlier in undergraduate coursework, rather than graduate coursework. Assessment practices are typically contextualized within the educational setting (degree program) of the preservice teacher, so while stand-alone courses provide practice developing and designing, practical application may be missing. Given the nuances and peculiarities of the music classroom, performance-based assessments are of particular importance and should be experienced as authentically, and as early, as possible.

It seems that a large proportion of our respondents had more experience with assessment education during their graduate coursework. This finding may indicate that there are more options within graduate degree curricula when compared to the restrictions often encountered in undergraduate degree requirements. Many MTEs in our study reported feeling well prepared to use and teach about assessment; however, there were a number of respondents that did not feel prepared well. Preparation is certainly localized and institution specific, and some MTEs may have a confidence around assessment either from their experiences in the classroom prior to their doctoral study or simply possess a general level of confidence with measurement and assessment. Our findings suggest that regardless of preparation at either level, MTEs in our study have more concerns than assurances in regards to using and teaching assessment.

With respect to our second research question, we found that MTEs have concerns, specifically focused on the sequence and importance of assessment in their preparation to be MTEs. When learning about assessment practices, it may be beneficial for future MTEs to not only learn about assessment in the abstract, within education courses, but that they also need to experience well-planned assessment as students. MTEs currently mentoring doctoral students may need to not simply add an assessment course to existing graduate programs of study but may need to include assessment strategies in their curricula, if they are not currently doing so. An approach that is particularly suited to music is educative assessment, a term used by Wiggins (1998), and his scholarship recommends authentic performance, providing ongoing feedback, and promoting student understanding.

MTEs could include embedded assessment practices in both their undergraduate and graduate curricula and courses, as Standerfer (2016) and Asmus (2016) suggest, underscoring its importance in the cycle of teaching and learning. The National Association for Music Education (NAfME) has recently published a

series of Model Cornerstone Assessments for K–12 education (please see <https://nafme.org/my-classroom/standards/mcas>). These may be useful within preservice teacher education in lesson planning and curriculum planning, along with student teaching experiences to assist MTEs who feel unprepared in assessment use. An added benefit for any MTEs feeling inadequately prepared may be that preservice teachers could inform current K–12 teachers about assessment strategies as MTEs work to improve collaboration and sharing of knowledge between cooperating K–12 teachers and music education preservice student teachers.

Music teacher educators with feelings of concern with their assessment preparation might also consider pursuing peer mentoring around the topic of assessment, as supported by the ideas of Draves and Koops (2011). Peer mentoring was reported as helpful to MTEs, so perhaps they need to engage in peer mentoring specifically about assessment, with the goal of developing successful assessment use and expertise. The NAFME Special Research Interest Group in Assessment could possibly provide support for this work. Their website (see <https://assessmentsrig.weebly.com/>) holds a clearinghouse of sorts, with resources for assessment policy, however it could also be a site where MTEs that are confident in teaching assessment would share their course materials and syllabi with those who feel less confident, as Wells and Humphreys (1991) determined to be a helpful strategy decades ago.

The conceptual framework employed in this study allowed us to determine how music teacher educators have developed *knowledge-for-practice* specifically around assessment, and what they feel is concerning or reassuring for today's role as a music teacher educator. Their *knowledge-for-practice*, acquired from doctoral graduate preparation and coursework, seems to be better than their undergraduate education; however, we are not able to conclusively determine whether their *knowledge-for-practice* is adequate. It does not seem that their *knowledge-for-practice* is garnered well enough at the undergraduate level. MTEs expressed concerns (rather than reassurances) about their preparation and there is some evidence from our study that their knowledge about assessment was acquired in their time as K–12 educators, prior to becoming MTEs. However, we are not sure of what types of assessment practices MTEs engage in as higher education teachers themselves, nor what type of assessments they are teaching their future K–12 teachers, current preservice teachers in their programs, to use.

We recognize that MTEs may be asked to grapple with high-stakes assessments, such as the edTPA (see <https://www.edtpa.com/>), and we wonder whether they have been adequately prepared to deal with assisting a student to navigate the edTPA, despite its obvious flaws (Parkes & Powell, 2015) for use with preservice music teachers. We also question what they are employing as assessment strategies

in their own pedagogies. We note that there is a possibility their *knowledge-of-practice* might be lacking; that there may need to be more attention to assessment in both the research and practice of MTEs. We suggest that MTEs who desire professional development in this area (either in K–12 assessment, research, or in the preparation of future MTEs) should have access to current assessment education as ongoing professional development. They could also create communities for professional development, as Pellegrino, Kastner, et al., (2018) suggest, which we propose could be initiated through SMTE's Areas for Strategic Planning and Action (ASPA).

In making suggestions for the music teacher education field to consider, MTEs in current higher education positions might reflect on how confident they feel with the following suggestions. First, understanding how educative assessment can operate in K–12 music classrooms by working more closely with K–12 teachers to determine what they are being asked to do in schools to illustrate student learning in music in authentic settings. Second, the skill of embedding these practices into college-level coursework for future teachers to experience. That is, demonstrating successful assessment strategies in methods and techniques courses (as suggested by Asmus, 2016).

Third, while our findings are not specifically about knowledge and skills, it seems that a basic set of knowledge and skills might have been useful for MTEs to acquire during both their undergraduate and graduate education prior to becoming an MTE. MTEs might find it beneficial now to acquire some or all of the following knowledge about and skills in assessment such as: (a) measuring musical performance, (b) performance task construction, (c) scoring performance tasks, (d) comparison testing strategies, (e) measuring music aptitude and ability, (f) performance testing strategies, (g) knowledge testing strategies, (h) functions of evaluation, (i) psychometric phenomena, (j) test construction, (k) formal and informal assessments, and (l) diagnostic, formative, and summative assessment construction and use.

We suggest that this is a basic set of knowledge about, and skills for, assessment that each MTE should know and be able to do, respectively. These skills could be learned in graduate experiences, where doctoral students enrolled in programs preparing them to become MTEs have opportunities to take current and relevant coursework about assessment, measurement, and evaluation. Likewise, these opportunities may be reinforced through structured authentic experiences, teaching alongside their MTE mentors in the direct application of their assessment knowledge and skills.

## Conclusion

While our sample is small, and we are unable to generalize to the wider population of MTEs, we have some confidence in the results of our exploratory study. Findings show issues in the preparation of MTEs and concerns with assessment and assessment pedagogy. For most of the MTEs in our study, their undergraduate education did not include a formal assessment course, yet their graduate education seemed to provide more of them with an assessment course or experience, so perhaps undergraduate music education curricula may need attention in some institutions.

Music teacher educators in our study have concerns, specifically around assessment in their preparation to be MTEs. It may be that these are simply the individuals that self-select to respond to a survey about assessment; however, the conceptual framework used in our study allows us to make some connections with MTEs assessment *knowledge-for-practice* to some of their concerns as a music teacher educator. Concerns largely centered around their own *knowledge-for-practice*. Researchers in the future could focus on the types of assessment practices MTEs engage in as higher education teachers themselves, and what type of assessments they are teaching their future K–12 teachers, current preservice teachers, in their programs.

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## APPENDIX

### Study Survey

#### *Opening Questions*

Did you take a formal course in assessment during your undergraduate program of study?

- Definitely yes
- I don't remember
- Definitely not

(If definitely yes is selected, then skip to "Please describe the nature of the undergraduate course...")

Please describe the nature of the undergraduate course you took - for example, whether it was a music assessment course (taken within a music department) or an educational assessment (taken outside a music department). Please share as many details as you remember.

Did you take a formal course in assessment during your graduate program of study?

- Definitely yes
- I don't remember
- Definitely not

(If definitely yes is selected, then skip to "Please describe the nature of the graduate course...")

Please describe the nature of the graduate course you took - for example, whether it was a music assessment course (taken within a music department) or an educational assessment (taken outside a music department) Please share as many details as you remember.

How well did this course/these courses prepare you for teaching about assessment?

- Extremely well
- Very well
- Moderately well
- Slightly well
- Minimally well
- Not well at all
- I don't teach about assessment

Please share any concerns or comments you have about your preparation to teach assessment as part of your role as a music teacher educator.

*Demographic Items*

Please tell us the nature of your position/ appointment:

- Career Line - 1-5 years experience in higher education (includes lecturer or Professor of Practice)
- Career Line - 6-10 years experience in higher education (includes lecturer or Professor of Practice)
- Career Line - 11 or more years experience in higher education (includes lecturer or Professor of Practice)
- Tenure-Track - 1-5 years experience in higher education
- Tenure-Track /Tenured- 6-10 years experience in higher education
- Tenure-Track /Tenured - 11 or more years experience in higher education
- Adjunct - full-time
- Adjunct - part-time

Biological sex

- Female
- Male
- Gender non-conforming

How would you describe yourself? (Choose more than one if appropriate)

- American Indian or Alaska Native
- Asian
- Black or African-American
- Hispanic, Latino, or Spanish
- Middle Eastern or North African
- Native Hawaiian or Pacific Islander
- White
- Other \_\_\_\_\_

What is your primary applied instrument family? (Please choose only one)

- Brass
- Guitar (acoustic, jazz, electric, mandolin, banjo)
- Non-Western instrument
- Percussion (including drum-set and keyboard percussion - excluding piano)
- Piano (harpsichord, organ)
- Strings (including harp)
- Voice
- Woodwind (including saxophone)
- Other \_\_\_\_\_

What is your highest degree earned? (Please choose only one, this does not include certifications such as Orff or Suzuki)

- B.A. – Music Major
- B.A. or B.S. – Music minor
- B.Mus.
- B.M.E. or B.Mus. in Education
- M.Mus.
- M.M.E. or M.M. in Music Education
- M.A. or M.A.T.
- Performer's Certificate
- D.M. or D.M.A.
- Ph.D.
- Ed.D.
- Other \_\_\_\_\_

What was your major area of study in your highest degree earned?

- Performance
- Education
- Performance & Education
- Conducting
- Theory & Musicology
- Music Therapy
- Composition
- Outside field
- Other \_\_\_\_\_

What year did you graduate from your highest degree? (Please type the year, e.g., 2006)