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Multimodality, meaning-making, and communication in diverse
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Culturally responsive and meaningful music education: Multimodality, meaning-making and communication in diverse learning contexts

ACCEPTED VERSION

Georgina Barton and Stewart Riddle

Abstract

Music is learned and taught in multiple ways dependent on the socio-cultural contexts in which learning occurs. The processes employed by music teachers have been extensively explored by music educators and ethnomusicologists in a range of contexts, although there has been limited research into which modes are most predominantly used in different socio-cultural contexts. Further, it is unknown how students make meaning in these different contexts. This paper presents three distinct music learning and teaching contexts—Carnatic music, instrumental music in Australian schools and online music learning. Using a socio-cultural semiotic tool to identify musical modes, this paper examines the ensembles of modes used during music learning events and considers how this knowledge may improve the learning and teaching of music for all students, particularly those whose culture and language differs from the majority of the population. It aims to identify how students make meaning in learning contexts through distinct modes of communication. Findings demonstrated that different ‘ensembles of modes’ were used in diverse learning contexts and that these approaches were influenced by socio-cultural contexts. It is important for teachers to understand that varied combinations of modes of

communication are possible because students may find learning more meaningful when related to their own personal frames of reference. Without this knowledge, music learning and teaching practices may continue to privilege some modes over others.

Introduction

Music is learned and taught in diverse ways because the modes and methods used to transmit knowledge are influenced by the socio-cultural contexts in which learning and teaching occur (e.g., AUTHOR; Merriam, 1964). These distinct processes have been extensively explored by ethnomusicologists and music educators, including examination of the modes of transmission and acquisition used by teachers and students in formal and informal learning contexts (e.g., Campbell & Higgins, 2015; Casas-Mas et al., 2014; Folkestad, 2006; Hess, 2020; Ng, 2020; Schippers & Grant, 2016; Smart & Green, 2017). For example, Ng (2020) argued that a blend of formal, non-formal and informal pedagogies enable rich learning experiences, which connect to the interests and cultural contexts of students. Similarly, Casas-Mas et al. (2014) argued that different learning contexts ‘promote different types of learning cultures in relation to the education and transmission of knowledge’ (p. 320).

There is a growing body of literature that has examined the need for music education practices to be increasingly culturally responsive so that it is more meaningful for learners whose cultural and linguistic backgrounds differ from dominant populations (e.g., Bond, 2017; Carroll, 2020; Delgado, 2018; Lind & McKoy, 2016; Prest, 2020; Schippers, 2010). However, there is limited research that has investigated which ‘ensembles of modes’ are used in learning contexts and why. It is important for music educators to understand that privileging some modes over others may disadvantage learners who do not have lived

experiences or frames of reference situated in these dominant modes (Gay, 2015). It is also critical that music teachers learn about culturally responsive pedagogies because students may come from different social and cultural backgrounds, and that they may continue to be disadvantaged and have their learning hindered by monomodal and monocultural music learning experiences (e.g., Carson & Westvall, 2016; Gay, 2002; Marsh et al., 2020).

This paper examines what we describe as *ensembles of modes* used in three distinct music learning and teaching contexts: Carnatic music in South India, instrumental music in Australian schools, and an online music learning environment to determine the differences in diverse music learning contexts. Much research has demonstrated that traditional Eurocentric approaches to teaching and learning music have often relied heavily on the linguistic mode (e.g., written musical notation) (AUTHOR), which leaves the other modes—auditory, visual, spatial and gestural—relatively underutilised in the pedagogical process. This does a disservice to the inherently multimodal nature of music and reduces the opportunities for diverse learners to engage in rich music learning and teaching, which draws on the potential of multimodality (e.g., AUTHOR; Jewitt et al., 2016; Kalantzis et al., 2016).

The study was guided by the following research questions: Which ensembles of modes are utilised during music learning events? How can this knowledge be considered for more meaningful learning and teaching of music in institutionalised settings for diverse learners? To answer these questions, a socio-cultural semiotic tool was used to determine which ensembles of modes were used during the music lessons. Understanding which ensembles of modes are used in music teaching and learning is important because music is taught in diverse ways and students may have different frames of reference when learning music. Many music students and teachers come from culturally and linguistically diverse backgrounds, so is important that music teachers are aware of different approaches to sharing music knowledge and skills. Without knowing the range of strategies that can be used to

teach music, there is a risk that music learning and teaching in schools and other education settings may emphasise homogenous Eurocentric approaches, advantaging some learners over others due to their prior experiences. Gay (2002) argued that when students are taught through their own cultural and experiential filters, academic achievement can improve.

Further, Benedict et al. (2015) argued that opening music education to diverse groups of learners requires that the music be culturally and contextually relevant if it is to be reflective of socially-just approaches to music-making. This means that music learning and teaching practices may be more easily accessed by non-dominant learners and/or communities. Similarly, Schippers (2005) highlighted the need for music teachers to consider the range of choices and decisions applicable to different music teaching and learning contexts through proposing the seven-continuum transmission model, which was later updated to a 12-continuum transmission model (Schippers, 2010). Schippers (2005) argued that ‘transmission relates not only to learning musical material but also to the enculturation of approaches to a musical style or genre at large’ (p. 62) and that issues related to context, interaction and cultural diversity should be taken into account in music learning and teaching. He argued for a need to re-examine music learning and teaching practices due to increasing cultural diversity, technological advancements, and noted that “the interactions among musical material and ideas, learner, teacher/facilitator, and learning environment have become more fluid” (2010, p. xvii) in attempting to address issues of access and socially-just music education.

Revealing the modes present in a range of music learning contexts may assist music teachers to better address the diverse learning needs and engage with the cultural experiences of students (Jurström, 2011). This approach could improve learning experiences and outcomes for students and provide more culturally responsive and appropriate pedagogical practices in music learning environments more generally.

Music, multimodality, meaning-making and socio-cultural approaches to communication

Given the diversity of musical practices within and across cultures, a unitary definition of music is difficult to determine. For the purpose of this paper, music has been defined as the unique combinations of sounds and silences, which can be organised in a multitude of ways to create musical works (e.g., Nattiez, 1990; Walker, 2001). The extent to which a particular combination of sounds and silences observes cultural and social norms, rules and expectations in specific contexts determines whether such work can be considered music (e.g., Blacking, 1973; Lind & McKoy, 2016). Music has also been described as being inherently social and makes a contribution to cultural and social cohesion and identity (e.g., Kelly, 2016; Turino, 2008). Therefore, the process of music-making reflects diverse cultural and social ways of understanding music, including how it is taught and learned (AUTHOR).

Culture and society have a strong influence on music learning and teaching practices (e.g., Bradley, 2008; Jorgensen, 2003), so it is critical that music teachers consider and use a range of pedagogical methods with their students. Carson and Westvall (2016) argued that teachers require intercultural competence, which ultimately influences methods, to diversify normality in the music classroom, which requires that they develop sophisticated communication repertoires to co-construct meaning with culturally and linguistically diverse learners. Intercultural approaches to music-making 'have consequences for both how we think about individuals' cultural belonging and what intercultural exchange and education might be about' (Westerlund et al., 2020, p. 3).

Schippers' (2005, 2010) model addresses views from the student, the teacher and the teaching environment by exploring the learning process and issues of context. The benefit of this model is that there are no predetermined 'right or wrong' ways to view music learning

and teaching, and in many contexts, transmission of music knowledge may be fluid.

Schipper's model takes into account variability of the context and the ways in which music is transmitted and received, including the types of interactions present between student and teacher. Schippers (2010) argued that when analysing different cultural traditions in music, different perspectives can be employed such as from culture, institutions in which music-making takes place, and from the perspectives of teachers and students (p. 124). The model accounts for the possibility of multiple views of meaning-making.

Different methods of teaching music involve different modes of communication (Harrop-Allin, 2017), which can include those that rely on language, such as written or oral, sound or silence, and visual, including images such as icons and symbolism, bodily gestures and the spaces in which messages are communicated. It is through the combination of these modes that people make meaning (Cope et al., 2017). Further, multimodality is defined as the ways in which humans receive and transmit information (Anastopoulou et al., 2001). In music, information can be communicated through different ensembles of modes, in which one mode is not privileged over another.

Communication between transmitters and receivers of information is often mediated by the context in which communication occurs because the communicative action is mediated 'through operations which are concerned with conditions' (Freire, 1995, p. 1). Similarly, Unsworth (2008) claimed that the conceptualisation of communication involves language as only one form of many 'different interrelated semiotic systems' (p. 2). He explained that any communicative context can be described through semiotic choices that relate to *field*, *tenor* and *mode*. According to Unsworth (2008), field relates to any form of social activity, content or topics being learned, tenor is concerned with the relationship between participants involved in the learning and mode regards the channels of communication being used. Kress and van Leeuwen (2006) argued that there are three meta-semiotic meanings related to field,

tenor and mode—representational, interpersonal and compositional meanings. Any interaction between teacher and student can be considered to be a learning episode that represents these meanings.

The interrelationship between music content and the ways in which it is shared within particular contexts is complex. As Schippers' (2005, 2010) framework suggests, all aspects of learning and teaching music are movable across time, space and context and how these dimensions interact determine the ways in which meaning is made. Schippers (2010) argued that 'the framework is essentially nonprescriptive and nonjudgmental. Positions are likely to vary from tradition to tradition, from teacher to teacher, from student to student, between phases of development, from one individual lesson to another, and even within single lesson' (p. 125). However, this does not mean that an attempt to consider how representational, interpersonal and compositions meaning can be made through music teaching and learning.

Multimodal music teaching

With an increasing diversity of students and musical genres, music education needs to keep up-to-date with diverse practices (Smith, 2016). Unfortunately, many studies continue to report that music teaching within institutionalised settings remains largely Eurocentric and teacher-centred (e.g., Green, 2017; Lu & Lum, 2016). In such situations, the teacher is considered to be the holder of knowledge, which is transmitted to students. Rinker (2011) described this as being a mono-cultural approach, in which students from one cultural background learn 'the mores and values of another single culture' (p. 19). Aside from aurality being present in all music learning, it has been shown that a Eurocentric approach to music learning has a large reliance on the written score and teacher talk (AUTHOR). Such practices could result in students disengaging from music learning and affect the number of students

selecting music to study at school because their cultural and social needs will not be met (AUTHOR; Ng & Bahr, 2000).

Jurström's (2011) work on multimodal meaning-making is one exception, in which he explored how 'semiotic resources are used, organised and transformed by the conductors, and how they function as representations of how the music can be learned and performed by the singers, form the basis of my multimodal model for musical meaning making' (p. 17).

Jurström presented a model of multimodal meaning-making that aimed to demonstrate how the transformative processes of music learning and performance are complex and warrant further attention.

Much ethnomusicology research has acknowledged that transmitters of music knowledge often encourage learners to actively participate in music-making practices and processes (e.g., Harrop-Allin, 2017; Small, 1998). Such processes may include teacher-directed pedagogies alongside a range of culturally and socially appropriate methods, including observation of the performance of teachers and others, immersion into music cultures and moving to music (e.g., Harris, 2014; McPhee, 1938; Waldron, 2009).

Understanding and practicing a range of strategies is important for music educators to enable them to effectively address diverse students' learning needs and ensure that one transactional mode is not privileged over others (AUTHOR).

Not only should the pedagogical approaches towards music learning be considered but also aspects such as those recognised by Schippers (2010). Music content should be varied as much as possible and encouragement for students to innovate on practice. The context and interaction between teacher/student, student/student, and even visiting artists could also be varied so that students experience cultural diversity. If teacher-centred and Eurocentric approaches continue in music education, many students who bring diverse

understandings of music and learning to their encounters with music curriculum could continue to be disadvantaged.

Music learning and teaching is inherently multimodal

Music has specific socio-culturally assigned meanings and consequently, the behaviours associated with music-making cannot be isolated from the social and cultural contexts in which music-making occur (Walker, 2001). Elliott and Silverman (2015) contended that the meaning of music is located in the music-making process rather than dominant norms and practices, such as those found in music education in schools (AUTHOR; Rinker, 2011). If music knowledge continues to be divided and not shared as a connected whole as valued in many music cultures, there may be a risk of ‘ignoring areas such as expressive character, value systems, and spirituality, which are the areas that link the musical experience to the fabric of life as lived beyond the confines of the classroom and academe’ (Boyce-Tillman, 2004, p. 102).

Further research has explored the innate social nature of music learning (e.g., Brandler & Peynircioglu, 2015; Merriam, 1964), suggesting that ‘when people engage with others in the music-making process they tend to identify as part of a group and value their role as an individual within the group’ (AUTHOR). Consequently, consideration of the roles and responsibilities within music learning contexts is important for teachers and students. These roles may influence the ways in which music is communicated and understood. For example, one member in a rock band may lead the group’s performance through various gestural indicators such as a head-nod, counting in and other visual cues (Gaunt & Westerlund, 2013; Vulliamy & Lee, 2016). In other music learning contexts, learners are expected to observe before attempting to play sections of the music when indicated and they are taught small patterns to play along with the entire group (Dunbar-Hall, 2014).

Unsurprisingly, the aural mode is central to learning music. As previously highlighted, music involves the use of sounds and silence to create musical works and performances. The ability to listen is crucial in music learning, although other modes are used in ensemble with aurality in teaching music. The socio-cultural context in which music is learned affects the ways it is taught and the ensembles of modes utilised (Arzarello & Paola, 2007). As such, attendance to the meaning-making processes that are unique to the cultural and linguistic traditions and practices within socio-cultural contexts provides significant opportunities for rich engagement in music performance and learning.

Campbell (2016) explored and compared methods in different contexts, including Dalcroze, Orff, Suzuki and Kodaly, and determined that the following modes are prevalent in music learning: receptive/aural—listening; receptive/visual—reading music; and receptive/kinaesthetic—touching and feeling (e.g., holding an instrument or feeling a beat). Campbell (2016) identified that each of the music learning contexts tended to focus on one mode of learning and suggested that ‘the balance of experiences in these modes is present in the programs of successful music teachers’ (p. 213). Therefore, this paper presents empirical data from three diverse music learning and teaching contexts to identify modes and ensembles of modes that were most predominantly used in more than 60 learning episodes. Examples of a typical episode are shared from the three music environments, including South Indian and Australian Carnatic music teachers, instrumental music learning contexts in Queensland schools and a home-based online music learning environment. The analysis of how ‘ensembles of modes’ are interwoven in music-making and meaning-making provides a useful basis from which to consider the implications for teaching and learning in education settings (e.g., classrooms, studios, other formal and informal music learning environments), especially for culturally and linguistically diverse learners.

Research design

The authors of this paper are experienced school music teachers now working in teacher education, who continue to participate in music-making practices, while advocating and researching multimodality in the arts and its potential for language, literacy, communication and meaning-making practice (AUTHOR). For example, AUTHOR spent a year in South India learning Carnatic music—both vocal and violin—and has continued these studies with an Australian-based Carnatic music teacher. She was interested in how the strategies used in both contexts compared with how music teachers taught in instrumental music teaching contexts in schools in Queensland. AUTHOR has played in rock bands since he was thirteen and continues to record and release music commercially. With over 20 years of collective music teaching experience, we recognised that many of our students were disadvantaged due to the heavy focus on traditional approaches to reading and writing music notation—in which predominantly Eurocentric notation systems were central to the practices of musical literacy and meaning-making. We were interested to know more about how these students—who were composing and performing contemporary and electronic music—learned their art. Consequently, we developed the following research questions for this study:

1. What ensembles of modes are utilised during music learning episodes?
2. How can the utilisation of ensembles of modes improve the learning and teaching of music in schools and other music education settings?

This paper draws on data collected for a qualitative ethnographic study, in which AUTHOR acted as a participant–observer during each of the music learning and teaching contexts. Ethics approvals were provided by [UNIVERSITY] and participants provided informed consent to participate in the project. The teachers/learners in this project were given the opportunity to view the data once analysed to ensure they were satisfied with the ways in

which their teaching and lessons were represented. Data were analysed using a socio-cultural semiotic tool, which was drawn from work by Unsworth (2008) and Kress and van Leeuwen (2006) in the field of social semiotics. In addition, scholarly research on socio-cultural communication was used to identify instances of interaction and cultural exchanges. According to Adams (2005), communication involves social interaction, verbal and nonverbal pragmatics and receptive and expressive language processing.

Further, Adams (2005) noted that communication can be theorised as a symbolic process, which produces and reproduces shared socio-cultural patterns. An ethnographic perspective of communication, alongside a semiotic view, were used to analyse each music lesson. For this paper, we share a sample lesson from each context to illustrate the customary patterns of learning and teaching from each teacher and context. An in-depth mapping analysis, which identified the modes and ensemble of modes used during the lessons is highlighted in Table 1:

Table 1: Analytical approach: Mapping modal ensembles in music learning episodes

Timecode	Learning/teaching activity and meta-semiotic meanings—representational and interpersonal	Ensembles of modes used to communicate information (compositional meaning)
0:00:00	A description of the interaction between teacher and student and whether it relates to representational or interpersonal meanings and cultural practices	Aural/sound (refers to music performance) Gestural/embodied (movement of bodies in learning space) Language/linguistic—written or oral Visual/image (musical score) Spatial/structural formation of learning environment (between teacher, students and objects)

Research findings

Carnatic music context

Table 2 presents a typical lesson in the Carnatic music context. Representational meaning was present when music was performed or read from notations written in a small book.

Interpersonal meaning featured in relation to the relationship between the teacher and student

and when the teacher guided the student as to what to do during the lesson. Further, interpersonal meaning occurred when the teacher and student performed together.

Table 2: Typical Carnatic music lesson with Maya

Lesson no.	Teacher	Time	Description	Mode
26	Maya	0:00:00	- There was a shrine where I was expected to pay my respects to the gods/goddesses prior to and after each lesson (cultural practice)	- Embodied/visual
			- Tuning of violin occurred at the beginning of every lesson (representational)	- Embodied/aural
			- I would often practice my pieces (while Maya was outside of the room)	
		0:04:36	- Maya enters room and asks, ‘How are you?’ She often said my practice was good or needed work (interpersonal)	- Embodied/aural/visual
		0:04:52	- Maya would sit on the floor and tune her own violin and then expect me to play Sa, Pa, Sa’, Pa, Sa together as an offering to her favourite god Ganesh (this musical phrase opened and closed every lesson) (representational and interpersonal/cultural practice)	- Spatial/linguistic/oral
		0:04:55	- She would then say ‘Start here’ pointing to a page in my handwritten book (representational)	- Embodied/aural
			- I play the piece by myself	
		0:04:56	- Start again with Maya playing with me	- Linguistic/embodied
			- Start again and stop when get to sections she isn’t happy with ‘See here’ ‘fingers here’ sometimes	
		0:06:23	Maya would expect me to sing first the <i>svara</i> and then the Sanskrit before playing the piece on the violin (interpersonal)	- Embodied/aural
		0:08:48		- Embodied/aural/visual
		0:11:01	- Good—start next piece	- Linguistic/oral/embodied /aural
	- We would work through the piece together—phrase by phrase—Maya playing it first and then I would. She would encourage specific approaches to using <i>gamaka</i> (interpersonal and cultural practice)	- Linguistic		
	- Join phrases together and play together several times	- Embodied/aural		
0:18:42				
0:19:22	- Maya explained what I should practice for next time (representational)	- Linguistic/visual		
		0:29:37		

Embodied and aural modes were most predominantly used with this teacher. Interestingly, the oral/linguistic mode had limited usage, which was largely due to language differences.

Although the teacher in the South Indian context could speak a small amount of English, limited spoken communication occurred during the music lessons. Spatial mode played an important role in this context because both the student and teacher sat on the floor opposite each other (shown in Figure 1):

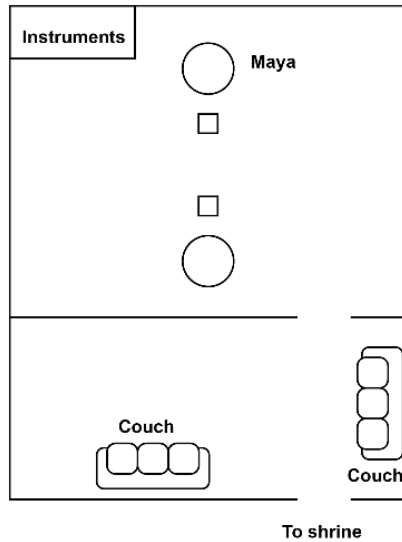


Figure 1: Spatial features of the Carnatic music learning environment

There was also a space to worship Hindu deities prior to and after each lesson. The visual mode featured in the text that the student was expected to purchase as well as a book in which the teacher wrote the *svara* (sol-fa) for the student. A basic representation of the music was provided, although no *gamaka* or ornamentation was transcribed. An example of the music notation is provided in Figure 2:

Figure 2: Transcribed Carnatic piece using traditional sol-fa
The ornamentation expected to be played is not notated.

In this visual notation, several codes and conventions were used to direct the performer. The first line indicates the sol-fa note or *svara*—Sa, Ri, Ga, Ma, Pa, Dha, Ni and Sa. Beneath

these *svara* are the Sanskrit words for the song. The double lines ‘||’ indicate the end of a phrase and ‘;’ indicates a note doubled in length and a ‘ above a *svara* indicates an octave higher (these have also been substituted with ‘x’ above the notes to be more easily read). This representational meaning is only the basic melody which is to be played. In South Indian music, extensive ornamentation or *gamaka* are included in performance. *Gamaka* might include sliding or wavering between two notes and often uses micro-tones—notes that are not included in a tempered Western scale.

The instrumental music learning environment in Queensland, Australia

In this music learning environment, the focus on the written score placed on a music stand constituted the representational meaning. Embedded in this meaning was the interpersonal relationship between the student and teacher, particularly when performing the set pieces. Interpersonal meaning was also associated with the verbal dialogue between student and teacher. Interpersonal meaning also played out in the music performance, as Karl would often talk about how a piece should be played so that the audience understands the musical messages inherent in the work and intended by the composer. Table 3 displays a typical music lesson with Karl.

Table 3: Typical lesson with Karl in the Queensland instrumental learning environment

Lesson no. 49	Karl	0:00:00	- When I entered Karl's house we usually chatted about how things were and what has been happening since our last lesson (interpersonal and cultural practice)	Linguistic/spatial/oral
		0:06:01	- Karl then invited me to play one of the set pieces I have been working on by reading a music score placed on a music stand (representational meaning)	Embodied/aural/visual
		0:06:48	- When I play as section he felt needed more focus and work he stopped me playing and explained verbally how it should be played	Linguistic/oral
		0:07:39	- He then played the section himself—talking either during playing it or before and after (often this would be a slower version of what is expected and then at speed) (representational meaning)	Linguistic/visual/aural/embodied
		0:09:52	- A lot of the talk is about the technique needed to play the section well e.g. bowing technique, what fingers to use and what position to play a phrase in (representational meaning)	Linguistic/visual/aural/embodied
		0:16:08	- We then play the section together three times through (with talk in between in play) (interpersonal meaning)	Visual/aural/embodied
		0:19:56	- Chat more about what type of sound is needing to be produced when playing the piece (representational meaning)	Linguistic
		0:21:02	- I play the section by myself—either from the beginning of the piece or just a section	Visual/aural/embodied
		0:23:52	- We then move onto the next piece—I play through from the beginning	Visual/aural/embodied
		0:32:48	- Karl begins to play it with me (interpersonal meaning)	Linguistic
			- We get to the end of the piece and Karl says 'good, keep practicing see you next week' (cultural practice—weekly lessons 1-1)	
		- I packed up my violin and music and say goodbye	Spatial and linguistic	

The compositional meaning involved aural–embodied–visual ensembles of modes, which were most predominant in this context. This intermodal relationality involved playing the violin while reading the music score and listening to the performance. The corporeal placement of the fingers on the fingerboard of the instrument, as well as the bowing style with the right hand and arm, contributed to quality sound production and tonal accuracy. The linguistic mode was equally dominant as much of the lesson involved the teacher and student talking. Spatial mode also played an important role student was often beside a teacher in studio lessons or the teacher was standing out the front with the authority in group lesson (see Figure 3).

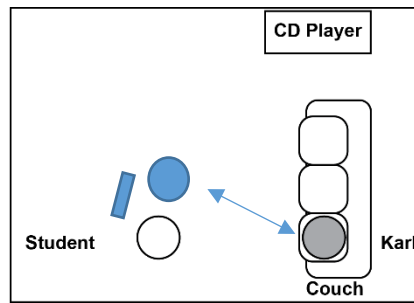


Figure 3: Spatial modality in the classroom

The online music learning environment

In the online music learning environment (see Table 4), all meta-semiotic meanings were displayed in the following ways: representational meaning was featured in the equipment being used to create music compositions, such as a computer, electronic keyboard and software (e.g., FL Studio and Sibelius); interpersonal meaning was created through the interaction with the more experienced learner–teacher and in many ways, this was informal and led by the person wanting to learn rather than the teacher; compositional meaning was related to the methods and modes of teaching as well as the ways in which the music composition came together on the computer screen (e.g., Huovinen & Rautanen, 2020). In relation to the methods of communication, complex ensembles of aural–embodied–linguistic–oral–spatial modes were utilised. Visual and spatial modes were used predominantly due to the equipment and software usage. The aural mode was also important in a different respect to the other environments because the student–teacher would often listen back to the work being created.

Table 4: Typical learning episode with Zeb

Lesson no. 62	Zeb	0:00:00	- Zeb asked me what I would like to learn in today's lesson—student-led (representational and interpersonal)	Linguistic/oral/spatial
		0:00:32	- I wanted to lay down some tracks using FL Studio loops as well as play and add an audio file by playing an electronic keyboard	Embodied/visual
		0:00:38	- He then went straight into showing me what to do	Linguistic/oral/visual/aural
		0:03:21	- Zeb said, 'watch what I am doing' and he created a new file, added in several instruments, loops and effects	Embodied/visual/aural
		0:07:49	- I then created my own file and selected the instrument sounds I wanted in my piece	Embodied/aural
		0:07:52	- I also added a piano part by playing it on the electronic keyboard—this was recorded	Aural
		0:08:04	- I listened to it back	Aural/embodied/visual
		0:13:45	- I then added a new part and changed it, so it sounded better, I played it back again	Aural/linguistic/oral/embodied
		0:15:36	- Zeb said it sounded pretty good and he then showed me how to add some more sound effects etc.	Linguistic/oral
		0:18:42	- He said you just know when it sounds good	Complex ensemble—visual/oral/aural/embodied/spatial
		0:28:22	- I continued to create the piece by performing each instrumental part	Complex ensemble—visual/oral/aural/embodied/spatial
			- I finished the section I was up to and replayed it once again with the view of completing it next time	Aural

Table 5 presents a breakdown of the key ensembles of modes that were present in the music leaning contexts. It was evident that the multimodality of musical practice—using ensembles of modes—enabled a rich diversity of engagement and communication between teacher and learner, which generated potential for multimodal meaning-making to occur. While the linguistic mode certainly provides the ability for learners to make meaning from their musical experiences, we contend that the range of multimodal elements—used purposefully and with consideration for the cultural and linguistic diversity of learners—can offer a richer, more nuanced curriculum experience.

Table 5: Ensembles of modes present in different socio-cultural music learning contexts

Music contexts	Aurality/sound	Gestural/embodied	Language/linguistic (Written and oral)	Spatial (composition of teacher/student)	Visual/image (music score)
Carnatic music in Sth India and QLD	High	High	Low	Medium	Low/Medium (due largely to what is played is not written)
Instrumental music in	Medium (note oral)	Medium	Very High	High	High (music scores)

QLD schools	language high)				
Online music composing and performing	Very High	High	Low/Medium	High	High

Discussion

The three music learning contexts presented in this paper—Carnatic music in South India, instrumental music in Australian schools, and an online music learning environment—demonstrate some of the various ways in which compositional and representational meanings can be generated through the combination of different modes, which we have called *ensembles of modes*. These modes include: aural/sound, gestural/embodied, language/linguistic (written and oral), spatial and visual/image. The three examples demonstrate the intertwined, non-hierarchical nature of multimodality in music learning and teaching, including how students make meaning of information shared with them by the teacher, going beyond the scope of the linguistic mode in isolation.

In traditional Eurocentric approaches to music teaching, there is a heavy reliance on linguistic modes of representation and composition with the teacher accepted as owning and controlling more knowledge than the student. The traditional modes of musical representation include written musical notations, usually using Eurocentric systems of graphical and textual musical information, as well as the spoken language of instruction, in which teachers provide students with guidance and cues in their music learning, composition and performance. We contend that the reliance on the linguistic mode provides limited opportunities to tap into the rich socio-cultural resources of music learners, particularly outside of the mainstream school music environment. As we argued earlier, the work by Carson and Westvall (2016) suggests

that an increase in teachers' intercultural competence may provide the necessary experience to encourage them to consider more culturally appropriate, or at least, a variation in the ways in which they share their knowledge of music to students.

The three musical contexts shared in this paper provide an indication of how ensembles of modes might be enacted to help learners make meaning through their musical practice. The three contexts demonstrate that within the bounded spatiotemporal event of the 'music lesson', there is a wide variety of scope for multimodal communication and engagement in music-making, which goes beyond linguistic repertoires relied upon in traditional Eurocentric approaches to teaching and learning music. Again, Schippers' (2010) work highlights the need for music education (by which he means institutionalised learning) to reflect the cultural diversity across the world not just through the teaching of 'world music' but by contemplating the ways in which we can uphold the authenticity of music cultures but also through approaches that transcend normative pedagogies, largely Eurocentric.

These three examples of music learning contexts are not intended to present an exhaustive list of appropriate communicative modes within specific cultural and linguistic contexts, but to demonstrate the range of modality that is opened up through consideration of ensembles of modes in music teaching and learning. There are important potential flow-on benefits from engaging in culturally responsive music teaching and learning, including psychosocial outcomes such as self-esteem, confidence and cultural empathy (Cain et al., 2016) and increased social cohesion (Marsh et al., 2020). The disruption of the primacy of the linguistic mode enables richer forms of expression and musical meaning-making to occur in multiple ways for students who may bring different strengths to learning, aside from linguistic mode.

Given that the three examples presented in this paper involved one-on-one music teaching and learning in different musical contexts, there were some evident limitations to the generalisation of findings. First, the teacher and student (AUTHOR) were adults, and the student was an experienced musician, so the power imbalance between the teacher and student was most likely reduced. The second major limitation of the study was the contained environment of studio-based music lessons, which have a different tempo and quality to classroom music lessons in primary and secondary schools. Further research is therefore recommended in the context of classroom music curriculum and pedagogy despite these three examples providing quality evidence as to why teachers should consider multimodal approaches to teaching music.

As we have demonstrated in this paper, teachers can use a broad range of strategies to convey music knowledge, including verbal and nonverbal interactions, which can better connect the socio-cultural contexts of learning to music curriculum. We suggest that teachers combine a range of strategies that embed different ensembles of modes, combining aural–oral, gestural–embodied, language–linguistic, spatial–environmental and visual–image teaching and learning strategies. While musical notation is an important part of the literacies of music learning, we recommend that teachers also include other devices, such as symbolic iconography and other graphical forms of musical expression, gestural and body-based expressions, alongside sound recordings, visual representations and multisensory engagement of learners (AUTHOR).

While diversifying approaches to sharing music knowledge is encouraged, we also note that this is just one component of an entire learning experience. We acknowledge that the space or learning context in which the student–teacher interaction takes place is equally important. Institutionalised learning often provides only very formal learning spaces that

highlight teachers' power and control and formal bodies of knowledge (Ehrlich & Badarne, 2020). Similarly, the interactions between the participants within learning spaces are potentially wide-ranging depending on who is involved. Overall, a consideration of the ways in which we perceive learning and teaching music from a cultural perspective—whether mono-culturally, multi-culturally, interculturally or transculturally (Schippers, 2010)—is required. This would require that comprehensive professional development be made available to teachers and students of music because a transformative process is complex and involves both socio-cultural and cognitive considerations (Jurström, 2011).

This study has provided an insight into the ways in which teachers working across different socio-cultural music learning contexts are able to engage music learners through different ensembles of modes to develop their representational and compositional meanings and understandings. We contend that utilising a broad range of modes might provide a basis for assessing and responding to cultural influences in music teaching and learning, as well as providing opportunities for teachers to engage learners in non-traditional forms of music-making and cultural expression. There is significant potential in working with musical concepts and traditions by 'teaching music culturally' (Lind & McKoy, 2016) and encouraging the development of a sophisticated repertoire of skills and techniques. Above all, teachers are able to work more flexibly with the socio-cultural backgrounds and experiences of their learners to make meaningful connections to music learning and practice.

Without music teachers consciously considering and planning for culturally appropriate approaches to music learning in formal and informal contexts (e.g., Hess, 2020; Ng, 2020), there may continue to be a perpetuation of the 'taken-for-granted hierarchies, practices and structures' (Westerlund et al., 2020, p. 2) that have dominated music teaching and learning. There is a need for music teachers to acknowledge socio-cultural differences in the practices, meaning-making and performative expression of music in different learning

environments to make careful pedagogical choices about the ways to best connect learners to music-making experiences. The use of ensembles of modes provides one teaching strategy that enables catering to the diverse learning needs of music-makers. The role of music as a social practice form of cultural expression and communication cannot be understated and as such, teachers play an important part in helping learners to develop their musical skills and knowledge. Moreover, musical concepts and approaches to music teaching are culturally determined and reflect broader judgements about what is valuable to a society and its people. As such, using ensembles of modes can provide an opportunity to engage in culturally responsive music teaching and learning with culturally and linguistically diverse learners.

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