**Call for Nominations**

The Nominations Committee of the Early Childhood Music and Movement Association announces these open positions on the Board of Directors for the upcoming term 2014-2016.

- **President Elect**
- **Treasurer**
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- **Regional Representatives**
  - Northeast
  - South Central
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The deadline for nominations is February 15. Names for consideration or questions about responsibilities may be sent to Nominations Chair Lyn Codier at lcodier@ecmma.org

Elections will be held in spring, and candidates take office at the Biennial Convention June 22-25, 2014, in Atlanta.

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**Call for Papers**

*imagine* publishes articles that are directly related to early childhood music therapy (ages: zero to five), grounded in evidence-based practice.

Topics include:
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Submission deadline: May 15, 2014.
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Power. It’s not the reason most teachers give for embarking on a career, but the word certainly crops up often enough in the education world. Knowledge is power. . . use your brain power . . . have some will power. The power of music has brought people to their feet or moved them to tears. It can join them as one in a common pulse or allow individual rhythms to overlap and blend, creating a beautiful complexity of sound.  

The power of the word is a well-known phenomenon. ECMMA represents something unique in the world of education: a collaborative group of practitioners who believe that music and movement experiences have the power to transform a young child’s life. And we’re currently growing—membership is over 400 at this writing, so the word is out that good things are happening. I can report successful regional conferences in both the US and Canada: Arizona, Alberta, Florida, and Wisconsin. Together we make a vital statement about the importance of infusing music into life at the time when children learn intuitively, assimilating music into their very beings.

A transfer of power is happening soon, as a new Board of Directors is elected and takes their positions of servant leadership. With the addition of a President-Elect in the past term, the process promises to be a smooth transition. We’re finishing a study of our mission statement as part of our strategic planning process and, as we follow up on the results of the autumn survey, ECMMA plans to implement new possibilities for member communication.

The power of this community coming together to teach, learn and connect is tremendous. We’re embarking on a two-year celebration of early childhood music and movement in America, beginning with our Biennial Convention June 22-25, 2014 in Atlanta, Georgia. Pedagogy, therapy, research, and movement tracks are planned, with presenters from nearly all the curricula across the United States converging to share ideas. Schedules, housing, and registration information are available at http://convention.ecmma.org. We hope you’ll join us. It’s a powerful experience that will re-energize your work!

Judy Panning  
ECMMA President
Crayons and paper, play dough and clay, blocks and pipes, wire and paint, whether at home or in an early childhood classroom, are most often readily available for children’s exploration and experimentation, as well as a means for representation and construction of learning. In contrast, percussive and barred instruments, tone bars, or bells are not typically available for children’s self-initiated play, and thus improvisation with melodic percussion are not a part of the formative experiences for many young children. Perhaps a major reason for the absence of these materials for children’s use is that parents and educators often negatively perceive them as tools for unstructured and purposeless noise-making.

As young children begin to construct their musical identities, specifically between the ages of three and five, the early stages of music-making and instrumental play are fundamental. This time period must not be seen as a stepping-off point for later musical development. Instead, we must make the most of the richness and depth of this period as children are integrating their understanding and confidence as musical beings. Children’s free play, explorations, and improvisations with musical instruments, particularly melodic percussion, are an indispens-
able component of such development. Reconceptualizing young children's self-initiated music-making and improvisations on instruments requires a paradigm shift in our traditional understandings and approaches to music education. We must look, with fresh eyes, through the lenses of a transformative framework, which places the focus of engagement on the child's interests and self-directed play, not the goals of the discipline of music education.

Within this framework, we see children as capable, innately musical, and having the capacity as well as the desire to represent their understandings of themselves and the world through instrumental play. Children's exploration and improvisation on melodic percussion instruments can function as another extension of their play. As adults, our role becomes more collaborative rather than directive during these improvisational moments.

We create opportunities for children to be self-directed in and creative with music-making as they explore sounds, whether in spontaneous or purposefully produced sequences. We observe and listen carefully for their interests, the strategies they use, as well as the understandings that are emerging and being constructed through their improvisations, and provide appropriate scaffolding when necessary. Consider the following example:

After organizing his tone bars in sequence of a C Major scale on his tray, a young child grabs his mallet with his right hand and begins to play a descending pattern, striking every bar with a purposeful gesture. Following the descending pattern, he plays various bars in spontaneous sequence, growing louder in dynamics and steadier in timing. He proceeds to connect the octave tone bars "do" and "do" and plays this tonal pattern for a couple of repetitions. He removes the "ti" and octave "do" bars from his tray. He begins to improvise with a "sol-mi" pattern on his bars, adding "re" and "fa" as he improvises, ascending and descending on the bars with every strike. The "sol-mi" pattern is familiar to the child. After some time, going back and forth with a steady pulse and striking the bars discernibly loud, he plays "do." He begins to improvise with a "sol-mi-do" pattern (also familiar to the child) and then exclaims, "This is the mud," (for the "re" and "fa" bars) "and this is the ground!" (for the "sol," "mi," and "do" bars). "We must skip over the mud," he says, and proceeds to play the tonal pattern repeatedly on the tone bars with his mallet...

During his improvisatory play, this four-year-old boy showed his comprehension of tonal and rhythm patterns, steady (micro) beats, timing, and dynamics, as well as his ability to transfer and integrate these skills in a playful and self-directed way that often may not be possible in teacher-led early childhood music classes. Beyond the benefit of gestural and executive skills development and refinement of his aural skills through instrument play, this young boy made meaningful connections and combined his improvisatory exploration of sound into an imaginative symbolic representation.

Making improvisatory instrumental play accessible to young children without expectations of attaining specific musical skills gives them a voice in their play and curricular choices, and also makes visible their early music-making processes and understandings. As facilitators of this kind of engagement, whether trained in music or not, teachers and parents can be confident they are promoting children's overall musical development and contributing towards the formation of children's musical identities in positive ways.

Write for Notable Notes!

We are looking for early childhood music and movement educators to write for the Notable Notes column. Check out the submission guidelines on page 28. Got questions or need more information? Contact Angela at abarker@ecmma.org.
In this issue, our featured authors focus on two diverse, yet important topics of interest for early childhood music and movement educators. In her article, “Developing Creative Concert Experiences for Young Children in a Community Setting,” Ashley Danyew explores research literature related to developmentally appropriate music learning and participatory activities for young children in a concert setting. As a teaching artist herself, Danyew offers valuable suggestions and practical advice for performers and educators interested in presenting concerts for young children.

Student assessment is a topic of interest and concern for educators at all levels and in all areas of study. Dr. Linda Page Neelly’s article, “Developing Appropriate Assessments in Early Childhood Music,” examines the progress made by US state and national educational organizations toward developing appropriate assessment tools and standards to evaluate the musical development and educational needs of young children. Dr. Neelly highlights the critical role that music educators and researchers have in defining and clarifying the importance of music in early childhood education.

Amoriza Gunnink is the contributing author of this issue’s Notable Notes. Her topic, “Making Noise or Making Music? Emergent Improvisation on Melodic Percussion Instruments,” addresses the importance of music making and instrumental play on the musical development and emerging musical identities of young children.

In her review of current research, Dr. Diana Dansereau examines a study by Ilari and Sundara (2009) regarding the music listening preferences of infants, specifically accompanied versus unaccompanied singing. Also in this issue, Susan McGuire reviews the book A Well-Tempered Mind: Using Music to Help Children Listen and Learn by Peter Perret and Janet Fox and published by Dana Press. The book follows the Bolton Project, a three-year residency by a woodwind quintet from the Winston-Salem Symphony with children at Bolton Elementary School in Winston-Salem, North Carolina. In collaboration with classroom teachers, the woodwind quintet opened new avenues of learning and musical discovery for young children and demonstrated the relevance of music in the school curriculum.

Angela Barker, PhD
Editor, Perspectives
Creative children’s concerts are more than listening experiences: they involve participation and response. For many children, “[music] listening . . . requires interactive engagement. They . . . [learn] while doing, as they sing along, tap a pulse, play an instrument, or move in subtle or elaborate ways” (Campbell, 2005, p. 33). When developing a children’s concert, the challenge for teaching artists lies in constructing appropriate and effective interactive music listening and learning experiences for young children. In this article, I explore suitable music learning and participatory activities for children’s concerts and am guided by the following questions: What are developmentally appropriate music learning activities for children? What is the best way to structure music listening experiences for children? Which activities encourage music learning and invite participation for children in a concert setting? Recommendations for teaching artists who are presenting concerts for young children will be shared and discussed.

Music Learning

Researchers and practitioners agree that music learning involves exploration and active musical experiences (Fifield, 1980; Garner, 2009; Walters, 1992). In reference to children’s inherent ability to learn through experience, Walters (1992) states, “Natural learning for young children. . . require[s] a great amount of freedom, in which they are not bothered by formal instruction” (p. 540). How can this freedom be incorporated into children’s concerts? Evidence from research in the areas of creativity, flow, and sequencing of activities indicates that these are important components of young children’s music learning experiences.

Creativity

Creativity is central to music learning. Barrett (2012) noted, “Our early interactions with others and the materials of our worlds are improvisatory, made-in-the-moment and responsive” (p. 58). Two activities commonly associated with creativity are improvisation and movement.

Fifield (1980) investigated children’s awareness of tonality and rhythm while they were engaged in music improvisation. In this study, 45 children (ages 3–6) sang and played tone bells as they listened to four accompanying ostinati. Four judges evaluated samples of each child’s performance. Fifield discovered that, although the ostinati invited improvisational responses, the children were not aware of tonality and rhythm when improvising. He found that pictures and visuals inspired the children’s improvisations: “Children related well to what they saw in the pictures [and] . . . had no difficulty seeing things . . . about which they could improvise a song” (p. 63). In addition, the children were drawn to
opportunities to actively participate, as opposed to being passive, reflective listeners. This was illustrated in their eagerness to participate in musical activities that emphasized exploration, learning through experience, self-regulation, and creativity. Fifield concluded that music learning for young children should emphasize the creative process of making music, as future musical creativity may be based on these “experiences of spontaneous [expression]” (p. 84).

Movement offers children an active approach to music learning; however, the ways in which children engage in movement activities vary according to their development and maturation. McLaughlin (2011) observed 51 preschoolers (ages 3–5) during music and movement time, noting that they were more inclined to participate when teachers used media, verbal instruction, and modeling, but less likely to engage in movement creatively on their own. In a separate study, Metz (1987) stated, “With maturity, [children’s] modeling changed from being purely imitational . . . to invitational or interactional in nature” (p. 111). For very young children, teachers can encourage movement and musical creativity by presenting a variety of models for them to imitate during a given activity; whereas, older children benefit from opportunities to explore musical ideas and individual expression through movement.

Researchers have found that participatory music experiences can foster children’s creativity and self-concept (Barrett, 2011; Webster, 1996). Barrett (2011) studied the self-identity and musical improvisations of 18 children (18 months to age 4). Documentation gathered from parents and interviewed caregivers indicated that children’s improvised songs were a form of musical storytelling and a way for them to process new ideas. In a later study, Barrett (2012) found that giving children opportunities to exercise general ways of thinking creatively along with domain-specific creativity (musical skills) can help prepare the musically creative mind. Custodero (2012) noted, “Valuing creativity means valuing alternative ways of doing, thinking, [and] being” (p. 373).

Flow
Flow is the ideal progression of learning; it is fostered by sensory activities that invite participation and response (Custodero, 1997; Custodero, 2012). When in a state of flow, “[c]hildren are agents in their own learning . . . [They] want to be highly challenged and have a sense of how to monitor that challenge for themselves” (Custodero, 1997, p. 173). Custodero (1997) observed eleven 4- and 5-year-olds in a private music school classroom and recorded their music learning activities using the Flow Indicators in Musical Activities assessment. The researcher found that the children experienced flow during activities lasting as short as 30 seconds and as long as 7 minutes, during activities that were somewhat familiar (re-introduced 2–4 weeks after the initial presentation), and in one-on-one (teacher-child) interactions. Also, the children exhibited the most flow during music activities that were multisensory, provided specific feedback, and required active participation. Custodero’s findings indicated that children seem to be most engaged and challenged when an activity is
first introduced and again when the activity has become relatively familiar and they are able to monitor the challenge for themselves.

**Sequencing**

Sequencing is the order of presenting new concepts and skills in teaching. Ideally, teachers develop sequences that balance the presentation of content knowledge and practical skill (Walters, 1992) and provide enough challenge to motivate learners and inspire learning. Constructing effective teaching sequences requires educators to have an understanding of children’s development; a thoughtful teaching sequence prepares learners for new learning experiences. Walters (1992) found that teachers play a limited role in maturational readiness but a significant role in experiential readiness. Based on related research, Walters proposed the following model for sequencing: (a) connect a new concept to something familiar, (b) prepare children for the challenges of the new concept, (c) present the new material, (d) allow children to respond, and (e) reinforce the children’s efforts. Once children have experienced the new music concept, its musical term or name is introduced (Bedsole, 1987; Gordon, 1997; Smith, 2000; Walters, 1992).

**Music Listening**

Many children’s concerts revolve around music listening, but what is an appropriate model? How can musical engagement be fostered in the listening experience, and what role, if any, might movement play? Research has shown that movement facilitates engaged listening (Campbell, 2005) and, though young children may be capable of listening to music passively (Sims, 2005), they may listen more attentively when participating actively in the experience (Gordon, 1997).

**Listening**

According to Garner (2009), “Music listening requires the ability to discriminate between sound” (p. 46), and Gordon (1997) adds: “The more contrast music has in its dynamics, timbres, and tempo . . . the greater the impression” (p. 42). Directed listening activities also have an impact on what children hear and remember. In a study of children’s music listening habits, Sims (2005) chose two familiar pieces that children had listened to and experienced with movement at least six times prior to the study. Thirty-one children between the ages 2 and 5 participated in two conditions: free listening, and directed listening with an activity sheet. The children listened to the pieces as many times as they wanted. The listening times ranged from 1’8” to 26’31” for the free condition, and 1’19” to 30’20” for the directed condition. Sims' study revealed that children are capable of listening to music for longer periods of time, with or without an activity sheet. The researcher concluded that early childhood music educators and caregivers need to find ways to offer young children opportunities for sustained periods of free-time listening to music.

**Engagement**

Campbell (2005) explored music listening and engagement, and noted, “There are multiple facets to a pedagogy of listening, and not one of them is passive” (p. 30). Campbell outlined a “pedagogy of listening” (p. 31), suggesting that listening progresses from attentive to engaged to enactive. Teachers encourage attentive listening by highlighting events in the music, asking questions, and using visuals. Engaged listening includes singing, moving, or tapping the rhythm. The enactive listening experience invites listeners to become performers, using the music as a foundation for their own improvisations and compositions. Campbell noted,
“When teachers make room for listening alone, listening with participation, and dialogue between teacher and students about the experience, engaged listening is working full tilt” (p. 35).

When listening to music, children need to be actively engaged in the listening experience (Campbell, 2005; Gordon, 1997; Smith, 2000). “Engaged listening invites listeners to enter into the groove or the flow of the music, pick a part to contribute, and consequently feel more involved in the music” (Campbell, 2005, p. 33). Agüero (2010) emphasized audience engagement during nonmusical moments but Smith (2000) encouraged teachers to “engage the audience in motion, singing, or active listening” (p. 99). Children tend to be more engaged when actively participating (Fifield, 1980) and the quality of their listening is often just as great as when sitting still (Gordon, 1997). Children are naturally drawn to music; the challenge is presenting music in new, imaginative ways (Walters, 1992). Custodero (2012) alluded:

The child’s . . . leaping dance and the adult’s carefully executed gesture guiding the bow across the string . . . reflect an active response to musical cues . . . the child’s description that the ‘music could make me dance’ , is an externalized version of the adult expert’s more internalized listening. (p. 370)

Movement and Listening
Movement facilitates engaged listening (Campbell, 2005). Metz (1987) observed preschoolers’ movement responses in a researcher-designed music station. The children showed little response to high-low changes and struggled to distinguish loud from fast and quiet from slow. Similarly, Bedsole (1987) found preschoolers struggled with high-low, fast-slow, and up-down. These studies offer practical implications for the children’s concert teaching artist in planning and incorporating developmentally appropriate movement activities in concert performances.

Morris (1992) examined movement as an indication of children’s musical understanding. Through body movement and the use of a prop, 3- and 4-year-olds responded to music with changes in dynamics, timbre, tempi, register, texture, and articulation. Children were most accurate with tempi and articulation and least accurate with timbre. Most responded more accurately with a prop and 4-year-olds seemed more comfortable moving with a prop. Knowing which musical elements young children are most likely to respond to with understanding during a listening experience is important information for early childhood music educators and teaching artists who want to plan effective and meaningful music learning opportunities.

Group Interactions
Whereas Custodero (1997) observed that children experienced flow in one-on-one, teacher-child interactions, research indicates also that group learning can add value to the educational experience (Custodero, 2012; Gordon, 1997). Group experiences contribute “to the empowerment of creative action and to learning as we see the conceptual mirrored in others” (Custodero, 2012, p. 372). Creative activities provide several models for imitation and interaction: “Young children learn as much, and possibly more, from themselves and one another as they learn from adults” (Gordon, 1997, p. 4).

Musical Activities
Barrett (2012) noted that children’s early encounters with music are often overlooked or discouraged.
How can children’s concerts provide appropriate early experiences in music for young children? Research has shown that experiences involving movement, rhythmic learning, and singing foster creative thinking and the development of self-identity (Barrett, 2011; Webster, 1996) and connect to the natural ways children learn music.

Movement
Movement builds “on two known developmental factors: the child’s preoccupation with his own perspective, and the developmental theory which claims that he learns best through concrete actions” (Morris, 1992, p. 5).

Blesedell (1991) studied the effect of movement instruction on the rhythm aptitude and achievement of 51 three- and four-year-olds. Each child was administered the rhythm aptitude test from Audie (Gordon, 1989) before and after treatment. Preschool classes were randomly assigned to 10 half-hour lessons of Dalcroze- or Laban-based movement instruction. During the last lesson, each child accompanied a researcher-composed song with microbeats and macrobeats. Three judges scored children’s movement and rhythm with two 5-point continuous rating scales. Blesedell found that “any type of movement instruction” (p. v) encouraged the children’s participation and increased their rhythm aptitude scores.

Natural movement is a reflection of the inner self (Gordon, 1997); thus, children should explore movement freely and in their own tempo (Bedsole, 1987; Blesedell, 1991; Gordon, 1997), including “movements that express . . . [the] melody, phrase, or dynamics” (Morris, 1992, p. 8).

Garner (2009) stated that “Children learn best by exploring their environment through the senses and movement” (p. 47) and Metz (1987) found that these natural movements foster musical understanding.

Rhythm
Based on early language experiences, children often have a better sense of rhythm than tonality (Fifield, 1980; Gordon, 1997). Beckie (2009) explored ways to connect language and music and make symphonic children’s concerts more interactive with Orff-inspired activities, where “stories invite a rhythmic speech pattern that is repeated often enough for the children to anticipate and join in with body percussion” (p. 32).

Fifield (1980) observed a rapid development in children’s ability to keep time between the ages of 4 and 6; however, too much emphasis on tonality and rhythm at this age may hinder creativity (Fifield, 1980; Gordon, 1997). Gordon (1997) recommended that children not be encouraged to keep a steady beat until they can recognize same and different and imitate tonal and rhythm patterns.

Bedsole (1987) explored the musical abilities of thirty-one 3- and 4-year-olds by measuring their music aptitude using the Primary Measures of Music Aptitude (Gordon, 1979) and music discrimination using two self-created tests. In addition, Bedsole gathered information from parents and teachers about each child’s attitude and ability. Four-year-olds showed higher aptitude and were stronger at clapping, playing instruments, singing, keeping a beat, and recognizing strong-weak, high-low, and fast-slow. All the children guessed when asked to discriminate between up-down. Results suggested that while clapping, playing instruments, and singing were activities appropriate for both age groups, playing instruments and singing proved more appropriate for 4-year-olds.

Singing
Gordon (1997) suggested that children learn to sing the same way they learn to speak: through imitation. Evi-
evidence has shown that young children “use their voices to explore and manipulate the musical elements of pitch, intervals, melody contours . . . tempi and rhythms” (Fifield, 1980, p. 83). Garner (2009) explored singing, movement, and audiation development, noting, “Singing allows the student to discover the flow of breath necessary to produce a good tone, or reach a particular pitch, and feel the distances between the intervals . . . such activity is movement of an aural sort” (p. 48).

Tuneful singing requires a certain level of self-regulation. Mills (1996) discovered that many children have a high level of pitch discrimination but may struggle to imitate or reproduce what they hear. Garner (2009) indicated that “Vocal sliding and stopping on a given note develop[s] register control and pitch placement” (p. 49). Gordon (1997) recommended that songs be presented without text or accompaniment so that children “give their full attention to the quality of the singing voice” (p. 46).

Programming

Creative concerts require creative teaching: “Teachers are creative professionals, requiring not only pedagogical content knowledge but also creative performance skills” (Sawyer, 2004, p. 17). When considering the best practices for presenting concerts for young children, the teaching artist must bear in mind the importance of programming.

Children’s concerts should respect the natural progression of learning and musical development. Concert programming generally involves choosing an objective, selecting music, and writing a lesson plan (Agüero, 2010), but Sawyer (2004) cautioned, “The message of these programs seems to be, if you can perform well from a script, you can teach” (p. 12). Sawyer related improvisational theater to teaching: “In improvising, the teacher creates a dialogue with the students, giving them freedom to creatively construct their own knowledge, while providing the elements of structure that effectively scaffold that co-constructive process” (p. 14). In addition, Custodero (1997) noted this kind of teaching facilitates flow.

Agüero (2010) examined children’s concert programming trends. Eighty-six orchestral conductors ranked their most and least used programming strategies. Themed concerts were found to be most common, and gathering feedback from children, least common. This study found that many children’s concerts are not child-focused. While observing two programs—Carnegie Kids (at Carnegie Hall) and Peanut Butter and Jam Sessions (of the Linton Chamber Music Series), Smith (2000) conducted interviews and studied the programs’ relationships to early childhood and musical development using the Smith Inventory of Musical Content and the High/Scope (1992) Child Observation Record. Based on the data collected, Smith created a model for chamber music presentations for children (birth –7 years), incorporating repertoire and activities that promoted listening and rhythmic, melodic, vocal, and movement responses from those in attendance.

Recommendations for Teaching Artists

Many of the studies included in this review offered suggestions and practical advice for teaching artists who wish to present concerts for young children. The following are recommendations based on the research presented here.

Make decisions based on the music. “The music needs to be the first priority” (Smith, 2000, p. 96). Draw sequences and activities from the music. Let children explore movement freely in their own tempo (Bedsole, 1987; Blesedell, 1991; Gordon, 1997), and introduce formal terms after the musical experience (Bedsole, 1987; Gordon, 1997; Smith, 2000; Walters, 1992).

Plan activities that develop musicianship. Campbell (2005) and Sims (2005) stressed the importance of teaching children how to listen. Campbell stated, “Students who learn to listen well are then led by their ears into a refined musicianship that is the basis of their growth as performers, composers, and analytical thinkers” (p. 30). Choose movement and singing activities that prepare foundational musical concepts (Bedsole, 1987; Garner, 2009).
Teach creatively. Children learn through active experiences (Fifield, 1980; Garner, 2009; Walters, 1992). “We are limited only by our own creative thinking as teachers. Exciting the imagination of our children about music is what it is all about” (Webster, 1996, p. 97). Have concert musicians introduce their instruments and describe how they create sounds on them (Beckie, 2009; Smith, 2000). “Children make a stronger connection to an instrument if the performing musician presents it” (Smith, 2000, p. 99).

Choose familiar music and activities. When planning, remember the “majority of activities should be relatively familiar” (Custodero, 1997, p. 175). Children learn patterns and phrases as the music becomes more familiar to them (Campbell, 2005). Repeat musical examples so children learn to recognize them and draw connections to things they already know (Campbell, 2005; Custodero, 1997; Walters, 1992).

Keep things short. The concert should be 20–45 minutes (Smith, 2000). Keep musical examples short: 90 seconds to 2 minutes (Gordon, 1997; Smith, 2000), and give the children something specific to listen to or suggest a way to participate (Campbell, 2005). Remember: “The ability to listen attentively for a sustained period of time . . . must be developed and practiced” (Sims, 2005, p. 78).

Present a concert series. Children will respond more readily to music after repeated hearings (Campbell, 2005), and flow exists in activities that are relatively familiar—up to 2–4 weeks after the first presentation (Custodero, 1997). Rather than presenting one concert, create a multi-week series of short programs.

Conclusions

The purpose of this review was to explore musical engagement, listening, and participatory activities for preschoolers and to provide recommendations for teaching artists who are presenting concerts for young children. The studies cited indicated that (a) music learning begins with exploration, (b) children respond to music in tangible ways, (c) participatory experiences develop creativity and self-concept, (d) flow is fostered by sensory activities that invite participation, and (e) attentive and engaged music listening requires active involvement.

In conclusion, the goals of children’s concerts in community settings should be rooted in developmentally appropriate music learning objectives: teaching artists should create experiences that balance the presentation of musical content and the development of musical skill, and children should be invited to interact with the music in meaningful ways. Walters (1992) summarized:

Music learning begins with active . . . experiences that combine the seeing and hearing of models with doing and experimenting . . . [V]erbalizing, and comparing oneself with models leads to the acquisition of skills in performing and discriminating, and . . . skills in conceptualizing musical sound. (p. 541)


Music educators have traditionally been influential advocates for children’s early development. Their extensive efforts have contributed to a substantial knowledge base of research and practice, and advanced our understanding of the young child’s musical development (e.g., Berger & Cooper, 2003; McDonald, 1984; Pflederer, 1964; Trollinger, 2003). Analogously, music educators’ collaborative practice has been instrumental in nurturing early childhood professionals’ increased awareness of the nature of music practices that support children’s development as well as ways in which adults may articulate those in children’s daily routines (e.g., Golden, 1989; Kelly, 1998; Nardo, 2001; Tarnowski & Barrett, 1997). Furthermore, music educators’ collaborative endeavors have produced valuable outcomes evident with the presence of early childhood arts standards at the national (National Association for Music Education, 1995) and state levels; the existence of accessible culturally responsive musical materials and facilitating actions across music education and early childhood education; and the incorporation of early childhood music in professional development and in many music and early childhood teacher education programs. It is imperative that in the 21st century we acknowledge the numerous accomplishments of music researchers and practitioners and build on their significant contributions to early childhood music.

**Envisioning the Future**

While music educators have accomplished an enormous amount of work on behalf of young children’s development, they emphasize that work remains to be done. Persellin (2007) stresses that future collaborations must maintain a focus on strengthening adults’ dispositions about the importance of music in young children’s lives. She also recommends collaborations that involve not only crafting music learning outcomes that can be articulated across various early childhood contexts but also formulating approaches to broaden systemic support and implementation of appropriate music practices. Among Persellin’s overarching suggestions are 1) “documenting and communicating why music is important to the lives of young children” (p. 59); 2) developing stronger relationships across professions, particularly through efforts to enhance curriculum and instruction; 3) incorporating early childhood music education in teacher certification programs and professional development; and 4) lobbying legislators with regard to the importance of music in children’s development. These suggestions point to essential purposes of potential interdisciplinary collaborations.

By drawing on Persellin’s ideas, I offer another aim for future collaborations: to contribute to early childhood systems in ways that incorporate music within
an alignment of curriculum, instruction, assessment, and professional development. Specifically, I suggest that, through collaboration across disciplines, music educators can play a critical role in the development and implementation of effective assessment practices in early childhood music.

Assessment in Early Childhood Music Education

“Assessment, defined as gathering information in order to make informed instructional decisions, is an integral part of most early childhood programs.” (Snow & Van Hemel, 2008, p. 44)

While the music education profession has made great strides in identifying early childhood curriculum, pedagogy, and materials for children’s musical development, as well as content of professional development in music for early childhood professionals, we have had fewer opportunities to attend to matters of assessment. With recent increased significance given to appropriate collection of data on children’s motor, socio-motor, linguistic, and cognitive development, music educators recognize that appropriate assessment is also crucial to effective early childhood music practices. Regarding matters of assessment, we must take into account the recommendations of assessment experts in early childhood education to envision the purpose of assessment in music. Also, by grappling with tenets of appropriate assessment practice, music educators can embark on collaborations designed to develop assessments in music that foster happy and motivated children, equip better-informed adults, and offer solid evidence for ongoing professional development and program effectiveness.

Matters of Assessment

“Children should be assessed using age-appropriate methods on all domains of early learning and development.” (The National Association of Elementary School Principals Foundation Task Force on Early Learning, n.d., p. 8)

In 2006, Congress requested that the National Research Council (NRC) conduct a study to identify important learning domains and appropriate assessments for children, birth to age 5. The NRC identified the following learning domains: physical well-being and motor development; social and emotional development; approaches toward learning; language development; and cognition and general knowledge (Snow & Van Hemel, 2008). These domains reflected state level early learning standards and guidelines from organizations such as the National Association for the Education of Young Children (NAEYC), as well as current assessment instruments (Bredekamp & Copple, 2009; Bornfreund, 2013; National Education Goals Panel, 1995; 1997). The NRC emphasized, however, that for some children, including infants and children with disabilities, a functional rather than domain orientation would be more appropriate for assessments. In particular, they acknowledged the need to develop assessment measures of various approaches to learning and socio-emotional functioning, as well as other currently neglected domains, such as art, music, creativity, and interpersonal skills. While the NRC recognized the need to develop assessments across neglected domains, mounting expectations exist for assessment systems to document children’s musical development, such as those precipitated by reiterations of the early childhood field with more state prekindergarten programs.

Purposes of Assessment in Early Childhood Music

Purposes for assessment in early childhood education often include 1) determining the level of functioning of individual children, 2) guiding instruction, 3) measuring program performance, or 4) advancing knowledge of child development. With assessment occupying a prominent role in education today, we must constantly review the purpose for assessment in early childhood music. For example, assessment can provide valuable information to parents and educators about children's musical capabilities. True to tenets of appropriate assessment practices in early childhood education, one purpose of music assessment must be to gain information about ways in which children are developing musically and to utilize collected information to improve instruction, develop new interventions, or design new strategies. Concurrently, information gained through assessment can provide a means to interpret how music outcomes or standards are being used, how teachers and caregivers might best use them, and ways in which professionals’ music practices can be strengthened or
Tenets of Appropriate Assessment in Early Childhood Music

Our concerns regarding a valid purpose for assessment in early childhood music is accompanied by various apprehensions about whether or not assessments are designed and interpreted fairly and equitably for young children. With this in mind, music educators should take into account features of appropriate assessment (Bornfreund, 2013; Snow, 2006; Snow & Van Hemel, 2008). The overarching concept is that development and accountability in early childhood education requires much more than attention to how well children score on tests—a key motivation in K–12 public education. In the early stages of life, children's development arises from the acquisition of physical, cognitive, and socio-emotional skills; a base of general understandings; strength of motivation and persistence; and language and literacy abilities. Therefore, in answer to many concerns about assessment of young children, we must take into account that interpretations of test scores are more complex and must be subsumed within a larger context of conditions that ensure appropriate assessment practice in music.

The National Education Goals Panel (NEGP) (1995, 1997), NAEYC (1991), and the Division for Early Childhood (DEC) of the Council for Exceptional Children (CEC) (Bagnato, 2007) provide specific conditions for appropriate assessment in early childhood education:

- Assessments should benefit children.
- Assessments should meet professional, legal, and ethical standards.
- Assessments should be designed for a specific purpose and be shown to be psychometrically sound for that purpose.
- Assessments should be age-appropriate or developmentally/individually appropriate.
- The act of assessing must involve a minimum of testing and occur in familiar, realistic settings that may include observational, in-context, or authentic approaches.
- Parents/family should be involved in assessment when possible.
- Assessments should be linguistically and culturally appropriate/responsive.
- Assessments should assess developmentally/educationally significant content.
- Information should be gathered from multiple sources.
- Assessment results should be used to improve instruction and learning.

These features of appropriate practice must be a primary focus in early childhood music assessment.

Common modes of assessment in early childhood education include medical procedures, observations of natural behavior, participant reports using checklists or surveys, performance in structured versions of natural tasks, and performance on standardized tests. Challenges with direct assessment lead to the consideration of less intrusive means and applications of assessment that respond to ways in which children learn. Therefore, appropriate assessment in early childhood music most suitably involves curriculum-based measures that are used to plan activities and monitor what children are learning (Snow & Van Hemel, 2008). Data collection can occur in authentic contexts through observation, children's work, and music making.

Early childhood assessment experts emphasize that appropriate assessment must be embedded in a strong infrastructure, or system, that articulates multiple levels of coherence. Within this infrastructure, all aims are grounded in a theoretical framework that articulates prevalently-accepted understandings of child develop-
ment. Within the theoretical framework, curriculum, instruction, and assessment align with early learning and developmental domains: A particular assessment connects directly to a specific domain. At another level, the system embraces the integration of assessment results with suggestions for improvement in care or instruction (Snow & Van Hemel, 2008). Ideally, the results of assessment are generative in nature as they are interpreted, refined, or applied to advance understandings of child development and gain support for early childhood education. The assurance of these conditions is a critical part of appropriate early childhood assessment and is relative to all learning domains.

Early Learning Standards

State-level early learning standards were initially developed by states operating pre-K programs (typically for 3- and 4-year-olds or 4-year-olds only). The standards were developed with the idea that the evaluation of children's learning outcomes could not be done without a set of early learning standards against which to measure children's progress. Since the early 1990's, states began developing learning standards, and a cursory review reveals that they are found now in every state. In addition, early learning standards targeting specific subjects have been constructed for Head Start and other professional organizations. Significantly, the development of learning standards demonstrates the changing educational landscape with increased expectations for documenting children's growth and development.

A number of states—California, Arizona, Illinois, Connecticut, and Pennsylvania—have early learning standards that include the arts. Of particular note is the California Preschool Curriculum Framework (CDE, 2011) which measures the arts in early childhood education within an appropriate assessment framework based on the recommendations of assessment experts. Other states, such as Connecticut and Illinois, are either currently developing measures, recommending adaptations of current early childhood standards to the domain of arts, or adopting standards that align to the curriculum. Although early childhood learning standards in the arts exist or are in development in numerous states, through collaborative practice, early childhood professionals must be made aware of their presence and guided in ways to articulate them in children's daily routines (Persellin, 2007).

Early Childhood Standards-Based Music Assessment

Music researchers have recommended continued collaboration across disciplines to craft music learning outcomes that can be articulated across early childhood contexts. An example of articulation across contexts is present in the Arizona Early Learning Standards and embedded fine arts standards, all of which are aligned to the Infant/Toddler Guidelines, Head Start Outcomes, and the Arizona Kindergarten Standards (ADE, 2013). Furthermore, suggestions have been made to develop stronger professional relationships designed to enhance curriculum and instruction and to document children's music learning outcomes (Persellin, 2007). An example of collaboration across disciplines is that of the efforts by the California Department of Education to align the California Desired Results assessment system to the California Learning and Development Foundations. At the center of the early learning and development system are the California Infant/Toddler Learning and Development Foundations and the California Preschool Learning Foundations, both of which provide research based descriptions of development and offer valid and reliable assessments for young children.

The collaboration facilitated by the California Department of Education has involved researchers,
educators, and domain-specific experts who aligned curriculum, instruction, and assessment with the California early learning and developmental standards. Notably, over the past several years, collaborators have embedded performing arts early learning standards in the Desired Results Developmental Profile for Preschool© (DRDP-PS©) (CDE, 2010). Designing professional development has been part of this process, as well.

The Desired Results Developmental Profile for Preschool© (DRDP-PS) ©

The DRDP-PS© is a curriculum-embedded longitudinal measure to assess children's development. Desired results for children encompass developmental domains including cognitive, social-emotional, language, and physical development and visual and performing arts. The DRDP-PS© includes: articulation of the early learning standards and definitions of the constructs of the learning outcomes; multiple approaches to document child development and learning; and ongoing professional development for enhancing adults' understandings of standards and assessment, as well as, the use of assessment information with integrity. The assessment includes measurable student goals or objectives with a growth target set with the baseline performance of the children in mind. Outcomes across all domains are organized within the framework of exploring, developing, building, and integrating. Also, the DRDP-PS© instrument provides a summary of the learning progression (CDE, 2010).

Over the past few years, researchers and educators across disciplines have shaped the foundations and assessments for the visual and performing arts domain. It is important to note that the arts are considered a critical learning domain in the standards because, through the arts, children experience varied and meaningful opportunities to engage in integrated learning experiences that contribute to their development in all domains (CDE, 2010). A broad overview of the DRDP-PS© is provided here as a model for assessment development versus a literal analysis of attributes of the measure. A short description of assessment strands, substrands, and descriptors found in the visual and performing arts domain of the California Preschool Learning Foundations, vol. 2 (CDE, 2010) is presented here with reference to the measure's appropriateness within a larger infrastructure. (Author's Note: It is important to mention that the measure is currently in field study and will be followed by a calibration phase.)

The visual and performing arts domain includes strands of music, drama, movement, and visual art. Although learning connections between the arts and other domains are clearly emphasized, it is important to note the developmental track of the arts strands. Each strand is organized developmentally according to research-based understandings of child development. The strand for music, developed for children 48 and 60 months, is focused on research-based understandings and practical knowledge of musical development; yet evident in the measures is the weaving of influential factors in children's development. The measure is organized along a continuum of exploring, developing, building, integrating, which corresponds to other learning domains.

In the California Preschool Learning Foundations, vol. 2, the music strand includes three sub-strands: 1.0 Notice, Respond, and Engage; 2.0 Develop Skills; and 3.0 Create, Invent, and Express. In consideration of a music measure in development for four-year-olds, we would expect standard language such as, "Child notices, responds to, and engages with music." Then, we examine how a measure can be developed within the learning progression and what that may look like. For the chosen music measure, the progression is expressed as four successive levels: (a) exploring (b) developing, (c) building, and (d) integrating. Developed guidelines might include:

1. Explores beat/rhythm, higher/lower pitches, faster/slower; or same/different in familiar songs; imitates parts of familiar music with voice or instruments.
2. Responds to musical concepts when engaging in musical activities initiated by others; imitates longer segments of familiar music using voice or instruments.
3. Adapts to changes when musical concepts of familiar music have been changed either vocally or instrumentally; imitates an entire verse of music in a song or plays on an instrument.
4. Initiates music activities; using the voice or instruments, applies understandings of musical concepts to invent new songs, such as applying words, melodies, and rhythms from familiar music to new contexts; imitates more verses of music.

This measure in the learning progression is brought to life by examples of learning performances that illustrate the different levels. These include measurable behaviors that teachers can readily observe and document. Typical examples of performance descriptors detail small steps of progress that children may demonstrate. Teachers may
observe actual behaviors in contexts that include other songs than those specific to the descriptor (CDE, 2010):

1. Vocalizes by singing or humming a familiar song (with recognizable melody and some words) when initiated by teacher.
2. Sings the familiar song with clearer melody and words.
3. Recognizes when the familiar song is changed by singing it more quickly, more slowly, or with new words.
4. Sings melody of the familiar song with new words and demonstrates pride by inviting others to listen to the song.

All teachers in programs funded by the California Child Development Division are trained to implement the DRDP-PS© and are required to complete measures for children in their program. The California assessment system is one example in which assessment itself is an obvious subset of a larger educational system. The assessments are linked directly to goals defined by the larger system, and different parts of the system work together. Other parts of the system include the early learning standards with learning strands and expected outcomes; the curriculum with descriptions of experiences; and the teaching with portrayals of learning conditions (Snow & Van Hemel, 2008). When these parts work together, effective, coherent assessment is possible.

Charting the Course

According to the Early Childhood Initiative at the New America Foundation (Bornfreund, 2013), measures of student learning should take into account how young children actually learn. With this in mind, music educators and researchers must play an essential role in charting the course for identifying purposes and outcomes of assessment that illustrate aspects of the child’s music learning. As a result, music measures would not only illustrate ways in which young children are developing musically, but also clarify adults’ musical facilitating skills that may profoundly impact preschool children’s foundational musical development. As results of music assessments are interpreted, refined, or applied to advance understandings of child development, we may ultimately gain increased support for music in early childhood education. This focus for our future collaborations is critical as we continue in the role of advocates for children’s development.

References


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Diana R. Dansereau
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Perhaps the most valuable research studies for early childhood music and movement educators are those that can inform decisions made in the classroom and offer data that can be used to explain those decisions to parents, administrators, and others. One common pedagogical decision that many music educators have made is to scale back their use of recordings and accompanying instruments during teaching, in favor of simply singing to children unaccompanied. Ilari and Sundara (2009) sought to determine whether infants preferred this type of singing over accompanied songs. Specifically, they examined “infant preferences for a piece of vocal music in two versions: one part (i.e., voice only) and more than one part (i.e., voice and instrumental accompaniment, with a heterophonic texture)” (p. 359). In addition to striving to offer practitioners useful information, the researchers hoped to learn more about infants’ perceptive abilities of simultaneous events.

**Method**

Sixty families with infants aged 5, 8 and 11 months participated in the study. There were 27 boys and 33 girls in the sample. The researchers prepared two versions of a traditional, pentatonic Chinese children’s song, “The Tea.” The first consisted of a 9-year-old girl singing the melody in the Miao language. The second used the same vocal pitches, singer, and tempo, but also had a heterophonic accompaniment played by a variety of instruments including drums, strings, and bagpipes, and nonpentatonic countermelodies. The two versions of the song were chosen because 1) they were sung by a female child, and research has shown that children prefer to listen to other children’s singing (Trehub, 2006); 2) they would be unfamiliar to the infants; and 3) they contained an identical vocal part.

The researchers used the Headturn Preference Procedure to collect the data. This procedure is used to measure an infant’s preference between two stimuli. It’s important to note that the use of ‘preference’ in this instance differs from the more common usage indicating fondness or partiality. Instead, preference is measured as an index of attention (for a discussion, see Kemler-Nelson et all, 1995). In other words, when infants “prefer” one particular type of musical or speech sound, it means that they listen significantly longer to one stimulus type in a comparison of two or more stimuli. Thus, measures of infant preference in the laboratory provide information about the rela-
Infants were seated on their parents' laps facing a three-sided booth. A light was mounted on each side of the booth and hidden loudspeakers were located behind the lights on the two side panels. Each test trial began with the experimenter flashing the center light to encourage the infant to face forward. Then, a side light was flashed and when the infant looked toward it, one of the versions of the test song was played. The music continued until the infant looked away for more than 2 seconds or until the end of the excerpt (20–22 seconds). The researchers measured the length of time that the infants listened to each stimulus.

Results

The researchers found that 35 babies indicated preference for the unaccompanied version of the song by listening longer, 8 infants listened to the two versions essentially equally, and 17 preferred the accompanied version. An ANOVA indicated a significant main effect for age (p = .025) and music type [accompanied/unaccompained] (p = .003), with no significant interactions. According to the researchers, “of most importance for this study was the finding that infants at 5, 8, and 11 months listened significantly longer to the unaccompanied version compared with the accompanied version of the unfamiliar Chinese children’s song” (Ilari & Sundara, 2009, p. 362).

Discussion

Ilari and Sundara suggested three possible explanations for the infants’ preference for the unaccompanied version of the song. First, an innate bias for the human voice (DeCasper & Fifer, 1980) has been documented. The unaccompanied version may possess stronger “human qualities” (Ilari & Sundara, 2009, p. 363) than the accompanied version, resulting in a heightened capability of this version to captivate infants.

Secondly, the infants may prefer the unaccompanied version for its single timbre and/or simpler musical structure. The researchers explained that the addition of an accompaniment to a melody has implications not only for the overall texture and timbre of the song but also for its form, rhythmic structure, and harmony. In other words, depending on its characteristics, an accompaniment may change completely the characteristics of a song, thereby affecting one’s perception on many levels. (Ilari & Sundara, 2009, p. 363)

Ilari and Sundara also noted that, in general, the listening times were quite lengthy in their study. They speculated that this might have been due to the nature of the stimuli that they presented to the infants. While it’s not clear which musical element or elements were particularly appealing to the infants, “the combination of unaccompanied texture + high pitch + child vocal
timbre + pentatonic melody + simple rhythmic structure was a successful one” (Ilari & Sundara, 2009, p. 365). They pointed out that this combination of musical features can be seen in much early childhood music education practice.

**Conclusions**

The key finding of this study is that infants showed preference for unaccompanied singing. This may reinforce much of what early childhood music and movement educators currently do, and may encourage educators to consider scaling back even more on the use of recordings, accompanying instruments, etc. in the classroom. The authors warn, however, that though the infants in the study listened longer to unaccompanied singing, this does not mean that “they are incapable of listening to or enjoying music that makes use of diverse textures and timbres. Rather, early childhood music educators need to be open when selecting music pieces for their lessons” (Ilari & Sundara, 2009, p. 365). As the researchers pointed out, diversity in music selection is especially important given that young children seem to be more accepting of varied repertoire than older children.

Ilari and Sundara are clear that early childhood music education classes typically reflect the finding of their study relative to the saliency of simple music for young children, in that most educators present simple songs as opposed to large-scale works with elaborate orchestrations. The researchers noted that this practice has been questioned recently, however, and remind readers that the results of their study reinforce the appropriateness of this approach.

Early childhood educators and parents can choose from a seemingly endless array of CDs, DVDs, instruments, and other musical media and toys to use in their interactions with young children. This research study is a useful reminder that bypassing elaborate recordings aimed at children, skipping accompanying instruments, and simply singing for infants is likely the preferred approach after all.

**References**


Premature infants in neonatal intensive care units (NICUs) must cope with sensory environments that are highly stressful and potentially harmful to their neurological and behavioral development. Medical and educational professionals’ concern for the negative effects of noisy and disruptive NICU environments on premature babies’ well-being has led to studies exploring innovative ways to diminish the hazards and look for medically and developmentally beneficial interventions. Nonetheless, only a handful of studies have explored the advantages of using music and auditory stimuli to offset the detrimental effects of a busy NICU on premature infants.

The researchers in this study examined the “physiological and behavioral responses” (p. 129) of 90 premature infants in a hospital NICU who were randomly chosen for one of three conditions: 1) listening to recorded lullaby music via headphones, 2) wearing headphones but no music was played (silence), or 3) receiving no treatment (the control group). “The three groups were surveyed for physiological responses including oxygen saturation, respiratory and heart rates, and behavioral states every five minutes before, during, and after the intervention” (Abstract).

Based on their results, Alipour, et al. concluded:

Our findings did not support the beneficial effects of music for premature infants. However, music is a noninvasive, non-pharmaceutical, and relatively low-cost intervention that can be implemented at infants’ bedside. Thus further research is warranted to determine whether the effects noted in previous studies can be consistently replicated in diverse settings and with diverse groups of preterm infants. (Abstract)


Based on their assumption that “music evolved into a tool that fosters social bonding and group cohesion, ultimately increasing prosocial ingroup behavior and cooperation” (Abstract), Kirshner and Tomasello studied the joint music making behaviors of 96 four-year-olds to determine whether, by working in pairs during a music making activity, the children would “behave more prosocial, i.e., spontaneously help each other more and solve a task rather jointly instead of alone” (p. 356). Furthermore, they postulated that music making, including joint singing and dancing, encourages the participants to keep a constant audiovisual representation of the collective intention and shared goal of vocalizing and moving together in time—thereby effectively satisfying the intrinsic human desire to share emotions, experiences and activities with others. (Abstract)

To test their theory, Kirshner and Tomasello proceeded with the following:

[Pairs of 4-year-old children participate[d] in a 3-min episode of interactive play. Using the same setup, procedure and cover story, children either interacted with one another (and an adult) in the context of traditional music—that is, with dancing, singing and playing percussion instruments to a novel, but easy-to-learn, children’s song (Musical condition)—or they interacted with one another (and an adult) during basically the same

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joint activity but without singing, dancing or playing instruments (Non-musical condition). Immediately after this manipulation phase, each pair participated in two social interactions designed to test their willingness to (1) help their partner and (2) cooperate on a problem-solving task. (pp. 355–356)

From the data collected, the researchers found “that, when performed in a manner akin to that typical in traditional small-scale societies, joint music making enhances prosocial behavior in 4-year-old children” (p. 361). In conclusion, they stated,

Since children in the Non-musical condition interacted with one another in the same way as those in the Musical condition—shared the same goals, coordinated their actions in time, even imitated each other’s movements and verbal comments, only without music and dance—our study isolates the specific effect of music over and above social and linguistic interaction in general (van Baaren et al., 2004). (p. 361)


A number of researchers have investigated the similarities in the cognitive processes used for language and music. An area of inquiry that continues to pique researchers’ interest “is whether the perceptual and cognitive mechanisms underlying these abilities are shared or distinct—either from each other or from other mental processes” (Abstract). A common characteristic of both language and music is pitch perception, and research from the fields of cognitive psychology and neuroscience suggests that the mechanisms for processing pitch may be shared by both domains.

In this study, the researchers speculated “that pitch processing in language and music is shared above and beyond these abilities’ mutual reliance on low-level sensory-perceptual pathways or domain-general processes like attention, working memory, and motivation” (Introduction, para. 5). With this in mind, they used several control tasks to examine the similarities of pitch processing abilities for language and music tasks which measured “discrimination accuracy, perceptual sensitivity, and discrimination thresholds in linguistic and musical contexts, and in three control conditions (auditory spectral frequency, auditory temporal frequency, and visual spatial frequency) (Methods).

In conclusion, Perrachione et al. stated,

After controlling for their performance on the three control tasks, the persistent relationship between participants’ ability to discriminate differences in linguistic pitch (sentence prosody) and musical pitch (melodies) is consistent with the hypothesis that cognitive mechanisms for pitch processing in language and music are shared beyond simple reliance on overlapping auditory sensory pathways or domain-general working memory and attention. There exists a significant and strong relationship between individuals’ pitch processing abilities in music and language. Such a relationship remains even after controlling for individuals’ performance on a range of control tasks intended to account for basic non-linguistic and non-musical sensory acuity for pitch, as well as domain-general mnemonic, attentional, and motivational factors that bear on laboratory tests of perception. Importantly, this higher-order relationship between linguistic and musical pitch processing was observed in participants drawn from the general population, rather than a sample selected specifically for musical expertise or neurological deficit affecting speech or music. (Conclusions, para. 1)
Book Review:
A Well-Tempered Mind:
Using Music to Help Children Listen and Learn

Authors: Peter Perret and Janet Fox

Reviewed by Susan McGuire

Usually I don’t begin reading a book in the middle, but the chapter titles of “A Well-Tempered Mind” were so inviting that I dipped in with Chapter 12: Listening to Learn and read on quickly to Chapter 13: Young Composers. Then came the Foreword by Maya Angelou and from there—it’s all good: however, based on feedback from various educators I queried, this book is apparently still not well known. Although the research is about a decade old at this point, some of the results have contributed to a more widely held respect of the value of music in the school curriculum.

To answer important questions such as, “Does music affect cognitive abilities needed for academic subjects such as reading or math?” the Bolton Project grew into a program for first-through third-graders at two elementary schools in Winston-Salem, North Carolina. The woodwind quintet from the Winston-Salem Symphony—for which co-author Peter Perret is the conductor—became musician-teachers for the project. For three years, the quintet visited the students 2 or 3 times per week, for 30 minutes a session, over varying residencies lasting from 7 to 12 academic weeks.

In the book’s preface, Perret explains the choice of the book’s title, and provides a historical summary of music education, dating back to Aristotle. Ending the preface, Perret adds the following disclaimer:

This book does not have formulas for creating young geniuses; nor is it a book of science. Rather, it tells a story, describes an educational process, and attempts

to share some insights into the world of cognitive neuroscience. The reader will find possibly unfamiliar musical or scientific terms explained in the Glossary, at the end of the book. (p. xxv)

As someone who received training from Dr. Lorna Heyge in both her Kindermusik and Musikgarten curricula, I found this book renewed my appreciation for her approach of allowing music to bring out the best in children, as well as parents. My first experience with Dr. Heyge was in 1989, several years before the Bolton Project, but what I read in this book resonated with my training with her.

To better understand the rapport between members of the Winston-Salem Orchestra woodwind quintet and the children at Bolton Elementary School, consider the following examples given in Chapter 9: Can You Say “Legato”.

Bob, the horn player in the quintet, addressed the third-graders saying, “We’re going to talk a bit about opposites today. It’s kind of hard to say what opposites are without giving some examples. Who can give me some examples of opposites?” After many were volunteered, Bob introduced examples of musical opposites as played by the quintet, “Our opposites don’t have so much to do with the way you see something, but more about the way you hear something.” Others in the quintet assisted in presenting examples of opposites. Cara, the oboist, booms a “HELLO” and asks “Was that loud or soft?”, and goes on to explain that the Italian musical terms forte and piano are examples of opposites in music—loud

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and soft. “Can you say forte in a forte way?” she asks, with the children’s response of “FOR-TAY!” “Can you say piano in a piano way?” asks Cara with a finger to her lips. “Pi-ah-no,” the children whisper.

Chapter 6: Models and Mentors lists some of the characteristics brought by quintet members: a sense of vocation, a creative approach, a different model of the teacher-student relationship, a commitment to continuous improvement, knowledge of how to give and receive feedback, a focus on the realities of the present moment, a passion for excellence, and the sense of proposition that comes from serving something larger than themselves.

This book and subsequent research sparked by the results of the Bolton Project, as described by the authors, is a must-read for school administrators, board members, and educators looking for ways to incorporate test-score boosts. Early childhood educators and those who teach preschool music, whether publicly or privately, will find writing that further validates truth they experience in the classroom. This is a book that I plan to include in my lending reference library for parents of my piano students.
Perspectives offers practical, research-based articles on current topics of interest to anyone who works with young children, pre-birth through age 7. Our readers include music specialists, movement specialists, music therapists, early childhood educators, childcare providers, parents, early intervention specialists, elementary school principals, researchers, teacher educators, students, policy makers, and others.

The mission of Perspectives is to

- provide a network of communication, support, and information among the members of ECMMA;
- encourage teacher development by fostering a free exchange between professionals in the field of music and professionals in the field of early childhood development; and
- advocate for music in early childhood by supporting education of parents, classroom teachers, and administrators.

Authors are encouraged to submit manuscripts dealing with topics relevant to early childhood music and movement education, such as 1) all phases and areas of music and movement education for young children, 2) best teaching practices for educators, or 3) practice-based research.

By submitting an article to Perspectives, the author acknowledges that the manuscript is not previously published and has not been simultaneously submitted for publication elsewhere, in print or online.

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- Design of the research
- Presentation of research purpose and problem(s)
- Sound methodology
- Presentation of results/findings
- Interpretation of results/findings
- Conclusions
- Discussion and implications for the profession

Please submit articles written in a clear, concise conversational style and that avoid the use of unnecessary jargon, technical language, and passive voice. The excessive use of long quotations from other sources is strongly discouraged. The content of the article must be consistent with related professional literature. Authors should avoid personal commentary that is not relevant to the current topic or content that promotes a specific person, performing group, institution, or product.

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The word count for articles is 800 to 3000 words (excluding references). Each page must be numbered and formatted with 1-inch margins, and the text double-spaced throughout (including references). Submit manuscripts via email as text documents in MS Word (.doc, .docx) or similar formats to Dr. Angela Barker, Perspectives Editor, abarker@ecmma.org.

Submit images (figures, graphs, and pictures) as separate graphic files (.tif, .gif, .bmp, .jpg) and tables as MS Word documents (.doc). Please submit images that are 300 dpi or a minimum of 1 MB. All images and tables must be clearly marked as to their placement in the manuscript.

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WHO WE ARE: ECMMA is a collaborative organization, representing all who have a vested interest in early childhood music and movement. This includes school and studio teachers and administrators, higher education, researchers, music therapists, product and curriculum providers, performers, composers, movement specialists, parents and caregivers, daycare and learning center personnel, and a host of other specialists in the field.

OUR MISSION: The Early Childhood Music and Movement Association seeks to promote developmentally appropriate practices for all early childhood music and movement specialists, positively impacting the lives of all children.
Notable Notes is a short commentary authored by a practicing early childhood educator on a topic related to teaching music and movement to young children. The primary purpose of Notable Notes is to inform parents, administrators, policymakers, and others about the importance of music and movement activities for the development and well-being of all children. The topics that previous Notable Notes authors have chosen to write about vary from general descriptions of effective teaching practices to small yet salient ways educators have used music and movement instruction to help children grasp a better understanding of themselves and the world in which they live. Notable Notes columns from previous issues of Perspectives can be viewed online at www.ecmma.org/perspectives.

The word count for a Notable Notes column is 500-550 words. Please use a 10- or 12-point font for text. Pages must be numbered and have 1-inch margins.

Authors: Please provide a brief biographical statement (30-35 words) describing where you work, the subject area(s) you teach, and the age group(s) you work with. Be sure to include your first and last names and a current mailing address.

Manuscripts must be formatted as an MS Word document (.doc, .docx) or a comparable format. Send the document as an attachment via email to Dr. Angela Barker, Perspectives Editor, abarker@ecemma.org.

Submission due dates:
- February 1
- May 1
- August 1
- November 1

Notable Notes columns submitted for publication in ECMMA’s Perspectives are subject to copyediting by the Perspectives Editor. The Editor reserves the right to: 1) accept or reject a submission based on its relevance and/or appropriateness to the needs of Perspectives and ECMMA, 2) accept or reject a submission based on contributor’s adherence to the guidelines stated above, and 3) determine which issue of Perspectives a submission will be featured.
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