Darwin, Fux, and Schenker in the Primary Classroom

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Introduction

Argument derived from Darwinian evolutionary principles has brought a new focus to advocacy for the nature and benefits of music education as an entitlement for all children. All human beings have a capacity for music passed on in their genes.[1] This originally evolved, and remains most readily accessible, through vocal development based on singing.[2] However, strategies in primary school music teaching, if they employ the voice at all, tend to focus largely on the singing of unison songs. If, as we might advocate, all students should be capable of singing, then the development of musical skills needs to be orientated to this from kindergarten onwards. By the age of about seven, primary students will then be capable of, for instance, writing their own songs, singing rounds, and beginning to understand the potential of harmony through vocal interaction.

This paper proposes innovative pedagogy that is intended to develop both the voice and musicality of primary age children through activities informed by research in anthropology, linguistics, psychology, anatomy and musicology that has adopted an evolutionary position. The approach embraces especially the principle of collective creativity as a means of encouraging vocal development, and of delivering through social interaction an instinctive response to the properties of music on which formal theory and aural discrimination can build. The influence of Fux[3] and Schenker[4] underpins the devising of simple games that shape musical participation through improvised polyphony. Students are given the opportunity to lead activities that, in following simple principles that are learned by the whole class, permit choices to be made and self-expression to develop. Student leaders and participants alike learn through composition and improvisation. A series of action research projects in the UK and Australia has established

[1] Iain Morley, *The Prehistory of Music: Human Evolution, Archaeology, and the Origins of Musicality* (Oxford: Oxford University Press, 2013); Steven Mithen, *The Singing Neanderthals* (London: Weidenfeld & Nicholson, 2005); Gary Tomlinson, *A Million Years of Music: The Emergence of Human Modernity* (Boston: MIT Press, 2015); Nicholas Bannan, ed., *Music, Language, and Human Evolution* (Oxford: Oxford University Press, 2012).

[2] Ellen Dissanayake, "Root, Leaf, Blossom, or Bole: Concerning the Origin and Adaptive Function of Music," in *Communicative Musicality: Exploring the Basis of Human Companionship*, eds Stephen Malloch and Colwyn Trevarthen (Oxford: Oxford University Press, 2009), 17–30; Bannan, "Instinctive Singing: Lifelong Development of 'the Child Within,'" *British Journal of Music Education* 17, no. 3 (2000): 295–301.

[3] Johann Fux, *The Study of Counterpoint from Johann Joseph Fux's Gradus ad Parnassum* (New York: WW Norton & Company, 1965).

[4] Heinrich Schenker, *Harmony*, ed. Oswald Jonas, trans. Elisabeth Mann Borgese (Chicago: University of Chicago Press, 1954).

and refined the strategies employed to achieve these goals.[5] This paper will illustrate the foundations of this pedagogical approach that can be applied in the primary school.

The Evolutionary Perspective

A universalist perspective on musical ability supports the view that all children are capable of contributing to collective singing activities.[6] The foundations of this pedagogical approach can be applied in the primary school, building on vocal interaction that begins from (or even before) birth[7] and through musical and movement games involving parents, carers, siblings and peers[8] in both domestic and pre-school settings.[9] Two of the most significant features of such an 'adaptationist' perspective on the nature and value of musical experience are: that it informs the whole life-cycle, such that skills and perceptions acquired in early infancy remain useful as tools[10] that prepare for life-long socialisation, including effective parenting; and, as with language acquisition, that the emergence of competence within the medium of music permits creativity, for every participant is capable of original utterances meaningful within the social context.

What this amounts to is advocacy for pedagogy that adopts play as a medium for learning, one which mediates between the various levels of experience that musical participation affords. Skill, enculturation and collective effervescence[11] arise in rhythmically entrained activities where everyone achieves the same moves at the same

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[5] Nicholas Bannan, "A Role for Action Research Projects in Developing New Pedagogical Approaches to Aural and Musicianship Education," in *The Music Practitioner: Research for the Music Performer, Teacher and Listener*, ed. Jane Davidson (Aldershot: Ashgate, 2004), 295–308; Bannan, "Embodied Music Theory: New Pedagogy for Creative and Aural Development," *Journal of Music Theory Pedagogy,* 24 (2010): 197–216.

[6] Nicholas Bannan, "Music, Play and Darwin's children: Pedagogical Reflections of and on the Ontogeny/Phylogeny Relationship," *International Journal of Music Education* 32, no. 1 (2014): 98–118.

[7] Anne Fernald, "Intonation and Communicative Intent in Mothers' Speech to Infants: Is the Melody the Message?," *Child development* (1989): 1497–1510; Alison Street, Susan Young, Johanella Tafuri, and Beatriz Ilari, "Mothers' Attitudes to Singing to their Infants," in *Proceedings of the 5th ESCOM Conference*, Hanover University of Music and Drama, Germany (2003): 1993; Colwyn Trevarthen, "The Musical Art of Infant Conversation: Narrating in the Time of Sympathetic Experience, Without Rational Interpretation, Before Words," *Musicae Scientiae* 12, no. 1/suppl. (2008): 15–46; Sheila Woodward, "The Transmission of Music into the Human Uterus and the Response to Music of the Human Fetus and Neonate" (PhD. Diss., University of Cape Town, 1992).

[8] Nicholas Bannan and Sheila Woodward, "Spontaneity in the Musicality and Music Learning of Children," in *Communicative Musicality: Exploring the Basis of Human Companionship*, eds Stephen Malloch and Colwyn Trevarthen (Oxford: Oxford University Press, 2009), 465–494; Cheryl Romet, "Song Acquisition in Culture: A West Javanese Study in Children's Song Development," in *Music Education: Sharing Musics of the World, Proceedings of the 20th World Conference of the International Society for Music Education*, ed. Heath Lees (Christchurch, NZ: ISME/University of Canterbury, 1992), 164–173.

[9] Patricia Shehan Campbell, *Songs in their Heads: Music and its Meaning in Children's Lives* (New York: Oxford University Press, 2010).

[10] Ivan Illich, *Tools for Conviviality* (New York: HarperCollins, 1973).

[11] Émile Durkheim, *The Elementary Forms of the Religious Life* (New York: Macmillan, 1915).

time (line dancing; unison singing). Thinking in music as an individual is, by contrast, harder to capture, though the literature of child observation[12] is replete with examples of spontaneous singing in early childhood. What creative pedagogy seeks to achieve is to recapture and shape this form of behaviour so that it informs the development of musical motivation and self-identification. Music as a consequence remains a medium in which self-expression can occur, and choices made, rather than being dominated by experience in which only compliance to existing repertoire and conformity to others are the norm.

The pedagogy described in this paper, which has been given the label 'Harmony Signing,'[13] develops out of these instinctive, social practices in early childhood. The procedures of 'Harmony Signing' extend systematically from the practices dealt with here towards more sophisticated tasks that underpin aural development and musical creativity through to upper secondary levels and beyond.[14] While games and routines can and should be engaged with in developing vocal skill and confidence in pre-school and early years settings, the pedagogical examples dealt with in this paper have been designed to meet the potential of children aged about seven years.[15] By this age they possess the capacity to sing in blended unison with others, and are ready to develop the relationship between musical hearing and generativity that permits them to perform pitches in combination with different pitches sung by other participants, which is the condition allowing polyphony and heterophony to be attempted.

Background

Darwin believed that musical communication in the ancestors of our species played a significant role in the evolution of vocal control, and its motivation by emotional states, from which the acquisition of language subsequently emerged.[16] During the last thirty years or so, this view has received considerable support in a variety of disciplines that have dealt with the phenomenon of human musicality and the development of language.[17] An "adaptationist" explanation for a behaviour or trait suggests that without

[12] Stephanie Stadler Elmer, "Approaching the Song Acquisition Process," *Bulletin of the Council for Research in Music Education* (1997): 129–135; Howard Gardner, *Frames of Mind: The Theory of Multiple Intelligences* (New York: Basic Books, 1983); Michael Halliday, "One Child's Protolanguage," in *Before Speech: The Beginning of Interpersonal Communication,* ed. Margaret Bullowa (Cambridge: Cambridge University Press, 1979), 171–190; Johanella Tafuri, *Infant Musicality: New Research for Educators and Parents* (Aldershot: Ashgate, 2008).

[13] Bannan, "Embodied Music Theory;" Bannan, "A Role for Action Research Projects."

[14] Bannan, In Preparation, "Every Child a Composer."

[15] Graham Welch, "A Schema Theory of How Children Learn to Sing in Tune," *Psychology of Music* 13, no. 1 (1985): 3–18.

[16] Charles Darwin, *The Descent of Man and Selection in Relation to Sex* (London: John Murray, 1871).

[17] Bannan, "Music, Play and Darwin's children;" Bannan, "Harmony and its Role in Human Evolution", in *Music, Language, and Human Evolution,* ed. Nicholas Bannan (Oxford: Oxford University Press, 2012), 288–

its presence, the organism would not have survived—either because it would not have been equipped to cope with its environment (avoiding or combating predators; hunting or gathering safe sources of nutrition) or because it was essential to effective reproduction and the rearing of offspring to the point that they too can reproduce. As Darwin explained, the models of natural selection[18] and sexual selection[19] can be proposed to account for the acquisition of abilities such as musicality in *Homo sapiens*.

All human beings thus have a capacity for music passed on in their genes. This originally evolved, and remains most readily accessible, through vocal development based on singing. Musical instruments, which are essentially tools for the exploitation and extension of existing musical abilities, appear relatively recently in the fossil record[20], though the shaping of instruments out of material such as bamboo, wood, gourd, seaweed, and gumleaf is arguably much older.[21] Nevertheless, the singing voice remains the prime resource for the establishment of musical skills and experience because, as evident in the cries and spontaneous songs of human infants (but not their closest genetic relatives in the great apes), it always has been.[22]

We live in a logocentric world, in which political measurement of the effectiveness of education focuses almost exclusively on literacy. There is a parallel to this in the research agenda for language acquisition, in which the engineering features of language—grammar, syntax, vocabulary, and the way these can be analysed on paper—tend to dominate over issues on which communication depends, such as vocal production, intonation, and non-linguistic items such as sighs and laughter.[23] Pinker proposed a means of tracing the development of linguistic ability in a manner that has many parallels with the acquisition of the independent mode of musicality,[24] but went on

339; Ian Cross, "Is Music the Most Important Thing we Ever Did? Music, Development and Evolution," in *Music, Mind and Science*, ed. Suk Won Y (Seoul: Seoul National University Press, 1999), 10–39; W. Tecumseh Fitch, "The Biology and Evolution of Music: A Comparative Perspective," *Cognition* 100, no. 1 (2006): 173-215; Steven Mithen, *The Singing Neanderthals*; Iain Morley, *The Prehistory of Music: Human Evolution, Archaeology, and the Origins of Musicality* (Oxford: Oxford University Press, 2013); Gary Tomlinson, *A Million Years of Music: the Emergence of Human Modernity* (Boston: MIT Press, 2015).

[18] Charles Darwin, *The Origin of Species* (London: John Murray, 1859).

[19] Darwin, The Descent of Man.

[20] Iain Morley, The Prehistory of Music.

[21] Pedro Espi-Sanchis and Nicholas Bannan, "Found Objects in the Musical Practices of Hunter-Gatherers: Implications for the Evolution of Instrumental Music," in *Music, Language, and Human Evolution*, ed. Nicholas Bannan (Oxford: Oxford University Press, 2012), 173–198.

[22] Bannan, "Harmony and its Role in Human Evolution;" Dissanayake, "Root, Leaf, Blossom, or Bole;" Dean Falk, "Prelinguistic Evolution in Early Hominins: Whence Motherese?", *Behavioral and Brain Sciences* 27, no. 4 (2004): 491–503; Trevarthen, "The Musical Art of Infant Conversation."

[23] Noam Chomsky, *Syntactic Structures* (The Hague: Mouton, 1957); Chomsky, *New Horizons in the Study of Language and Mind* (Cambridge: Cambridge University Press, 2000); Robert Provine, *Laughter: A Scientific Investigation* (London: Penguin, 2001).

[24] Steven Pinker, *The Language Instinct* (London: Allen Lane, 1994).

to dismiss musical ability as being of little or no evolutionary significance.[25] Sadly, there is a further parallel to this in the marked contrast between interpretations of the universal significance of the acquisition of musicality evident in the child development and psychology literature,[26] and the lack of recognition of this in curriculum design and provision. Nowhere is this more evident than in the low status accorded to developing the skills of effective music teaching in the syllabi of primary teacher education qualifications.[27] Partly for this reason, strategies in primary music teaching, if they employ the voice at all, tend to focus largely on the singing of songs, often learnt by rote and accompanied karaoke-style by recordings. But around the world a social model of vocal interaction led by children themselves, and passed on through peer interaction, illustrates the significance of this activity within young lives.[28] Play activity negotiated with or by children[29] is essential to developing the sense of ownership that renders learning meaningful, and musical play is vital because it represents a means of thinking and feeling that complements verbal and logical-numerical modes. In harnessing the undirected, spontaneous approach to musical play that has been recorded by Cook, the Opies, and Chagall, the intention is to recapture in the classroom the balance between formal and informal musical learning that has been illustrated as essential to students' motivation.[30] Indeed, playful activity that builds on the capacity in group singing for individual participation in elaborating vocal heterophony and polyphony can be traced in adult group vocal performance in every part of the world.[31] 'Harmony Signing' thus seeks to

[25] Steven Pinker, *How the Mind Works* (New York: W. W. Norton, 1998).

[26] Nicholas Bannan and Sheila Woodward, "Spontaneity in the Musicality and Music Learning of Children;" Guy Cook, *Language Play, Language Learning* (Oxford: Oxford University Press, 2000); Ellen Dissanayake, "Root, Leaf, Blossom, or Bole;" Trevarthen, "The Musical Art of Infant Conversation."

[27] Janet Mills, "The Generalist Primary Teacher of Music: A Problem of Confidence," *British Journal of Music Education* 6, no. 2 (1989): 125–138; Deidre Russell-Bowie, "What Me? Teach Music to my Primary Class? Challenges to Teaching Music in Primary Schools in Five Countries," *Music Education Research* 11, no. 1 (2009): 23–36.

[28] Nicholas Bannan and Sheila Woodward, "Spontaneity in the Musicality and Music Learning of Children;" John Blacking, *How Musical is Man?* (Seattle: University of Washington Press, 1974); "Let's Get the Rhythm: The Life and Times of Miss Mary Mack," produced by Irene Chagall and Steve Zeitlin (New York: City Lore, 2014), DVD; Iona Opie and Peter Opie, *The Singing Game* (New York: Oxford University Press, 1985); Guy Cook, *Language Play, Language Learning*.

[29] Donald Winnicott, *Playing and Reality* (London: Psychology Press, 1971).

[30] Ruth Finnegan, *The Hidden Musicians: Music-Making in an English Town* (Cambridge: Cambridge University Press, 1989); Göran Folkestad, "Formal and Informal Learning Situations or Practices vs. Formal and Informal Ways of Learning," *British Journal of Music Education* 23, no. 2 (2006): 135–145; Lucy Green, *Music, Informal Learning and the School: A New Classroom Pedagogy* (Aldershot: Ashgate, 2009).

[31] Joseph Jordania, "Times to Fight and Times to Relax: Singing and Humming at The Beginnings of Human Evolutionary History," *Kadmos* 1 (2009): 252–276; Victor Grauer, "Echoes of our Forgotten Ancestors," *The World of Music* (2006): 5–58.

preserve the spirit of play through collective activities in which creative opportunities can lay the foundations for lifelong expressive music-making.

Aims

'Harmony Signing' represents innovative pedagogy that is intended to develop both vocal confidence and musicality. The approach embraces especially the principle of collective creativity as a means of encouraging vocal development, and of delivering an instinctive response to the properties of music on which formal theory and aural discrimination can build. Participants combine the relative security of performing as one of a group, while acquiring the freedom to depart from rigid conformity in what they contribute, and having, by turn, the opportunity to take leadership roles. Music theory and generative principles are taught implicitly and through osmosis, without recourse to notation. Music is thus experienced and shared in a manner similar to that by which language is acquired, but with the significant difference that participation is simultaneous rather than serial, as it is in normal conversation and teacher-student interaction.[32] This approach to music is practised through a guided form of trial and error learning in which teacher and students exchange formulations (utterances) and textures (simultaneous utterances in which participants perform complementary rhythmic and harmonic functions) as mutually dependent equals.

Methods

The influence of two significant figures in the history of music pedagogy and analysis, Johann Fux (1660–1741)[33] and Heinrich Schenker (1868–1935),[34] underpins the devising of simple games that shape musical interaction through improvised polyphony. Neither teachers nor students need to be aware of this in order to participate in these activities: response to their ideas represents a form of implicit knowledge carried within the practices to be explored, contrasting with instruction dependent on explicit knowledge that forms the basis of much theory teaching.

Fux sought to codify the means by which the polyphonic style of the music of the Renaissance—already an "old" language culminating in the generation just prior to his—could be taught in logical steps so as to preserve the values that defined the style:

[32] H. P. Grice, "Utterers' Meaning and Intentions," *Philosophical Review* 78 (1969): 147–177) formulated the nature of propositional exchange, like a two-way radio, by which conversation between two or more participants takes place: "I believe that you believe that I believe x". The simultaneity of musical participation is one of the principal factors that distinguishes it from speech, in terms of both behavioural pragmatics and theory of mind. See also Robert Livingstone and William Forde Thompson, "The Emergence of Music from the Theory of Mind," *Musicae Scientiae* 13, no. 2/suppl. (2009): 83–115; Bannan, "Harmony and its Role in Human Evolution."

[33] Fux, *The Study of Counterpoint*.

[34] Schenker, *Harmony*.

independent voice-leading, harmonic coherence, expressive use of dissonance, and imitation between parts. Rather than basing his teaching on chord-progressions, Fux began with the consequences of devising well-formed unison lines, proceeding to a series of models for combining two lines of music together ("species") so as to acquire fluency in the style before moving on to freer or more complex textures. The influence of Fux on 'Harmony Signing' involves devising music in two independent but coherently-related parts, which can be done in solo pairs, or in groups led by signing. For two-part polyphony of this kind, Kodály hand-signs are employed.[35] Not only does this permit leaders to invent music in two parts that can instantly be performed by groups; it also means that the two-part texture can be internally represented through the use of two hands, representing a significant contribution to the acquisition of musical understanding and aural discrimination.

Schenker's influence on 'Harmony Signing' relates to his theory of tonal relationships that underpin the coherence of musical structure. At the initial level appropriate to the primary classroom, this involves developing an instinctive sense of the way that a tonic chord is defined in relation to its satellite dominant and subdominant—an essential component of the elaborate, long-term harmonic relationships derived from this basis. For participants of primary age, 'Harmony Signing' presents a means of experiencing chord choice that underpins aural discrimination ("location"), as well as providing the means for devising compositions and arrangements. Schenker's system itself employs reference to Fux's in seeking to reveal the underlying voice-leading principles that define the unfolding of music over time.[36] What primary-age students' exposure to these principles in practice provides is implicit but robust experience of the relationship between musical generation and perception.

The transition from unison to two-part performance is a formative breakthrough in individual musical experience. This needs to be prepared through exercises that support the aural and productive skills it demands. One can start by illustrating the nature of the unison effect, employing arm movements as gestures that provide a kinaesthetic and visual complement to musical contour. Thus one leader, working sensitively, can signal to a whole class a melodic pattern that can be performed simultaneously in unison. More saliently, students can work in pairs, taking turns to lead each other in perfect unison performance using this technique. The next step is the crucial one: while continuing to "show" what they are singing, each singer within the pair is free to move as he/she wishes; the unison is "uncoupled." Nevertheless, the singers are encouraged to remain fully aware of the overall effect—to work with one another, exploring the musical

[35] Cecilia Vajda and Zoltán Kodály, *The Kodaly Way to Music: the Method Adapted for British Schools* (London: Boosey & Hawkes, 1980).

[36] Schenker, *Harmony*, 139.

possibilities. Students who do this will inevitably encounter a variety of properties of polyphony, including the qualities of different intervals that result, of consonance and dissonance, passing-notes, parallel, contrary, and oblique motion and so on (when working with young children, I employ the term "diagonal motion" to capture the phenomenon of parts moving in the same direction at different rates). None of these need be made explicit at this stage.

Next, Kodály hand-signs can be used to refine what is being achieved. These are what permit pair-work to act as a sketching process whereby musical material can transfer to performance by the whole class. Working in this way, the following steps can build on the preceding ones:

- One singer/part maintains a drone while the other improvises melodically above and/or below;
- Both parts move by step in a manner that captures the initial voice-leading protocols of Fux's species counterpoint.

To prepare voices and aural memory for a Schenkerian influence on classroom practice, students should initially practice varying the timbre of a sustained monotone with a view to learning how to produce vocal harmonics.[37] Working initially from a sequence of vowels, students should seek to discern precise pitches emerging as overtones: OO–OH–O–AH–AR–A–E–EH–EE.

The foundational value of learning this technique to the development of aural perception, including interval discrimination, is inestimable. It is also in its own right calming, meditative, and conducive to effective breath management and voice production. But above all, singing overtones conveys to these young students that harmony is not a construct that resides exclusively in music theory, but a fact of nature that links music to language production and forms the basis of how we perceive and respond to combinations of musical sound.

From this, we can move into ‘Harmony Signing’ proper. Notes 1, 3 and 5 of the scale can be sung simultaneously to provide a tonic chord that is signalled by holding the left arm across the chest with the palm downwards. When the arm moves ninety degrees into an upwards vertical position, note 1 stays where it is ("anchors") while note 3 moves to note 4 and note 5 moves to note six, revealing the subdominant:

[37] The website of the French-Vietnamese performer and musicologist Tran Quang Hai contains a variety of video clips of overtone singing (http://tranquanghai.info/index.php?lang=en), and the following are also accessible on Youtube: Anna-Maria Hefele (https://www.youtube.com/watch?v=vC9Qh709gas); Mongolian singer Batzorig Vaanchig (https://www.youtube.com/watch?v=1rmo3fKeveo); and a five-year old Tuvan boy (https://www.youtube.com/watch?v=5fOlyrQ2z1w).

Voice 1:Soh–La–Soh
Voice 2:Me–Fah–Me
Voice 3:Doh - - - - - - - -

Movement of the arm ninety degrees in the opposite direction towards fingers pointing vertically downwards elicits the dominant: this time, note 5 is the anchor, while note 3 falls to note 2 and note 1 falls to note 7 of the scale:

Voice 1:Soh - - - - - - - -
Voice 2:Me–Ray–Me
Voice 3:Doh–Ti–Doh

Exploration of the properties of these chords in progressions can be set out over time so that their experience and potential are deepened in as many ways as possible. Whenever an individual signer leads the class in a progression of his/her own devising—including the option of silence signalled with a cut-off that permits participants to breathe and teaches the important value of shaping phrases—he/she is commencing composing.

A further possibility is to employ 'Harmony Signing' as a sketching and leadership mechanism for devising vocal accompaniment to known melodies. Here are the initial phrases of two suitable examples, shown in Figure 1 and Figure 2 below. Note that these are not intended as notations from which students should read. What they present is the relationship between what voice-parts perform that should be conveyed and explored through hand-signs and retained in aural and physical memory.

Melody voice:	Soh↓	Doh - - - Ray Me Fah La Soh - - - - Doh↑ Ti La - - - Soh La Soh Me Soh - -
Voice 1:		Soh - - - - - - - - - La - - Soh - - - - - - - La - Soh - - - - Soh - - -
Voice 2:		Me - - - - - - - - - Fah - Me - - - - - - - Fah - Ray - - - - Me - - -
Voice 3		Doh - Ti - - - - - Doh - -

Figure 1. Shenandoah in four-part 'Harmony Signing'

Melody voice:	Soh - - La Soh Me - - - - Soh - - La Soh Me - - - - Ray↑ - Ray↑ Ti - - - Doh↑ - Doh↑ Soh - - -
Voice 1:	Soh - La - - - - Soh - Soh - - - - - - - - -
Voice 2:	Me - Fah - - - - Ray - Me - - - - - - - - -
Voice 3	Doh - Ti - - Doh - - - - - - - -

Figure 2. Silent Night in four-part 'Harmony Signing'

Conclusions

Students are given the opportunity to lead activities that, in following simple principles which are learnt by the whole class, permit choices to be made and self-expression to develop. Student leaders and participants alike learn through composition and improvisation. A series of action research projects in the UK and Australia[38] has established and refined the strategies employed to achieve these goals, of which the initial steps reported here can be introduced to primary age children.

The pedagogical approach presented is motivated by investigation into the evolutionary origins of the human capacity for music, and how in particular this is passed on and exercised in early childhood. 'Harmony Signing' develops multi-modal learning intended to encode reliable experience and memory of musical relationships, made real in performance and creative discovery in a participatory context that develops social intelligence which is at the heart of meaningful music-making.

It is to be hoped that these and similar or related practices will support the early education of all children in the establishment of oral musical articulacy, capacity for meaningful social interaction, and personal and collective confidence that permits musical responses to build on these foundations lifelong.

[38] Bannan, "A Role for Action Research Projects;" Bannan, "Embodied Music Theory."