

Engaging with Songs: Transforming Singing in the Singapore Music Classroom

Rebecca Chew, Hui-Ping Ho and Siew-Ling Chua

Singapore Teachers' Academy for the aRts, Ministry of Education, Singapore

Abstract

This presentation describes how singing is re-ignited in Singapore primary schools through the professional development initiative by Singapore Teachers' Academy for the aRts (STAR). Singing brings joy to the child and often, the lack of teacher confidence puts a lid on the capacity of how singing can be a transformative experience to the child. As a national academy with the mandate to improve the quality of art and music teaching-learning in Singapore schools, STAR connects teacher networks to bringing singing into the music classrooms in a more transformative way. Engaging with Songs (EWS) is conceived to deepen Music teachers' professional and pedagogical understanding in leading singing in the music classroom. It consolidates a growing repertoire of songs, including those from Singapore's diverse multi-cultural heritage, to support singing pedagogies in the music classrooms. This professional development programme is also designed to support the implementation of the General Music syllabus at the primary school years. The presentation focuses on two key features of EWS: i) its professional development design and curriculum; and ii) the professional learning journeys of the 61 music teachers and 2 school leaders from the 25 schools who embarked on the programme's first two phases since 2014. Comprising music specialists and generalists, these teachers come together as a community of learners within their schools and across schools, to increase their confidence in singing, and strengthen their music classroom practices in singing.

Keywords: singing, song, music education, General Music, Singapore, professional development, in-service teacher education

Set up in 2011, Singapore Teachers' Academy for the aRts (STAR) is an academy dedicated to the professional development of in-service Art and Music teachers. As a national academy with the mandate to improve the quality of Art and Music teaching-learning in Singapore schools, STAR, under the ambit of Singapore's Ministry of Education, supports the professional learning of Art and Music teachers by organising and funding their professional development. STAR envisions to build a community of arts educators through professionalising the fraternity. A key leverage is thus to strengthen the pedagogical knowledge and practices of teachers to understand and implement the music syllabuses effectively.

A key tenet in STAR's work is underpinned by the Education Ministry's strategic direction of a student-centric and values-driven education, where three key 21st century competencies (21CC) were identified to be necessary for the globalised world: Civic Literacy, Global Awareness and Cross-cultural Skills; Critical and Inventive Thinking; Communication, Collaboration and information Skills (MOE, 2015). These 21CC aim to develop students who are confident persons, self-directed learners, active contributors and concerned citizens" (MOE, 2010, p. 2). The academy was given the broad autonomy to develop teachers' professionalism for the teaching of art and music. Both subjects are compulsory subjects from Primary 1 through to Secondary 2. Students are then given the option to take up the subjects for higher learning if they wished to do so. The Education Ministry's focus to set up a dedicated academy to provide in-service for art and music teachers is a pivotal strategic direction supporting the significance of the arts impacting and influencing the social emotional aspects of a holistic education view.

Why Singing?

The integral and fundamental role singing plays in human life and society is well-documented and supported by wide ranging research examined from physical, psychological,

developmental and social perspectives (Nettl, 1983; Welch, 2005; Pascale, 2005; research teams from AIRS). Music education research has underscored the importance of singing in music education, from its physical and psychological benefits to the developing child (Bintz, 2010, Richards, 1999, cited in Heyning, 2012; Welch, 2005a, 2005b; Sweeney, 2001), to how singing engenders a sense of community and identity (Pascale, 2005, 1999; Dolloff, 1997) and encourages cross-cultural understanding (Ilari *et al.*, 2013; Chen-Hafteck, 2007).

Recognising the importance of singing in music education, Singapore's General Music syllabusⁱ begins with the premise that “all children are musical and have the innate ability to listen, *sing*, dance, play and express themselves musically” (MOE, 2015, p. 2; italics by these writers). From this basis, the syllabus specifies learning outcomes for singing, such as: “sing with accurate rhythm and pitch, a variety of children's songs...”; “combine movement with singing (e.g. action songs and singing games)”; and “sing as an ensemble...” (ibid., p. 12). Singing is also an accessible and enjoyable way to develop the other aspects of music learning outcomes of listening, composing and improvising.

In addition to the syllabus learning outcomes, the act of singing together is a powerful way to bond and unite as a community (Pascale, 1999; Dolloff, 1997). Together, singing and song create shared musical experiences that help shape a distinctive identity and schooling experience in Singapore. Such experiences are building blocks for community engagement (e.g. Bennett, 2006) and nation building (Folkestad, 2002; and examples such as the Estonian ‘Singing Revolution’). In relation to 21CC, singing and song have the potential to play vital roles in developing students' musical voice, engendering stronger cross-cultural skills, critical and creative thinking, and global awareness. Given these benefits, music education in schools needs

to provide students with opportunities to engage in singing as an integral part of the music classroom.

Engaging with Songs: Programme Design

A singing culture in schools begins in the music classrooms, where singing is integral to music learning. To improve the quality of music teaching and learning through singing, two approaches underpin the EWS programme: i) deepening teachers' professional and pedagogical understanding to lead singing in the music classroom; and ii) building a repertoire of songs, including songs of local heritage, to support teaching of singing in schools.

Key Features of EWS

Learning from a pilot in 2013 and drawing from literature on teacher professional development (Guskey and Kwang 2009; Mezirow 1990; Lave and Wenger 1991; Pellegrino 2011), the first phase of EWS implementation began with twenty teachers and two school leaders from seven schools in July 2014. Below are key features of the programme:

It is a sustained professional development effort. According to Guskey and Kwang's meta-analysis of PD initiatives (2009), those that showed positive effects included 30 or more contact hours. Over four months and 37 hours, the first phase of EWS included a series of workshops, open class demonstrations, as well as lesson observations and coaching in between these workshops by STAR's Music Master Teachers and Programme Managers. These lesson observations provided the crucial "just-in-time, job embedded assistance" (ibid, p. 497) as teachers adapted to new instructional practices. As such, the EWS programme is conceived to be a sustained professional development experience with each phase spanning about a year, including a series of workshops, mentoring and coaching. For seven teacher-leaders within the group, their PD also included a study trip to the 10th World Symposium on Choral Music in

Seoul, Korea, in August 2014, which provided a changed context to trigger further personal reflection and learning.

PD curriculum focuses on music practice and music pedagogy. Research suggests that PD that is relevant and useful to teachers focuses on subject-related knowledge and pedagogic content knowledge (Shulman 1986; Guskey and Kwang 2009). Much of the music and pedagogical content knowledge at the workshops was modelled by the facilitators and experts, thus teachers were engaged in active learning through “hands-on” experiences (Chan, 2014). Given that music is a practice-based discipline, Pellegrino (2011) puts forth how music education researchers have also “begun to consider the potential of music-making as a valuable professional development activity” (Fredrickson, 2006; Scheib, 2006; Stanley, 2009; Pellegrino 2010, cited in Pellegrino, 2011, p. 79). By participating in modelled-lessons, teacher-participants are musically and actively involved throughout the pedagogy workshops. Additionally, choral reading sessions are also introduced, reinforcing ensemble, teacher confidence and active participation.

It involves expertise and learning from an outside-in perspective. Guskey and Kwang (2009) found that successful PD included “program authors or researchers who presented ideas directly to teachers and then helped facilitate implementation” (p. 496). The EWS teacher-participants had the benefits of learning from specialist instructors with strong pedagogical content knowledge in singing, to provide an outside-in perspective. Working with STAR’s Music Master Teachers to co-design and co-teach the workshops, the outside-in perspectives provide new frames and interpretations, when contextualised into the local music classrooms. Modes of inquiry, communication and making thinking visible provided a “dialogue learning” where “there is space for diverse expertise and interpretations that are open to challenge and

reconsideration” (Kumpulainen 2014). Another experience in changes of perspectives takes place during the study trips to Choral Festivals and Choral Symposiums in 2014-5. These designed learning trips provide a changing context to trigger new thinking.

Collegial support by a learning community within each school is designed into the learning experience. Social constructivist perspectives of learning underpin the notions that learning is situated and social in nature (Wenger, 2009) for adult learners. Learning is a meaning-making activity which involves shaping of identity through one’s social participation in a community. Learning is “a process of becoming a member of a sustained community...<it is> not just acquiring skills and information; it is becoming a certain person...” (Lave, 1991, p.65). In a literature review on professional development, Desimone (2009) pointed out that one of the key characteristics in effective professional development is collective participation which suggests participation of teachers from the same school, level or department with arrangements for interaction and discourse (p. 184). In Singapore primary schools, Music is often taught by both generalists and music specialists within a school. To facilitate teachers building their school-based community to solve contextualised issues in music teaching, the EWS programme encourages all music teachers in the school to participate in the PD together. The small school-based networked learning community provides collegial support after the workshops. Effectively, collegial support within the school also meant that school leaders needed to understand the systemic effects to bring good teaching in the classroom and the success of the implementation required strong commitment and support from the school leaders.

Facilitation of reflective practice is crucial for the sustainability of professional learning. Reflection is “a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and

appreciation.” (Boud, Keogh & Walk, 1985, cited in Mezirow, 1990, p. 5). Sense-making is made out of an experience for an interpretation to take place. When the interpretation guides decision making or action, then learning has taken place (Mezirow, 1990). He suggested that it is only with critical reflection that transformative learning could take place. STAR used the visible thinking routines from Project Zero (Ritchhart, 2012) to facilitate the meta-thinking of the teachers, which, over time, could help contribute to the critical reflection for transformative learning.

Provision of a resource of songs to support teaching of singing in the music classroom. The other objective of Engaging with Songs, is the ongoing effort to consolidate a repertoire of songs to support teachers in their lessons. Songs from cultures around the world, including those from Singapore, are collated in a manner to facilitate teaching. For example, they could be searched through tone-sets if a teacher intends to use developmental pedagogical approaches such as the Kodály approach. Where there were repertoire lists for classroom use, the teachers soon discovered that they needed to know relevant to use the resources to teach relevant musical concepts.

The first phase of the PD programme ended with celebration called ‘EWS Day’ in October 2014, where one class of students from each participating school came together in the world-class concert hall of the School of the Arts (SOTA), Singapore, and experienced singing games and music activities conducted by teachers from different schools. On 30th October 2014, 210 students experienced music and singing together with friends across schools. What united these students was the common repertoire of songs which they sang. These experiences helped engender a greater sense of singing communities within the schools, enhancing teachers’ confidence to start a singing culture in schools.

One of STAR's Music Master Teachers, conducted a qualitative study with three case studies of teachers in the first phase of the programme, and focused on the impact of professional development (Chan, 2014). The key findings resonated with the literature, pointing to the importance of critical reflection and shared learning to ensure a coherence of what is learnt during the process of professional development. It needs to "focus on content knowledge which is relevant, useful and applicable in context" (p. 20) for the teachers, as well as active learning over a longer duration of time, echoing Desimone (2009) who highlighted that content focus is one of the key characteristics of effective professional development. Chan (2014) reminded that the PD should be "a model of learning for the teachers to generate new knowledge and ways of knowing in their classroom practice" (p. 20).

EWS Phase Two

The second phase, which started in Feb 2015, extends the programme to another 19 schools with 44 teachers. This year, a major review of the first phase is in strengthening the reflection component for teacher-leaders in the overseas learning journey. After more than six months of intensive coaching on pedagogy, the professional learning journey culminated with the team of ten teacher-leaders and three STAR officers to the 2015 *Coralua Trondheim* in Norway. At the choral festival, the teacher-leaders were immersed in a choral singing experience, and started to listen as much as they sang. These singing experiences were then unpacked, broken down into pedagogical processes for discussion within the group. The deliberate design of reflection and discussion was scaffolded daily to ensure that the teachers got as much out of their learning experiences as possible. Visible Thinking Routines (Ritchhart, 2012) were adapted to facilitate generative conversations and self-reflections. An example is the use of the Connect-Extend-Challenge thinking routine:

- *Connect* - How does your learning at the Festival connect with what you already know/existing values and beliefs?
- *Extend* - What new ideas did you glean at the Festival that extended or pushed your thinking in new ways / directions?
- *Challenge* - What is still challenging you?

The dialogic learning as a community continued where everyday's learning is unpacked as a group and then continued online as blended learning with their personal reflections recorded on a blog. From this understanding, the learning was distributed where the participation in learning now moved from the individual to the group.

Teachers' Professional Learning

To evaluate the extent to which the objectives of the EWS programme were met, the team looked at multiple data sources. One of them is the qualitative teachers' reflections. Teachers reflected regularly throughout their professional learning journey. Another source are quantitative indicators from a survey which measures teachers' confidence in singing and leading singing in the music classrooms, their sense of self-efficacy in being able to impact student learning through their teaching.

Quantitative Data Collection

STAR administered a questionnaire survey to the music teachers at the beginning and end of Phase Two of EWS. The 30-item questionnaire aims to measure their sense of self-efficacy (15 items) and teaching confidence (15 items). The questionnaire adapted items from Teacher Efficacy Scale developed by Gibson and Dembo (1984) and Teaching Confidence Scale from Ohio State University to address specific focus on teaching music through singing.

Teacher efficacy has been defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, cited in Tschannen-Moran, Hoy & Hoy, 1998, p. 202). It measures the strength of teachers' beliefs in themselves to bring about and effect the learning of their students (e.g. "I have sufficient singing skills for General Music lessons."). While it is the self-perception, self-efficacy beliefs influence thought patterns and emotions, which in turn impact actions and efforts that teachers will take to see to their students' learning, even in the face of adversity.

While Self-Efficacy Scale measures teachers' beliefs in their ability to bring about the changes in their students' learning, Teaching Confidence Scale focuses on perceptions of their own abilities to carry out specific tasks and activities, in this case, in relation to leading singing in their own music classrooms. The questionnaire items on Teaching Confidence thus look at specific skills set and knowledge that would enable the teachers to carry out music lessons through singing (e.g. "I am able to use gestures and cues to facilitate students' singing). Thus the items focus on curriculum such as singing games, routines involving singing, communicating using music vocabulary, providing feedback to students and assessing them. These competencies were conceptualised in four dimensions: planning, practice, pedagogy and music content in relation to singing.

Teachers responded to a 5-point Likert scale, on their level of agreement to 15 statements on self-efficacy (e.g. "I know how to teach singing effectively" as positively worded statement, and "I find it difficult to demonstrate singing to students" as negatively worded statements), and 15 statements on confidence in teaching (e.g. "I am confident to use singing games in my teaching" as positively worded statements and "I am not confident to provide feedback on students' singing" as negatively worded ones). The scale works from "1" being "Strongly

Disagree” to “5” being “Strongly Agree”. The questionnaire was administered at the beginning of Phase Two in January 2015, and again in September 2015 at the end of the programme.ⁱⁱ

The statistical results indicated that the questionnaire has high reliability score, with the Cronbach’s Alpha of .905 for the overall 30 items (59 valid cases) in the survey. Of these, the 15 questions from the Efficacy Scale measured .771, and 15 questions from the Confidence Scale measured .900. With regard to validity, Exploratory Factor Analysis was conducted to measure if there were cross-loadings in the variables. Results indicated that 9 out of the 15 items (see Annex A for questionnaire items) load highly on the factors, while all the 15 items from the Confidence Scale load on one factor, hence, these items were used for further analysis.

Qualitative Data

Qualitative data are drawn from teachers’ reflections facilitated by thinking routines (Richhart, 2012) to draw out teachers’ learning at the end of the workshop sessions. For example, the ‘Connect-Extend-Challenge’ routine was used for one of the workshops:

- **CONNECT:** What connects to what you already know / are doing in your music lessons? (E.g. lesson ideas, singing strategies used)
- **EXTEND:** How are these ideas different from what you know or do?
- **CHALLENGE:** What do you see as potential challenges?

Routines like “3-2-1” (e.g. 3 Things that I Learnt / 2 Things that I Like / 1 Thing I would like to try), and “I Used to Think, Now I Think...”, “See-Think-Wonder” are used as well.

Findings & Discussion

Quantitative Data

Questionnaire results suggest that there is increased self-efficacy and confidence in teaching singing. ANOVA test is used (with the assumptions tested) and results indicated that the two following variables (or questionnaire items) showed statistical positive changes with moderate effect sizes:

- A3. I know how to teach singing effectively [$F(1,70) = 14.5, p = .000, r = .4$]
- A1. I have sufficient singing skills for General Music lessons [$F(1,71) = 5.3, p = .024, r = .3$]

Thus, the quantitative data suggests that EWS programme, over two phases, was able to increase teachers' self-efficacy in terms of knowing how to teach singing effectively, and having sufficient singing skills for General Music lessons.

Paired-Samples T-Test was used to measure the valid responses of teachers who responded to both phases of the questionnaires. Results indicated that there was improvement in the following 4 variables (or questionnaire items) were statistically significant, which indicated impact on both their practice and pedagogical knowledge:

- A3. I know how to teach singing effectively [$t(11) = 2.8, p = .017$]
- A8. When a student has difficulty singing, I am usually at a loss ... [$t(11) = 2.3, p = .039$]
- B1. I am able to plan meaningful activities that integrates singing... [$t(11) = 2.3, p = .039$]
- B13. I am confidentⁱⁱⁱ to provide feedback on students' singing ... [$t(11) = 3.1, p = .010$]

Overall, there was a statistically improvement in efficacy [$t(11) = 3.0, p = .011$], and confidence [$t(11) = 2.7, p = .022$]. Hence overall, the quantitative data suggests that the EWS programme had enhanced teachers' efficacy and confidence over the two phases in relation to the above indicators.

Qualitative Data

Teachers' reflections focus on Pedagogical Content Knowledge (PCK) in teaching singing. The qualitative data provides insights to the content and focus of teachers' professional learning, which resonates with the questionnaire findings. Mezirow's (1990) notion of "instrumental learning" and "communicative learning" lend insight as to how the teachers' reflections could be considered as "instrumental learning" - this learning which focuses on "task-oriented problem solving-how to do something or how to perform" (*ibid*, p. 7). Varying levels of instrumental learning could be seen from the Phase Two teacher-participants' reflections:

- listing of specific activities, strategies, ideas and songs (e.g. "singing games", "Four Little Engines")
- seeing activities and strategies as contributing towards their pedagogical repertoire to achieve music learning outcomes (e.g. "the use of interesting manipulatives to get pupils to create"; "singing games using the games to build on pupils' experience, introducing musical concepts such as solfège and rhythmic notation and applying the concepts with tasks")
- Comment on broader pedagogical principles and approaches to scaffolding singing (e.g. "scaffolding of the teaching of music through the ECA approach^{iv}; "scaffold the music lesson from easy activity to more challenging tasks")

The following topics stood out from the teachers' reflections: warm-ups, musical routines, singing games, scaffolding the learning of foreign language songs and the pacing of activities during lessons. Singing games are seen as meaningful and fun strategies to reinforce music concepts. One of the teachers reflected how the use of singing games reduced inhibitions to singing in students:

I begin to see how powerful singing games can encourage children to sing (even those who thought they can't. -- Teacher XR

Teachers appreciated how socio-cultural contexts of songs create meaning and understanding to the learning and musical experiences of students. Learning songs of a foreign language was much discussed, especially by the group of ten teacher-leaders who went on the learning journey to Norway. A learning journey to the choral festival provided a significant change from their usual school context, and provided dialogic spaces to deepen understanding. The experience drew much discourse and reflection on how songs from different parts of the world could be pedagogically approached, from the socio-cultural diversity that they could add to an inclusive classroom and appreciating the nuances of musical concepts within the songs. Teachers connected to Singapore's context as a multi-cultural society, and where learning of a diverse repertoire of songs in various languages enriched the child's classroom experience:

After seeing how successfully we could sing the "foreign" song even though we are not of that native tongue, just by understanding the culture and the meaning of the lyrics and the story behind the lyrics, I realise that in future, as my choir or the pupils in my music class, strives to learn a foreign song, we could encourage the pupils to find out about the culture or the background info of the foreign song before attempting to explain the meaning of the lyrics of the song. This way, pupils can be actively engaged and be given a chance to take ownership of their learning (21CC development - self-directed learner) too. -- Teacher B

The above is probably illustrative of “Communicative Learning” (Mezirow, 1990), which involves “*understanding the meaning* of what others communicate concerning values, ideals, feelings, moral decisions” (*ibid*, original italics). A deeper connection with their students’ learning experiences was felt.

One of the feelings that the teachers communicated was that connection with students in their classrooms. Teachers were able to put themselves in the shoes of the learners.

Singing in a foreign language and facing the difficulties helped me connect to the students in school as they are also required to learn songs in different voice parts in different languages. In a multi-racial society (Singapore), someone’s Mother Tongue becomes a foreign language to another person and they are required to learn them and memorise them too! -- Teacher A

This Festival has given me the chance to be a participant and I experienced the difficulties when I am not singing so correctly and I have to be corrected. This then helps me to relate to the feelings of my pupils when they are corrected by me...this experience has helped me realise the need to be more sensitive to my pupils’ feelings in future. -- Teacher B

Perspective shifted on the notion of singing together. One of the biggest transformations of perspective was on the notion of singing as a group (not merely as a group of people coming together and producing sounds). Many commented that they rethink their understanding of the situated function of a choir vis-à-vis the role of singing in the classroom, the fundamental relationship between listening and performing in music-making. One of the teachers linked it also to 21CC development:

There's evidence of Social Emotional Learning throughout the workshop. Self-awareness and social awareness were present when the sopranos (and I am one of them) were made to sing with their ears covered. The others listened to us and we didn't sing well. I knew that I can't sing well if I can't hear myself just like how the hearing-impaired talk because they cannot hear themselves. But it also made me realise that the whole choir can't sing well if we do not listen to self and others. This is a skill that many of our students are lacking in nowadays -- Teacher Ag

As one of the teachers puts it succinctly, "singing is more about listening than producing sounds!" (Teacher A).

Looking Ahead

It is significant that teachers are starting to express their belief in making a positive impact on their student learning. One of the teacher-leader at the Choral Festival in Norway shared:

I see the passion and patience in teaching singing in all the conductors...The energy in them motivates us, making us feel wanting to learn more even though <we had to> sing in foreign languages. They made it possible with the strategies to overcome our fears and doubts. This made me believe we can do what we want to do for this EWS. I strongly believe we can succeed but of course it will take months and years. I am confident we can do it. --Teacher S.

The dedicated efforts from the initiative helped to address building teacher confidence, by lifting the lid on the capacity of understanding how singing can be a transformative experience to

the child. What the initiative offers is a start of many teacher narratives being reframed, their aspirations and hopes for a better notion of their classroom pedagogy for singing. More significantly, the socio-cultural legacy created over time, builds a sustained momentum of singing to being brought back to the classroom again.

References

- Bennett, M. (2013). Power of Song as the Voice of People. *The Phenomenon of Singing*, 13, 23 - 33.
- Chan, Y. S. (2014). How can professional development help to deepen Lower Primary Music teachers' pedagogical understanding in teaching singing in their music classrooms? (Unpublished professional project in fulfilment of Masters in Music Education). Monash University, Australia.
- Chen-Hafteck, L. (2007). In search of a motivating multicultural music experience: lessons learned from the Sounds of Silk project. *International Journal of Music Education*, 25, 3, 223-233.
- Desimone, L.M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181-199.
- Dolloff, L-A. (1997). The singing classroom: a community of musicians. *The Phenomenon of Singing*, 1, 89-96.
- Folkestad, G. (2002). National identity and music. In R. MacDonald, D. Hargreaves, & D. Miell (Eds.), *Music Identities* (pp. 151-162). New York, USA: Oxford University Press.
- Heyning, L. (2011). "I can't sing!" The concept of teacher confidence in singing and the use within their classroom. *International Journal of Education & the Arts*, 12(13). Retrieved from <http://www.ijea.org/v12n13/> on 15 Sep 2015.
- Guskey, T.R. & Kwang S.Y. (2009). "What works in professional development?" *The Phi Delta Kappan*, 90/7, 495-500. Indiana, USA: Phi Delta Kappan.

- Gibson S. & Dembo, M. H. (1984). Teacher efficacy: a construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- Ilari, B., Chen-Hafteck, L., Crawford, L. (2013). Singing and cultural understanding: A music education perspective. *International Journal of Music Education*, 31, 202 – 216.
- Kumpulainen, K. (2012). Pedagogies of connected learning: adapting education into the twenty-first century. In D. Hung, K.Y.T. Lim, S-S Lee (Eds.), *Adaptivity as a transformative disposition for learning in the 21st century* (pp. 31 - 41). Singapore: Springer.
- Lave, J. (1991). Situating learning in communities of practice. In L. B. Resnick, J. M. Levine, S. D. Teasley (Eds.), *Perspectives on socially shared cognition* (pp. 63-82). Washington, DC, USA: American Psychological Association.
- Mezirow, J. (1990). How critical reflection triggers transformative learning. In J. Mezirow, *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning* (pp. 1-20). San Francisco, USA: Jossey-Bass.
- Ministry of Education. (2010). *Nurturing our young for the future: Competences for the 21st century*. Singapore: Ministry of Education.
- Student Curriculum and Development Division. (2014). *2015 Syllabus: General Music Programme (Primary/Secondary)*. Singapore: Ministry of Education. Retrieved from <http://www.moe.gov.sg/education/syllabuses/arts-education/files/2015-general-music-programme-syllabus.pdf> on 21 Mar 15.
- Singapore Teachers' Academy for the aRts, Singapore. (2014). *Engaging with Songs Resource Kit*. Singapore: Ministry of Education.

- Ministry of Education. (2015). *Framework for 21st Century Competencies and Student Outcomes*. Singapore: Ministry of Education. Retrieved from <http://www.moe.gov.sg/education/21cc/> on 19 Sep 15.
- Nettl, B. (1983). *The Study of Ethnomusicology: Twenty-nine Issues and Concepts*. USA: University of Illinois.
- Pascale, L. M. (1999). The power of simply singing together in the classroom. *The Phenomenon of Singing*, 2, 177-183.
- Pascale, L. M. (2005). Dispelling the myth of the non-singer: embracing two aesthetics for singing. *Philosophy of Music Education Review*, 13 (2), 165-175.
- Pellegrino, K. (2011). Exploring the benefits of music-making as professional development for music teachers. *Arts Education Policy Review*, 112, 79-88. doi: 10.1080/10632913.2011.546694
- Ritchhart, R., Church, M., Morrison, K. (2011). *Making thinking visible: how to promote engagement, understanding, and independence for all learners*. San Francisco, USA: Jossey-Bass.
- Sweeney, F. (2001). Singing in the education of children. *The Phenomenon of Singing*, 2, 220-223.
- Tschannen-Moran, M., Hoy, A. & Hoy, W. K. (1998). Teacher efficacy: its meaning and measure. *Review of Educational Research*, 68(2), 202-248b. USA: American Educational Research Association.
- Wenger, E. (2009). *Communities of practice and social learning systems: the career of a concept*. Retrieved from <http://wenger-trayner.com/resources/publications/cops-and-learning-systems/> on 19 Sep 15.

Welch, G. (2005a). Singing as communication. In D. Miell, R. MacDonald and D. J. Hargreaves (Eds.), *Musical Communication* (pp. 239 – 259). Oxford, UK: Oxford University Press.

Welch, G. (2005b). We ‘are’ musical. *International Journal of Music Education*, 23, 2, 117 – 120. doi: <http://dx.doi.org/10.1177/0255761405052404>

Appendix A

Questionnaire Survey on Self-Efficacy and Confidence of Teachers on Engaging with Songs
Professional Development Programme

There are two sets of questions in the questionnaire: Set A measures the self-efficacy of teachers, and Set B on teaching confidence. These questions are adapted from Gibson and Dembo's (1986) Teacher Efficacy Scale and the Teacher Confidence Scale from Ohio State University.

Teacher Efficacy: Self-Efficacy

- A1. I have sufficient singing skills for General Music lessons.* ¹
- A2. I do not teach singing as well as other music skills.*
- A3. I know how to teach singing effectively.*
- A4. I am not very effective in monitoring students' creative work that involves singing.
- A5. I find it difficult to demonstrate singing to students.
- A6. I wonder if I have the necessary skills to teach singing.*
- A7. Given a choice, I would not invite my RO to evaluate my teaching using singing strategies.*
- A8. When a student has difficulty singing, I am usually at a loss as to how to help the student sing better.*
- A9. I do not know what to do to interest students in singing.

Teacher Efficacy: Outcome Expectancy

- A10. If students are not doing well in music, it is likely due to ineffective music teaching.
- A11. The low music achievement of some students cannot be attributed to their music teachers.
- A12. When a child progresses in music, it is usually due to extra attention given by the music teacher.
- A13. The music teacher is responsible for students' learning in music.*
- A14. Students' learning in music is directly related to their teacher's effectiveness in teaching music.*
- A15. If parents comment that their child is showing more interest in music at school, it is probably due to the performance of the child's music teacher.*

Teaching Confidence

- B1. I am able to plan meaningful activities that integrate singing.*
- B2. I am not able to adapt material to different levels of student proficiency.*
- B3. I am not confident in demonstrating singing to my students.*
- B4. I can use activities that integrate singing skills.*
- B5. I cannot sight-sing for instructional purposes.*
- B6. I am able to use gestures and cues to facilitate students' singing.*
- B7. I am confident to use singing games in my teaching.*
- B8. I am able to use musical routines involving singing in my music teaching.*
- B9. I am not able to use a variety of teaching strategies with singing.*
- B10. I am confident to use scaffolding techniques to facilitate students' singing.*

¹ * Indicates high factor loading

- B11. I am not confident to facilitate students' creative processes through singing.*
B12. I can conduct assessment of students' singing.*
B13. I am not confident to provide feedback on students' singing.*
B14. I am not able to explain the techniques of vocal production to students.*
B15. I can use music vocabulary when teaching singing.*

ⁱ The General Music syllabus is written for the General Music Programme, a compulsory subject for students from primary (7 to 12 year-olds) to Lower Secondary levels (13-14 year-olds). The General Music Programme aims to provide opportunities for students to encounter and develop connections to music, developing in them an appreciation of musics of Singapore and of cultures around the world, an ability to express and communicate through music. All these thus develop an informed and life-long involvement in music. (MOE, 2015)

ⁱⁱ Phase Two comprises two modules: the first targeted at teaching of music to Primary One/Two students, and the second for Primary Three/Four. As teacher deployment differs in schools, not all teachers attend both modules. Nevertheless, given that it is a whole-school approach to PD, there would be representatives from every school.

ⁱⁱⁱ The item is worded negatively in the questionnaire. The statistics has been reversed scored.

^{iv} This refers for "Experience-Concept-Application", which describes a teaching process where students first experience a concept musically, before being introduced to the concept, followed by them applying them.