Developing Early Childhood Teacher Confidence to Implement Classroom Music and Movement Activities: Key Professional Learning Features

Sally Savage[1] · Laura. A. Bentley[1,2] · Kate. E. Williams[1,3] · Cathy Nielson[1,4] · Rebecca Eager[1,5]

Abstract

Music and movement activities are universal in children's play and socialisation and are fundamental tools to utilise in early years teaching. Early childhood teachers tend to value the positive role music and movement can play in their work, however teacher confidence to implement music-based activities varies, often due to a lack of professional learning opportunities. Findings from a study that trained and coached five early childhood teachers, with no prior formal music training, to deliver a specific rhythm and movement program are highlighted throughout this paper. Qualitative data gained through interviews articulates the teachers' experiences of professional learning, the approach to building their skills and confidence in this area, and the key areas that led to success. Important elements of the professional learning approach included active participation, provision of a video resource library, the nature of the evidence-based and structured program, ease of access, and coaching and implementation support throughout. These key elements, identified as being successful in boosting teacher confidence to use music in their practice, may be readily taken up by other programs, and are transferable to other curriculum and pedagogical areas beyond music.

Keywords Rhythm and movement · Early childhood · Music · Teacher confidence · Teacher professional learning

Introduction

Music and movement activities are universal in children's play and socialisation, and are fundamental tools in early years teaching (McPherson & Welch, 2018; Trehub, 2015). Early childhood teachers (ECTs) tend to value the positive role of music and movement in their work (Bautista & Ho, 2021; Kim & Kemple, 2011), but self-efficacy to implement music-based activities in practice varies (Bolduc &

Evrard, 2017). In this paper we document findings collected through qualitative data from a study involving the training and coaching of five ECTs to deliver a specific rhythm and movement program. The purpose of this qualitative research study was to explore ECT's perceptions of a music and movement-based professional development program. Sub-questions explored how did the program influence teacher efficacy, use of music and movement in the classroom and beliefs about the benefits of music and movement. The study identified key elements of a successful approach to boosting confidence in ECTs, that can be readily taken up by other professional learning programs and may be transferable to other curriculum and pedagogical areas beyond music.

The Value of Music in Early Childhood Classrooms

Teachers largely value music and acknowledge the benefits it has for young children's development and enjoyment (Burak, 2019). These positive perceptions are reinforced by empirical evidence for the impact of active music engagement in supporting children's cognitive (Putkinen et al., 2015), social-emotional (Burak, 2019; Williams et al., 2015),

✉ Sally Savage
sally.savage@qut.edu.au

1 School of Early Childhood and Inclusive Education, Queensland University of Technology, 149 Victoria Park Road, Kelvin Grove, Queensland 4059, Australia

2 Child Health Research Centre, The University of Queensland (UQ), South Brisbane, Australia

3 School of Education and Tertiary Access, University of the Sunshine Coast, Petrie, Australia

4 Play Matters Australia, Enoggera, Australia

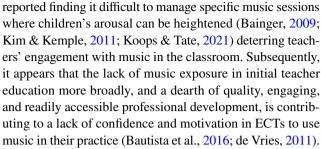5 Rhythmic Integrations, Wilston, Australia

language (Winsler et al., 2011), and physical development (Chatzihidiroglou et al., 2018). In the specific context of early years classrooms, active music engagement and music listening can generate a sense of belonging (Joseph, 2019), create a feeling of calm (Koops, 2011), soothe children at rest time (Bowers et al., 2019), and can be a way to celebrate and uphold cultural traditions (Sims & Udtiasuk, 2008). Music is often used as a tool for maintaining positive classroom environments. This occurs in various forms such as a cue for attention, as a 'brain break' or way to release energy, transitional support, or as a mnemonic aid (Killian & Wayman, 2015).

Early Childhood Teacher Confidence to use Music in Practice

While ECTs acknowledge the value of music in their programs, there is a general lack of consensus as to what constitutes good practice in this area. Teachers can have difficulty articulating the benefits for young children and can lack confidence to engage with music effectively in their practice (Barrett et al., 2019a, 2019b; Bautista & Ho, 2021; Campbell & Scott-Kassner, 2019; Young & Ilari, 2019). Extensive global research cites a lack of music training in initial teacher education programs (Erhlin & Wallerstedt, 2014; Hennessy, 2017; Joseph, 2019) which may contribute to such difficulties. Pre-service teachers (PSTs) have reported a lack of opportunity to observe teachers facilitating music sessions during their professional experience placements, acting as a barrier to developing their own confidence (Barrett et al., 2019a, 2019b; Hennessy, 2017; Joseph, 2019). The resulting lack of classroom music exposure during the formative training period for PSTs has negative implications for their ongoing practice (Garvis & Lemon, 2013; Joseph, 2019).

ECTs have reported a lack of professional development related to music as a practice tool (de Vries, 2011; Power & Klopper, 2011) with specialised initiatives to encourage ECTs to develop skills in music limited globally (Bautista, et al., 2016; Young, 2018). Professional learning in music can be at risk of being very formal in nature, with participants required to develop extensive skills within particular methods. Certain approaches to music education, including those for generalist teachers, need extensive and prolonged training for practitioners to become proficient and require specialised equipment to enact. In a study conducted by Joseph (2019), pre-service teachers in an initial teacher education program enjoyed and felt confident participating in rhythmic games, however stated using sol-fa was challenging. This is not to say that such pedagogies are not effective, however this limits the accessibility of such approaches, leading teachers to perceive music as a highly specialised tool only available to those with extensive training (de Vries, 2011; Seddon & Biasutti, 2008). Additionally, some teachers

reported finding it difficult to manage specific music sessions where children's arousal can be heightened (Bainger, 2009; Kim & Kemple, 2011; Koops & Tate, 2021) deterring teachers' engagement with music in the classroom. Subsequently, it appears that the lack of music exposure in initial teacher education more broadly, and a dearth of quality, engaging, and readily accessible professional development, is contributing to a lack of confidence and motivation in ECTs to use music in their practice (Bautista et al., 2016; de Vries, 2011).

The confidence of teachers to use music in ECTs' practice may be impacted by perceptions of their own musical ability formed early in life (Swain & Bodkin-Allen, 2017). Many ECTs state they cannot sing (de Vries, 2013; Welch, 2021), often due to negative feedback provided by their own teachers during early school years with lasting negative effects (Joseph, 2019). This lack of efficacy in many ECTs can mean that participation in music is avoided (Suthers, 2004; Temmerman, 2005). A belief that being musical is an innate skill may discourage ECTs from seeking any training (Ehrlin & Wallerstedt, 2014; Koops & Tate, 2021; Swain & Bodkin-Allen, 2014). Much of this lack of confidence in music is linked to singing specifically (Bainger, 2010; Swain & Bodkin-Allen, 2014, 2017). ECTs are too self-conscious to sing in front of others (Welch, 2021) and are not comfortable with the sound of their voice (Nardo et al., 2006). Research suggests that confidence to engage with music can be increased through participation in activities that do not require a high level of competence (Holden & Button, 2006; Joseph, 2019). For example, in Joseph's (2019) study, teachers perceived rhythmic games to be "useful, fun and exciting" (p. 191). Therefore, a music program that incorporated rhythm and movement activities that require very little singing and fundamental music skills to deliver was considered potentially beneficial for building teacher confidence and capability.

Building Capacity in Early Childhood Teachers to Deliver Music and Rhythmic Movement Activities

In a range of early childhood research, teacher confidence to deliver music and movement in the classroom has been connected to training and accessibility to resources (Koops & Tate, 2021; Barrett, et al., 2019a, 2019b; Bolduc & Evrard, 2017; Halima, 2018; Nieuwmeijer et al., 2019). Evidence suggests that professional development that is participatory, engaging, and considered non-judgemental is helpful in promoting teachers' confidence levels (Joseph, 2019). Similarly, modelling good practice and providing pre-service and ECTs with opportunities to ask questions, explore, and engage with practical activities also builds teacher capacity and confidence (Joseph, 2019; Koutsoupidou, 2010). Professional development in music that was provided in small groups or one-to-one increased confidence

and mitigated feelings of anxiety in having to perform in front of others (Koutsoupidou, 2010). Another approach suggested by Koutsoupidou (2010) involved music specialists running classes with children while ECTs observed and actively participated until they developed enough confidence to incorporate the music activities in their own practice. This type of mentorship has been identified as an effective approach where a positive relationship between the mentor and mentee is considered highly important (Bainger, 2009; Barrett et al., 2018; Barrett et al., 2019a, 2019b; Joseph, 2019). It is important that mentors understand and accept the ECTs' feelings of vulnerability and provide feedback that is constructive yet supportive (Bainger, 2009). The design of the professional development should consider all these elements to build teacher efficacy, capability, and confidence in ECTs, particularly those who consider themselves non-musical, and to apply musical activities, (specifically rhythm and movement activities) in their teaching practice.

The RAMSR Program

The Rhythm and Movement for Self-Regulation [RAMSR] program is a novel intervention that aims to increase self-regulation in children. The rationale underlying the RAMSR program is that rhythmic coordinated movement activities have the potential to shape and support neurological pathways in the self-regulatory regions of the brain (Williams, 2018). The program is comprised of a series of rhythmic movement activities designed to improve children's rhythmic coordination and cognitive development in a fun and engaging way. The RAMSR intervention is designed to take place in a group setting (up to 25 children) delivered by teachers as part of their usual group floor circle time (15 to 20 min per session). All activities are supported by specifically designed and recorded backing tracks facilitating the practise of target skills in the areas of movement, executive functions (attention and emotions), which contribute to overall self-regulatory control. Common activity elements across all sessions include start/stop games (executive function of inhibitory control), reversed instructions (executive function of shifting or cognitive flexibility; dance in silence and freeze when music plays), working memory games, and beat synchronisation to varying tempi. For example, children might be encouraged to match four movements to the beat made by the teacher (e.g., clap, march, jump, hop). Children are encouraged to recall each in turn without prompting and to then repeat them in reverse order (working memory), while also freezing when the music stops for short sections (inhibition). In an extension of the activity children might be encouraged to move in the silent sections (shifting) and be still when the music plays (inhibition). Each session ends with a calming series of movements to target embodied emotional regulation. Extensions of activities are provided to allow for increasing levels of challenge. Original backing tracks to provide rhythmic support, and low-cost instrument and visual resource packs are also provided to teachers. Access to all RAMSR resources and training is available at https://www.rhythmicintegrations.com/rhythm-and-movement-for-self-regulation/blindedwebsite%5D.

RAMSR brings together lines of research and theory from a range of areas including: the neuroscience of beat synchronisation (Thompson et al., 2015) and rhythmic entrainment (Thaut et al., 2015); the cognitive benefits of co-ordinated movement (McClelland & Cameron, 2019), music participation and relaxation (Zachariou & Whitebread, 2019); neurocognitive evidence from music therapy (Janzen & Thaut, 2019) and music training (Joret et al., 2017); and the developmental psychobiology of self-regulation development (Blair et al., 2016). Evidence to date has established those children who participated in the RAMSR program for eight weeks demonstrated improved self-regulation, inhibition, school readiness, academic outcomes and decreased behaviour and self-regulation problems, compared to a control group (Bentley et al., 2023; Williams et al., 2023).

One strength of the RAMSR program is the focus on building capacity in early childhood teachers to have the confidence, skills, and resources to use evidence-based rhythm and movement activities in their classrooms to support children's self-regulation. The program was designed so that no prior musical experiences or skills are needed to successfully implement the program. This increases the accessibility of the program for teachers who have low musical self-efficacy, subsequently enabling more children the opportunity to experience rhythm and movement to improve key developmental skills such as self-regulation. We have previously reported as part of the RCT findings that participation in RAMSR training increased ECT knowledge of music for brain development, their confidence to implement the specific rhythm and movement activities in the program, and use music throughout their day (Williams et al., 2023). Embedded within the RCT was the qualitative data collection that forms the corpus of data for the study reported here.

The Current Study

Through exploring teacher perceptions of their experiences with one particular music and movement program described below, we aimed to identify key elements of the approach, that can be readily taken up by other professional learning programs. Specifically, we sought to identify the features of the RAMSR professional development approach that teachers found were most important in boosting their self-efficacy to use music and movement as part of their practice.
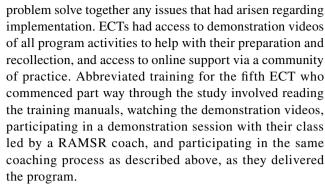
Methods

As part of a recent RAMSR randomised control trial (Williams et al., 2023), four ECTs were recruited and trained to deliver the program to their preschool classes, a fifth teacher entered the study part way through (replacing an original teacher who had resigned from her position) and undertook an abbreviated version of RAMSR training. Full recruitment and sample information has been previously published (Williams et al., 2023), but in brief, teachers were recruited through expressions of interest available to all kindergartens with one provider, in the geographic region of South East Queensland that met criteria for low socio economic status according to Australia's national socio-economic index.

Training for the original four ECTs consisted of a five-hour face-to-face group workshop. The workshop informed teachers on early self-regulation development, associated risk factors, and the rationale behind the RAMSR program including how music therapy concepts and theory (e.g., beat synchronisation, entrainment, the musician's advantage) can support early self-regulation trajectories. We have previously published pre and post training data showing that teachers who engaged in the training reported increased confidence in running music sessions and using music throughout the day, and increased knowledge of self-regulation development and the role of rhythmic movement for brain development (Williams et al., 2023).

Importantly, as part of the training workshop, ECTs were provided the opportunity to actively participate in all the RAMSR activities from the point of view of a child (with sessions led by the trainer) to better understand what children's experiences would be like. After attending the workshop, a RAMSR coach visited the centres and demonstrated one RAMSR session with children while ECTs observed. Three coaches were involved, all members of the RAMSR development team and authors here. One was the leader of RAMSR who is a Registered Music Therapist with a PhD in early childhood developmental psychology (KW), one is a leading Neurologic Music Therapist (RE), and one was an early childhood teacher and music specialist (SS). Following initial coach demonstrations, ECTs then practiced implementing the program with their current class for approximately four weeks (practice period), before breaking for six weeks over summer, and commencing the trial implementation for the RCT (implementation period). ECTs were provided with four sessions with their RAMSR coach during the practice period, and four sessions during the implementation period. Coaching sessions involved the RAMSR coach observing the ECT delivering a RAMSR session with their class, engaging in conversations to provide feedback, and providing the opportunity to

problem solve together any issues that had arisen regarding implementation. ECTs had access to demonstration videos of all program activities to help with their preparation and recollection, and access to online support via a community of practice. Abbreviated training for the fifth ECT who commenced part way through the study involved reading the training manuals, watching the demonstration videos, participating in a demonstration session with their class led by a RAMSR coach, and participating in the same coaching process as described above, as they delivered the program.

The study underwent ethics approval via the University Human Research Ethics Committee (#1900000566).

Participants

All four ECTs involved in delivering RAMSR as part of the RCT were interviewed once they had completed program delivery. The fifth teacher that left the program was also interviewed for consistency. Interviews took place approximately six months after the initial RAMSR training was completed. All five teachers were experienced Bachelor-qualified teachers with a range of 10 to 20 years teaching in early childhood. They variously described themselves as ranging from "very musically active" to "I don't know music. I'm not an instrument player". All of the teachers enjoyed music and movement, although only one cited any proficiency. None of the ECTs were familiar with the RAMSR program prior to their training or had participated in activities suggested by the program.

Data Generation

Teachers who had trained in, and delivered the RAMSR program as part of the RCT were invited to participate in a single interview at the end of the intervention period (approximately nine months after they had completed training, and six months after they had commenced implementation. One teacher (Alice) was interviewed by one of the RAMSR coaches, who was also an early years' music specialist. This coach had not been assigned to this ECT and so had not observed or coached this teacher although had met her on the professional development day. This coach is also an experienced qualitative researcher and designed the interview questions in consultation with the chief investigator of the RAMSR study. After the first interview, this interviewer and chief investigator discussed the efficacy of the questions for achieving the broader research aims. The other four interviews were undertaken by another member of the RAMSR research team who was not involved in training or coaching the participating ECTs. This interviewer listened to the first interview to gain insight regarding interview strategies to inform the remaining interviews. Semi-structured interviews

were between 30 and 45 min duration and undertaken via Zoom and in-person. The audio captured was transcribed verbatim by a university approved transcription company. Upon return, transcripts were verified by the interviewer before transcripts were returned to participants for member-checking to build credibility (Creswell & Miller, 2000).

Data Analysis

Data analysis utilised the reflexive thematic analysis method of Braun and Clarke (2021). Transcripts were read and re-read many times by three members of the research team (two that had been involved in training and coaching ECTs, and one who had not), notes were made, and individual coding of the data to look for commonalities and patterns related to key elements of the professional learning approach that were successful in boosting teacher confidence were undertaken. These codes were then sorted into initial themes. After the first level of analysis to familiarise ourselves with the data and find emergent themes related to the research questions, the researchers met to discuss the themes and interpretations of the data and to reach consensus (Braun & Clarke, 2021). This dialogic and iterative process was helpful to interrogate meanings, particularly as the research team member who had not been involved in ECT training and coaching was able to view the data through a different lens. These various perspectives help to build validity and trustworthiness within the research (Creswell & Miller, 2000). Emerging from the data were "thick descriptions" (Denzin, 1989, p. 83) of what was successful in enabling the teachers to facilitate music in their classrooms, particularly when they considered themselves to be non-musical. The detail of the data establishes credibility as it creates verisimilitude, that is, an account that readers may be able to relate to from their own experiences (Creswell & Miller, 2000). These findings, while specific to the RAMSR program, can be applied more broadly to other early childhood interventions, specifically those which incorporate rhythm and movement elements.

Researcher Positionality

It is important that we acknowledge that the authors of this study are variously also members of the team that developed the RAMSR program (KW, BE, SS, CN), trained and coached the teachers in the program (KW, BE, SS), and implemented the larger RCT study from which the data for this study is drawn (KW, LB, CN). We aimed to deliver robust and trustworthy results by ensuring that teachers were not interviewed by their RAMSR coach, but by another team member with whom they were not familiar, reducing some of the risk of positive desirability response bias. We ensured that on the analytic team we included one author who had not been involved in either the coaching of teachers, or in

the interviews (LB), and encouraged her to interrogate all analyses and interpretations.

Findings

Three main themes emerged from the interviews as ways to develop capacity and confidence in ECTs to implement music in their practice: active participation in collaborative learning, ease of access in utilising the resources, and coaching and implementation support for enhancing relationships.

Active Participation in Collaborative Learning Enhanced Confidence

Four of the ECTs attended a full-day professional development in-person workshop to learn how to implement the RAMSR program and to work through all associated materials. This included access to the written plans, videos of activities, access to associated audio tracks, documents explaining the target skills for each activity, and the theory behind RAMSR more broadly. The workshop provided an opportunity to participate and experience each of the RAMSR session plans which were facilitated by a music specialist. ECTs then took all materials and resources from the workshop to practise in their own settings. The teachers' overall feedback from the workshop included:

> Really enjoyed the PD day because you did it as a team … it gave us confidence to get in there and do it with the group … connect with the people coming to see you as well. (Jo)
> I liked going and actually participating like I was a child, like what the children would encounter and actually experience, so that hands-on, the practicalities of it … That was awesome... that's what I find that's really good when we're all sitting down and do that together. (Lana)

Conversely, for another teacher who was quite reserved and did not like performing in front of others, the participation with the other teachers was quite daunting.

> I did struggle … that's just me personally, like getting down and doing it, being a kid. I don't like those kind of role playthings … challenging for me personally … It probably did help more from seeing how [coach] did it … I don't like those situations. (Terri)

For some of the teachers, the opportunity to actively participate in the activities gave them a sense of what they should be doing, instead of just seeing someone else do it or by reading about it. However, the written materials offered consolidation of the theory behind the activities that justified why it was important.

It's not just a song off YouTube that you found and think looks fun … I understand the purpose of what I'm doing more … probably from the PD day and then the notes and the readings and that in the folder, not actually from doing it… I probably see more behind what I didn't see previously, so that there is more benefit to what you're doing. So, if you are tapping sticks, there's a reason … I mean, I did tapping sticks before the RAMSR program, but I probably just saw it as fun, "let's tap sticks". (Terri)

This same teacher mentioned in their interview that in their usual practice, they would incorporate some musical activities, however, they were unable to say why they did this other than the children enjoyed it.

The evidence-based theory behind the musical activities provided supplementary motivation to engage with the activities but also a rationale ECTs could provide to parents and other stakeholders if needed. As part of the resource pack, there are specifically designed information sheets explaining RAMSR for different audiences. By knowing the value of the activities for the children, teachers were motivated to work harder to persevere with musical activities they may have previously discarded as they felt they were too challenging for themselves or children.

The benefit is getting music and movement into the program when I'm not very musically and movement inclined. So that was a big draw card for me for doing it because I don't have a lot of ideas and I have a very small pool of things. So having something more was a good benefit. I was hoping with my group B because they need the self-regulation skills, that they would get it. (Terri)

Although Terri, quoted above, specifically mentioned how they were not "musically and movement inclined", they were seeking to enhance their musical and pedagogical competencies. Having an evidence-based, structured program readily available and accessible relieved the stress of having to think of ideas rather than having to find resources, learn them, and be unsure of how they might work.

One critique of the professional development offered to these teachers was the timing. The RAMSR workshop was run twelve weeks prior to the trial study which enabled the teachers time to practise the activities with their current class cohort for approximately four weeks, before the summer break of six weeks. Following the summer break, the trial implementation period commenced with a new cohort of children. Feedback from the ECTs suggested this was too long before implementation and this may have caused motivation and confidence to wane.

Probably if the PD was closer to when you're going to do it, because you do PD and it's all fresh in your head and then you had six weeks off and then it's like, "Oh, what am I doing?" (Terri)

If there wasn't such a gap [between PD and implementation], you'd remember what you're doing and still be in the spirit of it all – you'd be hyped up… (Jo)

The theory behind that was really, really good, but practicing, if you're not going to do this straight away, it's no benefit. (Lana)

One of the ways to mitigate the time between professional development and implementation, or to refresh memory of the activities, is by giving demonstration videos of each activity so that teachers can practise.

Ease of Access Promotes use of Materials

As part of the resource package, a library of demonstration videos was provided to ECTs. These acted as a bridge between the professional development workshop and the teachers' first and subsequent implementation sessions to remind teachers of what was involved in each activity and as a means to practise. The ECTs commented that the videos helped to build their confidence, and many stated they practised with their own children at home prior to running the activities with the children in their classrooms.

I'd always look at the video and go over it and make notes on the laminated copy, so that I had some idea of what I was doing, so I'd refresh myself. So, it was really good to have all that material and the video and so then you could fall back on it. (Jo).

The teachers already had a full workload yet having time to learn new material and practise was crucial for the RAMSR study to be implemented correctly. Teachers talked about the value of the videos for enhancing their practice. The videos offered teachers an opportunity to see how the activity should run. The videos were recorded in naturalistic settings with ECTs running RAMSR sessions with a group of children in a preschool setting. In this way, they could see teachers with 'real' groups of children and how levels of participation and engagement varied. The videos were accessible after the initial workshop and were available to use as a refresher tool throughout the whole program.

The video helped me feel a lot more comfortable … without the videos and just reading it, I probably wouldn't have been able to deliver it as well as it was intended to be (Natasha)

Watching those videos, I could stop and start it, I could watch it multiple times if I wanted to, and then it made me feel a lot more confident in then being able to deliver it myself. (Alice)

I just watched the videos to see what they did, and that was easy for me then to go "Oh, yeah, I can do that!" (Terri)

In this case it appeared that these demonstration videos were critical components of the resource package that allowed teachers to build confidence and refresh their memory of the activities and how to deliver them. In being contextualised in early years settings with children, teachers could see how children engaged with the program, but additionally, how teachers authentically delivered the program to groups of children.

For ECTs undertaking the RAMSR RCT, a folder of all the session plans, theoretical material, visual cue cards, access to audio files, tip sheets, information for parents and teaching assistants, and set of instruments was given to them at the initial professional development five-hour workshop. Having all the materials for the complete program readily available and accessible gave some of the ECTs confidence. There were no additional sessions to plan or resources to find and teachers felt added confidence in running each session as they could implement it straight after the training while the knowledge was still front of mind.

> I liked the structure of it and having something available that was already planned for me… you don't have to think… it's evidence-based … that has research behind it… I'm a very structured person, so I like structure and I do lots of programs within my program (Terri)
> I knew what to do at given times, and yes, I found it quite easy to follow … The folder is there for you to refer to. You've got all the information in one spot. The templates are all there, the instruments and everything, everything is very, very accessible. (Alice)

Full session plans were provided for each RAMSR session, so teachers did not need to supplement the session in any way. This causes a potential dilemma for early childhood professionals who aim to be responsive to the children with whom they work. Structured programs and adult-directed learning are considered antithetical to child-centred approaches usually implemented in early childhood settings, however one teacher qualified their response to say how they adapted the program to meet the needs of their children:

> I quite like the idea of having a program to follow… it was good to be able to adapt it based on the day. (Natasha)
> I always had the laminated card [with the session plan] somewhere near me, so I could follow it … nothing would throw me because I'd have that … And then if there were extension activities I wanted to do, I just put a post-it on it, so it was all here, the things I wanted to try. So, it was like a cheat sheet. (Jo)

Jo was able to add extension activities (provided as part of the program) or adjust the plan according to the needs of the children in the group on that particular day. So, while the RAMSR program was structured, it also offered flexibility.

Coaching and Implementation Support Enhanced Relationships and Capacity Building

During the RAMSR training and implementation periods, the coach assigned to each ECT remained consistent so that a stronger connection could occur. All coaches met their ECTs at the professional development full-day workshop and then visited individual centres to deliver a session to the ECT's group of children (in the year prior to trial implementation). The ECT could see a complete RAMSR session in action and ask any questions prior to leading their own sessions. During the implementation period for the RCT, the coach would visit centres again to watch the first iteration of each of the four RAMSR session plans to address any queries and provide supportive feedback and adjustments to practice. The coach would participate in and observe the session, and give feedback, both oral and written, at the end of the session. The coach would also intervene during the session if the teacher needed them to fill in or if the teacher was hesitant. This observation process also worked well via zoom which was required at times due to COVID-19 health directives restricting visitors to early childhood centres. A device camera could be set up to show the whole group and the ECT. The coach could observe the session and engage in the coaching discussion immediately after.

It was usual for the ECTs involved in the RCT to feel anxious when leading their sessions initially.

> Initially I was scared, especially when [coach] was watching the first sessions… being watched wasn't very nice feeling … that was probably challenging initially. (Terri)
> At first, I was feeling a little bit apprehensive, and I guess the added pressure, … they certainly made me feel comfortable ... They were there for support … I did feel a little bit of pressure to begin with. (Alice)

RAMSR coaches were available for consultation at any time during training or implementation either online, on the phone or by arranging more than the planned eight site visits (four during the training period, four during the trial implementation period). Teachers in this study stated that this on-going relationship was fundamental in building their confidence.

> [The coach] has been really wonderful in terms of connecting… lots of emails, tapping in with checking in and phone conversations … mentors coming in…being

able to ring or to make contact…I could ask them any questions… we were really well supported (Alice)

[The coach] would come… I would be like "I just want to make sure I'm doing this right", and she was like "No, you're doing great". I felt like once I'd done it for the first time I did feel like, "Yeah, I can do this all right" (Natasha)

It was good to just understand why we're doing it and then have a go at it together… you develop that comfortable relationship… you could ask questions… it was nice to reflect on things with her [the coach]. (Jo)

Providing feedback and support in the teachers' own environments made the feedback more relevant; coaches could assess exactly what teachers were dealing with in their practice regarding space, children's temperaments and dispositions and other possible constraints. Feedback always took a strengths-based perspective to develop confidence and any constructive feedback was aligned with ideas for possible solutions to try.

The participants in this study also found that the children's excitement and interest in the program encouraged their desire to learn more about it and implement it with success.

As the program went over a couple of days, they [the children] certainly enjoyed and participated more. They got used to it, they knew what they were doing, they could anticipate what was coming as well, and then yes, my enthusiasm of course, also encouraged them to have a go… I definitely felt a lot more confident in it, as well. (Alice)

This speaks to the value of repetition, not only for the children, but also for the teachers to develop and practise their skills. As one participant stated:

Each session I felt like I also grew in confidence… after the first couple of times it became a lot more natural to me. (Alice)

Within the RAMSR study, each plan consisting of six short activities completed within 15 to 20 min, was repeated every day for two weeks before the next plan was implemented. This meant that each teacher had time to refine their skills and develop confidence in each activity before having to implement a new plan. The repetition of the activities enabled the teachers to gain competency in the activities.

Discussion

The overarching purpose of the study was to explore ECTs' perceptions of a music and movement-based professional development program, by investigating how the program influenced teacher efficacy, their use of music and movement in the classroom, and their beliefs about the benefits of music and movement. The ECTs in the study stated that their confidence developed through the collaborative and active participation in the professional development, the accessibility of the resources and the ongoing support of a coach.

The most effective professional development occurs when the training provided is active, and where teachers engage with the materials in the same way as they would teach their students providing a contextualised learning that is more effective than lecture-based learning (Darling-Hammond et al., 2017; Koutsoupidou, 2010; Opfer & Pedder, 2011). This provides an opportunity for teachers to reconcile the new skills with current understandings of children in their classrooms. Teachers who do not see the value in what the program is trying to achieve, will not participate or alter their practices.

Collaborative learning approaches within perceived safe environments create a collective mindset where group members act as support for each others' practice, and nurture problem-solving and courage to try new things (Darling-Hammond et al., 2017). It was important for trainers to model the program for the ECTs to show the teachers how and what to teach (Jeanneret, 1997). As the teachers embarked on the learning journey and completed the activities together, a sense of camaraderie was engendered (Brown & Engelhardt, 2016; Ibbotson & See, 2021). This active participation aids teachers' sense of belonging and increases motivation to put new skills into practice.

For some teachers, however, having to perform in front of others was daunting and made them uncomfortable. One participant expressed their dislike of having to actively engage in the activities in front of others. She commented that she found the videos helpful to learn the program and practise. The demonstration videos were of teachers like themselves undertaking the program activities in similar settings in which they would teach and this developed confidence in the teachers. Studies have shown that teachers frequently utilise online videos to learn repertoire (de Vries, 2013). The danger in this practice is that teachers are not always discriminating in what they choose and do not always know the theory behind why they are doing certain activities except that children enjoy them (Bautista et al., 2024). This reiterates Barrett et al. and's (2019a, 2019b) assertion that teachers found it hard to justify why they were doing certain musical activities and to articulate the benefits for children's development.

Coaching has been widely established as an effective strategy to support teachers to acquire and implement new skills (Yang et al., 2022). Most coaching approaches involve goal setting, observation, feedback, and reflection (Elek & Page, 2019), all approaches taken as part of the RAMSR coaching program. These strategies enable teachers

to think deeply about and mindfully improve their practice (Darling-Hammond et al., 2017). Critical to productive coaching approaches is the fostering of supportive relationships between coach and teacher (Yang et al., 2022). Such relationships should acknowledge the vulnerability of the teacher and coaches should provide supportive and confidence-building feedback (Bainger, 2009). Reflection is an important part of coaching approaches (Yang et al., 2022) with discussion aimed at addressing teachers' practice and how it might be improved. In relation to enhancing music self-efficacy in particular, Barrett et al., (2019a, 2019b) posit that in-situ mentoring, which shares some of the same characteristics as coaching, is an important form of professional development with long-term impacts on teachers' confidence and students' learning outcomes. Prior research has also established the effectiveness of web-mediated coaching (Artman-Meeker et al., 2014).

Most of the teachers expressed some anxiety when first having to perform in front of their coach, similar to performing in front of their peers. Koutsoupidou's (2010) study found similar results, where PSTs demonstrated high levels of anxiety prior to teaching their music sessions due to their lack of experience and low confidence, however anxiety soon became excitement as the PSTs developed skills and abilities. This was particularly effective when teachers could see the enthusiasm their children had for the music session. Seeing positive results in children's outcomes increased motivation in teachers to persevere even when they may have found tasks challenging initially (de Vries, 2013).

The individualised support within the coaching sessions helped participants to reassess their musical ability and encouraged them to develop their skills alongside the children, leading to teachers developing confidence to try more music within their practice. As Bainger (2009) concurs, having coaches observing and addressing the individual reasons why teachers lack confidence and by providing specialised supports, teachers can develop confidence to become "active music-makers with their children" (p. 17). Additionally, having the resources, in the form of session plans, music tracks, demonstration videos, visual cue cards and inexpensive equipment, accessible made it easy for the ECTs to implement the program regularly without having to spend time planning and trying to find and be able to use technical equipment. The teachers were able to adapt the plans to meet the needs of their specific children on the day. Opfer and Pedder (2011) acknowledge that "the complex teaching and learning environments in which teachers live" (p. 377) need to be considered when working on developing teachers' knowledge and skills. Promoting regular use of the program in classrooms and making sessions part of the teachers' daily routines also meant that they practised, as the children practised, and they developed competency together, just like they did in the professional development. Teachers

who receive support through coaching and specialised scaffolding from experts are more likely to put recommended practices into action and use them consistently (Darling-Hammond et al., 2017).

The teachers also valued that the program was evidence-based, therefore teachers could confidently use the program knowing that there was value in what they were doing rather than randomly selecting something from the internet. Teachers' active music and movement engagement has been strongly linked with positive beliefs of the educational value of such (Young, 2018). Interweaving the evidence and theory behind the activities increased the teachers' knowledge that they were supporting children's development. For any professional development or program to be successful, it must align with educators' pedagogical approaches and inherent beliefs (Neuman, 2010).

Limitations

While this study contributes to an important field of research in promoting teacher confidence to implement music and movement in their educational practices, some limitations of the study should be considered. Primarily, the participant sample were implementing the program as part of a randomised control trial context and were implementing RAMSR under strict research conditions. Further research should explore the implementation experiences of educators when using the RAMSR program in naturalistic settings. Another limitation of the study revolves around the findings being specific to the RAMSR program, however these can be translated to other music programs that incorporate rhythm and movement components but are not able to extend to music programs which incorporate different elements (e.g., singing components).

Recommendations

The findings from this interview study suggest three ways that ECTs can develop confidence to teach rhythm and movement with the children in their care, including through relevant, collaborative, active and timely professional development, readily accessible resources and programs, and through coaching by experienced and supportive specialists. The implications for professional development are that the training should occur just prior to when the activity is to be enacted, to best sustain levels of interest and allow ECTs to immediately implement their learnings. In this study, ECTs did practice skills learned immediately, but then needed to implement the program again following a summer break. Future professional learning programs should consider what refreshers and reminders are needed during particular time
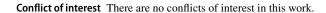
points during implementation to help maintain enthusiasm and fidelity. Professional development should enable teachers to actively participate in program activities to develop skills and provide opportunities to participate in groups to share experiences with colleagues. ECTs need multiple resources to support their work. Providing balance of theoretical knowledge on the subject, linked to evidenced-based research, to justify the benefits of the activities may support teachers' efficacy and application of new skills (specifically music and movement) in the classroom. ECTs will be more likely to engage in professional development when they believe their skill-development may be readily up taken and directly enhance children's learning outcomes.

An important aspect of professional development, particular as it relates to the delivery of a specific program to children, is having all the necessary resources readily accessible. This will increase motivation in the ECTs to implement the activities and promote active engagement in the program from the outset, when motivation and increased self-efficacy from the professional development is optimal. Finally, the coaching of teachers in a supportive and non-judgemental way offers an important opportunity to develop teacher confidence in skill development. Regular in-centre visits and electronic communication allow coaches to provide specific support relevant to the children and environments where educators were implementing the program. The development of strong, collegial relationships with coaches can promote confidence in teachers allowing them to feel free to ask questions, try out ideas and seek help if needed. Successful coaches will be accepting in their interactions with teachers, acknowledge their initial anxieties, offer supportive guidance, and promote reflective practice.

Conclusion

Approaches by which ECTs can be supported to implement an evidence-based program as part of their regular teaching practice have been highlighted throughout this paper. Through well-designed and interactive professional development, accessible resources linked to theory and a coaching program, ECTs can develop confidence and skills in using music activities in the classroom. This approach to professional learning has been identified as being successful in bolstering teacher confidence to use music in their practice and can be adopted by other programs and other curriculum and pedagogical areas beyond music.

References

Artman-Meeker, K. M., Hemmeter, M. L., & Snyder, P. (2014). Effects of distance coaching on teachers' use of pyramid model practices: A pilot study. *Infants & Young Children, 27*(4), 325–344. https://doi.org/10.1097/IYC.0000000000000016

Bainger, L. (2009). How early childhood teachers can develop confidence in doing music. In *Proceedings of the Joint Conference of XXXIst ANZARME Annual Conference and the 1st Conference of the Music Educators Research Center (MERC)*, (pp. 9–20).

Bainger, L. (2010). A music collaboration with early childhood teachers. *Australian Journal of Music Education, 2*, 17–27.

Barrett, M. S., Flynn, L., Brown, J., & Welch, G. (2019a). Beliefs and values about music in early childhood education and care: Perspectives from practitioners. *Frontiers in Psychology, 10*, 724. https://doi.org/10.3389/fpsyg.2019.00724

Barrett, M. S., Zhukov, K., & Welch, G. F. (2019b). Strengthening music provision in early childhood education: A collaborative self-development approach to music mentoring for generalist teachers. *Music Education Research, 21*(5), 529–548. https://doi.org/10.1080/14613808.2019.1647154

Barrett, M. S., Flynn, L. M., & Welch, G. F. (2018). Music value and participation: An Australian case study of music provision and support in Early Childhood Education. *Research Studies in Music Education, 40*(2), 226–243. https://doi.org/10.1177/1321103X18773098

Bautista, A., & Ho, Y. L. (2021). Music and movement teacher professional development: An interview study with Hong Kong kindergarten teachers. *Australasian Journal of Early Childhood, 46*(3), 276–290. https://doi.org/10.1177/18369391211014759

Bautista, A., Ng, S. C., & M´uñez, D., & Bull, R. (2016). Learning areas for holistic education: Kindergarten teachers' curriculum priorities, professional development needs, and beliefs. *International Journal of Child Care and Education Policy, 10*(8), 1–18. https://doi.org/10.1186/s40723-016-0024-4

Bautista, A., Yeung, J., Mclaren, L. M., & Ilari, B. (2024). Music in early childhood teacher education: Raising awareness of a worrisome reality and proposing strategies to move forward. *Arts Education Policy Review, 125*(3), 139–149.

Bentley, L. A., Eager, R., Savage, S., Nielson, C., White, S. L. J., & Williams, K. E. (2023). A translational application of music for preschool cognitive development: RCT evidence for improved executive function, self-regulation, and school readiness. *Developmental Science, 26*(5), e13358. https://doi.org/10.1111/desc.13358

Blair, C., Raver, C. C., & Finegood, E. D. (2016). Self-regulation and developmental psychopathology: Experiential canalization of brain and behavior. In D. Cicchetti & D. Cicchetti (Eds.), *Developmental psychopathology: Developmental neuroscience* (pp. 484–522). John Wiley & Sons Inc.

Bolduc, J., & Evrard, M. (2017). Music education from birth to five: An examination of early childhood educators' music teaching practices. *Research and Issues in Music Education, 13*(1), 3.

Bowers, J. P., Cassellberry, J. J., Isbell, D., Kyakuwa, J., Li, Y., Mercado, E. M., & Wallace, E. M. (2019). A descriptive study of the use of music during naptime in Louisiana child care centers. *Journal of Research in Childhood Education, 33*(2), 212–224. https://doi.org/10.1080/02568543.2019.1577770

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology, 18*(3), 328–352. https://doi.org/10.1080/14780887.2020.1769238

Brown, C. P., & Englehardt, J. (2016). Conceptions of and early childhood educators' experiences in early childhood professional development programs: A qualitative metasynthesis. *Journal of Early Childhood Teacher Education, 37*(3), 216–244. https://doi.org/10.1080/10901027.2016.1204574

Burak, S. (2019). Self-efficacy of pre-school and primary school pre-service teachers in musical ability and music teaching. *International Journal of Music Education, 37*(2), 257–271. https://doi.org/10.1177/0255761419833083

Campbell, P., & Scott-Kassner, C. (2019). *Music in childhood: From preschool through the elementary grades*. Cengage.

Chatzihidiroglou, P., Chatzopoulos, D., Lykesas, G., & Doganis, G. (2018). Dancing effects on preschoolers' sensorimotor synchronization, balance, and movement reaction time. *Perceptual and Motor Skills, 125*(3), 463–477. https://doi.org/10.1177/0031512518765545

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective Teacher Professional Development. *Learning Policy Institute*.

de Vries, P. (2013). Generalist teachers' self-efficacy in primary school music teaching. *Music Education Research, 15*(4), 375–391. https://doi.org/10.1080/14613808.2013.829427

Denzin, N. K. (1989). *Interpretive interactionism*. Sage.

Ehrlin, A., & Wallerstedt, C. (2014). Preschool teachers' skills in teaching music: Two steps forward one step back. *Early Child Development and Care, 184*(12), 1800–1811. https://doi.org/10.1080/03004430.2014.884086

Elek, C., & Page, J. (2019). Critical features of effective coaching for early childhood educators: A review of empirical research literature. *Professional Development in Education, 45*(4), 567–585. https://doi.org/10.1080/19415257.2018.1452781

Garvis, S., & Lemon, N. (2013). Are the arts important in schooling? Clear messages from the voices of pre-service generalist teachers in Australia. *Australian Journal of Music Education, 2*, 98–104.

Halima, A. A. (2018). An assessment of the determinants influencing pre-school teachers' use of music on teaching oral skills in Kitengela Zone, Kajiado County. *Kenya. World Journal of Innovative Research, 5*(1), 45–55.

Hennessy, S. (2017). Approaches to increasing the competence and confidence of student teachers to teach music in primary schools. *Education 3–13, 45*(6), 689–700. https://doi.org/10.1080/03004279.2017.1347130

Heyworth, J. (2011). Jumping through 'loops': A reflective study on preparing generalist pre-service teachers to teach music. *Issues in Educational Research, 21*(1), 42–64.

Holden, H., & Button, S. (2006). The teaching of music in the primary school by the non-music specialist. *British Journal of Music Education, 23*(1), 23–38. https://doi.org/10.1017/S0265051705006728

Ibbotson, L., & See, B. H. (2021). Delivering music education training for non-specialist teachers through effective partnership: A Kodaly-inspired intervention to improve young children's development outcomes. *Education Sciences, 11*, 433.

Janzen, T. B., & Thaut, M. H. (2019). Music processing in the human brain. In D. Hodges & M. H. Thaut (Eds.), *Handbook of music and the brain.* Oxford University Press.

Jeanneret, N. (1997). Model for developing preservice primary teachers' confidence to teach music. *Bulletin of the Council for Research in Music Education*, 37–44.

Joret, M.-E., Germeys, F., & Gidron, Y. (2017). Cognitive inhibitory control in children following early childhood music education. *Musicae Scientiae, 21*, 303–315. https://doi.org/10.1177/1029864916655477

Joseph, D. (2019). Fostering a happy positive learning environment for generalist pre-service teachers: Building confidence that promotes wellbeing. *British Journal of Music Education, 36*, 183–196. https://doi.org/10.1017/S0265051719000159

Killian, J. L., & Wayman, J. B. (2015). The prevalence of the use of music as a teaching tool among selected American classroom educators: A preliminary examination. *Texas Music Education Research, 22*, 37.

Kim, H. K., & Kemple, K. M. (2011). Is music an active developmental tool or simply a supplement? Early childhood preservice teachers' beliefs about music. *Journal of Early Childhood Teacher Education, 32*(2), 135–147. https://doi.org/10.1080/10901027.2011.572228

Koops, L. H. (2011). Perceptions of current and desired involvement in early childhood music instruction. *Visions of Research in Music Education, 17*, 1–21.

Koops, L. H., & Tate, K. (2021). A framework for considering teacher-child musical interactions in the early childhood classroom. *Early Child Development and Care, 191*(12), 1956–1971. https://doi.org/10.1080/03004430.2020.1862820

Koutsoupidou, T. (2010). Initial music training of generalist kindergarten teachers in Greece: What do they ask for and what do they receive? *Arts Education Policy Review, 111*(2), 63–70. https://doi.org/10.1080/10632910903455892

McClelland, M. M., & Cameron, C. E. (2019). Developing together: The role of executive function and motor skills in children's academic lives. *Early Childhood Research Quarterly, 46*, 143–151. https://doi.org/10.1016/j.ecresq.208.03.014

McPherson, G., & Welch, G. (2018). *Music learning and teaching in infancy, childhood, and adolescence: An oxford handbook of music education*. Oxford University Press.

Nardo, R., Custodero, L. A., Persellin, D. C., & Fox, D. B. (2006). Looking back, looking forward: A report on early childhood music education in accredited American preschools. *Journal of Research in Music Education, 54*(4), 278–292.

Neuman, S. B. (2010). The research we have; The research we need. In S. Neuman & M. Kamil (Eds.), *Preparing teachers for the early childhood classroom: Proven models and key principles* (pp. 221–236). Paul H. Brookes.

Nieuwmeijer, C., Marshall, N., & van Oers, B. (2019). Dutch early years classroom teachers facilitating and guiding musical play: Problems and opportunities. *European Early Childhood Education Research Journal, 27*(6), 860–871. https://doi.org/10.1080/1350293X.2019.1678926

Opfer, D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research, 81*, 376–407.

Power, B., & Klopper, C. (2011). The classroom practice of creative arts education in NSW primary schools: A descriptive account. *International Journal of Education and the Arts, 12*(11), 1–26.

Putkinen, V., Tervaniemi, M., Saarikivi, K., & Huotilainen, M. (2015). Promise of formal and informal musical activities in advancing neurocognitive development throughout childhood. *Annals of the*

New York Academy of Sciences, 1337, 153–162. https://doi.org/10.1111/nyas.12656

Seddon, F., & Biasutti, M. (2008). Non-music specialist trainee primary school teachers' confidence in teaching music in the classroom. *Music Education Research, 10*(3), 403–421. https://doi.org/10.1080/14613800802280159

Sims, W. L., & Udtaisuk, D. B. (2008). Music's representation in parenting magazines: A content analysis. *Update: Applications of Research in Music Education, 26*(2), 17–26. https://doi.org/10.1177/8755123308317682

Suthers, L. (2004). Music experiences for toddlers in day care centres. *Australasian Journal of Early Childhood, 29*(4), 45–49. https://doi.org/10.1177/183693910402900408

Swain, N., & Bodkin-Allen, S. (2014). Can't sing? Won't sing? Aotearoa/New Zealand 'tone-deaf' early childhood teachers' musical beliefs. *British Journal of Music Education, 31*(3), 245–263. https://doi.org/10.1017/S0265051714000278

Swain, N., & Bodkin-Allen, S. (2017). Developing singing confidence in early childhood teachers using acceptance and commitment therapy and group singing: A randomized trial. *Research Studies in Music Education, 39*(1), 109–120. https://doi.org/10.1177/1321103X17700141

Temmerman, N. (2005). Children's participation in music: Connecting the cultural contexts–an Australian perspective. *British Journal of Music Education, 22*(2), 113–123. https://doi.org/10.1017/S0265051705006091

Thaut, M. H., McIntosh, G. C., & Hoemberg, V. (2015). Neurobiological foundations of neurologic music therapy: Rhythmic entrainment and the motor system. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2014.01185

Thompson, E. C., White-Schwoch, T., Tierney, A., & Kraus, N. (2015). Beat synchronization across the lifespan Intersection of development and musical experience. *PLoS One, 10*, e0128839.

Trehub, S., & Gudmundsdottir, H. R. (2015). Mothers as singing mentors for infants. In G. Welch, D. M. Howard, & J. Nix (Eds.), *The oxford handbook of singing*. Oxford Handbooks Online. https://doi.org/10.1093/oxfordhb/9780199660773.013.25

de Vries, P. (2011). First year generalist primary school teachers: What music are they teaching? In *Making Sound Waves: Diversity, Unity, Equity: Proceedings of the XVIII National Conference* (pp. 164–169).

Welch, G. F. (2021). The challenge of ensuring effective early years music education by non-specialists. *Early Child Development and Care*. https://doi.org/10.1080/03004430.2020.1792895

Williams, K. E., Barrett, M. S., Welch, G. F., Abad, V., & Broughton, M. (2015). Associations between early shared music activities in the home and later child outcomes: Findings from the longitudinal study of Australian children. *Early Childhood Research Quarterly, 31*, 113–124. https://doi.org/10.1016/j.ecresq.2015.01.004

Williams, K. E. (2018). Moving to the beat: Using music, rhythm, and movement to enhance self-regulation in early childhood classrooms. *International Journal of Early Childhood, 50*(1), 85–100. https://doi.org/10.1007/s13158-018-0215-y

Williams, K. E, Bentley, L., Savage, S., Eager, R., & Nielson, C. (2023). Rhythm and movement delivered by teachers supports self-regulation skills of preschool-aged children in disadvantaged communities: A clustered RCT. *Early Childhood Research Quarterly, 65*, 115–128. https://doi.org/10.1016/j.ecresq.2023.05.008

Winsler, A., Ducenne, L., & Koury, A. (2011). Singing one's way to self-regulation: The role of early music and movement curricula and private speech. *Early Education and Development, 22*(2), 274–304. https://doi.org/10.1080/10409280903585739

Yang, W., Huang, R., Su, Y., Zhu, J., Hsieh, W.-Y., & Li, H. (2022). Coaching early childhood teachers: A systematic review of its effects on teacher instruction and child development. *Review of Education, 10*, e3343. https://doi.org/10.1002/rev3.3343

Young, S. (2018). *Critical new perspectives on early childhood music: Young children engaging and learning through music*. Routledge.

Young, S., & Ilari, B. (Eds.). (2019). *Music in early childhood: Multidisciplinary perspectives and inter-disciplinary exchanges* (1st ed.). Springer International Publishing.

Zachariou, A., & Whitebread, D. (2019). Developmental differences in young children's self-regulation. *Journal of Applied Developmental Psychology, 62*, 282–293. https://doi.org/10.1016/j.appdev.2019.02.002