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Designing Activities for Teaching Music Improvisation in Preschools – Evaluating Outcomes and Tools

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Abstract

This chapter gives an in-depth analysis, through Activity Theory, of two key music improvisation activities developed by the author. These two activities were part of a series of music improvisation workshops delivered by the author to a group of six preschool children in Scotland. The workshops were designed around two novel constructs back-engineered from the researcher's professional experience as an improvising musician, Creative Musical Agency and Socio-Musical Aptitude. Creative Musical Agency (CMA) is: The child creates novel musical material independently and executes this in the group improvisation. Socio-Musical Aptitude (S-MA) is: The child creates a musical response with reference to another child's musical idea in the group improvisation.

Through examining video analysis of the workshops, teacher interviews, children's talk data and the author's own reflexive data, a rich picture of the workshop activities is gained. The theoretical lens of Activity Theory revealed the creative musical decisions the children made and the ways in which these were mediated through physical and symbolic tools. Interesting possibilities and challenges in the activities were explored, and, therefore utilising Activity Theory has great potential for other researchers to examine complex creative pedagogical contexts.

4.1 Introduction

Music improvisation pedagogy is a rapidly developing field, which, can be seen to reflect a music profession where musicians are increasingly expected to be able to improvise (Johansen, Larsson, MacGlone, Siljamäki, 2017). In this chapter, I will introduce two novel theoretical constructs, which I designed for the purpose of teaching music improvisation in preschool settings in Scotland. These constructs, Creative Musical Agency (CMA) and Socio-Musical Aptitude (S-MA) are developed from my professional experience as an improvising musician. The empirical work described and discussed in this chapter is from my PhD, in which I designed, delivered and assessed two six-week programmes of improvisation workshops for preschool children in an Action Research framework. This chapter will focus on my critical reflection on two key workshop activities through the theoretical-analytical lens of Activity Theory and discuss the implications for music improvisation pedagogy with preschool children.

4.2 Previous Literature

4.2.1 Understandings and Applications of Improvisation in Music

An important issue in researching musical improvisation and any of the contexts in which it appears, is apprehending the diversity in understanding of what constitutes improvisation. Improvisation could be understood as virtuosic extemporizing as played by saxophonist Evan Parker, a clinical process in Music Therapy, a teacher encouraging group creativity in a classroom as generative process in composing, or, a parent trying various invented melodies or sounds to help their baby sleep. These represent various contexts of improvisation: artistic, therapeutic, pedagogical, and, everyday. All of these different applications of improvisation can be appreciated as the negotiating or manipulation of unanticipated events, corresponding to the Latin roots of the words itself: *improvisus* – unforeseen. However, in music, the extent to which the events are completely unknown varies greatly depending on genre and context. Improvisation in music is found in a diverse range of genres, for example, church organ music; jazz; contemporary classical; Indian classical music etc. and creative contexts, yet offers a distinct function in each situation (MacDonald, Wilson & Miell, 2012).

The artistic practice best reflecting my professional background as an improviser is known as free improvisation, understood to be a distinct practice

which prioritises the socio-musical aspects of music making (Lewis, 2000), where creativity is situated largely with the performer rather than composer or score (Wilson & MacDonald, 2016). Free improvisation has been characterised as enigmatic by some authors (Ashley, 2009). This concept aligns with often quoted musician/writers Braxton, (1985) who highlighted the ubiquitous practice yet under-acknowledged aspect of improvisation and Bailey, (1992) who mostly avoided definitions, instead describing a variety of improvisation contexts (Lewis & Piekut, 2016). These contrast with conceptualisations of improvisation as an everyday human process (MacDonald et al., 2012 & Lewis & Piekut, 2016).

As we see, there is no commonly used definition (MacDonald et al. 2012), and writing on improvisation has only recently (since within the last 25 years) been a subject of scholarly interest, usually published by small, hard to find companies (Rose, 2012). A reason for the many definitions could reflect on different gatekeepers who have conflicting views and agendas (Johansen et al. 2017). Increasingly, contemporary writing on free improvisation has begun to either search for common features across context, such as creativity and spontaneity (Hickey, 2015) or to highlight key aspects which are distinct to the context of the research, for example, interactive aspects (Linson, 2014).

4.2.2 Existing Approaches in Improvisation Pedagogy

Increasing numbers of researchers, practitioners and institutions ranging from orchestras to educational establishments are interested in improvisation as a creative practice and developing methods and approaches to teaching improvisation (MacGlone & MacDonald, 2017; Heble & Laver, 2016; Lewis, 2000). This could be a result of new curricula (within in the last ten to fifteen years) which emphasise creativity, student centred teaching and process based learning, for example in Scotland (Education Scotland, 2006). These curricula have been designed with the aim of preparing children to participate fully in changing world (Education Scotland, 2006) and encourage 21st century skills. These skills can include “creativity, critical thinking and problem solving, collaborative skills, information technology skills, and new forms of literacy, and social, cultural, and metacognitive awareness” (Griffin & Care, 2014 p. 14).

When comparing different approaches to teaching improvisation, complexity in the heterogeneity of participants and intended outcomes presents a challenge in building overarching theories. A variety of factors such as age

of children/students, educational approach and research methodologies all contribute to this complexity. Therefore, through examining key texts with the aim of exploring the reported pedagogical approach is an effective way of understanding these diverse contexts. Within pedagogical applications of improvisation, teachers' and researchers' own beliefs or internalised cultural or genre based beliefs about improvisation may affect how and what they teach, a common belief being that students have to reach a certain level of technical skill before they can improvise (Whitcomb, 2013; Koutsoupidou, 2008). A contrasting view is that children are "natural" improvisers (Hickey, 2009; Barrett, 2006; Young, 2003). These beliefs relate to the particular orientation of the pedagogical approach, examination of the literature concerned with teaching improvisation revealed two broad categories of pedagogical approach: method-based and process-based.

Method-based orientations utilize conventions and influences from the teacher's chosen genre or approach (such a Kodaly or Orff), which in turn inform the constraints or parameters used. There is creative choice available to the participants but practically, only within the available specified parameters. For example, methods that use Orff-designed instruments give example limit pitch choice, as they are pentatonic instruments. A reason for utilizing this type of instrument is that pentatonic instruments playing together sound consonant and so produce a pleasant-sounding product, as seen in a study with fifth-grade children (Beegle, 2010). The process in method-based approaches is often clearly delineated and sequential; every step has to be mastered before moving to the next as seen in a study by Kratus (1991): 1. Exploration; 2. Process-oriented improvising; 3. Product-oriented improvising; 4. Fluid improvising; 5. Structural improvising; 6. Stylistic improvising; 7. Personal improvising. One potential reason for creating a learning path such as this is to cope with curricula that demand substantive assessments; another reason could be to aid teachers who are unsure about their own improvising skills by providing a clearly defined path.

Process based orientations of teaching improvisation focus on developing the musical material the participants themselves create. The teacher can then negotiate parameters through scaffolding the contribution of the child while attempting to preserve their creativity. Good examples of this are in the work of deVries (2005), who took his son's improvising as a 'point of departure', (Nettl & Russell, 1998 p. 72) to guide development of vocal skills and though this, understanding of musical concepts. Similarly in Young's (2003) research with preschool children, participatory adults responded sympathetically to children's improvisations with the intent to structure and further develop

exploratory play. It is important to appreciate that in these two examples the teacher is working one-to one with children, and this ratio is common amongst other studies of this type. An exception was found in Young (2008) where pairs and trios of children improvised together without a teacher and their collaborative mechanisms (non-verbal communication) were examined. Therefore, there is a scarcity of work examining improvising with larger groups of preschool children ($n > 4$).

4.2.3 The Scottish Context for 3–18 Education

As I will consider my music workshops in an Activity Theory framework, I now turn to contextualising the broader educational environment. In Scotland there has been recent educational reform with the Curriculum for Excellence (CfE) being implemented in most Scottish schools from 2010. The curriculum aims ‘to help children and young people gain the knowledge, skills and attributes needed for life in the 21st century, including skills for learning, life and work.’ (Education Scotland, 2016) It was developed after a National Debate to address the lack of coherence in different educational stages (from ages 3–18), to prepare pupils for modern life, and, to give more them more choice (Education Scotland, 2004). Four capacities were proposed to frame children’s personal development and prepare them to manage a changing and challenging world. These are described as confident individuals, successful learners, effective contributors and responsible citizens (Education Scotland, 2004).

CfE has been seen positively with the potential for progressive child centred methods of teaching (Priestley & Biesta, 2013). The philosophy underpinning CfE is seen as ‘implicitly socio-constructivist’ (Priestley & Biesta, 2013 p. 45) and offers potential teaching methods such as ‘scaffolding’ a term Wood, Bruner & Ross (1976) developed from Vygotsky’s (1978) concept of Zone of Proximal Development. For the teacher, there is more agency in creating the curriculum content to meet the specific needs of their environment, (Biesta, Priestley & Robinson, 2015). Criticism of CfE has focused on the lack of knowledge content, and the perceived vagueness of prescribed experiences and outcomes (Biesta et al. 2015; Young, 2010). As well as this, there is a greater work burden on teachers than in the previous curriculum, as they have to tailor lessons to the specific educational requirements of each class. In addition, some writers have questioned the values that underpin the four capacities and the overarching purpose behind those values. For example, the purpose of these capacities may not solely be

to encourage the development of the person but also be designed so that governments can benefit from developing these attributes in a future workforce (Watson, 2010).

In CfE, the Early Years curriculum for music emphasises participation, exploration and personal expression over learning measurable music skills, the two specific outcomes for Early Years learning in music follow:

I have the freedom to use my voice, musical instruments and music technology to discover and enjoy playing with sound and rhythm.
EXA 0-17a

Inspired by a range of stimuli, and working on my own and/or with others, I can express and communicate my ideas, thoughts and feelings through musical activities. EXA 0-18a

I will now outline the theoretical and methodological tools I have used to analyse my empirical work.

4.3 Theoretical and Methodological Tools

4.3.1 Activity Theory as an Analytical Framework

As the aims of my PhD work were exploratory, I felt it necessary to explore the conditions of the workshops, to gain a rich picture of the qualitative features of the historical and cultural environment and the ways in which I operated within it. For this reason, I chose Activity Theory (AT) as it provides meta-perspective on complex situations (Engeström, 2014). Activity Theory (AT) originated from the work of three Russian researchers Vygotsky, Leont'ev and Luria and is a theoretical framework that can be used to analyse how activities within a practice, an activity system, are shaped by its cultural context, (Bakhurst, 2009). This can be understood in the elements of the hierarchical roles of participants, rules of the environment and larger communities (Engeström, 2014). The final, crucially important element, tools, can be take form in physical tools which are used in the activity such as a paintbrush, paints and canvas or symbolic tools such as concepts or images to guide the choices available to the participants of the activity.

AT has been used by researchers in pedagogy to analyse how separate elements are realised in educational activities, for example, a study looking at the tools by which scientific concepts were taught to preschool children, also revealed personal beliefs and cultural influences affected the teachers'

use of these tools (Sundberg, Areljung, Due, Ekström, Ottander, Tellgren, 2016). In music education pedagogy, AT was used in a study by Johansen (2013) to explore instrumental practising and dimensions of student values within the activity and the larger cultural and historical context both of Jazz, and a formalised curriculum.

AT has been used to analyse many work situations as well as pedagogy, including business and hospitals (see Engeström, 2008) therefore, to contextualise the research questions in this chapter I will now describe the various elements of Engeström's (1987) AT diagram (Figure 4.1) with reference to pedagogical orientations adapted from Hardman (2007) and Sundberg et al. (2016).

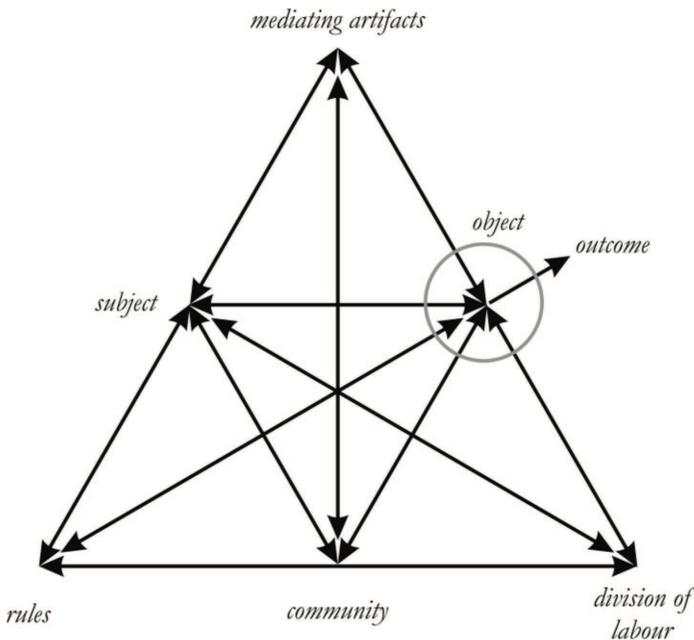


Figure 4.1 Diagram of Engeström's (1987) activity system.

Subject: The subject is the individual or group who acts in the system and whose perspective shapes the activity (Engeström, 1987). In Hardman's (2007) exploration of the AT elements, she refers to the teacher having "epistemic assumptions" about how knowledge is transmitted and gained and that these assumptions affect how the tools are used. For example, if a teacher believes that children learn through first experiencing and then discussion with

a more experienced other, for example, Vygotsky's (1978) concept of Zone of Proximal Development, they will use tools in a different way than a teacher who believes children learn passively.

Object: Historically there is uncertainty about a clear definition of this element due to historical theoretical divergences; a description of these can be found in Kaptelinin, (2005). For clarity, this chapter will consider the object of the activity 'problem space' as seen in Hardman (2007) which is transformed into outcomes through a range of tools which can be physical or symbolic (Engeström, 1987).

Tools/Mediating artefact/instruments: This element, can take the form of physical objects such as musical instruments or symbolic tools such as an image or verbal instruction. In educational settings, symbolic tools have taken the form of guiding questions designed to develop the children's understanding of their learning experience (Sundberg et al. 2016).

Rules: This element is concerned with the norms, conventions and guidelines for interaction in the activity system (Engeström, 1987). In Sundberg et al. (2016), rules were the guiding principles by which the teachers created the desired ethos for learning preschool science. Similarly, Hardman (2007) interprets rules as the "norms, conventions and social interactions which drive the subject's actions in the activity" (p. 77). In this way rules can be specific to the task and/or the teacher.

Community: A community comprises the wider circles which influence the object and has its own divisions of labour and responsibilities (Cole & Engeström, 1993). This element considers the immediate community of the participants of the activity (the teacher and the group of children) but, in a pedagogical setting, can also encompass wider communities such as the whole school and both local and national education systems (Hardman, 2007).

Division of labour: This can refer to a horizontal distribution of tasks or vertical divisions in hierarchies or power relationships (Engeström, 1987). In Hardman (2007), power relationships between teacher and pupils are described either as symmetrical or asymmetrical with children having agency to direct aspects of the activities in the symmetrical relationships, and very little or no agency in asymmetrical relationships.

4.3.2 Research Questions

The two research questions I will consider in this chapter are as follows, firstly, what was the educational outcome in my improvisation activities? Secondly, what tools were used in mediating these outcomes?

4.3.3 Novel Constructs

The two novel constructs were created through my reflection on my understanding and experience of my own background as a free improvising musician and are as follows:

Creative Musical Agency (CMA): The child creates novel musical material independently and executes this in the group improvisation.

Socio-Musical Aptitude (S-MA): The child creates a musical response with reference to another child's musical idea in the group improvisation.

My aim in creating these constructs was to provide flexible and authentic constructs that could function as giving educational purpose to the activity of improvising c.f Biesta (2009). I also had the intended outcome of creating an experience of learning music in a group, emphasising the creative and social aspects of music making, rather than focusing on improving technical aptitude. The process of analysing key features of informal musical genres or styles with the purpose of bringing this to a formal educational setting has been explored by other educational researchers working in pop music (Green, 2002) and collaborative composition (Thorpe, 2015). Thorpe describes this process as 'back-engineering pedagogy' (2015, p. 164), however it is important to appreciate that in both contexts; students were collaborating towards a piece of music that had to be recognisably in a style within the popular music genre.

4.3.4 Methods

4.3.4.1 Study design

As stated previously, the work presented in this chapter is from the second of two cycles of Action Research carried out in two Scottish nurseries in 2015/16. A cycle comprised twice weekly, six-week programme of improvisation workshops with the aim of developing my two new constructs, CMA and S-MA and to refine the workshop strategies. In both nurseries, the children participating were in their preschool year of Nursery education,

aged between 4 years 1 month and 5 years 3 months. Informed consent was required from parents for both their child's participation and for the workshops to be filmed. As well as this, I sought the children's verbal assent before every workshop. If the child did not wish to take part in a workshop, they were allowed to resume their everyday nursery activities without negative consequence.

4.3.4.2 Data gathering and analysis

1) Talk data from workshops

I videoed every workshop in Cycle 2, totalling 6 hours and 32 minutes of video data, and transcribed all of the verbal utterances from myself and the children which happened in the workshops. These were transcribed verbatim and analysed using Thematic Analysis following guidelines from Braun and Clarke (2013).

2) Music improvisation data

The improvisation sections from the workshops were sampled for further analysis, totalling 83 minutes for Cycle 2. To adequately investigate the children's improvisations, a multimodal approach to analysing the video data was chosen as the most appropriate to capture the detail and nuance of this context. A study by Korkiakangas, Weldon, Bezemer & Kneebone (2014) provided a relevant approach to adapt, as their work examined interactions between members of a surgical team (n=6), and, the researchers had to make analytical choices about which modes to transcribe, as not all modes of communication are equally important in a goal directed work or learning situation. Therefore their approach was considered the most useful in considering the context of examining key interactions in a mid-sized group of participants. Their coding strategy was adopted for my study and took the following steps:

1. observe data with an open mind
2. note down patterns in interaction which emerge
3. create categories that the patterns reflect
4. group categories and compare different incidences, from this the definitions of the categories will be developed
5. find the best examples of each category to examine in finer detail

I transcribed four modes of communication, verbal, music, gaze and gesture and then revisited the music mode for further refinement. Within the scope of this chapter, it is only possible to consider the music mode and a description of the further coding now follows.

I coded CMA events as one in which a child initiated a new musical idea which was qualitatively different from the existing music texture and noted the musical parameters on which this occurred. An example of an event I coded as CMA follows:

Workshop 1, Cycle 2 – All of the children were playing a rhythmically entrained piece of music (for 30s) until Christine started playing substantially slower and louder than the others. Christine’s action of playing both slower and louder was noted as a CMA event on two musical parameters: tempo and dynamics.

An event was coded as an S-MA event if a child was observed to change their playing or singing to match another child’s on one or more musical parameters, for example:

Workshop 6, Cycle 2 – Tess had a big drum for this particular section of the workshop. The teacher invited the children to play using the “just play” instruction and the improvisation began with another child, Jane stroking a cimbala (a small sting instrument, similar to a small dulcimer) very quietly. Tess then began playing her drum by scratching the surface very gently with a circular motion. Therefore Tess related her dynamic level (quiet) to Jane’s dynamic level and played her instrument in a way which achieved this (i.e. by scratching it rather than hitting it). Therefore this musical event was coded as S-MA on the musical parameter of dynamic.

3) Teacher interview data

Two teachers from the nursery were interviewed using protocol for semi-structured interviews from Willig (2001). This method of data gathering has flexibility in that initial questions can be modified in light of participant responses. The topics for exploration in the interviews were to explore the teachers’ beliefs and attitudes towards teaching, and ways in which they approached managing and facilitating group learning. The interviews were also analysed using Thematic Analysis.

4) My reflexive data

Auto-ethnographic data included the following: transcribed voice memos recorded as soon as I could manage after the workshops, with the purpose of

capturing my initial thoughts and feelings; written field notes from later in the same day of the workshop and, written reflections on informal conversations with teachers which happened throughout the 6 week programme.

The talk data provided information for the tools, subject and rules elements of the following activity systems. The video data provides information for the tools, object and outcomes elements of the following activity systems, and the teacher interviews informed the environment element. My own reflexive data provided information for the subject, tools, division of labour and rules elements. The next section will critically appraise the elements in two key activities in Cycle 2 of the workshops and examine the relationships between the different elements, thus gaining a multidimensional picture of the setting. Implications from the results will follow in the discussion section.

4.4 Results

4.4.1 Workshop Activity 1: Descriptive Improvisation

In this activity, I asked the children to suggest ideas on which to base their improvisation. Common suggestions included representing nature and playing ‘happy’ music. The following activity triangle (Figure 4.2) represents the descriptive improvisation, *star music*, which was a popular and enduring

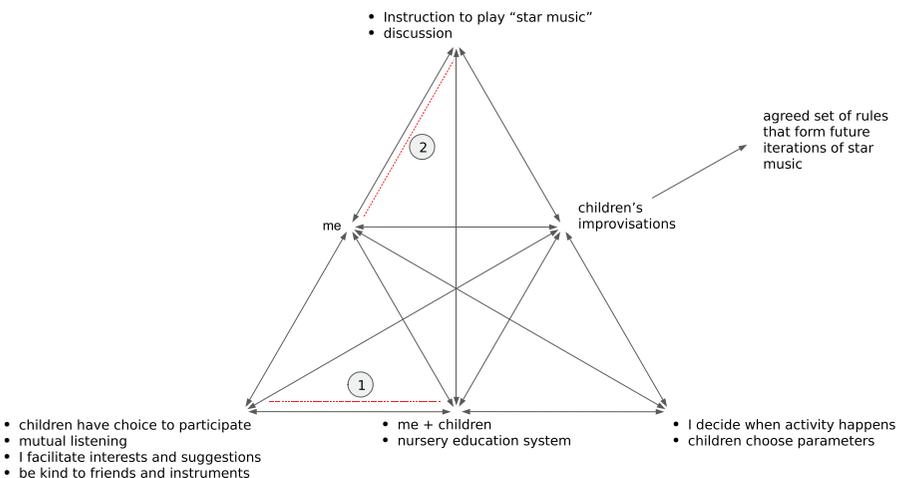


Figure 4.2 Diagram of the *star music* activity system.

activity in Cycle 2. As part of the workshop design I would engage the children in a discussion about the pieces afterwards, asking them open questions such as “What did you think about that piece?” with the aim of drawing the children’s own views out and helping them build on their experience.

Subject: In this activity I am the subject, with the epistemic position to view myself as an experienced other and act as a creator of effective scaffolds for the children’s learning.

Object: Children improvising with the purpose of creating *star music*.

Outcome: Agreed set of rules for creating future *star music* pieces. Table 4.1 shows the musical parameters that the children were able to manipulate to

Table 4.1 Table of agreed parameters for *star music*

| Category Parameter | CMA | S-MA | <i>Star Music</i> |
|-----------------------|---|---|---|
| Tempo | Child sings or plays a new tempo to the group | Child alters speed to match tempo of another child | slow tempo within range of 60–70 bpm |
| Dynamics | Child introduces a new dynamic which is louder or quieter than the rest of the group | Child alters their playing or singing to match dynamic of another child | Within range of pp (very quiet) to mp (medium quiet) |
| Articulation | Child instigates music which has a different articulation to the rest of the group (e.g singing short notes when the rest of the group is singing long notes) | Child matches their articulation to another child’s. E.g singing short notes after another child has proposed this musical idea | Both long and short notes, but legato only (smooth notes) |
| Pitch | Child initiates a different pitch than the rest of the group | Child matches (or nearly matches) pitch of another child | Relatively high pitch for all children |
| Arrangement | Child plays starting and stopping | Child B starts and stops with child A who proposed arrangement idea | Children could start and stop as they wished – but there had to be a constant stream of sound |

create *star music* according to their rules. Children could be creative and initiate new musical events (coded as CMA) or responsive (coded as S-MA) within the specific dimensions of the parameters for *star music* (final column).

Tools: Physical tools were the children's voices and instruments; symbolic tools were instruction to play *star music* and discussion after the piece. The discussion was both facilitated by myself and independently initiated by the children, most often correcting a perceived deviation from the rules for example "you played too loud, that's not star music" (quote from Tess, one of the children).

Rules: My rules for this activity were as follows: children have the choice to participate the workshop and in discrete activities and I will always aim to facilitate their interests and consider all suggestions from children. In Cycle 2, I had asked, during one of our discussions if the children had any suggestions for workshop rules and they decided on 1) be kind to friends and 2) be kind to the instruments.

Environment: I considered the environment to be on 3 levels, first the immediate setting of myself and the six children in the workshop; the next level is the other children and staff of the nursery and finally the wider educational environment of the local education authority functioning in a national setting.

Division of labour: At the beginning of the 6 weeks of workshops when beginning descriptive improvisation, I would take suggestions about what they wanted to describe through the improvisation. The rules of these improvisations coalesced through different paths; children decided the parameters of dynamics and pitch, in child-led conversations. I facilitated discussion about the arrangement parameter, with the aim of having the children think about whether they wanted to play all the time. Tempo and articulation were not discussed as these were parameters were stable and enduring through all iterations of this activity.

4.4.2 Tensions in Star Music

Tensions in the system are notated in the activity system above with a dotted line and a number. I will now examine each in turn.

Tension 1) There was a difference in expectation between the nursery teachers and myself about the children's participation. I had a rule that the children only participated if they wanted to, therefore, at times a child would sit out for a workshop activity. If the child did not want to participate at all they were free to go back to their usual nursery activities. This happened infrequently (4 times in 12 workshops). At times the nursery teachers expressed their opinion that they thought the children should all participate all the time. Varying reasons were given, for example "they shouldn't get a choice"; "it's so good for him, I don't want him to miss out" and "if the other children see he's getting to pick and choose, they'll all stop". These reasons may reflect the demands on managing groups of children to focus and learn. Also, there may not be adequate staff of facilities to accommodate children working by themselves.

Tension 2) was between myself as the subject and the constraints of the piece (tools). This arose when I wished to highlight and develop interesting musical choices made by the children, which didn't fit into the agreed rules. I felt internal conflict between different "selves", firstly as a teacher working in a socio-cultural ethos and as an improviser. My "improviser self" to new musical initiatives presented by the children but my "teacher self" balanced this out with not wishing to change the rules of the piece that the children had helped create.

4.4.3 Workshop Activity 2: Free Improvisation

In the workshop activity of free improvisation, the children were instructed to "just play" and we discussed the improvisation afterwards.

Subject: In this activity I felt it important to give as much freedom as possible to the children and not impose my own aesthetic on the children's improvisation.

Object: Children's group *free improvisation* with the purpose of developing CMA and S-MA.

Outcome: table of results for free improvisation – build repertoire of parameters, framed as CMA or S-MA. Table 4.2 shows what the group as a whole achieved over the 6 weeks. It is important to note that not all children used the last three parameters – alternative vocalising, sung material and spoken

word. Four out of six children used all of the parameters and the other two children did not use the last three parameters.

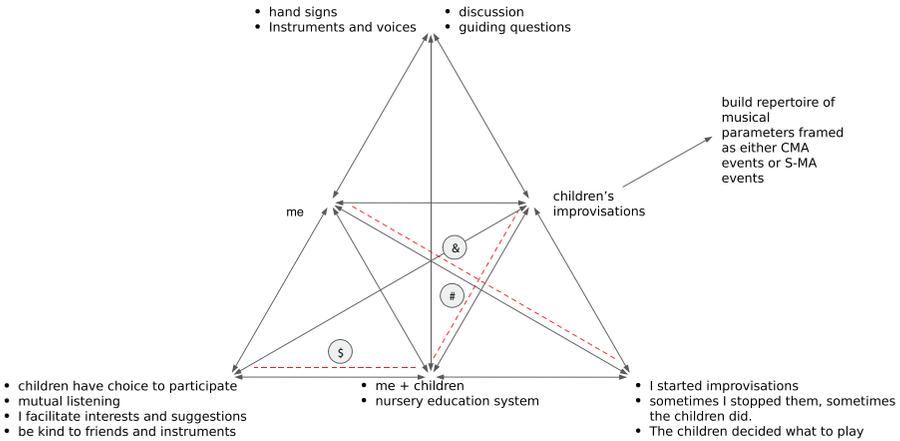


Figure 4.3 Diagram of activity system for *free improvisation*.

Table 4.2 Table of musical parameters used in *free improvisation*

| Category Parameter | CMA | S-MA |
|-----------------------|---|---|
| Tempo | Child sings or plays a new tempo to the group | Child alters speed to match tempo of another child |
| Dynamics | Child introduces a new dynamic which is louder or quieter than the rest of the group | Child alters their playing or singing to match dynamic of another child |
| Articulation | Child instigates music which has a different articulation to the rest of the group (e.g singing short notes when the rest of the group is singing long notes) | Child matches their articulation to another child's. E.g singing short notes after another child has proposed this musical idea |
| Signs | Child initiates hand signs with the effect of changing the music – e.g long note sign when the group are singing short notes | Child responds to hand signs shown by another |
| Pitch | Child initiates a different pitch than the rest of the group | Child matches (or nearly matches) pitch of another child |
| Arrangement | Child A starts and stops playing or singing | Child B starts and stops with child A |

| | | |
|--|---|---|
| Body percussion | Child makes a percussive action on, or with body (e.g claps hands, hits floor). | Child imitates percussive action of other child |
| Alternative vocalising | Child makes a sound other than speaking or singing with their voice (e.g altering timbre to be squeaky or growly) | Child imitates alternative vocal sound of other child |
| Sung material (in an instrumental piece) | Initiates sung words or small sung fragments of melody | Joins in with sung words or sings own words or melody |
| Spoken word | Initiates spoken single words or phrases | Copies spoken word proposal |

Tools: Physical tools were the instruments and children's voices. Symbolic tools were guiding questions I asked the group about the improvisations, for example, questions about what they played and why they made musical choices, as well as what they found interesting in the improvisation. The children also used hand signs in the improvisations which at the effect of instructing other children to start or stop, or to play long or short notes. Without my input or suggestion, these hand signs were repurposed from warm-up exercises into the improvisations, by the children.

Rules: My rules for this activity were as follows: children have the choice to participate the workshop and in discrete activities and I will always aim to facilitate their interests and consider all suggestions from children. In Cycle 2, I had asked, during one of our discussions if the children had any suggestions for workshop rules and they decided on 1) be kind to friends and 2) be kind to the instruments.

Environment: I considered the environment to be on three levels, first the immediate setting of myself and the six children in the workshop; the next level is the other children and staff of the nursery and finally the wider educational environment of the local education authority functioning in a national setting.

Division of labour: I started free improvisations with an instruction to "just play", sometimes I would stop the improvisations. Children chose what they played and sometimes when to stop.

4.4.4 Tensions in Free Improvisation Activity

The tension marked as 1) was the same as descriptive improvisation. Tension 2) was identified from conversation with the children's teachers where they expressed uncertainty about what the children learned through free improvisation. This was accounted for as shown in an extract from my transcript from a conversation with Shona, one of the teachers from the cycle 2 nursery.

The things you are doing with the kids... I'm not quite sure what it's getting at. But I'm not musical at all; in fact, this is not a musical nursery actually. They seem to be having fun though.

Shona had observed two workshops near the start of the cycle (workshops 3 and 4) where the children were experimenting with tempo, dynamics, articulation, signs and pitch in both vocal and instrumental improvisations. Although the children had both CMA and S-MA events, the improvisations did not have a strong melodic content in the way that a child's song has. A recognisable example is "twinkle, twinkle little star" which has a simple repetitive melody. The children's free improvisations did not repeat simple melodic patterns and this is a possible reason why the teacher did not 'get' the activity.

Shona then offers a possible explanation- "I'm not musical at all" which is an interesting point as nursery teachers use song every day in circle time to learn about numbers, animals and many other subjects. She reiterates this point more strongly by saying the whole nursery is not musical. My interpretation is that Shona's positioning of herself as unmusical is in relation to her knowledge of my background as a professional musician.

The final tension, 3), in the activity system of free improvisation was between the subject and division of labour. At times I stopped the children's improvisations for different reasons, sometimes I felt the music was getting too loud, that some of the children were hitting the instruments as hard as they could, with the effect of upsetting the other children in the group. At other times I stopped the group as they had played a static texture for a long time, my reason for stopping here was to begin a critical discussion with the children about the music they were creating, I thought they would find it easier to discuss music that had stable features, rather than try to talk about a changing situation. I felt ambiguous about stopping the children's improvisations, even though I had good reason to, as I felt a conflict with my ideal position, as described earlier as allowing the children as much freedom as possible.

4.5 Discussion and Conclusions

In this section, I will return to my research questions and discuss the implications of my results with reference to relevant literature.

4.5.1 What Was the Educational Outcome in My Improvisation Activities?

As seen through Figures 4.2 and 4.3, each activity system had a different outcome, therefore the improvising in the object or “problem space” Hardman (2007) functioned differently in each activity, which aligns with MacDonald et al.’s (2012) assertion. The difference in the improvisations’ functions can be further appreciated in considering where the divergence occurred in the two activity systems. The first difference to consider was in the position I described myself adopting in relation to each activity. In *star music* I described my participation in helping the children discuss and create the rules which formed the framework of future iterations of the piece. The children decided two musical parameters and I directly guided them to decide on another, therefore my decision about the level of my involvement was influenced by my principle to act as a scaffolder to the children’s experiences. My position as a teacher in this activity involved me listening and allowing the children to negotiate with each other to create their own rules and if negotiations broke down or the children were quiet, I stepped in to a more active role. Contrastingly, in the *free improvisation* activity, my position as a teacher was to allow maximum freedom to the children which had the consequence of affecting the following discussion, which I will discuss further in the next section.

In Thorpe’s (2015) study, she applied Reinharz’s (2011, 1997) concept of different research ‘selves’ into a music education context. These selves were described as *research*, *brought* and *situational*. This is particularly pertinent for my work as the concept acknowledges the performer/teacher’s professional background and identity in the *brought* aspect. As seen in the Sundberg et al. (2016) study, my personal beliefs about the nature of particular activities affected my use of tools (in this case discussion) and thus, my epistemic position was different in each activity.

When comparing the two tables of musical parameters, (Tables 4.1 and 4.2) the children experimented with more musical parameters in a more open way in *free improvisation* when compared to *star music*. However an interesting difference was in the participation levels of the children, all of the children contributed to all of the musical parameters in *star music*, but not all

children explored the full range of musical parameters in *free improvisation*. There is no talk data available to illuminate why this occurred, perhaps it could be attributed to fluctuating levels of engagement with the activity or a child being shy about proposing a new musical parameter. For this aspect of evaluation of the workshop activities, it may be useful to consider Amabile & Gitomer's (1984) argument that children's musical creative thoughts may not be realised and so the music created doesn't fully represent a child's understanding or imagination.

4.5.2 What Tools Were Used in Mediating These Outcomes?

The *physical* tools used by the children were the same for each activity, they used both their voices and classroom instruments to improvise with. The main difference between the activities was in the use of *symbolic* tools through the talk sections of the different activities following the improvisations. In *star music* the discussion focused on agreeing structuring elements for future iterations of the piece and in *free improvisation*, the discussion consisted of "guiding questions" which had the purpose of encouraging the children to think critically about what they had played. For this age group, the questions were very simple and importantly there was no right or wrong answer as the key part of the discussion was to encourage critical reflection on their own and each others' playing. The children used another symbolic tool in free improvisation, by repurposing hand signs, originally a warm up exercise. The hand signs became tools for changing the improvisations by children showing each other a new musical direction.

4.5.3 Conclusions

Other researchers looking at group improvisation identified similar concepts shared key features with my constructs of CMA and S-MA, for example Burnard (2000) identified leaders who 'defined the direction in which the others should move' and followers who were 'musically led and influenced'. This conceptualisation of improvisation is similar to my constructs may help enrich the experience of the children as they have constructs which help them explore the complexities of these two roles. There are also similarities with CMA and S-MA and Young's (2008) work, which describes adult's sympathetic responses to preschool child-led initiatives. It is important to note however that this work is with an adult playing with one or two children, and, the adults interactions with the child being influenced by the roles and

responsibilities in music therapy of therapist to client. This does suggest that the constructs of CMA and S-MA align with other areas of music work which involves improvisation, and thus gives a potential conceptual reframing for improvisation in plural contexts.

I would argue that the constructs serve as a useful overarching purpose for teachers, to help with conceptualising what can develop in improvisation workshops. As seen in Table 4.1 the children developed CMA and S-MA in a varied range of musical parameters, which offers an appreciable outcome. These tangible outcomes have potential to challenge teachers' and parents' beliefs about children's creativity in music by offering an alternative way to appreciate their contribution.

Reflecting on these activity systems reveals the complex roles and negotiations I encountered when teaching improvisation to preschool children. Using Activity Theory as a meta-analytical tool also illuminated tensions when teaching both structured and open-ended creative activities in a group. Finally, I offer two novel constructs as an effective educational purpose for future music improvisation activities, and, as a method of framing the improvisations in a manner that enables both musical development and to expand children's own critical understanding of what they play.

Acknowledgements

Many thanks to Dr. Guro Gravem Johansen for comments on an earlier version of this chapter.

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