

**Scaffolding, organisational structure and interpersonal interaction in musical activities with older people**

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Abstract:	<p>The research reported here focuses on the organisational structure and facilitator strategies observed in musical activities with older people. The observations formed one part of the Music for Life Project, funded by the ESRC New Dynamics of Ageing Programme (<a href="http://www.newdynamics.group.shef.ac.uk/">http://www.newdynamics.group.shef.ac.uk/</a>) which investigated the social, emotional and cognitive benefits of participation in community music making, amongst older people. 398 people aged 50+, were recruited from three case study sites offering diverse musical activities. Observations of 33 groups were analysed. Approximately half of the observed time was spent with participants engaged in practical music making, supported by facilitators who sang or played along, conducted or accompanied. Facilitators spent a relatively small amount of time providing non-verbal modelling and very little participant discussion or facilitator attributional feedback was observed. The findings suggested that facilitators could develop their practice by a) making more extensive use of non-verbal modelling; b) creating space for open questioning and discussion, where participants are encouraged to contribute to setting goals; c) making more extensive use of attributional feedback that empowers learners to control their own learning; and d) vary the organisational structure and style in order to meet a range of diverse needs within groups of older learners.</p>

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### **Abstract**

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### **Introduction**

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3 A growing body of evidence has demonstrated the wider benefits, for older people, of  
4 engagement with active music making (for example, see Cohen et al., 2006; Creech et al., in  
5 press). However, the specific processes involved in fostering positive outcomes for  
6 participants have not been extensively researched. The overarching aim of the research that  
7 is reported here was to investigate the social, emotional and cognitive benefits of active  
8 participation in community music making amongst older people. The focus of this paper is  
9 the use of time in community music making activities for older people. An analysis of  
10 recorded observations of older people engaged in a range of musical activities is presented,  
11 with the objective of identifying facilitator strategies, organisational structure and  
12 interpersonal behaviours.  
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## 25 26 27 **Background**

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29 There is now a significant body of literature concerned with the outcomes of music making  
30 amongst older people. There is some evidence, for example, that in the latter part of our lives  
31 participation in music may provide a source of enhanced social cohesion, enjoyment,  
32 personal development and empowerment (for example, Coffman, 2002; Sixsmith and Gibson,  
33 2007; see Creech et al., in press, for a review). Some compelling evidence suggests that  
34 engagement with music continues to contribute to quality of life throughout the latter stages  
35 of the life-course, regardless of cognitive capacity (Cohen, Bailey and Nilsson, 2002) or  
36 musical background (Hays and Minichiello, 2005). Allison (2008) drew attention to the  
37 positive outcomes of group music-making amongst older people, fostered by facilitators who  
38 adopted a collaborative approach underpinned by a commitment to respecting the wisdom of  
39 the group and exploring the knowledge and insight of the participants. However, there has  
40 been little emphasis on the principles of pedagogy and approaches to the use of time in  
41 music-making with older people that may best support the aforementioned positive outcomes.  
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3 Our understanding of facilitator strategies and use of time in musical contexts involving older  
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5 people is, however, informed by the valuable work of several researchers who have, over the  
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7 past three decades, investigated the use of time in musical contexts involving younger  
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9 participants. This body of research has focused on teaching and rehearsal strategies and  
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11 behaviours in classroom music contexts, band and choral rehearsals and one-to-one  
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13 instrumental/vocal teaching contexts (see Rosenshine et al., 2002 and Hallam, 2006, for  
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15 reviews).

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19 **Organisational structure:** Cox (1989), for example, investigated the relationship between  
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21 the organisational structure of choral rehearsals and student outcomes. Sixty secondary  
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23 school choral directors and their students took part in the questionnaire study. Cox reported  
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25 that a significant number (52% of the sample) of choral directors believed that efficient  
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27 rehearsals were organised with fast-paced activities at the start and conclusion of sessions,  
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29 with slower-paced, more detailed work attended to in the middle segment of the rehearsal.  
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31 Others (22%) preferred to organise rehearsals with a peak of intensity reached two thirds of  
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33 the way through the session, while a further 25% said that they preferred rehearsal where fast  
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35 and slow paced activities alternated regularly. However, positive student engagement was  
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37 found in all three approaches and none of the chorus directors were negative about  
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39 organisational structures that differed from their own. Cox concluded that a key point was  
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41 that the directors had some kind of organisational strategy (as opposed to none) and that they  
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43 were open-minded with regard to the possibility of altering their preferred approach, when  
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45 appropriate. This is a salient point for facilitators of groups of older people, as it has been  
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47 noted that as people accumulate life experience they become ever more diverse (Withnall,  
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49 2010), requiring flexibility on the part of group leaders.  
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56 In one-to-one contexts, effective music teaching was conceptualized by Yarbrough and Price  
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58 (1989) as involving an organisational structure that comprised sequential units that began  
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3 with teacher presentation of a task, followed by student response and engagement with the  
4 task and concluding with teacher feedback in relation to the student response. Siebenaler  
5 (1997) carried out an observational study, analyzing a total of 78 one-to-one piano lessons,  
6 half of which involved students aged 24+. A key finding was that long stretches of  
7 uninterrupted student performance 'often indicated a struggling student without appropriate  
8 teacher intervention' (Siebenaler, 1997, p. 17). Siebenaler concluded that expert teachers, in  
9 comparison with non-expert teachers, provided faster-paced sequences of instruction-  
10 engagement-feedback, characterized by rapid alternation between teacher feedback and  
11 student response.  
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24 The specific organisation of time during instrumental (middle school and high school band)  
25 rehearsals was investigated by Goolsby (1996). Thirty band directors took part in the study,  
26 including ten who were rated as experienced, outstanding teachers, ten novice teachers and  
27 ten student teachers who had already completed five weeks of internship. For each of the  
28 participating teachers, two band rehearsals were observed and recorded. Goolsby reported  
29 that the experienced teachers, in comparison with the others, spent less time with initial  
30 teacher talk and verbal instruction, got the group on task more quickly, spent more time on  
31 warm-ups and in performance and made more use of non-verbal modelling. They also paced  
32 their rehearsals effectively, allowing sufficient time for each piece.  
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44 These studies suggest that the instruction-engagement-feedback sequence may be pervasive,  
45 regardless of student age, but raise questions with regard to whether the effectiveness of  
46 specific approaches to pacing and emphasis may differ with groups of older learners.  
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51 **Scaffolding:** The concept of scaffolding, whereby students are supported by knowledgeable  
52 others (including teachers, peers or parents) has been extensively researched in the wider  
53 context of education (for example, Needham and Flint, 2003). Scaffolding occurs when  
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3 teachers provide appropriate support that enables students to move beyond their current skill  
4 or knowledge, in small and attainable steps. In order to maximize the potential for effective  
5 learning, instrumental students need teachers to scaffold their development in a range of  
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teachers provide appropriate support that enables students to move beyond their current skill or knowledge, in small and attainable steps. In order to maximize the potential for effective learning, instrumental students need teachers to scaffold their development in a range of 'aural, cognitive, technical, musical communication and performing skills' (Hallam, 2006, p. 169). In this vein, Colprit (2000) reported that expert teachers, conceptualized as those who accomplished positive change in their students' performances, structured their lessons in small attainable steps that led sequentially to the attainment of goals.

Kennel (2002) proposed that a typology of scaffolding comprising six stages proposed by Wood, Bruner and Ross (1976) could be applied in the context of instrumental learning. This would, in a musical context, include 1) recruitment strategies that synchronised the attention of student and teacher, 2) marking critical features of tasks, 3) manipulating the difficulty level of tasks, 4) modelling performance, 5) setting goals and 6) providing support for the student by engaging in dialogue intended to reduce frustration. He also proposed that in musical instruction, the type of scaffold employed by the teacher was always dependent upon the teacher's assessment of the student's performance, a phenomenon he labeled 'attribution scaffolding'.

Diagnostic skills and the use of modelling may both contribute to successful scaffolding in music. However, although some cultural differences in teacher and student behaviours have been noted (Benson and Fung, 2005), observational evidence from the USA (for example, Kennell, 1992) has suggested that large amounts of instrumental lesson time may be attributed to directive verbal diagnosis, with less time devoted to modelling. Kostka (1984) analysed 96 video recordings of individual piano lessons carried out by a total of 48 teachers, with students ranging from primary school-aged to retired seniors. Overall, approximately half of the observed lesson was spent in student performance, while the second largest chunk of time (42%) was spent in directive teacher talk.

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3 The view that verbal diagnosis has an important role to play in scaffolding instrumental  
4 learning was supported by Salzberg (1980), who reported that university student string  
5 players produced more accurate intonation in response to verbal feedback than following  
6 modelled performance. Nevertheless, a substantial body of evidence supports the view that  
7 effective learning amongst instrumental students is supported when teachers model processes  
8 such as identifying difficulties and generating problem solving strategies, as well as when  
9 they model technical or musical aspects of desired performances (see, for example, Dickey,  
10 1991, 1992; Kostka, 1984; Hallam, 2006).

21 An under-researched question is with regard to whether particular approaches to scaffolding  
22 may be most effective with groups of older learners, or whether, given the diversity that may  
23 be found amongst groups of older people, it may be the case that facilitators are most  
24 effective when they apply the full range of scaffolding strategies.

31 **Use of feedback:** The quality of teacher feedback has been the focus of much research  
32 concerned with teacher-student interaction. Praise, for example, has been found to be an  
33 effective and enduring form of scaffolding, but most notably when accompanied by physical,  
34 'hands-on' corrective prompts. Salzberg and Salzberg (1981) carried out an experiment with  
35 five elementary school-aged violin pupils, comparing corrective feedback with praise. The  
36 researchers reported that praise was always as effective as corrective feedback and that when  
37 physical prompts were used in conjunction with praise, for extended periods, the effects were  
38 positive and sustained.

49 There is a wealth of empirical evidence in many diverse educational contexts to support the  
50 view that students who develop sustained and deep engagement in a given domain are  
51 supported in making attributions for success to effort and the correct use of learning strategies  
52 (Fryer and Elliot, 2008). In a musical context Colprit (2000) and Duke and Henninger (2002)

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3 have noted that the quality of teacher talk may distinguish expert teachers from their less-  
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5 expert counterparts. In particular, expert teachers have been found to provide specific  
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7 attributions for student performance on tasks, for example making detailed reference to tone  
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9 quality, intonation, expression, phrasing or articulation.  
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12 Duke and Henninger (1998) carried out an experimental study, focusing on verbal directions  
13 and feedback offered by recorder teachers. The study involved sixth-grade and college-aged  
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15 students and compared a) a directive method, focusing on commands describing how the  
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17 student should perform in a subsequent attempt, with b) a negative feedback method,  
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19 focusing on identifying performance errors followed by directions for correcting the  
20  
21 performance. In both conditions the recorder students had frequent opportunities to respond,  
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23 the rate of teacher feedback was high and, where negative evaluations of previous attempts  
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25 were offered by the teacher, these were accompanied by specific corrective feedback. The  
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27 researchers reported that the novice recorder players had positive attitudes about having  
28  
29 successfully achieved their musical goals and demonstrated high self efficacy, irrespective of  
30  
31 the teaching approach. The researchers concluded that the salient factor that underpinned  
32  
33 positive student experience had been the successful accomplishment of music goals,  
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35 supported by specific (directive or negative) feedback.  
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42 In a follow-up study, Duke and Henninger (2002) investigated 51 trainee teachers'  
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44 perceptions of the recorder lessons, testing whether the directive or negative feedback  
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46 conditions influenced perceptions of the effectiveness of the recorded lessons. The trainee  
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48 teachers rated both types of lessons highly positively and again the researchers reported that  
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50 the feedback condition did not influence perceptions of positive experiences of learning.  
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53 Expert teachers, according to the findings from this study, gave both positive and negative  
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55 feedback at high rates, offering students many opportunities to respond to specific feedback  
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57 and make improvements in their performance tasks.  
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3 In summary, the evidence from observational studies in musical contexts strongly suggests  
4 that effective learning in musical contexts is supported when teachers implement a range of  
5 scaffolding strategies, including specific, honest and positive feedback and verbal diagnosis  
6 accompanied by high quality modelling and hands-on corrective prompts (for example,  
7 Colprit, 2000; Hallam, 2006; Kennell, 2002).  
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14 As noted above, there is little existing research specifically concerned with how music  
15 leaders might most effectively facilitate musical activities for older learners. However, many  
16 lessons may be learnt from the issues that have been highlighted in the wider educational  
17 gerontology literature. For example, research concerned with teaching older learners in a  
18 variety of domains (Duay and Bryan, 2008; Hickson and Housley, 1997; Villar et al., 2010),  
19 suggests that the interpersonal qualities, teaching strategies, skills and knowledge of group  
20 leaders and teachers may be more important, in some cases, than the content itself. Qualities  
21 that have been identified as contributing to positive outcomes for participants include  
22 enthusiasm, respect for participants, clarity and organisation, interest in participants' prior  
23 knowledge, subject knowledge and the ability to respond to diverse needs within a group.  
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38 Duay and Bryan (2008) explored conceptions of effective learning experiences. In-depth  
39 interviews were carried out with 36 seniors (mean age 76) involved in educational  
40 programmes for seniors. The interviewees suggested that effective facilitators employed a  
41 range of strategies to spark interest and sustain motivation, highlighting in particular the  
42 value of an open style of questioning, time for discussion and social interactions and time for  
43 practising new skills.  
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52 Withnall and Percy (1994) suggest that the role of facilitators is to discover what participants  
53 wish to achieve and to consider how to provide an enabling physical and psychosocial  
54 environment that meets these goals. Such an environment needs to be one where participants  
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3 take responsibility for their learning, bring their own insights and contribute to developing  
4 individual and collaborative goals. Again, Withnall and Percy emphasize that it is crucial that  
5 an atmosphere of respect and trust is established, whereby it is recognized that learning is  
6 ultimately enriched by social interactions as well as individual contributions.  
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12 When one considers the compelling evidence that demonstrates the potential for music to  
13 support social, emotional, physical and cognitive well-being (Cohen et al., 2006; Creech et  
14 al., submitted), there is a clear rationale for research that contributes to our knowledge with  
15 regard to the specific uses of time and interpersonal processes in music-making with older  
16 people. This paper presents an analysis of recorded observations of older people making  
17 music in community settings. The analysis reported here formed one part of a larger project  
18 (Hallam et al., 2011) that investigated the social, emotional and cognitive benefits of  
19 participation in musical activities, amongst older people. Overall, Hallam et al. (2011)  
20 reported that older people who participated in community music activities felt that they had  
21 greater control over their lives, had more pleasure and felt more cared for than those who did  
22 not have access to musical activities. The specific nature of the wider benefits of these  
23 observed musical activities have been reported elsewhere (Hallam et al., submitted;  
24 Varvarigou et al., in press; Creech et al., submitted; Hallam et al., 2011). This paper focuses  
25 on the processes that were observed in the music-making, paying particular attention to  
26 facilitator style, interpersonal behaviour and organisational structure. The key questions that  
27 are addressed are a) what do facilitators do in practice, as leaders of music-making with older  
28 people, and b) does this differ in any substantive way from teaching styles and use of time  
29 with younger participants, that has been reported in previous research concerned with the use  
30 of time amongst directors of musical activities?  
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## 57 **Methods**

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3 The observations that form the focus of this paper took place within the context of a larger  
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5 research project that investigated the social, emotional and cognitive benefits of participation  
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7 in community supported music-making amongst older people (Hallam et al., 2011). The aims  
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9 of the project were: 1) to explore the ways in which participating in creative music making  
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11 could enhance the lives of older people; 2) to consider the extent to which active engagement  
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13 with music-making influenced social, emotional and cognitive well-being; and 3) to explore  
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15 the specific process through which any such impact would occur. The research was  
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17 undertaken using mixed methods including quantitative measures of well-being, individual  
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19 interviews with participants and facilitators, focus groups with participants and observations  
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21 of group music-making. The findings reported in this paper are related to the third aim,  
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23 focusing on the observed use of time in music-making activities with the older people.  
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30 **Participants in the research:** Three case study sites acted as partners in the research: The  
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32 first was the Sage, Gateshead, where an extensive programme of choirs and instrumental  
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34 groups facilitated by community musicians was offered to seniors. Some groups took place in  
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36 the Sage, Gateshead, an iconic arts centre/concert hall, while others took place in outreach  
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38 locations around the wider area. The second case study site was the Music Department of the  
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40 Westminster Adult Education Service, a more formal adult learning context offering choirs,  
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42 music appreciation classes and keyboard classes. Finally, the Connect programme at the  
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44 Guildhall School of Music offered creative intergenerational music workshops within  
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46 sheltered housing centres, delivered by facilitators who had been trained as community  
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48 outreach music leaders. Overall, the musical activities engaged with included singing in  
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50 small and large groups, rock groups, and classes for guitar, ukulele, steel pans, percussion,  
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52 recorder, music appreciation and keyboard. A 'non-music' comparison group was made up of  
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54 individuals attending language classes (4 groups); art/craft classes (5 groups); yoga; social  
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3 support (2 groups); a book group; and a social club. The findings reported in this paper are  
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5 concerned only with observations of the music groups.  
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10 Eighty percent of the musical group sample was female and the majority was white. Despite  
11 attempts to recruit participants from a range of ethnic minority groups, such groups were not  
12 well represented in the case study populations. The age range was 50-93 with 246 members  
13 of the music participants aged 50 – 75 and 92 aged over 75 (60 did not state their age). The  
14 majority of those participating in the music groups had been involved in professional  
15 occupations and 76% had some kind of prior musical experiences. Twenty-nine percent  
16 classed themselves as musical beginners. Only 4% described themselves as ‘very good’,  
17 while the remainder described themselves as either average or good. Seventy three percent  
18 indicated that they could read music but for most this was at a basic level. Only 8% reported  
19 that they had ‘very good’ reading skills.  
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### 33 34 **Observations of the musical activities**

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36 Twenty-three musical group activities were observed and digitally recorded using  
37 flipcameras, while a further ten were observed but not recorded. Field notes were taken  
38 during all of the observations. All participants, including facilitators and participants in the  
39 groups, provided verbal informed consent for the observations.  
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### 46 **Recorded Observations**

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48 The recorded observations comprised randomly selected segments of group activities, of  
49 varying lengths. In total there were 53 recorded segments from 23 group activities (Table 1).  
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54 **Table 1: Number of recorded segments of musical activities, according to type of**  
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3 Table 2 sets out the number of recorded segments of musical activities at each site. The  
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5 length of these recorded segments varied considerably. For example, at WAES there were  
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7 four long segments, with a minimum of 1121 seconds and a maximum of 3583 seconds. In  
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9 contrast, at the other sites there were more numerous shorter segments of recorded activities,  
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11 with some as short as 32.9 seconds (Guildhall Connect). On average, the mean number of  
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13 seconds in a recorded segment was 2008 at WAES, contrasting with 669 at Guildhall  
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15 Connect, 494 at the Sage, Gateshead and 322 at the Guildhall Connect intergenerational  
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17 project. In total, the greatest amount of recording took place at the Guildhall Connect sessions  
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19 (10709 seconds in total), while the least amount of recorded observation was at the Sage,  
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21 Gateshead (7410 seconds).  
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25 **Table 2: Number and length of recorded segments of musical activities at each site**  
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29 The total amount of recorded observation time (in seconds) amongst the different types of  
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31 groups is set out in Figure 1. The singing and percussion group (Guildhall Connect ‘creative  
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33 workshops’) had the greatest amount of recorded time; this reflects the fact that the project  
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35 researchers visited these groups on a weekly basis, assisting with management of the groups.  
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37 In contrast, the groups located at WAES and the Sage, Gateshead were visited periodically  
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39 during the project (five visits spread over the ten months of music-making). While the Sage,  
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41 Gateshead and Westminster Adult Education Service (WAES) activities included a range of  
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43 both choral and instrumental groups, the Guildhall Connect ‘creative workshops’ included  
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45 two specific groups where the activities included singing, song writing and experimentation  
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47 with un-tuned percussion instruments. One music appreciation group at WAES included  
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49 listening activities as well as discussion, singing and hands-on experimentation with world  
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51 instruments that had been brought in to the session. Because of the practical singing and  
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3 'hands-on' element of this group it was decided that this activity could be described as  
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5 'active' rather than 'passive' engagement in a musical activity.  
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9 **Figure 1: Total amount of recorded observation time (in seconds) amongst different**  
10 **types of group**  
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### 13 14 15 16 **Analysis of the recorded observations**

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18 Two researchers analysed the recorded observations. A coding scheme for the various  
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20 behaviours was developed, based on the observed activities and behaviours. Each recorded  
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22 segment was watched three times. On the first viewing, behaviours and activities were noted  
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24 and agreed between the two researchers (Table 3). Because the groups varied considerably  
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26 with regards to the type of music-making, the researchers took the decision to create one  
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28 overarching category of 'scaffolding' that encompassed supportive facilitator strategies such  
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30 as conducting, accompanying and singing or playing along with participants. While  
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32 modelling and verbal diagnosis have been conceptualized as forms of scaffolding (Kennell,  
33  
34 2002) other researchers have drawn particular attention to the time spent engaged with these  
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36 specific behaviours (Dickey, 1992; Kostka, 1984; Salzberg, 1980). For the purposes of the  
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38 analysis undertaken here, it was decided that both modelling and verbal diagnosis could be  
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40 observed across the differing types of music-making contexts and should be treated as  
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42 separate categories, distinct from scaffolding.  
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47 **Table 3: Coding scheme for recorded observations**

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52 The recorded segments were subsequently analysed twice, the first time focusing on  
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54 participants and the second time focusing on facilitators. The observational analysis software  
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3 tool SCRIBE 4.0<sup>1</sup> was used; this software made it possible to record the number of times  
4 each behaviour was observed as well as the duration (in seconds) of each occurrence. As the  
5 recorded segments were not of a consistent length, the findings presented here will focus on  
6 the percentage of total observation time coded at each category.  
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## 11 12 13 **Results**

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15 Overall, the greatest amount of time was coded as ‘scaffolding’ for facilitators and ‘music  
16 making and practical work’ for participants. Scaffolding included 1) conducting, 2)  
17 accompanying and 3) singing or playing along with participants. For the purposes of this  
18 analysis, modelling was treated as a separate category. Table 4 sets out the categories of  
19 behaviour that were noted in the observed recordings, showing the mean percentage of total  
20 recorded time and the standard deviation, for each behaviour category. Facilitators used  
21 modelling on average approximately 15% of the time, in comparison with approximately  
22 48% of time spent conducting, accompanying or singing/playing along with participants. On  
23 average, nearly 10% of facilitator time was coded as ‘organisational activity’, referring to  
24 tasks such as organising the space, setting out chairs, handing out music, preparing  
25 instruments. Facilitators spent, on average, a further 6% of time diagnosing the participants’  
26 musical performance, providing explanations and answering questions, 5% of time asking  
27 questions and 4% of time directing the groups in a non-negotiable manner.  
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47 Amongst participants, nearly 30% of time (on average) was spent listening passively to  
48 directions, explanations and modelling, with a further 10% of time (on average) spent in a  
49 range of physical (e.g. stretching, breathing) and vocal (e.g. humming, scales, tone  
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58 <sup>1</sup> See <http://cml.music.utexas.edu/online-resources/scribe-4/description/>  
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3 production) warm-up activities. A small amount of participant time was coded as asking  
4  
5 questions, discussing or offering their own opinions.  
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9  
10 The facilitators provided very little negative feedback. Slightly more time was spent  
11  
12 providing positive feedback, with more positive feedback of the non-attributional type (e.g.  
13  
14 ‘Good’, ‘Well done’) than the attributional type (i.e. attributing good outcomes to specific  
15  
16 strategies).  
17

18 **Table 4: Overall mean percentage of time for each behaviour**

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21 **HERE**  
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24  
25 There were some evident differences in the use of time, across the different types of groups.  
26  
27 For example, Table 5 shows that in the intergenerational music sessions an average of 17% of  
28  
29 time was coded as ‘warm-up activities’, compared with just 3% of time in the instrumental  
30  
31 groups and 7% of time in the choirs. Table 5 suggests that the participants spent greater  
32  
33 amounts of time in active music making and practical activities within the instrumental  
34  
35 groups than in the other groups, while there was the most group discussion in the choirs. It is  
36  
37 interesting to note that in the music appreciation class there was more time coded as  
38  
39 ‘participants offer own opinions’ than the other groups, but no time coded as ‘discussion’.  
40  
41 This may suggest that while a few participants were vocal and contributed their own ideas,  
42  
43 the group as a whole was not facilitated in developing a group discussion.  
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47 **Table 5: Mean percentage of time coded for participant behaviours, comparing types of**  
48 **group**  
49 **HERE**  
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52  
53 There were also some evident differences amongst the facilitators, in relation to how they  
54  
55 used their time. Table 6 suggests, for example, that facilitators for the intergenerational  
56  
57 singing/instrumental group spent more time asking questions than those who facilitated other  
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3 groups. The choir facilitators seemed to provide the most feedback, of both the attributional  
4  
5 and non-attributional types. There was very little use of modelling in the intergenerational  
6  
7 group. While the creative workshop facilitators did use modelling fairly extensively, they  
8  
9 made less use of other forms of scaffolding such as singing and playing along, accompanying  
10  
11 and conducting, compared with the instrumental ensembles and choirs. The facilitator of the  
12  
13 music appreciation group made some use of scaffolding and modelling, particularly when the  
14  
15 group was exploring some world music instruments that had been brought in for the session.  
16  
17 However, as might be expected due to the nature of the group, there was less active practical  
18  
19 work on the part of the facilitators or the participants, in comparison with the other groups.  
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25 **Table 6: Mean percentage of time coded for facilitator behaviours, comparing types of**  
26 **group**  
27 **HERE**

### 28 **Statistical tests for differences between the different types of group**

29  
30 A one-way between-groups multivariate analysis of variance was performed to investigate  
31  
32 differences between the types of group with respect to use of time within the observed  
33  
34 musical activity sessions. The percentages of time coded at each of the 16 behaviour  
35  
36 categories noted above in Table 2 were entered as dependent variables. The independent  
37  
38 variable was 'type of group'. Preliminary assumption testing revealed a potential violation of  
39  
40 the assumption of homogeneity (this was due to the inconsistency in the length of the  
41  
42 individual recorded segments, as noted above in Table 2); therefore, Pillai's Trace statistic  
43  
44 was used, as recommended by Pallant (2007). There was a statistically significant difference  
45  
46 between the types of group on the combined dependent variables,  $F(48, 108) = 2.08, p <$   
47  
48  $.001$ ; Pillai's Trace = 1.92; partial eta squared = 0.48. When the results for the dependent  
49  
50 variables were considered separately, statistically significant ( $p < .05$ ) differences were  
51  
52 revealed for 'participant asking questions' ( $p = .01$ ), 'facilitator scaffolding' ( $p = .05$ ) and  
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3 ‘facilitator organisation’ ( $p = .03$ ). None of these differences reached the level of statistical  
4  
5 significance ( $p = .003$ ) required when the Bonferroni adjustment for avoiding Type 1 errors  
6  
7 was taken account of, as recommended by Pallant (2007).  
8  
9

### 10 **Statistical tests for differences between the case study sites**

11  
12 A further one-way between-groups multivariate analysis of variance was performed to  
13  
14 investigate differences between the case study sites with respect to use of time within the  
15  
16 observed musical activity sessions. As with the analysis for differences amongst types of  
17  
18 group, percentages of time for each of the 16 coded behaviour categories were entered as  
19  
20 dependent variables. The independent variable was ‘case study site’, with the Guildhall  
21  
22 Connect intergenerational project being treated as a fourth case study, separate from the  
23  
24 Guildhall Connect creative workshops with older people only. As with the analysis of  
25  
26 differences between types of group, Pillai’s Trace statistic was used (Pallant, 2007). There  
27  
28 was a statistically significant difference between the case study sites on the combined  
29  
30 dependent variables,  $F(48, 108) = 3.49, p < .001$ ; Pillai’s Trace = 1.82; partial eta squared =  
31  
32 0.61. When the results for the dependent variables were considered separately, statistically  
33  
34 significant ( $p < .05$ ) differences were revealed for ‘facilitator diagnosis’ ( $p = .03$ ), ‘facilitator  
35  
36 modelling’ ( $p = .01$ ), ‘facilitator scaffolding’ ( $p = .02$ ), ‘facilitator organisation’ ( $p = .01$ ) and  
37  
38 ‘participant asks questions’ ( $p = .003$ ). Only one of these differences (participant asks  
39  
40 questions) reached the level of statistical significance ( $p = .003$ ) required when the  
41  
42 Bonferroni adjustment is made to avoid Type 1 errors, as recommended by Pallant (2007).  
43  
44 Participants were observed asking questions for the greatest amount of time within the  
45  
46 context of the music appreciation class and the choirs, while very little time was coded as  
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48 ‘participant questions’ in the intergenerational or creative workshops.  
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### 55 **Observation field notes**

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3 Field notes were taken during all of the observations. In addition to the recorded observations  
4  
5 discussed above, field notes were taken during observations of un-recorded activities that  
6  
7 included creative workshops, choirs, steel pan, recorder, ukulele, guitar and rock groups.  
8  
9 Table 7 sets out a summary of the field notes, suggesting some similarities and differences  
10  
11 between the groups in relation to their focus, content, facilitator style and interpersonal  
12  
13 climate. For example, while the creative workshop sessions focused on transferable skills  
14  
15 such as listening, watching and copying, coordination and (in particular) memory, the choral  
16  
17 and instrumental groups placed more of an emphasis on specific musical skills such as  
18  
19 intonation, tone quality and note reading.  
20  
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25 In all of the different types of groups positive peer interactions were noted, with some groups  
26  
27 offering each other emotional support while others engaged in peer learning (most obvious in  
28  
29 the instrumental groups) and celebrated their musical achievements as a group. However,  
30  
31 there was also evidence of some negative peer interactions. For example, some participants  
32  
33 were critical of others who did not integrate with the group. In some cases, where there had  
34  
35 been negative interactions outside of the musical group, these were brought in to the group.  
36  
37 Some minor negative interactions related to instances when group members disliked seating  
38  
39 arrangements, felt the level of musical activity was not appropriate for them personally or  
40  
41 when they disliked the choice of repertoire. Overall, though, these negative interactions were  
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45 rare.  
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49 The style of facilitation varied from group to group. Particularly in the choirs, facilitators  
50  
51 made extensive use of humour, creating an informal atmosphere within the framework of  
52  
53 structured sessions. Some facilitators, for example in the rock group, functioned as fellow  
54  
55 members of the group, sharing decision making and responsibility for feedback with  
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3 participants. Others were semi formal, facilitating participants in experimenting with new  
4  
5 skills and encouraging peer learning. Still others were more directive, following a structured  
6  
7 plan for the group session. The pace of the sessions also varied considerably. Some sessions  
8  
9 tended to have a slower pace than others, with much time spent on warm-ups and in  
10  
11 organisational tasks such as distributing percussion instruments and arranging seating.  
12  
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#### 14 15 16 **Table 7: Summary of field notes**

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18 **HERE**  
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### 20 21 22 **Discussion and Implications** 23

24  
25 Access to opportunities for engagement in later life learning and participation in music is not,  
26  
27 on its own, enough to ensure that the potential for physical, social, emotional and cognitive  
28  
29 benefits (Cohen et al. 2006, Hallam et al., 2011) is maximised. Practitioners need to  
30  
31 understand how time may most effectively be organised and may need training and guidance  
32  
33 with regards to how age related issues may most effectively be addressed.  
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36  
37 In accordance with earlier observational research in music that has focused on young  
38  
39 musicians learning in one-to-one contexts (Kostka, 1984), this analysis of the use of time in  
40  
41 group music-making with older people suggested that typically, approximately half of the  
42  
43 music session time was spent in ‘performance’ – active music making or practical activities  
44  
45 where the facilitator accompanied the participants, played along (instrumental groups) or  
46  
47 sang together with them. The fact that ‘performance’ time nearly always involved  
48  
49 collaboration, with facilitators and participants engaging in music-making together would  
50  
51 suggest that this is a positive finding rather than, as Siebenaler (1997) observed in the context  
52  
53 of young musicians learning in one-to-one settings, indicating struggling students engaging in  
54  
55 long uninterrupted performance episodes.  
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3 While the facilitators made extensive use of the scaffolding strategies that could be said to  
4 correspond with Kennel's (2002) notion of modeling performance and synchronizing  
5 attention (playing along, singing along, conducting, accompanying), other aspects of  
6 scaffolding such as engaging in dialogue, marking critical features or setting goals were,  
7 overall, less prevalent. Kennel (2002) proposes that in studio instrumental lessons  
8 scaffolding strategies are typically 'linked to the teacher's understanding of the student's  
9 performance' (p. 246). Withnall and Percy (1994), however, remind us that older learners  
10 flourish within environments where their insights are valued and where there is scope for  
11 facilitators and participants to work together in establishing collaborative goals. In this vein,  
12 positive outcomes for older participants within musical settings may be enriched when  
13 facilitators develop interactive scaffolding strategies. One way of approaching this could be  
14 for facilitators to make more use of open questions, eliciting analytical responses from  
15 participants. This was one area of practice where there was significant variability amongst  
16 the observed groups

17  
18 Non-verbal modelling was found to account for a relatively small percentage (approximately  
19 15%) of time. Previous research has demonstrated the effectiveness of a range of scaffolding  
20 approaches. In particular the effectiveness of non-verbal modelling has been noted (Dickey,  
21 1991; 1992; Goolsby, 1996; see Hallam, 2006 for a review). This would suggest that more  
22 extensive use of modelling is one area where facilitators might develop their practice in order  
23 to meet the diverse needs that might be found within a group of older learners. With older  
24 learners, this may be most effective when integrated as peer support activities and  
25 interspersed with many opportunities for participants to practise new skills, as suggested by  
26 Duay and Bryan (2008).

27  
28 In contrast with observational studies involving younger participants (Kostka, 1984; Goolsby,  
29 1996), 'teacher talk' was not predominant in the sessions with older participants. Verbal input  
30

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2  
3 from facilitators accounted, in total, for less than 20% of the recorded observation time.

4  
5 Again, this may be interpreted as a positive finding; as Goolsby (1996) suggested, expert  
6  
7 teachers may make less use of verbal instruction than non-experts.  
8  
9

10 Much of the verbal input observed in the research reported here took the form of diagnosis,  
11  
12 explanation and asking or answering questions. A very small amount of negative feedback  
13  
14 was observed, either of the attributional or non-attributional variety. Rather, feedback tended  
15  
16 to be positive; this tended to take the form of non-attributional positive feedback such as  
17  
18 'well done' or 'good'. Facilitators could reflect and develop their practice with regard to this  
19  
20 point, as specific, attributional feedback has been shown to be a highly effective strategy for  
21  
22 engaging learners in music (Colprit, 2000; Dukie and Henninger, 1998; 2002) and is  
23  
24 associated with the theory that specific attributions support learners' motivation to understand  
25  
26 and master their environment (see chapter 3 in Schunk, Pintrich and Meece, 2010). Indeed,  
27  
28 with regard to older learners, the provision of specific, corrective feedback may be a crucial  
29  
30 feature of 'enabling' learning and teaching environments where older people take  
31  
32 responsibility for their learning (Withnall and Percy, 1994).  
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38 The observed music sessions varied considerably in organisational structure and pace. For  
39  
40 example, in the rock group the facilitator adopted a 'fellow traveller' approach (Jones, 2005),  
41  
42 rehearsing and exploring the music alongside the participants. This contrasted with more  
43  
44 formal approaches where sessions were highly facilitator-led. Within the more formal  
45  
46 approach there was also diversity in facilitator style, with some making extensive use of  
47  
48 humour in order to reduce anxiety and establish an informal 'feel', while others pursued a  
49  
50 highly structured plan. Cox (1989) drew attention to the importance of organisational  
51  
52 structure and made the salient point that effective music sessions needed to have some kind  
53  
54 of organisational structure, but that the most important thing was that facilitators were  
55  
56 flexible with regard to structure. In the context of music making with older people this is an  
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3 important point. Facilitators need to be equipped with a repertoire of strategies and  
4  
5 organisational approaches so that they may be empowered to take decisions with regard to  
6  
7 which approach will be most appropriate and most effective for any given group.  
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### 10 **Methodological limitations and implications**

11  
12  
13 The analysis presented here is based on randomly selected extracts of group music-making  
14  
15 amongst older people. A limitation of the study is that the extracts were not all at the same  
16  
17 point in each session and were not all of the same length. Future research is needed that  
18  
19 would examine issues of pacing with a systematic approach to the time segments to be  
20  
21 analysed, for example extracting the first ten minutes of each session, ten minutes at the mid-  
22  
23 point and ten minutes at the conclusion. Furthermore, while inter-rater reliability in the  
24  
25 analysis presented here was achieved through two researchers engaging in repeated viewings  
26  
27 of the recorded extracts and discussion, future research may establish further depth and  
28  
29 nuance in the interpretation by involving the older people and their facilitators in the process  
30  
31 of analysis. This would be in accordance with the principles set out by Withnall (2010, p.  
32  
33 119) who reminds us that amongst our diverse older population it is the older people  
34  
35 themselves who are best place to tell us about ‘the relative effects of different influences on  
36  
37 individuals at different times’. Collaborative work with facilitators in action research where  
38  
39 they could have an opportunity to reflect upon and interpret their own practice would also  
40  
41 contribute significantly to enhancing practice in this area and could function as a tool for  
42  
43 professional development.  
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### 50 **Conclusion**

51  
52  
53 By definition, any attempt to draw up a list of recommendations for facilitating groups of  
54  
55 older people in music runs the risk of subscribing to the myth of that all older learners are the  
56  
57 same (Findsen, 2005) or indeed that all musical groups require the same approach. Withnall  
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3 and Percy (1994) caution that any prescriptive statements about older learners risk  
4  
5 underestimating the rich diversity to be found amongst our older population. However, the  
6  
7 despite the diversity of groups represented within this analysis, there were some similarities,  
8  
9 suggesting that it may be possible to generate some broad principles that may support  
10  
11 effective practice, drawing on a range of contrasting contexts. Overall the findings suggest  
12  
13 that a wide repertoire of scaffolding strategies and organisational approaches may support  
14  
15 facilitators in developing musical activities that foster the positive benefits of music and  
16  
17 learning that have been demonstrated elsewhere (Hallam et al., 2011). In particular,  
18  
19 facilitators may develop their practice with older participants by a) making more extensive  
20  
21 use of non-verbal modelling, encouraging this as a form of peer support and allowing many  
22  
23 opportunities for individuals to practise new skills; b) creating space for open questioning and  
24  
25 discussion, where participants are encouraged to offer their own insights and to contribute to  
26  
27 setting collaborative and individual goals; c) making more extensive use of attributional  
28  
29 feedback that empowers learners to understand and control their own learning; and d) vary  
30  
31 the organisational structure and style in order to meet a range of diverse needs within groups  
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33 of older learners.  
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**Table 1: Number of recorded segments of musical activities, according to type of activity**

Type of group	case study site				Total
	WAES	Guildhall Connect	The Sage Gateshead	Guildhall Connect Intergenerational Project	
Choir	2	0	7	0	9
Instrumental group	1	0	8	0	9
Music appreciation	1	0	0	0	1
Intergenerational singing and instrumental	0	0	0	18	18
Creative workshop: singing and percussion	0	16	0	0	16
Total	4	16	15	18	53

**Table 2: Number and length of recorded segments of musical activities at each site**

Case study site	Number of recorded segments	Minimum number of seconds	Maximum number of seconds	Mean number of seconds	Std. Deviation	Total number of recorded seconds
Westminster Adult Education Service	4	1121	3583	2008.25	1107.79	8033
Guildhall Connect	16	32.9	2876	669.29	777.82	10709
The Sage, Gateshead	15	124.7	1069	493.98	309.78	7410
Guildhall Connect Intergenerational Project	18	34.7	1509.4	321.91	352.42	5794

**Table 3: Coding scheme for recorded observations**

<b>Subject</b>	<b>Behaviour or activity</b>
Facilitator	Scaffolding (conducting, accompanying, singing or playing along)
	Modelling
	Organisational activities
	Warm-ups
	Diagnosis, explanation, answer questions
	Ask questions
	Directive
	Attributional positive feedback
	Non-attributional positive feedback
	Attributional negative feedback
	Non-attributional negative feedback
	Participant
Listening	
Offer own opinions	
Ask questions	
Warm-ups	
All	Discussion

**Table 4: Overall mean percentage of time for each behaviour**

<b>Behaviour</b>	<b>Mean Percentage of total recorded time</b>	<b>Std. Deviation</b>
Facilitator uses scaffolding	48.22	29.98
Participant music making and practical work	47.48	30.86
Participant listening	29.20	23.81
Facilitator uses modelling	15.22	21.77
Organisational activities	9.94	14.44
Warm-up (Rubbing hands, arms, neck; stretching; breathing exercises; vocal warm-ups)	9.77	22.97
Facilitator diagnosis, explanation, answer questions	6.45	8.81
Facilitator asks questions	4.95	14.82
Directive facilitator	3.72	10.59
Participant offers own opinions	2.59	6.37
Facilitator provides non-attributional positive feedback	2.57	2.65
All discussion	2.41	5.28
Facilitator provides attributional positive feedback	1.58	5.67
Participant asks questions	0.30	0.72
Facilitator provides non-attributional negative feedback	0.03	0.21
Facilitator provides attributional negative feedback	0.02	0.13

**Table 5: Mean percentage of time coded for participant behaviours, comparing types of group**

Participant behaviour	Type of group				
	choir	instrumental group	music appreciation	intergenerational singing and instrumental	creative workshop: singing and percussion
	Mean % of time	Mean % of time	Mean % of time	Mean % of time	Mean % of time
Participant asks questions	0.83	0.57	1.23	0.00	0.12
Warm-up	6.71	3.19	0.00	17.29	7.34
Participant music making and practical work	45.45	62.11	14.22	44.33	46.00
Participant listening	34.37	19.52	29.96	28.41	32.59
Participant offers own opinions	0.44	0.56	5.76	3.38	3.85
All discussion	4.91	1.81	0.00	1.26	2.79

**Table 6: Mean percentage of time coded for facilitator behaviours, comparing types of group**

Facilitator behaviour	Type of group				
	choir	instrumental group	music appreciation	intergenerational singing and instrumental	creative workshop: singing and percussion
	Mean % of time	Mean % of time	Mean % of time	Mean % of time	Mean % of time
Facilitator asks questions	0.31	3.51	1.40	10.40	2.46
Facilitator diagnosis, explanation, answer questions	5.76	7.35	0.00	2.52	11.16
Facilitator provides attributional positive feedback	0.25	0.32	0.00	0.76	4.05
Facilitator provides non-attributional positive feedback	4.67	1.90	0.86	2.32	2.15
Facilitator provides attributional negative feedback	0.09	0.04	0.00	0.00	0.00
Facilitator provides non-attributional negative feedback	0.17	0.00	0.00	0.00	0.00
Facilitator uses modelling	19.74	19.84	7.52	3.93	23.28
Facilitator uses scaffolding	53.33	54.85	16.65	59.10	31.34
Directive facilitator	2.55	1.57	3.49	0.42	9.32
Organisational activities	1.14	4.84	0.00	17.72	9.63



Table 7: Summary of field notes

	<b>Creative workshop (including intergenerational sessions)</b>	<b>Choir</b>	<b>Instrumental (steel pans; calabash; recorder; ukulele; guitar; rock; keyboard)</b>
Specific skills focused on	Listening, watching, coordination; memory; rhythm.	Singing, listening, reading from score, articulation; intonation; mood; rhythm.	Listening, coordination, collaboration; note reading; tone quality; intonation; rhythm
Content	Songs, use of simple un-tuned percussion instruments, body percussion, creative element: words into rhythm.	Choral rehearsal, variety of songs New material (detail); Performance of known material.	Warm-up; Stretch; New material; Re-cap known material
Facilitators	All the activities are facilitator-led.  Facilitators offer help with rhythms and lyrics, when they think it is needed.  Facilitators improvise accompaniments, on their own instruments (e.g. flute, cello)	Sessions usually clearly structured, but informal.  Some facilitator-led, some 'democratic' style, with all participants contributing ideas.  Facilitator offers specific feedback on performance.  Explanations always connected with demonstration by the facilitator.	Facilitators are informal (sometimes in role of 'fellow participant' and sometimes in a leadership role) and responsive to the needs/suggestions of the participants.  Use of projector and whiteboard for chord symbols, note patterns, note reading.
Peer interactions	Participants do not ask for help.  Participants support each other, cheer each other up when individuals seem to be 'down'.	Choir applauding when peers sing a difficult phrase.  Lots of laughter.  Participants praise each other.	Participants ask for help from each other and from the facilitator. Some participants offer explanations to their peers.  Groups express

	Some negative peer interactions (e.g. arguments, critical of each other)		satisfaction with themselves when they perform whole pieces correctly.
Warm-ups	Body stretching; Massaging finger joints; Breathing exercise; Action song games; Tongue twister games; Mouth stretching exercise.	Rubbing hands, stretching, hug oneself, reverse hug, raise shoulders, stretching (facilitator models and does it with the choir); Singing warm-up: each part sings a note and they build up a chord; Articulation exercise 'petite – coquette' (choir repeats several times).	Chords; Scales; Tone production; Physical stretching.

Figure 1: Total amount of recorded observation time (in seconds) amongst different types of group

