NORFOLK MUSIC HUB

Music Research Project Report - May 2019

Background

Alison Corfield, Head of Music Service from Educator Solutions, approached the Child and Educational Psychology Practice to support in researching the benefits of music making on children's mental health through their work with Music Net East.

The Intervention

The Music Making sessions being delivered by a Music Workshop Lead aims to explore sound and music in an open and creative way. The sessions look at exotic and rare musical instruments from around the world, technology used in recording music and explore hidden worlds of sound. Students are given opportunities to hone their own creative approaches to music and understand what it is to be "musical", regardless of any prior musical experience.

The eight Music Making Sessions were delivered once per week for one hour in two schools in Norfolk over the latter part of the Spring term 2019. One school is a non-selective, state-funded Community School for students aged 3-11 years. The other is an Academy Converted Junior School for students aged 7-11.

Norfolk Music HUB

Norfolk Music Hub is led by the Music Service.

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Music Net East Changing Tunes is a four-year musical inclusion strategic partnership between Hertfordshire Music Service, Music Mark and funded by Youth Music, using public funding from the National Lottery via Arts Council England. The aim is to increase access to music-making for children in challenging circumstances in Hertfordshire, Cambridgeshire, Essex and Norfolk. Changing Tunes develops a National Working Group for Inclusion, where music services use action-based musical inclusion research projects to explore and share the challenges, enablers and benefits of music services developing inclusive models of instrumental and vocal teaching.

The Music Service within Educator Solutions supports education settings in delivering high quality teaching and learning for pupils. It offers a range of services and products as well as being the strategic lead for the Norfolk Music Hub.

Norfolk Music Hub is a partnership of organisations and schools which engage with Norfolk children and young people in music making. They are funded by the Department for Education with the grant administered by the Arts Council to create more opportunities for children and young people to get involved in music.

The Child and Educational Psychology Practice (CEPP) is a group of professionals including Educational Psychologists and Assistant Educational Psychologists. CEPP work at an individual level with children and young people in education settings and with their families. CEPP can also work at an organisational level offering consultation and training. Educational Psychologists use research evidence to inform practice and decision making but also engage in conducting psychological research. This often includes evaluation-based inquiry, i.e. measuring the impact of an intervention or action research to support the reflective and problem-solving processes within education settings.

Literature Review

Music has a power of forming the character and should therefore be introduced into the education of the young. (Aristotle)

The quote above was used to introduce a Department of Education document (2011) outlining a national plan for music education. It recognised the positive impacts that music making can have on personal and social development and the fact that most children will have their first experience of music at school. The plan aimed to be a 'flexible template for high quality music provision throughout a pupil's education' and specified that music-based interventions should reach as many children as possible, rather than being the preserve of children whose families can afford to pay for music tuition.

The biggest study into arts education in secondary school ever undertaken, 'Arts Education in Secondary Schools: Effects and Effectiveness (Bolton, 2000)', found that pupils studying art, music, drama and dance accrued heightened enjoyment and fulfilment, an increase in skill and knowledge, advances in personal and social development, development of creativity and thinking skills and the enrichment of communication and expressive skills. Historically, while considerable research demonstrated that music training may enhance academic and cognitive functioning, for instance, in terms of memory (e.g. Bilhartz et al, 1999), reading (Douglas & Willatts, 1994; Lamb & Gregory, 1993) and mathematical performance (Cheek & Smith, 1999), the impact of music training on psychosocial abilities such as social skills, self-esteem and self-regulation, received less research attention. However, in the last 15 years more research has been conducted into how arts and specifically music-based interventions, may bolster children with emotional and behavioural difficulties, supporting the development of skills and attributes identified in Bolton's study (mentioned previously). Moreover, with the positive relationship between psychosocial wellbeing and performance at school being increasingly evidenced (e.g., academic achievement and self-esteem, Keltikankas-Jarvinen, 1992), so has the interest in how music interventions can support both. It has been argued that arts-based education provides an ideal vantage point from which individuals' self-esteem (Trusty & Oliva, 1994) and pro-social behaviours (Gardiner et al., 1996) can be developed, with music being a particularly appealing and non-threatening medium for adolescents (North, Hargreaves, & O'Neill, 2000; Currie, 2004).

Previous literature reviews (Hallam, 2009; Bungay & Vella-Burrows, 2013) highlighted the many personal and social benefits young people can get from music making, concluding that despite the methodological weaknesses and limitations of some studies, participating in music making can have a positive effect on behavioural changes, self-confidence and self-esteem. It was argued that these positive outcomes may be linked to a sense of belonging to something, of investment. A keynote paper drawn from diverse empirical studies (Pitts, 2017) discussed how involvement in an extra-curricular musical performance increased young people's social networks, and sense of belonging, being particularly effective amongst groups of children and young people who are experiencing challenging circumstances. Spychiger et al. (1995) showed how increased

music making in schools led to greater social cohesion, more positive attitudes about the self and others, and better social adjustment. The strongest differences were observed amongst those children deemed to be the least engaged and have the lowest academic ability. Costa-Giomi (2004) also showed how the benefits of piano tuition (i.e. improved self-awareness, increased self-esteem) were strongest for children from economically deprived backgrounds. These studies show how the time, effort, dedication and collaborative work required in active music making create a number of benefits for individuals and the people around them, particularly increased wellbeing and social engagement. The research showed that when children and young people start to feel better about themselves, increase their social networks and learn skills of use across their lives, they are more inclined to stick at things and see them through. An important point to remember is that children and young people can only become actively involved if they are able to do so, opportunities need to be provided for them both to get involved and to have some say in how they are involved.

The current literature review corroborates previous findings (Barry et al, 2015; Hallam, S & Council, M.E., 2015) in terms of outcomes related to improvement in self-esteem and self-regulation. However, in many cases these positive impacts were only seen in interventions which were longer term (Knox Anderson & Rickard, 2007; Cook & Mundle, 2014; Thomas, J., 2014). For example, a study looking at the impact of a 12-week music intervention programme in an inner-city urban school (Cook & Mundle, 2014) found there was no statistically significant increase in the self-esteem scores at the end of the 12-week music intervention. This result differed from a study by Choi, Lee, and Lee (2010), in which improvement in self-esteem was evident after 15 weeks. It is arguable that 12 weeks is too short a period for such an intervention to be most meaningful. Another possible explanation for failure of scores to improve relates to the frequency of occurrence of the intervention per week, with Cook & Mundle arguing that 2 sessions a week would be needed for optimum outcomes.

Choi, Lee, and Lee's research also revealed that children who participated in the music intervention experienced a reduction in aggressiveness after 15 weeks, which they related to the improvements in self-esteem. Self-esteem is an individual's evaluation of his or her self (Woolfolk, 2010). Individuals can be classified as having a positive (high) self-esteem or a negative (low) self-esteem. A positive self-esteem generally has beneficial consequences for an individual, and includes high self-efficacy, healthy self-concept and high academic performance (Lane, Lane, & Kyprianou, 2004).

Jill Thomas's (2014) qualitative study examining the impact of music intervention on the social and emotional development of primary aged children with presenting with SEBD (social, emotional and behavioural difficulties) also noted that the positive effects of a music intervention were not instant. In fact, her research showed that in the early phase of the project students' self-regulation dipped, possibly due to 'sensory overload' such as that caused by noisy instrumental activities in a large space. However, in the later research phase students joined in more, became more invested and their self-esteem and peer relationships improved. This may suggest that participants had started to think more about the regulation of their own behaviour, which is consistent with the neo-Vygotskian theories of metacognitive mediation: 'Regulation of others' behaviour by means of the word gradually leads to the development of verbalized behaviour of the people themselves.' (Vygotsky, cited by Karpov and Haywood, 1998). Thomas concluded her study by arguing for music as a potentially powerful and influential resource for children presenting with SEBD.

In fact, several studies have established the relationship of musical engagement and behavioural development, 2010). In studies among children, music has been connected to their enhanced self-perception, improved social skills and behaviours, positive well-being, and stronger sense of community and ethical perspective (North, Tarrant, & Hargreaves, 2004; Schnitzlein, 2006; Hallam, 2010; Allsup & Westerlund, 2012). Jacobi (2012) argues that musical focuses and interventions are the ideal settings for building socio-emotional skills which are important in stimulating brain development and in reducing at-risk behaviours in school. One should take note though that the importance of conducting early intervention programs, especially among children with challenging behaviours, has been noted (Fox et al, 2002). This is thought to be because interventions applied during the latter years of child development become more difficult as the child's environment changes and becomes more complex (Foster et al, 2002; De Mers et al, 2009).

In her summaryof the report 'The Power of Music: a research synthesis of the impact of actively making music on the intellectual, social and personal development of children and young people' (2015), Susan Hallam backs up the findings of Jacobi (2012) relating to musical activity stimulating brain development. She describes how neuroscientific research has demonstrated that active engagement with music has a significant impact on brain structure and function, with accruing evidence indicating that actively making music can contribute to the enhancement of a range of non-musical skills and lead to other beneficial outcomes such as improved self-regulation, critical thinking, problem solving skills and interpersonal skills, all of which are useful for reducing at-risk behaviours (Kelstrom, 1998; Ponter, 1999; Bernstein & Bernstein, 2012). She explains how research has highlighted the most beneficial of music programmes being those that are highly interactive and enjoyable with opportunities for developing new skills and interpersonal bonds, involving performance and feedback, which involve solidarity in pursuing shared goals and have longer term input and regular frequency of contact. These findings back up those of studies already discussed.

Additionally, and significantly, Hallam also mentions the importance of a musical mentor with whom the young people involved share a mutual respect. The importance of a mentor in ensuring impact was also a reoccurring theme in the literature studied during the current review (Bolton, 2000; Burnard, 2008; Deane et al, 2011).

The Youth Music Network describes mentoring as a "one to one, non-judgmental relationship in which an individual gives time to support and encourage another;" implying a distinction between coaching, as the development of musical skills, and mentoring, which refers to an agenda of personal development. Core principles are described as including a focus on the young person as a whole person, allied to this is the importance of listening and communicating, with the practitioner developing the 'mutual respect' described by Hallam.

The positive effects of mentoring have also been investigated by Deane et al., (2010, 2011). In conducting a qualitative interview-based evaluation of Youth Music Mentors they found that whilst music making typically acts as a 'hook' in terms of initial project engagement, it is often the building of a trusting and non-judgemental relationship between a young person and their mentor that enables young people to develop "clear pictures of where they might move to and how they could make those moves" (Deane et al, 2011: 76), potentially also acting as a springboard for challenging problematic attitudes towards education.

However, the study also argued that, the act of collaborative music making itself was also crucial. Music is seen as a unique and ideal tool for mentoring because it involves a process closely entangled with wider personal and social development, i.e. music development requires and begets personal development: you can't have one without the other. Areas of personal development potentially resulting from enabling young people to collaboratively express themselves through music were highlighted by the study as being: the development of shared trust and interest; the development of transferable skills, such as the ability to give and receive criticism; an increase in confidence and better developed resilience; experiencing doing something well and getting praise for it; the development of a safe place to build a community with peers and adults. Music intervention with an affective mentor they argued, should be seen not as therapy, but as therapeutic; increasing a young persons' ability to reflect on life challenges, their understanding of self and the art they do.

On a final point, Deane et al's study echoes the findings of those of Phillip and Spratt (2007), which both suggest that mentoring can be more successful with children and young people who are 'ready to change', those who are pre-contemplative do not benefit so much.

Deane et al's study focused on a musical mentoring project in urban London which hooked into young people's musical preferences and interests, in this case hip hop and rap. They saw this a pivotal to the change process. Other studies have highlighted this need for inclusivity of practise, where the intervention fits the demographic of the community in which it is based. Daykin et al. (2012) for example, in their systematic review of music interventions suited to addressing risk factors in young people, noted that interventions should acknowledge the adolescents' background and show respect for their music tastes. They further citied Baker and Homan (2007), who reported that their participants rejected activities that did not fit with their perceptions of cultural and gender relevance.

To summarise, the current literature review identified a series of main themes, namely that music interventions are evidenced as having a positive impact on children with social and emotional problems, especially in the areas of self-esteem, self-regulation and improvement of interpersonal skills. The positive development in these areas has been proposed to be due to the close link between musical development and personal development (and potentially to neurological changes in the longer term). However, research also concluded that the impact was often not seen in the shorter term, with interventions needing to be longer term and conducted regularly and consistently to yield positive outcomes. The pivotal role of a mentor to support personal development and settlement was also highlighted, as was the need for the intervention to be perceived as relevant by the young people involved. All need to be considered and will have implications for practise, i.e. the structure and length of intervention and selection of music mentors.

Research aim

In light of previous research highlighting the positive benefits of musical interventions the current study set out to identify the perceived impact of the eight Music Making Sessions on the emotional literacy of selected pupils in the two schools involved.

Research question

Does the 8-week Making Music intervention, improve student's emotional literacy and wellbeing?

Methodology

Study design

The main aim of this type of research is to evaluate the value of a service or an intervention. Evaluative research may also seek to highlight areas to improve upon (Robson, 2002).

Commissioning bodies are expected to apply 'best value principles' when deciding what services should be delivered and by whom. Randomised control trials (RCTs) are often viewed as at the top of 'best available evidence' or the 'gold standard' of establishing effectiveness of interventions (Robson, 2002). RCTs include the random allocation of participants to groups and the design allows for stringent control, which enables the researcher to infer a causal relationship and control for potential bias (Kazdin, 2003). Despite this view, RCTs have been criticised for being impractical (Robson, 2002). RCTs have also been criticised for becoming too detached from how an intervention may operate in a real-life context and therefore not truly measuring effectiveness (Fox, 2011).

For these reasons the current study chose a pragmatic mixed methods approach, best suited to replicating circumstances in everyday practice. Both quantitative and qualitative data was collected. Quantitative data being collected in the form of checklists and qualitative data collected from students and staff members in the form of semi-structured interviews and questionnaires.

While neither method is 'better' than the other, there are advantages and disadvantages to both. Quantitative data is generally quicker to collect and analyse and can be interpreted with statistical analysis, which is viewed as more scientifically objective and rational (Denscombe, 2010). It is more thought to be more generalisable across and population, i.e. the extent to which research findings can be applied to settings other than that in which they were originally tested, if sample sizes are big enough.

Qualitative research is more time consuming but allows one to explore topics in more depth and detail than quantitative research, it allows researchers to look outside the narrow range of quantitative 'probes', focusing on people's opinions and meaning making, allowing for the ambiguities and contradictions in the data, which are a reflection of social reality (Denscombe, 2010).Qualitative data adds depth to quantitative analysis, giving a more rounded picture of impact.

Mixed method approaches are therefore often seen as best positioned to determine 'what works' in complex real-world contexts.

Ethical considerations

Participants provided written informed consent for their involvement. All data taken for the purpose of the research is confidential and participant information was made anonymous through the use of a coding system only available to the researcher and kept secure.

Participants

Ten pupils were selected in each of the two schools to take part in the intervention. They were non-random, being chosen by teaching staff as those with identified social, emotional and/or mental health needs. The children ranged from Year 3 (7-8 years old) to Year 6 (10-11 years old).

Measures

Quantitative

This research project used the 'Emotional Literacy Assessment (gl assessment aged 5-11) which is designed to discover where pupils' strengths and weaknesses are in the area of emotional literacy, in order to provide a better understanding of these competences. Emotional Literacy is defined as the ability to understand, express, manage our emotions and respond appropriately to the emotions of others (Goleman, 1999).

Emotional Literacy covers five key areas of emotional literacy:

- Self-awareness
- Self-regulation
- Motivation
- Empathy
- Social skills.

The assessments take the form of three checklists:

- Pupil checklist – the child marks themselves against statements such as 'I often lose my temper' using 'very like me' through to 'not like me at all'. Each answer has a numerical score, which combine into an overall emotional literacy score.
- Teacher checklist – completed by the teacher and scored in the same way as the pupil checklist – produces a score for each of the subscales (self-awareness, self-regulation, motivation, empathy

and social skills) as well as the overall emotional literacy score.

- Parent checklist - mainly used for the parents of children receiving 1-1 or small group intervention – produces a score for each of the subscales, as well as the overall emotional literacy score.

The Stirling Wellbeing Scale, a positively worded, holistic measure of children's psychological and emotional wellbeing, was also used as a further measure, specifically to look in more detail at effect size.

The study employed a pre-test post-test design, with both EL and Stirling checklists being delivered prior to the intervention starting and at the end of the eight sessions.

Qualitative

Qualitative data was interpreted via a process known as Thematic Analysis - a flexible method for identifying, analysing and organising patterns (themes) in qualitative data (Braun and Clarke, 2006), with the potential to give a rich and detailed account of perceived impacts. For the purpose of structure and clarity, themes which do not fit into the overall structure or relate to the research question should be excluded by the researcher. Themes are evidenced with selected illustrative quotes from the data corpus. There should be an acknowledgement that the final analysis and appropriation of themes is subjective and only one of many ways of interpreting the data.

Results

Five students' data was excluded from the analysis because either pre- or post-intervention data was missing.

Quantitative

Paired samples t-tests and Cohen's *d* were used to examine whether there is a significant difference between the pre- and post-intervention scores, as well as effect size. The data from the whole sample were compared, as well as the data from Redcastle and Costessey separately. The scores are represented in Figure 1.

Table 1: Self-report student measures

		n	Mean Pre-Intervention	Mean Post-Intervention	*p*	Cohen's *d**
Emotional Literacy Checklist	Overall	12	71.92	73.17	0.33	0.10
	Redcastle Family School	6	75.00	72.17	0.26	-0.22
	Costessey Junior School	6	68.83	74.17	0.07	0.38
Stirling Wellbeing Scale	Overall	12	52.50	55.75	0.09	0.28
	Redcastle Family School	6	57.17	57.83	0.42	-0.06
	Costessey Junior School	6	47.83	53.67	0.08	0.52

*A small effect size is 0.2, moderate 0.5 and large 0.8.

The self-report data did not demonstrate a significant difference between the pre- and post-intervention score in any one comparison (*see p scores in Table 1*). A small and moderate effect size was found in the Costessey Junior School group with the Emotional Literacy Checklist and Stirling Wellbeing Scale respectively.

Table 2: Teacher Emotional Literacy Checklist measures

	n	Mean Pre-Intervention	Mean Post-Intervention	*p*	Cohen's *d**
Overall	9	55.92	52.78	0.14	-0.45
Redcastle Family School	4	55.14	52.25	0.34	-0.36
Costessey Junior School	5	57.00	53.20	0.17	-0.50

*A small effect size is 0.2, moderate 0.5 and large 0.8.

There were no significant differences found between the pre- and post-intervention measures. A moderate negative effect size was found between the pre- and post-intervention measures overall and in the Costessey Junior School sample, whilst there was a small negative effect size found in the Redcastle Family School sample.

Qualitative

Qualitative data was collected informally through discussion and written feedback with participating children and supporting staff. Questions were, where possible, open ended, to lessen the influence of the researcher in leading participants toward preconceived answers.

The thematic analytic process led to the production of four overlapping themes centred around perceptions of impact relating to the music intervention: 'Loved it', 'Improvements in emotional wellbeing, communication and relationships', 'Improvements in self-regulation, settlement and engagement' and 'The Influencers of Impact'.

N.B. Children have been given pseudonyms

'Loved it'

Both adults who supported the groups and the children themselves commented on how much the children got from the intervention and enjoyed attending it:

> The kids always wanted to go to the sessions, they were excited about it, they enjoyed it and built a good relationship with Carl, he gave them settling in time. They had no qualms about going in by themselves if I couldn't be there (Redcastle Supporting Adult - RCSA)

> 'Chantelle' came back today telling me exactly what she had been doing: 'We wrote our own music for this ocean film and we had whales and dolphins leaping around'. When I said that I was glad she had really enjoyed it this week, her instant response was: 'I really enjoy it every week!' (Costessey Supporting Adult – CSA)

> It (the music making sessions) makes me more relaxed and happy after all the hard work in class, which I tend to stress out about too much. I'm excited about going and I'm excited when I create something. I think it's made me feel better generally about stuff (Chantelle, C)

> I loved it, I am always happy to go. I wish it could carry on longer. It's nice and I got better at getting the instruments to make nice sounds, I was pleased about that. (Kerry, C)

> I loved it, I loved the music. I wasn't so hyper because we had stuff to do and making music let me do things with my hands (Archie, RC)

Chantelle's comment suggests a lessening of anxiety attributable to being part of the sessions and Kerry's comment indicates both how much she enjoyed the music making and her sense of achievement. Archie's comment about not being 'so hyper' hints at an acknowledgement of improved self-regulation, in the music sessions at least. This links to another global theme appearing in the corpus relating to improvements in self-regulation and engagement.

Improvements in self-regulation, settlement and engagement

Supporting adults from both schools had had feedback from class teachers (one was a class teacher) relating to improved self-regulation, settlement and engagement from some of the pupils involved in the music intervention:

> Lucas has been much more settled and focused in class and has made significant academic progress as a result. (CSA)

> Both girls have been more settled in class and ask regularly about when the next sessions will be and what Carl will be doing with them next. (CSA)

> We have had less confrontation – how much of it is directly attributable to the Music Making sessions is hard to say as we have been working at more than one angle, but there is no doubt that she has loved the sessions and that being chosen to participate was a huge boost in itself, she actively looks forward to attending every Friday. (CSA)

> I've had feedback from some teachers about there being an impact on engagement in class. Leila for example, and Petra certainly, also Maisie...I've had feedback that they are all much more settled and engaged in class. I think it's because they have a better ability to recognise and reflect on how they are feeling. They can regulate more. (RCSA)

These comments seem to support the findings of previous research that suggest the positive effects of music making on settlement and self-regulation (see literature review). Additionally, a link between improved self-regulation and increased engagement has been well evidenced in literature (e.g. Eisenberg et al, 2010; Ursache et al, 2012). Taken together one can appreciate the positive effects music intervention can have on both a personal and school level.

Improvements in communication and relationships

Meaning-making around the perceived impacts of the intervention also related to improvements in the children's ability to relate to one another:

> I feel like the kids working together like they did in the that group every week made them more attuned to how other people are feeling, the children who were there had to pay attention to how others were feeling in the group…and they got better at reacting to performance in a positive and inclusive way. (RCSA)

Improved relationships and communication were commented on from a series of different perspectives and levels. For example, in terms of improved relationships between young people within the group, who had previously had difficult relationships:

> Leila and Lola have always had a bit of an intense relationships between them, they are very aware of each other, but through this music they ended up sharing a bond (RCSA)

> I really enjoyed it and it helped me with Lola a bit because we used to fall out more before and she could be more unkind. (Leila, RC)

> I liked working in a group, I'm quite close to Taylor now, when we were on and off before (Kerry, C)

Also, from the Redcastle support adult, an acknowledgement of developing relationships between children of different year groups within the school:

> The older kids have been acknowledging the younger ones around school, they feel that they've made a bond together….the kids in different year groups have mixed more. (RCSA)

Improved relationships between the children and adults (both parents and staff) were also noted:

> Lucas has been keen to tell me what has happened in each session when he returns to class. His parents have also reported that he comes out of school and explains in an animated and enthusiastic manner what he has done in each session. He seems more relaxed and less anxious after the sessions. (CSA)

> One girl, Maisie, was introverted and wouldn't speak, now she's much more onboard, engaged and outgoing. In session 1 she wouldn't contribute but by the 4th session she had an open posture and would contribute. I've seen definite improvements, in all the children in some ways but more profoundly in some… I got loads out of it too, I feel it was useful for me to develop those relationships with children, to have that deeper and more open dialogue. (RCSA)

The Influencers of Impact

Participants expressed perceptions and meaning making around a variety of influencers of impact, i.e. factors pertinent to the impact of the music making sessions. At the forefront of these was the Carl as a mentor and the relationship that he built with the children:

> After 15 mins in looked like they'd known Carl forever, it really was that quick. He helped them find an outlet to express themselves through. He looked at each child individually and he thought around ways he could work with each of them and hook them in, like for Maisie is was ukulele. (RDSA)

> The children had the chance to choose where the sessions went, and their creative ideas were given validation by Carl which is incredibly empowering. It gives pupils a chance to be self-reflective and enjoy time in school that is not following a standard teacher/pupil power balance. (CSA)

> I enjoyed working with Carl, he's kind and he always asks us what we want to do next time, he's interested in our opinions and what we want. He's fun and it's different to class. (Leila, RC)

> Carl listens to what we like and then tries to do stuff with us that we like. I get into it and it makes me forget about the stuff I worry about, that I shouldn't worry about. I've loved trying all the new instruments (Giles, C)

It seems that Carl's position as a mentor rather than a teacher is recognised as relevant and important to both supporting adults and the children. As is Carl's ability to listen to the children, think around what would best hook them in and make experiences hands-on.

Giles' comment that 'he tries to do the stuff with us that we like' echoes similar comments by some of the other children, who see making the sessions relevant to them as important:

> It's good that it was all sorts of music not just boring stuff. There was even stuff we knew that's in the charts now. We also got to listen to stuff from other countries, that was good. (Taylor, C)

> I especially liked it when he taught me a Billie Eilish song (Lola, RC)

Also noted was the fact that the sessions provided a sanctuary away from more pressured environments:

> It has been a 'pressure off', pure enjoyment session for Chantelle, away from her usual group of peers with whom she has had some tense relationships of many years standing. It doesn't matter how much we try and make every lesson enjoyable and engaging, there is still that awareness that it will be marked, graded, assessed. For a pupil such as Chantelle whose interests outside of school are also highly competitive - cheerleading squad - this has given her a block of sessions that she has seen purely as fun and release. (CSA)

Regular time slots were also mentioned as being important:

> It seems especially effective when it is a course of sessions in a regular time slot, so children know when to expect them. Lucas seems to recognise that he is receiving a special opportunity, and this has given a boost to his self-esteem. (CSA)

> I think the fact that they had something to look forward to, a regular time slot, also helped settle them and gave them a sense of expectancy (RCSA)

A comment of note that fell outside of the 4 themes was made by the supporting adult at Redcastle:

> Coming out of it I think that some of them realised that they'd got something out of it and maybe needed it…I feel like they didn't realise they needed it until they did it. (RCSA)

This observation hints at the fact that some children who went into the intervention in a pre-contemplative state, i.e. with no recognition of their own limiting behaviours or emotional state, may have ended it by being more attuned to and aware of their current emotional state.

Discussion

Quantitatively this study did not find a significant increase in emotional wellbeing following the intervention, as measured by the Emotional Literacy Checklist and the Stirling Wellbeing Scale. However, when considering effect size, there was found to be a small to moderate effect within the Costessey Junior School group (Emotional Literacy Checklist – small, Stirling Wellbeing Scale – moderate). The Stirling Wellbeing Scale also demonstrated a small effect size across both groups. These effect sizes arguably suggest that the intervention does show promise in terms of supporting the hypothesis.

The moderate negative effect size found in the Teacher data whilst somewhat concerning is difficult to attribute to the Music Project fully due to the small sample size (i.e. 4 teachers from Redcastle and 5 teachers from Costessey), lack of control group and inability to rule out the effect of other factors occurring within the home or school environment. Certainly, the verbal feedback from school staff does not suggest a negative impact from the intervention. The literature review also commented on a possible dip students' self-regulation during the early phase of the project (Thomas, 2014), which may be the case here due to the relatively short length of the intervention (8-weeks). Further research is likely to be useful to explore this finding in more depth.

The lack of a significant result is most likely to link to the small amount of data collected (see considerations for more discussion) and the fact that the length of the intervention may have been too short to demonstrate a significant effect.

There are many different variables which may account for the difference in effect size between Costessey Junior School and Redcastle Family School. For example, there may have been differences in how children were identified for participation, group cohesion, the time of day of the sessions and the extent to which time for staff to attend the sessions was ringfenced.

Qualitatively however one can clearly see both the perceived positive impacts associated with the music-making sessions and a demonstrable link with previous research findings (outlined in the literature review). Namely that the music intervention was perceived as having a positive impact on self-regulation and improvement of interpersonal skills. These in turn were seen as having an effect on settlement and to some extent on engagement both in the music sessions and in class. The music activity required children to step out of their comfort zones and support one another, this was noted as having knock on effects in a range of areas including relationships and increases in confidence.

The pivotal role of a mentor was also noted in line with previous research findings. With participants and support adults commenting on how sessions were made enjoyable and relevant, tailored to meet individual interests and needs. The 'hands-on' and diverse nature of musical input was also commented on as being important, as was the fact that the sessions provided a 'sanctuary' away from more potentially pressurized environments.

Considerations

When reflecting on the quantitative analysis one should consider the small sample sizes. The conclusions drawn from small sample sizes cannot be generalised across a population and one must keep in mind that results can be misleading as it takes very little for them to be skewed by an outlier. Therefore, any conclusions drawn from small samples of quantitative data must always be interpreted with caution, while maintaining a reflective stance and larger perspective. Moreover, in order to infer that progress made by the students involved in the study is attributed to the effect of the intervention, it is highly recommended that a control or waitlist group are included so that a comparison can be made.

To ensure a robust evaluation of the impact of the group, it is recommended that the student, teacher and parent checklists are all completed to allow triangulation of the data. Self-administered checklists about oneself are subject to biases, for example, when completing a questionnaire for other people to look at, we tend to present ourselves in a very favourable light, either inflating or downplaying qualities, or completing the questionnaire in accordance with our ideal self rather than our real self-image. Therefore, it is valuable that both the Teacher and Parent checklists are also completed to provide a more robust evaluation (Frederickson, Miller and Cline, 2008).

Due to the broad ranging nature of the study's remit - to investigate impact of a music intervention on student's emotional literacy and wellbeing - a broad measure of Emotional Literacy was used. When reflecting on findings, it may be helpful to use a measure which more specifically examines the constructs expected to be impacted by the intervention. Therefore, for future research, it may be useful to further conceptualise the specific area that is expected to show progress prior to ensure the validity of the quantitative data.

There were several students who self-reported high levels of emotional literacy prior to the intervention; four students self-reported emotional literacy scores which were well above average when compared to nationally representative sample. In each of these cases, the students' post-intervention score was less than

their pre-intervention score. This may suggest that the students initially lacked the self-awareness required to give an accurate representation of their emotional literacy levels pre-intervention and a development in self-awareness, thereby an improvement in emotional literacy, allowed the children to provide more reflective and accurate responses following the intervention. This finding was backed up by the qualitative data when the RCSA commented that, 'I feel like they didn't realise they needed it until they did it'.

The time frame was such that the researchers were not able to be as rigorous with data collection as they would have liked. As mentioned previously, samples sizes for quantitative data collection should ideally have been larger, and qualitatively more robust and in-depth semi-structured interviews supplemented by a timetable of observations would have yielded richer and more nuanced findings, this is a consideration for any further research.

Future research suggestions

- Studies involving a longer time frame (over 12 weeks) are more likely to demonstrate impact quantitatively.
- The focus of studies could be more specific, i.e. looking particularly in increases in self-esteem.
- Quantitative studies should ideally collect larger amounts of data in order to make results generalisable. A trusted set of statistics can give confidence when making future plans.
- Additional data for parents and teachers should ideally be collected by researchers in order to ensure that sample sizes are big enough. This would ensure better triangulation of data and hopefully more robust results.
- A more comprehensive, formal and focused qualitative study could be employed to drill down into meaning-making around impacts of intervention in selected case studies, giving richer outcomes.

Implications and final word

Qualitative outcomes (and to some extent effect sizes) of the present study concur with previous research findings which suggest that:

- opportunities need to be available for collaborative music making;
- the quality of teaching needs to be high and mentor based, an atmosphere of positive regard needs to be established;
- to have a positive impact on disaffected and at-risk young people, the musical activities need to be hands-on and relatable to an individual/target group.
- engagement needs to be sustained over a longer period of time to maximise the benefits;

Arts Education in Secondary Schools: Effects and Effectiveness (Harland et al, 2000) found that pupils studying art, music, drama and dance accrued heightened enjoyment and fulfilment, an increase in skill and knowledge, advances in personal and social development, development of creativity and thinking skills and the enrichment of communication and expressive skills. As one drama teacher put it: "It is another dimension to their lives, which isn't just a factual, mechanical dimension. It is something that is a life inside their head; it's an imaginative life; a creative life."

https://www.theguardian.com/education/2000/oct/10/schools

However, in many schools, arts education, including music has been sidelined. Shifts in educational policy over the last 15 years and pressures on schools the show progress in core subjects may mean that we are producing school-leavers with less rich imaginative lives and fewer creative skills. Interventions such as those delivered by the Norfolk Music Hub would arguably help to redress this balance.

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