

Garden School Report

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Abstract

This report is a short service evaluation of weekly Drum Works sessions taking place at the Garden School, Hackney, as part of a three-year partnership with Barbican Guildhall Creative Learning, in the form of a feasibility study. An adapted outcome measure was created for the study, based on the existing music therapy outcome measure MiDAS (McDermott 2014), measuring student outcomes pre- and post-Drum Works sessions related to interest, initiation, involvement, emotional outlet and (reduction in) anxiety.

Indicative results from the study show that students displayed an increase in the first four measures to a significantly higher degree post-Drum Works, compared to control results. The author recommends a longer-term pilot study be taken, in order to improve the validity of the results, using the adapted outcome measure and also Sounds of Intent (Ockelford et al 2005a, b, c).

Introduction

This report is a short service evaluation of an existing service of weekly Drum Works sessions taking place at the Garden School, Hackney, as part of a three-year partnership with Barbican Guildhall Creative Learning.

Barbican Guildhall Creative Learning (BGCL) is “a pioneering cultural alliance between an arts centre and a conservatoire transforming 21st Century learning” (Guildhall School of Music & Drama 2019). Part of the remit is to connect artistic partners with communities “in groundbreaking new ways to create inspiring arts experiences for all,” and to offer “outstanding creative opportunities” to these communities reached by the service (ibid).

The Garden School was identified as a recipient of an artistic partnership. The school offers education provision for children aged 4-16 with a diagnosis of autism who also experience severe learning difficulties. With an adapted curriculum and a varied enrichment programme, the Garden School was considered to be in a position to make good use of a creative artistic opportunity.

Drum Works (Drum Works 2019) was identified as the artistic partner for the Garden School. Drum Works run regular music making sessions in seven partner schools, using samba drums to enable children of all ages and abilities to make new music within a group setting. The Garden School is Drum Works’ first venture into working in a special needs school.

As the funding is coming to an end, this service evaluation attempts to demonstrate the efficacy of Drum Works sessions for the children attending at the Garden School, in order that more funding might be successfully gained to carry on the service. This is intended as a feasibility study, in order to determine whether the service can be evaluated, and how effectively, in order that a pilot study might potentially be carried out in future.

Drum Works at the Garden School

This service evaluation observed two groups of nine children each who attended Drum Works sessions over three consecutive weeks. Each session was facilitated by the same three Drum Works team leaders, and each team leader took the same role within the session: one acted as overall session leader, starting and finishing each session and prompting the move between sections; one as the deputy, leading the sections in the middle of each session; and the third team leader focusing on engaging individual group members during the session.

Each session would start with an improvised hello song, with each group member sung to individually by name. A short listening section would follow, with the three team leaders improvising a quiet rhythmic piece on drums, often with some singing. The longest section of each session would follow: each participant would choose a drum, beaters and ear defenders, and the whole group would play together, with the team leaders alternating between choosing participants to improvise a rhythm to copy, and taking up that rhythm and repeating it so that the group could play together in a uniform way. Each session finished with an improvised goodbye sequence, with each participant mentioned by name and asked whether they would like to attend the Drum Works session next week.

Throughout all sessions, team leaders used Makaton and PECS (Picture Exchange Communication System), as the participants were used to using in the classroom.

Study rationale

Drum Works already enjoys strong anecdotal feedback from parents, school staff, Drum Works facilitators and participants themselves. The following two case studies were written by the lead Drum Works facilitator at the Garden School, Jamie Doe. Participant names have been changed.

Matthew

I have been working with Matthew while leading Drum Works sessions at the Garden School for the past year. He is a lovely young man with complex special needs. Whilst he is very happy, highly verbal and intelligent, his autism presents itself in periods of challenging behaviour when he is unable to regulate himself and control his energetic and exuberant nature. This requires a TA to be with him throughout our sessions and he often sits slightly apart from the group to give him the best chance of controlling his distractions.

Matthew clearly loves rhythm and loves drumming. He normally arrives with an excess of manic energy. However, as we progress from the initial greeting to the listening and into the drumming itself, I can see how he relaxes and is able to focus on the music. I have never seen him as calm and seemingly at peace as when he is concentrating on the group beat and following along. He is a very talented musician and is one of our most capable drummers, with expressive soloing and a great grasp of call and response. Recently we have been setting up a range of drums around him which he plays like a drum kit. When he takes his turn to solo, he puts all his energy into hitting the drums and clearly gets a huge cathartic release from the noise he can produce, the rhythms he creates, and the feedback he gets from the rest of the group.

As someone who due to his behaviour might often struggle to access other types of activities, it has been thrilling to see him grow as a drummer and what the sessions clearly mean to him.

Alice

Alice is a very special person. Since she first started attending Drum Works sessions she has been a star. Alice loves to dance and feels rhythm in her body and this naturally comes out when the group settles on a beat. We have been encouraging this over time and now, thanks to her, movement and dancing with the drums has become an increasing feature of the sessions.

As a naturally shy person, it has been brilliant to see Alice's confidence increase as she has become comfortable to express herself on her own terms with us and her fellow students. She always chooses a snare drum which she plays with wristy flourishes, following the group beats and particularly relishing her chance to solo. She always arrives with a huge smile which never leaves her face from the minute we start the greeting to the moment she leaves. She is a great example of the empowering effect of group music making when delivered in a setting in which people feel safe and encouraged to be themselves.

BGCL felt that some quantitative evidence would strengthen the funding cause further. A request for a researcher was put out across the Barbican and the Guildhall School. The author responded, on behalf of the Guildhall School's Head of Music Therapy, Ann Sloboda, as a Music Therapy MA graduate experienced in research and service evaluation.

Methodology

For this study, the intention was to use an existing outcome measure for music therapy and autism, while noting that Drum Works is not a music therapy intervention, rather a community music one. The project needed to be completed quickly, before the partnership between BGCL and the Garden School came to a formal close, so using a music therapy outcome measure the author was previously aware of meant the project could be completed within this timeline. This was also in order to use a standardised tool and create as rigorous a method as possible even for a small study. However, none of the existing outcome measures provided exactly what was needed.

The author searched for existing measures using the Nordoff Robbins Outcome Measures document (Cripps et al 2016), and also created an informal poll within the music therapy community on Twitter. From the responses generated from the Twitter poll, most music therapists use the Autism Diagnostic Observation Scale, or ADOS (Gotham et al 2007), the outcome measure that was used as part of the well-publicised TIME-A study (Bieleninik et al 2017). For this study, however, ADOS was ruled out because of the diagnostic element inherent in the measure, which was inappropriate for this service evaluation. Other responses stated music therapists were using bespoke tools designed in-house.

There is a arts in health-style outcome measure, Sounds of Intent (Ockelford et al 2005a, b, c), but this was discovered later in the project, and not with enough time to implement in this study. A future pilot study might wish to include Sounds of Intent as one of the outcome measures used.

The issue with using existing validated outcome measures was that all existing measures examine the process of the session itself. What we wanted to demonstrate was the eventual outcomes for the children attending Drum Works. Our research questions were:

1. Do Drum Works sessions have positive effects on the children who attend, outside of sessions?
2. If so, what are the positive effects?

The author has experience using the Music in Dementia Assessment Scales, or MiDAS (McDermott 2014), running a large successful service evaluation using MiDAS and generating a high amount of positive data in an NHS setting. MiDAS does not so much consider the process of a session involving music; rather, it observes traits in each session participant before and after a session, and at two points within a session also.

It was decided, therefore, to adapt MiDAS for use in the Garden School setting, observing traits in children appropriate for their needs relating to autism and learning difficulties. The Garden School and Drum Works were attracted by the clarity of the measure, and its ease in filling out. It required support from school staff (teachers and teaching assistants) who needed to fill out the measure also, but steps were put in place by Debbie Snowden from the Garden School to ensure that this happened. This study enjoyed a 100% return rate in forms as a result.

The adapted outcome measure used in the study is included as Appendix 1. Five visual analogue scales (VAS) of exactly 100mm were provided. The five scales measured the following effects on the children:

1. Interest
2. Initiation
3. Involvement
4. Emotional outlet
5. Anxiety

BCGL, the Garden School and Drum Works decided together that these five effects were the most appropriate outcomes to try and capture. Definitions for each of the effects were decided and included on the outcome measure (see Appendix 1).

The aim was to demonstrate that the first four observable variants would increase post-Drum Works and that the fifth (Anxiety) would decrease.

Four forms were completed for each participant on the day of their session:

- A Garden School staff member (a teacher or teaching assistant) completed the measure observing the group participant at the beginning of the day ("Before" their Drum Works session) and at the end of the day ("After").
- The author and the Drum Works team leaders completed measures straight after each session: once for how the participant presented at the beginning of the session ("Beginning") and once for their presentation during the most significant five minutes of the session for that person ("During"). The author was careful to emphasise that the most significant five minutes would be different for each participant and that it would be using individual parameters meaningful for that participant.

The person completing the form would make a mark along each VAS and then measure it with a ruler, the number of mm generating a score. While each person completing the form was aware they were scoring from 0-100, the author emphasised that 0-100 would be unique to each participant, depending on their abilities and personal circumstances.

All Garden School staff members were trained in how to use the adapted outcome measure before observations began. At the training session, it was decided to also include some control measurements. The same children were measured using the adapted scale, but on the day before their Drum Works session. This would allow us to consider how much effect a Drum Works session might have on each participant, while acknowledging that their Drum Works session would not be the only part of a participant's day to create an effect. A different approach for a further study could also measure other children who were not taking part in Drum Works sessions, either the day before or on the day of Drum Works.

Results

18 children attended an average of 2.72 sessions from a possible three that were included as part of this study. 14 of the 18 children attended three consecutive sessions. The sessions were taken in two groups, with nine children in each group. The children were divided by age rather than ability. The facilitators for each of the two groups remained the same, with the same set of facilitators running both groups, and with each facilitator undertaking the same or similar roles within the group. The structure of each group remained the same.

40 sets of complete results were returned and eligible for use in the study (80 forms in total). Further pairs were incomplete and unable to be used. This was because either the scales had been filled in incorrectly, e.g. one scale was left blank while the other four were filled in, or because the results did not correspond with a complete pair, e.g. there was a completed After form but no Before.

This had one unfortunate effect in that the author's completed forms were the only ones eligible to be included in the study that were measured during the Drum Works session. The team leaders also filled in forms, but only completed During forms and not Beginning, meaning their forms were ineligible. This was due to a fault in communication. This also creates the issue that the author's completion of the forms is unable to be validated against others, even though that was the intention of the study.

From the completed forms eligible for the study, we can see that Drum Works sessions seem to have a positive effect on the children who attended throughout all five areas:

Fig. 1: Graph of the Average results

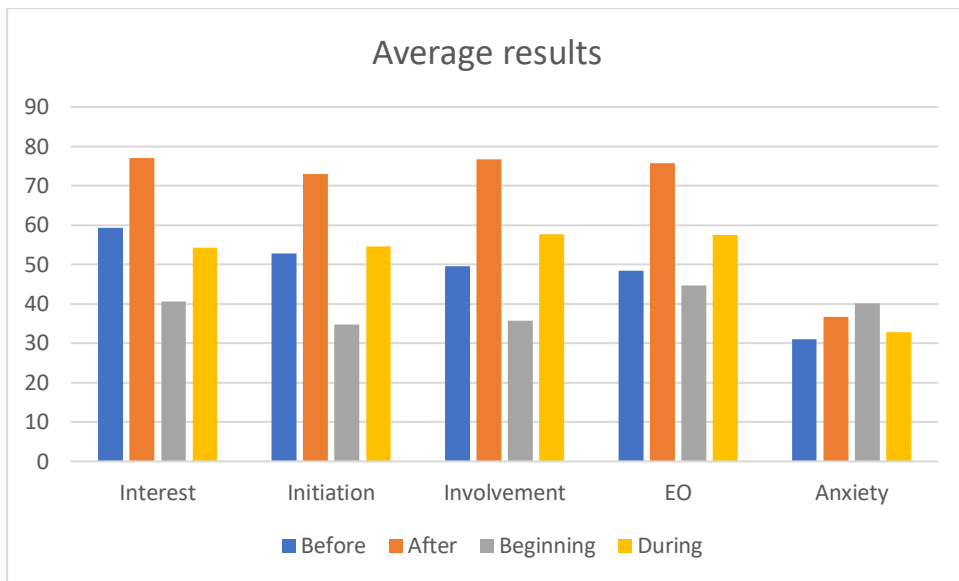
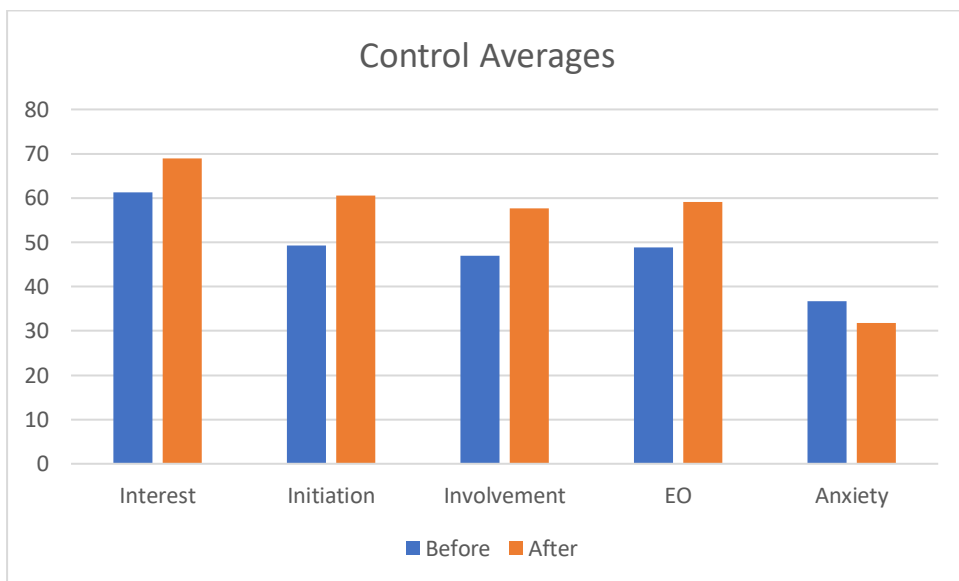


Fig. 2: Graph of the results of Control Averages



While the control group also shows positive results – increase in interest, initiation, involvement and emotional outlet with a reduction in anxiety – the results post-Drum Works are significantly higher, in some cases doubled.

Table 1: Average differences

	Difference after	Difference during
Interest	17.60976	13.56863
Initiation	20.12195	19.88235
Involvement	27.21951	21.98039
Emotional Outlet	27.19512	12.76471
Anxiety	5.682927	-7.33333

Table 2: Control Averages

	Difference after
Interest	7.611111
Initiation	11.33333
Involvement	10.69444
Emotional Outlet	10.27778
Anxiety	-4.94444

The author's hypothesis has been supported in almost all of the statistics. The only result to go against the hypothesis is the result for the difference after a Drum Works session relating to anxiety: participant anxiety increased post-Drum Works rather than reduced. Garden School staff suggested that for the individual participants, Anxiety would also include a general increase in energy and agitation, which perhaps was to be expected after a high-energy session.

Discussion

While the results claim that Drum Works sessions demonstrated positive effects to all session participants, we can only realistically suggest that they are indicative rather than conclusive. Data was gathered over a short time period, of three consecutive sessions; it would be interesting to repeat the study over a significantly longer time period to see how the results present.

The sample size for this study is very small, which again can only suggest our results are indicative. While the study included all students attending two of the three regular Drum Works sessions, it will be interesting, if a study is repeated, to compare future results with new, or the same, group member, to see how the overall averages are affected.

An inherent bias present in all observers and assessors must be acknowledged: all were involved in an organisation (BGCL, the Garden School or Drum Works) that had a vested interest in demonstrating the positive efficacy of Drum Works sessions. The design of the adapted outcome measure attempted to mitigate this bias somewhat: using VAS meant that a mark was made first with a score generated afterwards, making it more difficult to "game the system" by focusing initially on a numerical score. This does not alleviate the bias completely, however.

Steps were taken to ensure that the adapted outcome measure demonstrated the desired outcomes to be assessed, with group decisions taken as to how to define the five categories that were assessed. The issue remains, however, that the outcome measure used for the study was not a validated one. While some validation was attempted within some assessors this could not be replicated across all assessors: a difficulty with communication meant the team leaders did not

complete their Beginning and During forms correctly, leaving the author's correctly completed Beginning and During forms unable to be validated.

The author had intended to also collect data in line with the Sounds of Intent outcome measure (Ockelford et al 2005a, b, c) as part of this evaluation, but lack of time and resources meant this was not possible.

Conclusions and Recommendations

This short service evaluation was intended as a feasibility study to examine whether evaluating the efficacy of the Drum Works community music sessions would stand a longer-term service evaluation as part of a pilot scheme. The evaluation was also intended as a method of providing quantitative data to support the strong qualitative data gathered from staff, parents and carers associated with Drum Works participants, in order to gain funding once the formal partnership between BGCL and the Garden School has come to an end.

Using an adapted measure from the MiDAS outcome measure, changed to address outcomes applicable to participants with autism and learning difficulties, the study has provided indicative results that Drum Works sessions have positive effects for Garden school participants.

The author would recommend a repeat of this study over a longer time period. Training could emphasise in greater detail how the forms should be filled out in order to ensure greater correct completion, enabling validation to be completed across all assessors. Future studies could also include existing validated outcome measures suitable for community music, such as Sounds of Intent.

References

- Bieleninik Ł, Geretsegger M, Mössler K, et al. (2017) Effects of Improvisational Music Therapy vs Enhanced Standard Care on Symptom Severity among Children with Autism Spectrum Disorder: The TIME-A Randomized Clinical Trial. *JAMA*. 318(6), pp.525–535.
- Cripps, C., Tsiris, G., & Spiro, N. (Eds.). (2016). Outcome measures in music therapy: A resource developed by the Nordoff Robbins research team. London: Nordoff Robbins. Available at: www.nordoff-robbins.org.uk [Accessed 7 Jun. 2019].
- Drum Works (2019) *Drum Works*. [online] Available at: <https://drumworks.co.uk/> [Accessed 7 Jun. 2019].
- Gotham K, Risi S, Pickles A, Lord C. The Autism Diagnostic Observation Schedule: revised algorithms for improved diagnostic validity. *J Autism Dev Disord*. 37(4), pp.613-627.
- Guildhall School of Music & Drama (2019) *Guildhall School of Music & Drama | Creative Learning*. [online] Available at: https://www.gsmd.ac.uk/youth_adult_learning/creative_learning [Accessed 7 Jun. 2019].
- McDermott, O. (2014) The Development and Evaluation of Music in Dementia Assessment Scales (MiDAS). PhD thesis: Institut for Kommunikation, Aalborg Universitet.
- McDermott, O., Orgeta, V., Ridder, H. M. and Orrell, M. (2014). A preliminary psychometric evaluation of Music in Dementia Assessment Scales (MiDAS). *International Psychogeriatrics* 26(6), pp. 1011-1019.
- McDermott, O., Orrell, M. and Ridder, H. M. (2014). The development of Music in Dementia Assessment Scales (MiDAS). *Nordic Journal of Music Therapy* 24(3), pp. 232-251.
- McDermott, O., Orrell, M. and Ridder, H. M. (2014). The importance of music for people with dementia: the perspectives of people with dementia, family carers, staff and music therapists. *Aging & Mental Health* 18(6), pp.706-716.
- Ockelford, A, Welch, G. Zimmermann, S. and Himonides, E. (2005). Sounds of Intent: mapping, assessing and promoting the musical development of children with profound and multiple learning difficulties. *International Congress Series* 1282, pp.898-902.
- Ockelford, A, Welch, G. Zimmermann, S. and Himonides, E. (2005). Sounds of Intent. *Eye Contact* 40, pp.12-15.
- Ockelford, A, Welch, G. Zimmermann, S. and Himonides, E. (2005). Sounds of Intent: mapping, assessing and promoting the musical development of children with profound and multiple learning difficulties. *Proceedings of International Society for Low Vision Research and Rehabilitation Conference* 2005. Amsterdam: Elsevier.