

# Bradford Early Years Dance Pilot Evaluation Report

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# Executive Summary

## Background

Being active from the earliest months is critical for cognitive and physical development, and can establish positive patterns for the future. Evidence shows that physical activity may be associated with decreased risk of cardiovascular disease, maintaining a healthy weight, increased musculoskeletal health and mental wellbeing in early years children.

The Chief Medical Officers report recommends that children of pre-school age who are capable of walking unaided should be physically active daily for at least three hours, spread throughout the day. Physical activity levels of children were assessed nationally in 2012 and showed that only 9% of boys and 10% of girls aged 2-5 years were meeting the recommendations.

The Early Years Foundation Stage (EYFS) framework includes the assessment of physical development in young children. The Early Learning Goal for Moving and Handling assesses both gross motor skills and fine motor skills and dance has potential to contribute to children's development in both of these areas. Both physical development and physical activity are important in young children.

### **Effective interventions and approaches to physical activity in early years**

Research shows the following approaches and interventions to be effective:

**Supporting Developmental Movement** - While a child's significant movements are innate and free play is essential developmental movement can also be facilitated and supported through structured dance and movement activities.

**Fundamental Movement** - To increase physical activity and motor-skill development in early years structured physical activity sessions such as dance sessions delivered in childcare settings are effective.

**Physical Literacy** - The development of gross motor, locomotor and balance skills form the building blocks of a child's ability to participate in and enjoy physical activity throughout life.

### **Evidence of effectiveness of early years dance interventions**

There are few studies on the effects of dance on young children but a study by Jabadao into Developmental Movement Play, which incorporates many elements of dance, showed observed improvements in physical development, PSE development and communication, language, literacy and mental wellbeing. Research with school age children showed dance interventions can improve cardiovascular and bone health, prevent or reduce obesity and improve emotional wellbeing.

### **Bradford Early Years Dance Pilot evaluation**

Bradford City Council Public Health funded the Bradford Dance Network to pilot an early years dance programme in 6 children centres and primary schools in 2015/16

Two experienced dance practitioners delivered the 6-week and 10-week programmes and received training from a specialist in developmental movement and dance for early years children. The dance sessions included a range of creative and semi structured dance activities including travelling and floor-based movements, moving with props and creative exploration on different stories and themes.

### **Evaluation and Results**

The internal evaluation used observational methods to assess the group's progress against the elements of the EYFS assessment framework that dance participation could potentially contribute to. The dance practitioners assessed the groups using a scaling approach and scored their progress on a scale of 1 – 10 for each of the agreed EYFS domains at the beginning and end of the programme.

#### **Summary of the results of the 10-week programme**

##### **Percentage improvements observed across the EYFS areas of learning**

Physical Development	Number /Shape	Expression /Creativity	Communication & understanding	PSE Development
65%	43%	39%	52%	51%

#### **Summary of results of the 6-week dance programme**

##### **Percentage improvements observed across the EYFS areas of learning**

Physical Development	Number /Shape	Expression /Creativity	Communication & understanding	PSE Development
22%	18%	40%	27%	25%

The evaluation shows encouraging results on the effectiveness of the Bradford early years dance programme however it is important to view these results with caution due the limitations of the evaluation methods. Both dance teachers and the early years staff consistently recorded improvement across all the areas of learning assessed. Movement skills and physical development showed the greatest improvements, followed by personal, social and emotional development and communication. Improvements in number, shape and expression and creativity were also seen. This suggests dance programmes could provide an effective approach to meeting more “sedentary” learning goals such as mathematics and language in a physically active way. The results are inconclusive due to the limitations of the evaluation methods but nevertheless encouraging.

### **Recommendations**

- Undertake further research into the effectiveness of dance programmes in improving the health and wellbeing of early years children including a follow up phase.
- Disseminate the report to promote the potential benefits of dance for under 5's throughout early years settings in Bradford.
- Build links and raise awareness of the benefits of early years dance with key partners including Better Start Clusters, St Edmunds Cluster, Lister Park cluster, HENRY Programme, Children's Centres and schools in disadvantaged areas.

- Bradford Dance Network in partnership with delivery agencies such as Dance for Life to work up and provide an offer to early years partners/settings based on findings of the evaluation to include:
  - 6-week and 10-week dance programmes delivered by dance practitioners
  - Training and mentored support for early years staff to deliver dance in early years settings.
- Pilot and evaluate a parent/carer and under 3's dance programme with training and support from Primed for Life specialists in this work.



# Bradford Early Years Dance Pilot Evaluation Report

## Background

Being regularly physically active improves health and wellbeing, and helps us live longer, reducing the risk of heart disease, diabetes, cancer and depression in adults. However, it is especially important for young children. Being active from the earliest months is critical for cognitive and physical development, and can establish positive patterns for the future. The impact of physical activity in early years is less well researched than in adults, where the benefits are well established. But a review of the evidence by the British Heart Foundation on physical activity in early years (BHFNC, 2011) suggests the following:



- Physical activity may be associated with decreased risk of cardiovascular disease, maintaining a healthy weight, increased musculoskeletal health and psychological, social and emotional development and wellbeing in early-years children (Ginsberg 2007).
- Patterns of physical activity persist at a moderate level over a period of up to 3 years but no studies have been undertaken to investigate if physical activity in early years tracks into adulthood.
- Children are more active if their parents /carers are active and if they take part in physical activity with their child.
- Differences in the activity patterns of boys and girls during the early years have been observed consistently, with boys generally being more active than girls.

While there is evidence for the benefits of being active in early years, it is limited and more research is needed.

## Recommendations for physical activity

The Chief Medical Officers report (DH, 2011) recommends that

- Physical activity should be encouraged from birth, particularly through floor-based play and water-based activities in safe environments.
- Children of pre-school age who are capable of walking unaided should be physically active daily for at least 180 minutes (three hours), spread throughout the day.
- All under-fives should minimise the amount of time spent being sedentary (being restrained or sitting) for extended periods (except time spent sleeping).

**Early Years Foundation Stage (EYFS) framework** includes the assessment of physical development in young children which includes a moving and handling component as well as health and self-care. The Early Learning Goal for Moving and Handling is defined as follows:

“Children show good control and co-ordination in large and small movements. They move confidently in a range of ways, safely negotiating space. They handle equipment and tools effectively, including pencils for writing”.

This assesses both gross motor skills and fine motor skills and dance has potential to contribute to children’s development in both of these areas.

While early years assessment may be more concerned with physical development than with how much moderate to vigorous physical activity children participate in, both are important to children’s health and wellbeing.

### **Physical activity levels of children under five years**

Physical activity levels of children were assessed nationally in 2012 through the Health Survey of England using parental report (Health Survey of England 2012). And this showed that only 9% of boys and 10% of girls aged 2-5 years were meeting the government’s recommendation of 180 minutes of physical activity to benefit health. A study using accelerometry showed that 70% of 4 – 7 year olds physical activity was light intensity.

### **Effective interventions and approaches to physical activity in early years**

A review of evidence by the British Heart Foundation on physical activity in early years (BHFNC, 2011) found that given the limitations of the evidence the following approaches and interventions are widely considered to be effective:

### **Supporting Developmental Movement**

Evidence shows that early movement is a developmental process that begins in the womb and continues until children are 7– 8 years old, and it is essential for cognitive and motor-skill development. Motor development and sensory integration are fundamental in supporting early learning. While a child’s significant movements are innate they can also be facilitated and supported through dance and movement activities particularly incorporating floor based movements.

### **Fundamental Movement**

A literature review of the effectiveness of childcare-based interventions to increase physical activity and motor-skill development in the early years showed consistent evidence that structured physical activity sessions delivered in childcare are effective in improving motor skills (Ward et al, 2010). The successful interventions focused upon fundamental movement skills, body management, physical fitness or dance. Children need to learn fundamental movement skills before they can enjoy physical activity and sports in the same way that learning the alphabet comes before learning to read. Acting as the foundation of physical literacy, dance sessions can help children learn the basics of balancing, travelling movements, skipping, turning and jumping.

**Physical Literacy** is the ability to move with competence and confidence across all aspects of life and children need early opportunities to develop the fundamental movement skills of agility, balance and coordination. The development of the gross motor, locomotor and balance skills form the building blocks of a child's ability to perform, participate in and enjoy physical activities throughout life.

Evidence showed childcare interventions were generally more effective at improving motor skills than increasing physical activity levels and higher "dosages" were needed to increase physical activity levels.

### **Evidence of effectiveness of early years dance interventions**

There are few studies on the effects of dance on children under five years and a lack of peer reviewed, published studies. A ten-year large scale research project by Jabadao into a Developmental Movement Play programme (Jabadao 2009), which incorporates many elements of dance, showed observed improvements in physical development, social and emotional development and communication, language and literacy when assessed against the EYFS framework. Children also showed increased levels of wellbeing in all seven areas of the Laevers wellbeing scale through the movement play intervention. While evidence for early years dance is currently lacking, a systematic review on the effects of recreational dance interventions on the health and wellbeing of school age children and young people showed dance interventions can improve cardiovascular and bone health, prevent or reduce obesity and improve emotional wellbeing (Burkhardt, J. & Brennan, C. 2012). A recent publication on the effects of dance on learning presents a range of evidence showing the positive impact dance can have on cognitive development and how it enhances learning (Hanna, 2015).

### **Bradford Early Years Dance Pilot Evaluation**

Bradford City Council Public Health funded the Bradford Dance Network to pilot an early years dance programme in children centres and primary schools in Bradford between May 2015 and February 2016. The Bradford Dance Network is a partnership of Bradford based dance organisations and freelance practitioners. The programme was managed by Rashmi Sudhir, the Arts Engagement Officer for Bradford City Council and Deana Morgan from DM Academy. Dance programmes were set up with nine different groups of children aged 3 – 6 years at six schools across Bradford. Two experienced dance practitioners delivered the programme; Laura Liddon from Bradford City Council Dance for Life and Chemaine Cooke, a freelance dance artist. Two schools opted for a 6-week programme and the other four



committed to the 10-week programme.

### Description of dance programme

The dance programmes were delivered by dance practitioners who had experience in early years dance delivery and had degree level qualifications in dance. They also received one day of professional development training from Anna Daly, from Primed for Life, an early years consultant and trainer with specialist knowledge in developmental movement and dance for early years children. The dance sessions delivered involved a range of creative and semi structured dance activities including:

- Travelling movements e.g. skipping, high knee runs, marching, bouncing, and galloping plus floor based movements such as rolling, crawling and creeping.
- Moving with ribbons including free movement time with the ribbons plus exploring high and low, round in circles, throwing and catching.
- Creative exploration was based on a variety of stories including the Wizard of Oz and We're Going on a Bear Hunt, and on themes including the Seasons, Space Travel and Animals.

Music formed an integral part of the sessions with children learning to move with a musical stimulus and understand rhythm and counting beats. The children worked individually, in pairs and in groups allowing for a range of interactions and experiences. The sessions aimed to encourage the children to enjoy being physically active as well as contributing to the EYFS goals.



### Evaluation Methods

Resources were limited so the evaluation methods needed to be cost effective. Therefore an internal evaluation was undertaken which used observational methods to assess the group's progress against the EYFS assessment framework but focusing on the elements that dance participation could contribute to effectively. These were agreed through discussion by the dance practitioners, managers and Alison Moores the Public Health Commissioner and are highlighted in bold below:

#### EYFS Prime areas of learning:

- Physical development (**movement skills**)
- Communication and language development (**Communication - listening, attention and understanding**)
- **Personal, social and emotional development (all aspects)**

#### EYFS Specific areas of learning

- Mathematics development (**Numbers, shape and space**)
- Expressive arts and design (**Expression and creativity – exploring and being imaginative**)

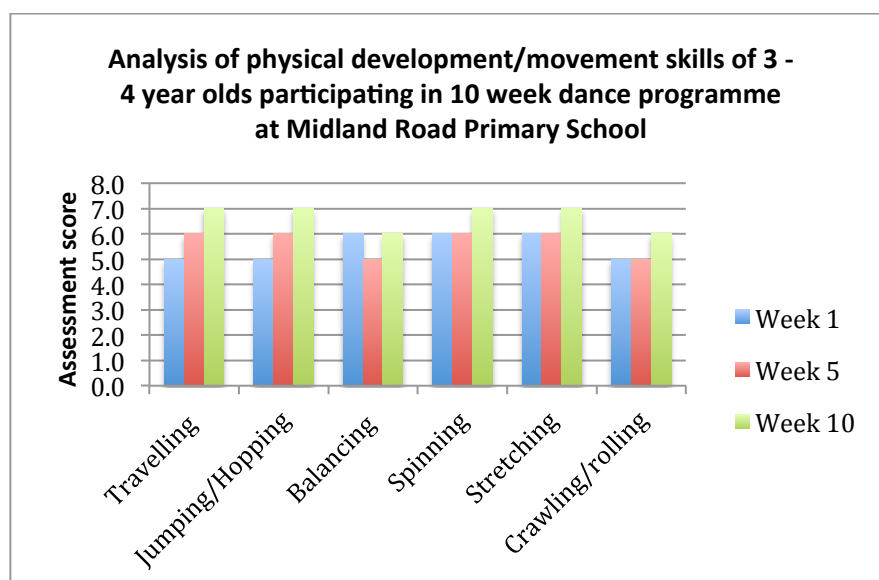
The dance practitioners assessed the groups using a scaling approach and scored their progress on a scale of 1 – 10 for each of the agreed EYFS domains at the beginning, middle and end of the programme (Weeks 1, 5, and week 10). Both the dance teacher and the early years staff member involved in the session also carried out qualitative evaluation. Data was collected through feedback forms and analysed by Jan Burkhardt, Dance and Health Specialist to produce the results below.

## Results

The results are presented as follows; two of the early years dance groups results are presented in detail and then the overall programme is reported on more broadly.

### Midland Road Primary School Reception Children

20 children participated in 10 weekly sessions of one hour. The age range of children participating was 3 – 4 years.



Average score on scale of 1 – 10 at Week 1 = 5.5 and at Week 10 = 6.7

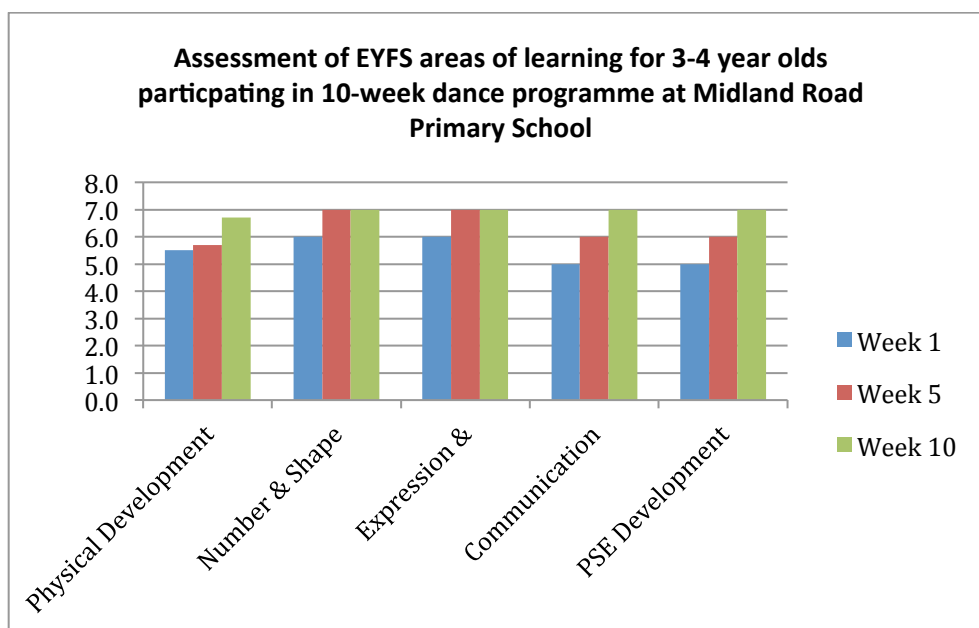
- Increase of 1.2 points
- **22 % improvement in movement skills/physical development observed**

Dance teacher observation:

*The class is now becoming excellent movers. They travelling and elevation steps are brilliant. They work well with imagery when using these steps.*

Early Years staff observation

*Children looking forward to weekly dance session. High level of encouragement. Listening skills developing and physical responses advancing in control, balance, coordination and range of movements.*



#### Percentage improvement observed across the areas of learning

Physical Dev	Number /Shape	Expression	Communication	PSE Development
22%	17%	17%	40%	40%

Early Years staff observation:

- *Skills are developing especially where listening and control with balancing.*
- *Attention skills are good*
- *Confidence and expectation are improving. The dance sessions are very popular with children*

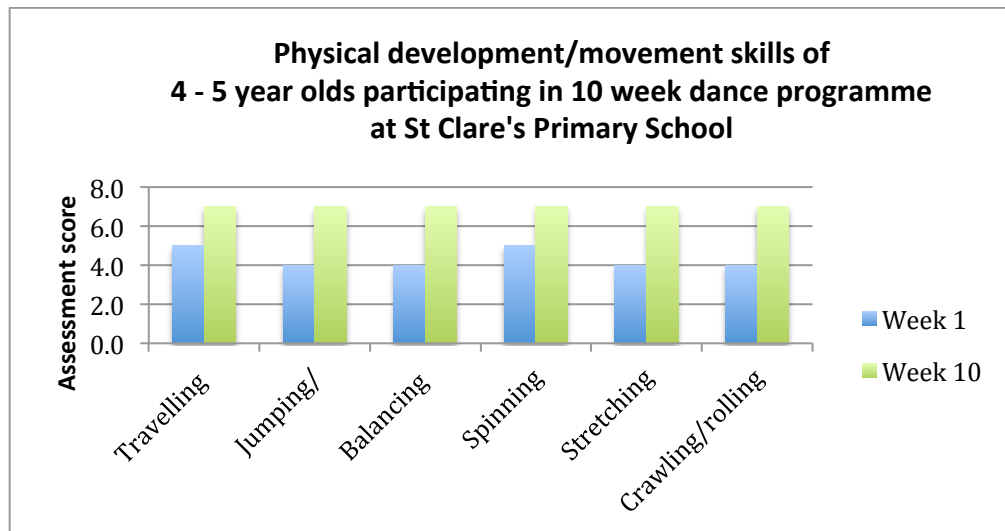
#### Summary

The results show observed improvements across all the domains assessed including improvement across the range of movement skills that are fundamental to physical development. The domains where the greatest increase was observed were in communication and personal social and emotional development for this group.

#### St Clare's Primary School Reception Class

30 children participated in 10 weekly sessions of one hour. The age range of children participating was 4 – 5 years.

## Physical Development Results



Average score on scale of 1 – 10 at Week 1 = 4.3 and at Week 10 = 7

- Increase of 2.7 points
- **63% improvement in movement skills/physical development was observed**

### Dance teacher observations

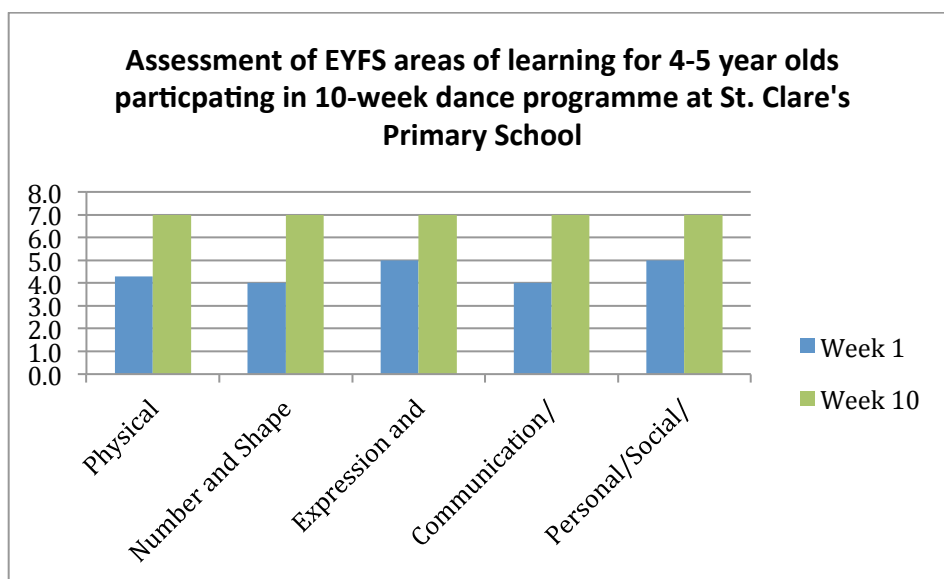
*By week 10 children actively joined in, recognizing correct actions to words, confidently trying movements. Showed enthusiasm and used the space well, remembering boundaries in the space and personal space to each other.*

### Early Years staff observations:

*As the weeks progress I feel the children have gained confidence about themselves and the movements they do. Children no longer run around – they're skipping and galloping is clear.*

*We love Laura! Definitely getting her again next year.*





**Percentage improvements observed across the EYFS areas of learning**

Physical Dev	Number /Shape	Expression	Communication	PSE Development
63%	75%	40%	75%	40%

Dance teacher observation:

*Class enjoyed their own movement with props and worked well in pairs, all joining in with number games and using facial expressions as well as movement when applying emotional feelings to the movement eg happy, sad, carefree. This is a clear development.*

Early Years staff observation:

*All children have developed in expression and creativity. Confidently taking turns to make shapes with ribbons, using more than one action and movement. Confidently & enthusiastically dancing to music.*

Dance teacher observation:

*The majority of pupils displayed positive attitude to tasks and self-confidence during activities e.g. wanting to try. Their focus and attention has improved throughout the duration of the sessions.*

Early Years staff observation:

*Personal and social skills have been developed throughout the program and supported the work we do in the nursery. Confidence raised overall - particularly skipping with the boys. Work with each other as well as alone, Improvement in both focused work and larger travelling movements.*

**Summary**

The results show observed improvements across all the EYFS areas of learning assessed including improvement across the range of fundamental movement skills that are key to physical development. The domains where the greatest increase was



observed were physical development, number and shape and communication. Staff feedback highlights increases in confidence over the 10 weeks.

## Overall results for the EYFS areas of learning for the early years dance programmes

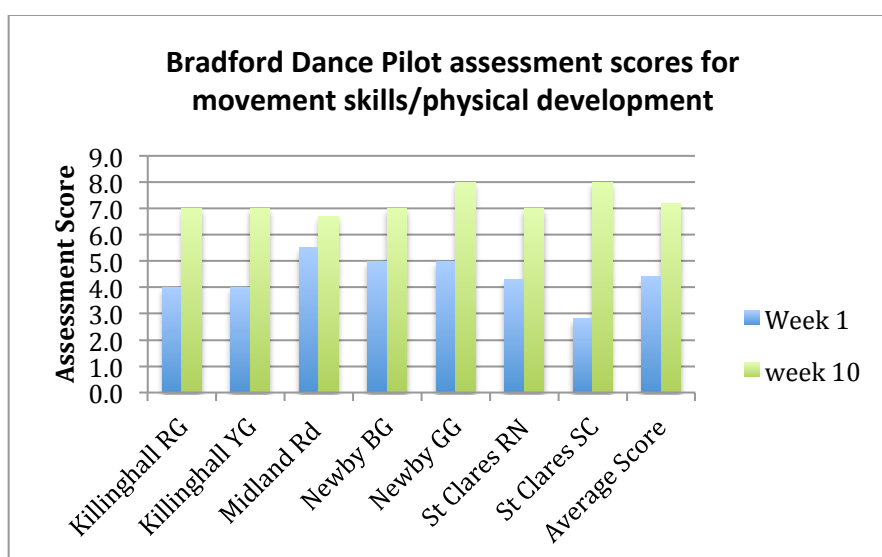
Of the 9 groups involved 7 undertook the full 10 week dance programme on offer. The two groups that chose to do a six-week block were IQRA Academy and Burnett Fields Primary School. The group details are as follows:

School & Group Name	Age Range	Number of children	Programme Length
Killinghall Primary Yellow Group (YG)	4-5	12-15	10 weeks
Killinghall Primary Red Group (RG)	4-5	12-15	10 weeks
Midland Road Primary	3-4	18-20	10 weeks
Newby Primary Reception/Blue Group (BG)	4-5	24-28	10 weeks
Newby Primary Year 1/Green Group (GG)	5-6	27-29	10 weeks
St. Clares Primary Reception (RN)	4-5	30	10 weeks
St. Clares Primary Year 1 (SC)	5-6	26-30	10 weeks
Burnett Fields Primary	3-5	18-20	6 weeks
IQRA Academy	4-5	20-21	6 weeks

Below shows the average scores for each for the primary school groups at week 1 and week 10 as assessed by observation from the dance teacher, for each area of learning. It also includes some feedback from the dance teachers and staff

## Results of the ten-week dance programme

### Movement skills/physical development



Average score on scale of 1 – 10 at: Week 1 = 4.4 and at Week 10 = 7.2

- Increase of 2.9 points
- **65 % improvement in movement skills/physical development observed**

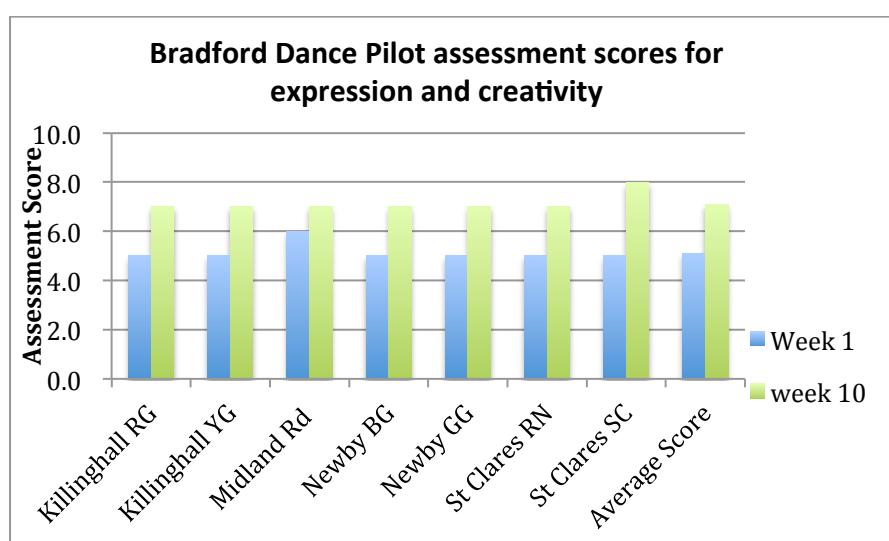
Dance practitioner:

*Group understood words and actions and their movement has much more clarity. Freezing and getting into a circle much improved skipping and marching galloping all have a much sharper quality.*

Newby Primary School Early Years practitioner:

*Travelling work vast improvement - I feel their attention span has improved and they look forward to their next dance session*

### Expression and creativity



Average score on scale of 1 – 10 at: Week 1 = 5.1 and at Week 10 = 7.1

- Increase of 2.0 points
- **39 % improvement in expression and creativity observed**

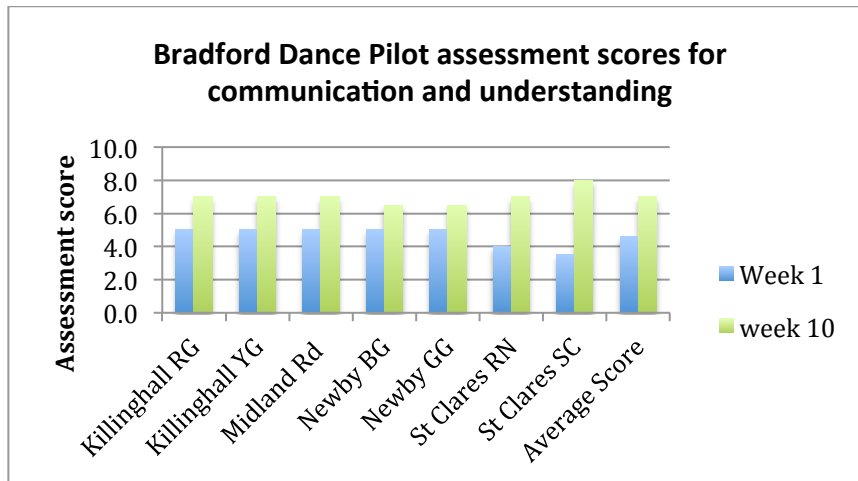
Dance practitioner:

*All children have developed in expression and creativity. Confidently taking turns to make shapes with ribbons in the centre of a circle. Confidently & enthusiastically dancing to music.*

Killinghall Primary School Early Years practitioner:

*The children have enjoyed using the ribbons they are now developing their movements with them and increase their confidence. As well as encouraging each other to take turns and shout out on numbers in numerous games*

## Communication and understanding



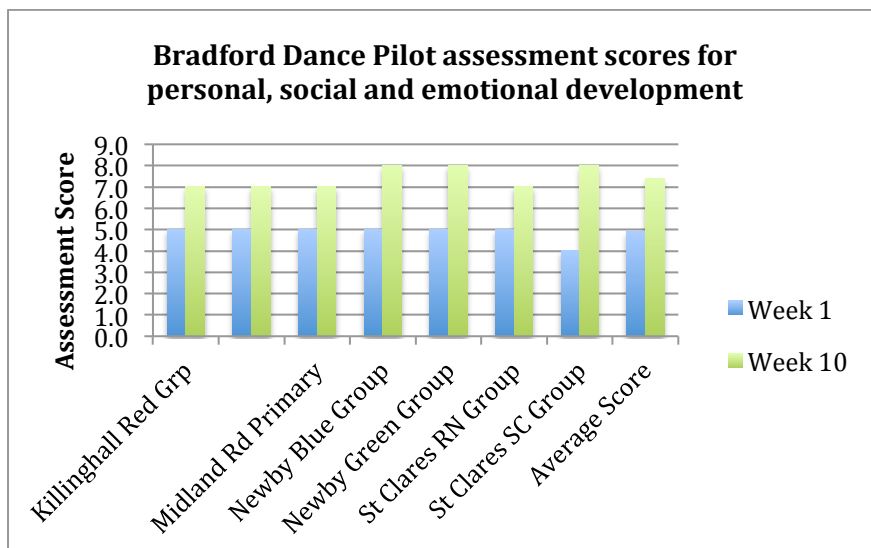
Average score on scale of 1 – 10 at: Week 1 = 4.6 and at Week 10 = 7.0

- Increase of 2.4 points
- **52% improvement in communication and understanding observed**

Newby Primary School Early Years practitioner:

*When reception Blue initially began to dance sessions they found it difficult to follow instructions however as the weeks progress I feel the children were able to follow instructions a whole lot better and showed in their movements and ideas.*

## Personal, social and emotional development

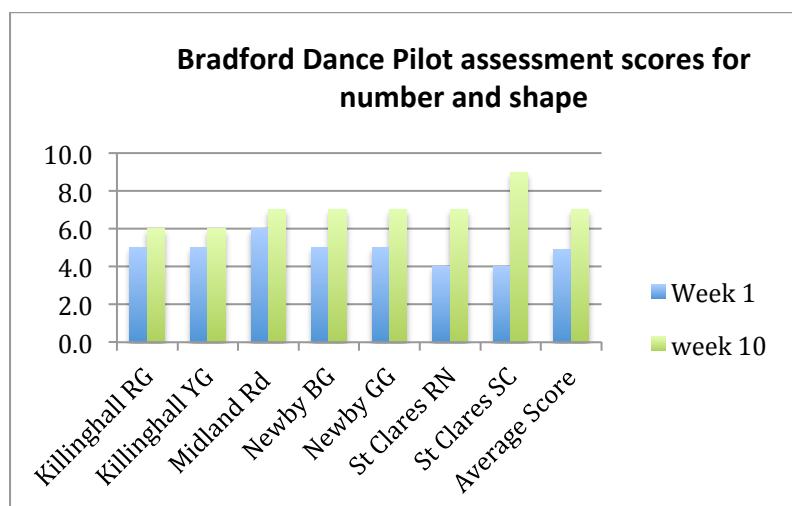


Average score on scale of 1 – 10 at Week 1 = 4.9 and at Week 10 = 7.4

- Increase of 2.5 points
- **51% improvement in personal, social and emotional development observed**

Killinghall Primary School Early Years practitioner:

*All children were involved and joined in the session. One little boy was very afraid at the beginning of the dance program but the final session he was singing and dancing and really enjoying it.*



Average score on scale of 1 – 10 at Week 1 = 4.9 and at Week 10 = 7.0

- Increase of 2.1 points
- **43 % improvement in number and shape recognition observed**

Killinghall Primary School Early Years practitioner:

*The programme contained elements of numeracy and literacy, which are reflected in the EYFS framework - children have gained in confidence.*

### Summary of the results of the 10-week programme

#### Percentage improvements observed across the EYFS areas of learning

Physical Development	Number /Shape	Expression /Creativity	Communication & understanding	PSE Development
65%	43%	39%	52%	51%

### Summary of results of the 6-week dance programme

Burnett Fields Primary and IQRA Academy both chose to run a 6-week programme instead of the 10-week programme.

#### Percentage improvements observed across the EYFS areas of learning

Physical Development	Number /Shape	Expression /Creativity	Communication & understanding	PSE Development
22%	18%	40%	27%	25%

## Conclusion

The evaluation shows encouraging results on the effectiveness of the Bradford early years dance programme; however it is important to view these results with caution due the limitations of the evaluation methods.

The assessment was based on the observation of children by the dance practitioners which while aiming to be as objective as possible may have been biased. The early years staff would have been better placed to do the assessment but lacked capacity to do this more detailed observational assessment and scoring. They did however provide qualitative evaluation. The dance practitioners were also assessing the

whole group, which meant that the scoring doesn't assess individual children's progress and had to be an approximation of whole group progress on each area of learning. The scoring was not standardised but was based on the dance practitioner's professional judgment and the two teachers may have had different perspectives that would be reflected in the scores.



Dance was a new activity for most of the children so you would expect to see improvements as they familiarise themselves with the new activities and the dance practitioners communication style. How much of these improvements in learning and skills are transferable to the children's wider activity is hard to define and it was not in the scope of this evaluation to explore this. All of these factors mean the findings of the pilot evaluation do not provide any conclusive results. However despite these limitations the pilot showed some encouraging results.

Both dance teachers and the early years staff consistently recorded improvement across all the areas of learning assessed. Movement skills and physical development showed the greatest improvements, followed by personal, social and emotional development and communication. Improvements in number, shape and expression and creativity were also seen. This suggests dance programmes could provide an excellent approach to meeting more "sedentary" learning goals such as mathematics and language in a physically active way. Given that wider evidence shows that most young children are not meeting the government guidelines on physical activity this may be an effective approach to addressing this while also meeting numeracy and literacy learning goals.

The results of the 6-week programme were also positive though the percentage improvements across the areas of learning were smaller with the exception of expression and creativity. Physical development and movement skills showed the biggest difference with a 22% improvement on the 6-week programme as compared to a 65% improvement for the 10-week programme.

The wider evidence suggests that while free play is essential for under 5's, structured physical activity in early years settings can improve physical and cognitive development and the findings of this evaluation may support this. It may be that for some children, particularly those whose innate physical development has been interrupted by sedentary home environments (excessive time strapped in buggies or in front of screens), dance can provide a structured activity that helps to unlock physical and cognitive development.

The evaluation only captures the progress made within the 10 weekly sessions of the dance programme and doesn't capture longer-term benefits to the learning or health and wellbeing of children involved. An independent study with a follow up period to assess how embedded the learning is could help address this. The evaluation did not capture in detail whether the dance sessions increased the physical activity levels of children and this needs to be evaluated to understand the health benefits of dance interventions fully. It would be important to assess not just their physical activity levels in the dance session but whether it has a more long term impact in creating a "more active" child and establishing "active" patterns longer term.

The pilot focused on 3-6 year olds, however there is strong evidence that cognitive and physical development is critical in the under 2's so a dance programme for parents and carers with their toddlers could be particularly effective. The project recently funded training for Bradford dance practitioners to deliver dance for under 3's and their parents/carers. This was delivered by Primed for Life and has skilled up practitioners to work with parents and carers to inspire them to engage with their children in fun physical activity through dance. This may be another approach for future dance programmes that could produce additional benefits.

Bradford has a reputation for innovative research and development around children's health and wellbeing with the Born in Bradford programme and the Better Start programme building the evidence base and developing models of good practice. Given the lack of robust research into the effectiveness of dance programmes in early years and the emerging importance of physical activity in child development, this evaluation shows potential promise and a robust study into the effectiveness of dance programmes in early years would help to build the evidence base locally and internationally.

## **Recommendations**

- Undertake further research into the effectiveness of dance programmes in improving the health and wellbeing of early years children including a follow up phase.
- Disseminate the report to promote the potential benefits of dance for under 5's throughout early years settings in Bradford.
- Build links and raise awareness of the benefits of early years dance with key partners including Better Start Clusters, St Edmunds Cluster, Lister Park cluster, HENRY Programme, Children's Centres and schools in disadvantaged

- areas.
- Bradford Dance Network in partnership with delivery agencies such as Dance for Life to work up and provide an offer to early years partners/settings based on findings of the evaluation to include:
    - 6-week and 10-week dance programmes delivered by dance practitioners
    - Training and mentored support for early years staff to deliver dance in early years settings.
  - Pilot and evaluate a parent/carer and under 3's dance programme with training and support from Primed for Life specialists in this work.

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**30<sup>th</sup> June 2016**

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