

A pilot study of the benefits of dance and movement in supporting pre-school development in Family Hubs in Derby City



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About this project

CANVAS is a Derby City-wide project, providing free arts and cultural opportunities from July 2023- June 2025. There are four key strands to the project – Cultural Disruptions, Future Creatives, Take Overs and Hubs. The focus of this pilot study is the Move Me! project conducted by Deda at the Osmaston/Allenton and Derwent Family Hubs.

The Move Me! sessions comprised one-and-a-half hour-long dance and movement sessions for children aged 0-5 years old. Sessions were run by early years dance specialists, and used stories, music and props to encourage dance, movement and sensory play. Academics from the Institute of Education at the University of Derby collaborated with Deda and Derby Theatre to conduct some preliminary evaluations of the session's impact.

Acknowledgements

The research team would like to acknowledge the help and support received from the coordinating team at Derby Theatre and the dance specialists at Deda. We would also like to thank Derby City Council for the provision of demographic data, our research assistant James Challender, and all of those who participated in the sessions and the research.

Publication information

This report was published in March 2025 by the Institute of Education at the University of Derby.

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The research was funded by The Arts Council CANVAS project.

Suggested citation

Owen, K., Appleby, M., & Fenton, C. (2025). A pilot study of the benefits of dance and movement in supporting pre-school development in Family Hubs in Derby City. University of Derby

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Executive summary

Children raised in poverty, or close to the poverty threshold face contiguous disadvantage, with financial insecurity impacting not only their access to adequate nutrition and housing, but also to suitable play spaces and educative experiences. Furthermore, despite their desire to provide for their children, parents struggling with financial insecurity often lack the time, money and/or experience to support optimal development.

In combination, these factors serve to constrain holistic development in the early years and subsequently contribute to academic underachievement and the maintenance of generational social stratification.

This project sought to investigate whether the provision of free creative activities for children aged 0-5 could help to boost children's cognitive, linguistic and physical development, whilst also introducing parents to engaging low-cost / no-cost activities to use with their children at home.

The findings of this study, supported by both qualitative and observational data, suggest that participation in the sessions yielded significant benefits across multiple domains, including social interaction, relationship-building, confidence, community identity, language development, and cultural engagement. Although the long-term effects of the programme were not within the scope of this study, existing literature suggests that interventions of this nature have profound implications for early brain development, parenting practices, resilience, and educational outcomes.

Consequently, initiatives like *Move Me!* should be recognised as valuable early childhood interventions with the potential to support both individual and community development.

1. Introduction

For reasons of parental health, education and working hours, children living in poverty or close to the poverty threshold are more likely to experience difficult living conditions and reduced parental involvement. Parents living with financial insecurity are more likely to suffer from low self-esteem, depression, mental and physical illness (Smith and Mazure, 2021), each of which reduces their capacity to nurture and support children (Attanasio *et al*, 2022). A lack of money in the home usually also means that children have fewer toys and fewer educative experiences (Trawick-Smith *et al*, 2015). A lack of money in the neighbourhood is associated with an absence of play facilities and increased levels of crime, meaning children from lower socio-economic status (SES) families have more screen time and are less physically active than their more affluent peers (Martin, Murphy and Molina-Soberanes, 2022). This renders them more likely to suffer from a range of physical (de Carlos Back *et al*, 2022) and mental health problems.

Growing up in poverty or near the poverty threshold is thus associated with a raft of disadvantages which serve to constrain neural growth (Turesky *et al.*, 2022), reduce opportunities for childhood experiences and ultimately restrict cognitive and academic performance during the pre-school period (Owen *et al*, 2023). These difficulties are then further compounded when children join the school system, with low socio-economic status persistently linked to academic underachievement throughout compulsory education.

Acknowledging the need to address this stubborn correlation between SES and academic attainment, the Department for Education (DfE, 2021) launched the Opportunity Areas programme. The programme aims to transform the life chances of children and young people in 12 areas of the country with low social mobility by using evidence-based approaches, bringing together resources, testing new approaches, working in partnership with parents, national and local partners from the world of business, education, civil society and community organisations.

As part of this, some schools and Early Years Foundation Stage settings in the most deprived wards in Derby had already benefitted from a package of speech, language and communication support and training over an 18-month programme prior to the start of this intervention. Derby Theatre also began working in partnership with Deda and the Derbyshire Cultural Education Partnership (DCEP) to deliver the Canvas Project in areas of high social deprivation (as determined by Derby City Council, 2025). Six Family Hubs were initially highlighted in Derby and exploratory taster sessions were carried out by Deda. As a result of measuring engagement against specific scales, three hubs were selected for delivery of dance and movement workshops.

This study sought to investigate the perceptions of children, parents and dance practitioners regarding the worth and benefits of these sessions, and to consider the potential ramifications of providing free arts-based sessions for pre-schoolers at Family Hubs. A pilot study involving observation of Deda sessions and interviews with parents and dance practitioners was held between February-June 2024.

2. Literature Review

Research highlights the profound impact of socioeconomic status (SES) on parenting practices and on child development, particularly in disadvantaged areas. Families facing financial hardship grapple with unique challenges that can adversely affect their children's developmental and educational outcomes. This review synthesizes key findings from recent studies, emphasising the implications of economic constraints for child development.

The impact of poverty on children

There are an estimated 4.3 million children living in poverty in the UK, numbers having risen by 600,000 between 2014-2024 (Joseph Rowntree Foundation, 2024). Families with young children are particularly susceptible to financial insecurity as children's specific needs necessitate increased spending, yet households are less likely to have two adults in full-time work. The prevalence of financial instability is, unsurprisingly, still greater amongst lone parents, families with three or more children, and many minority ethnic groups, creating a climate of contiguous disadvantage.

Poverty is damaging to all who experience it but is particularly detrimental to the very young whose brains, bodies and nervous systems are still developing. Some risks are interrelated. For instance, a recent report from the British Medical Journal (2025) highlights that, in the UK, the housing available to poor, and even middle-income families, is frequently cold, damp, mouldy and subject to higher levels of air pollution. Cold homes are strongly correlated with poor mental health in children, and there is also a far higher incidence of severe respiratory conditions amongst those being raised in poverty than amongst their wealthier peers (Donkin and Marmot, 2024).

Financial constraints are additionally correlated with food insecurity, leaving families more reliant on low-quality, low-nutrient, calorie-dense foods (Thompson, 2021), creating circumstances potentially injurious to infant's health and capacity to thrive. The risks to children's physical wellbeing are further compounded by the paucity of safe outdoor play spaces in low SES neighbourhoods (Qiu and Zhu, 2017). For young children, engagement in moderate exercise benefits healthy muscular, skeletal, cardiac and respiratory development, reduces adiposity (Wiseman *et al*, 2019) and improves metabolic health. In combination, therefore, poor nutrition and limited exercise have a demonstrably detrimental impact on children's physical health and development.

There are indications that children from disadvantaged family backgrounds also experience a reduced sense of personal wellbeing (UK Government, 2020) and increased exposure to toxic stress. In the short-term, toxic stress may disrupt early brain development and compromise the functioning of the nervous and immune systems (Center on the Developing Child, 2025). If this is not addressed, children

face an increased risk of anxiety, depression, impaired or inappropriate emotional responsivity, social and emotional skills (Mondi and Reynolds, 2023) and behavioural issues. Over the long-term, major stress in childhood substantially increases instances of alcoholism, eating disorders, unsafe sex, heart disease, cancer and other chronic diseases in adulthood (NHS, 2021).

In essence, infants and young children raised in poverty are liable to experience poorer physical, cognitive and socio-emotional development, which in turn limits later educational achievement. Children who struggle to access the curriculum are more prone to develop behavioural issues or drop out of school – either of which will limit later employability. Infants in impoverished homes are also at greater risk of additional adverse childhood experiences (ACEs) including inter-family violence, abuse and neglect (Houtepen *et al.*, 2020). Children born into poverty therefore often find themselves, and their own children, trapped in a cycle of underachievement, depression, anxiety and at risk of self-destructive behaviours.

The Influence of Socioeconomic Status on Parenting Practices

The relationship between SES and parenting quality is well-documented. Parents in low-income households often encounter significant stressors related to financial insecurity, which can hinder their ability to provide the emotional and educational support essential for healthy child development. For instance, as Donkin and Marmot, (2024 p. 388) explains basic needs are often unaffordable:

People on low to middle incomes, renting privately, spend 40% of their income on rent. Poverty is a cause of poor housing. Housing is a cause of poverty. Estimates from the Food Foundation find that in order to follow healthy eating guidance, households in the poorest quintile would have to spend half their budget on food (Goudie, 2023). So, if households are spending 40% or more of their income on rent, and 50% on food, maintaining a healthy life is not possible.

Furthermore, a report from Barnardo's (Cooper and Mullen, 2023) investigating the impact of the cost-of-living crisis noted that, due to these housing costs, 16% of parents said their child/ren had to share a bed with them or a sibling, and 30% were concerned about being made homeless. Understandably, this housing insecurity impacted the mental health of all family members.

Welfare reforms have further exacerbated difficulties for families with more than two children (Patrick *et al.*, 2023), with budgetary management creating emotional, social and time demands that subsequently reduced parental ability to interact with and nurture children. Cheng *et al.* (2021) similarly demonstrate that heightened anxiety and stress amongst economically disadvantaged parents diminishes parental engagement, resulting in adverse outcomes for children. With depleted parenting limiting children's opportunities for success, the cycle of poverty may become self-perpetuating.

The stigma associated with low-income parenting can further complicate this dynamic. Cooper (2021) notes that social perceptions often portray low-income parents as inadequate, eroding their self-esteem and adversely affect their interactions with their children. The internalisation of stigma may lead to feelings of helplessness and reduce engagement in positive parenting practices. Such a negative environment limits children's emotional support and cognitive stimulation, both critical components of healthy development.

Home-based parental involvement varies significantly by socioeconomic status, with higher-SES families typically engaging in supportive practices such as homework assistance and effective communication (Li *et al*, 2020). In contrast, low-SES families often resort to stricter disciplinary methods, which may hinder their children's emotional and academic growth.

Community Support and Interventions

Many years of rigorous research have provided valuable insights into the factors that enable children to overcome the impact of toxic stress and develop healthy levels of resilience and emotional wellbeing (Center on the Developing Child, 2025). The most crucial component is a supportive relationship with a stable adult, ideally, the child's primary carer. Interventions that augment parent-child interactions and increase confident parenting are thus beneficial to the child.

Research by Kiernan and Mensah (2011) also highlights the importance of positive parenting practices as a buffer against the negative effects of poverty on children's educational outcomes. They argue that behaviours such as cognitive stimulation and emotional warmth can significantly enhance children's learning experiences, suggesting that targeted interventions aimed at fostering positive parenting could mitigate some of the challenges faced by families in low-income neighbourhoods. Kirby, Wright, and Allgar (2020) highlight the importance of community support in fostering resilience among families facing economic challenges. Community-based programs that offer mental health resources, parenting workshops, and peer support networks can empower parents, equipping them with the tools needed to engage effectively with their children. Building effective parenting practices and parental self-efficacy subsequently enables engagement in behaviours beneficial to children's socioemotional development and holistic trajectory.

The interplay between mental health, parenting practices, socioeconomic factors, and child development underscores the necessity for structural support and community interventions. Families in disadvantaged areas often lack access to resources that can enhance parenting capabilities and promote positive outcomes for children. The implications for policy are significant. There is a clear and urgent need for targeted programmes that provide mental health resources and developmental support tailored to the unique challenges faced by families in disadvantaged areas (Kalil and Ryan, 2020). Research findings suggest that even

low-cost interventions can help parents overcome barriers that prevent effective engagement in their children's development. Such programmes can significantly alter the trajectory for both parents and children, ultimately enhancing family well-being and helping to break the cycle of poverty.

For children, intervention would appear to be particularly beneficial during the pre-school period. While it is never too late to build resilience, the brain and other biological systems are most adaptable early in life. Age-appropriate, health-promoting activities can significantly improve the odds that an individual will recover from stress-inducing experiences. In this regard, provision focussed on creative play and movement may be particularly apposite, as physical activity has a demonstrable impact on the reduction of stress, anxiety and other mental health issues (Mental Health Foundation, 2020; NHS, 2019)

Language development and support

Socially advantaged and disadvantaged children show marked differences in linguistic ability (Lurie et al., 2021). A delay in developing speech and language skills is a key factor in predicting future disadvantage and poor language skills are recognised to be the single greatest barrier to social mobility. Linguistic deficiencies limit academic and employment opportunities, partially accounting for the finding that some 65% of young offenders have speech, language and communication needs. (UK Parliament Justice Committee, 2012). Improving oracy may thus be a significant factor in reducing the association between low SES and limited academic success.

Language is often fundamental to creative play activities, so its development is naturally incorporated within an activity that is both pleasurable and relevant to the child. As a result, play helps to boost vocabulary, syntax and linguistic awareness (Holmes *et al*, 2015; Orr and Geva, 2015; Pellegrini, 1980). Indeed, Bruner (1983, p65) contended that "the most complicated grammatical and pragmatic forms of language appear first in play activity", suggesting that children try out new linguistic formats in play before using them in daily life. This assertion appears to be supported by research evidence. Pellegrini and Galda (1990) discovered that during pretend play, pre-schoolers use more complex mental-state verbs (these are terms such as "understand", "wish", "expect" and "prefer") that can have very different meanings and are therefore easily misused. Play, being somewhat removed from reality, allows greater freedom to experiment and make mistakes. Once successfully trialled, the language can then be confidently utilised in everyday life.

It is therefore unsurprising that research has discovered the amount of time infants spend engaged in pretend play (Tamis-LeMonda and Bornstein, 1991) and talking to peers during play (Dickinson and Moreton, 1991) correlates positively with their subsequent linguistic understanding and use (Holmes *et al*, 2015). Furthermore, the use of symbolic representations during play provides a staged introduction and functional basis for later success in reading.

The role of Move Me!

The children for whom the *Move Me!* project was designed had been born into a position of contiguous disadvantage. A consideration of the research literature deemed it viable that engagement in dance and play with a supportive adult may serve to provide not only enjoyment, but also create a ripple effect that may enhance their:

- social interactions
- ability to make friends/ form relationships
- pro-social behaviours
- linguistic abilities
- academic achievements
- employability
- future finances
- happiness.

Derwent and Allenton Statistics and Demographics

1. Demographic data indicates that children and young people raised in the areas of Derby in which the Family Hubs are located (Allenton and Derwent) are at higher risk of depressed educational attainment. Progress scores from the Department for Education (2024) (Figure 1; Figure 2), suggest that schools within these areas are below average in at least one area of performance, most often in reading. The only Catholic Voluntary Academy within this area is the exception, scoring above average in two out of three progress areas. Derby, as per the 2021 UK Census (Office for National Statistics, 2022), has a heterogeneous population with significant ethnic diversity, particularly in Allenton. As a result, a proportion of children have a home language other than English, which can constrain linguistic confidence and understanding during the pre-school and Early Years periods.
2. Socioeconomic status in both areas is lower than the national average and lower than the average for Derby City as a whole (Table 1.), suggesting these to be areas of higher deprivation. Crime statistics from UK Police (2024) (Table 2), show elevated crime rates in Allenton and Derwent areas, often reflecting broader socioeconomic issues.

Overall performance at end of key stage 2 in 2023 - all pupils ?

Showing 1 school

School name	Type of school	Number of pupils at the end of key stage 2	% of pupils meeting expected standard	Progress score & description			% of pupils achieving at a higher standard	Average score in reading	Average score in maths
				Reading	Writing	Maths			
Allenton Primary School	Academy	59	47%	BELOW AVERAGE -1.8	AVERAGE 1.1	AVERAGE -0.5	3%	101	101
✕ Remove									
England - state-funded schools		==	==	0.0	0.0	0.0	==	==	==
England - all schools		676102	60%				8%	105	104

Figure 1. Primary school attainment for Allenton Primary School compared with national average (Department for Education, 2024).

Overall performance at end of key stage 2 in 2023 - all pupils ?

Showing 6 schools

School name	Type of school	Number of pupils at the end of key stage 2	% of pupils meeting expected standard	Progress score & description			% of pupils achieving at a higher standard	Average score in reading	Average score in maths
				Reading	Writing	Maths			
St Alban's Catholic Voluntary Academy	Academy	41	71%	ABOVE AVERAGE 2.3	AVERAGE 1.4	WELL ABOVE AVERAGE 3.5	12%	108	108
✕ Remove									
Cherry Tree Hill Primary School	Academy	86	57%	AVERAGE -0.8	AVERAGE -0.1	BELOW AVERAGE -2.2	8%	105	103
✕ Remove									

Meadow Farm Community Primary School	Maintained school	25	52%	WELL BELOW AVERAGE -3.3 ?	AVERAGE 0.0 ?	AVERAGE -0.9 ?	0%	100	102
✕ Remove									
Cavendish Close Junior Academy	Academy	70	50%	BELOW AVERAGE -2.2 ?	AVERAGE -0.7 ?	AVERAGE -0.7 ?	3%	103	103
✕ Remove									
Roe Farm Primary School	Maintained school	58	50%	WELL BELOW AVERAGE -3.3 ?	WELL BELOW AVERAGE -3.5 ?	AVERAGE -1.1 ?	3%	103	104
✕ Remove									
Meadow Farm Community Primary School	Maintained school	25	52%	WELL BELOW AVERAGE -3.3 ?	AVERAGE 0.0 ?	AVERAGE -0.9 ?	0%	100	102
✕ Remove									
Cavendish Close Junior Academy	Academy	70	50%	BELOW AVERAGE -2.2 ?	AVERAGE -0.7 ?	AVERAGE -0.7 ?	3%	103	103
✕ Remove									
Roe Farm Primary School	Maintained school	58	50%	WELL BELOW AVERAGE -3.3 ?	WELL BELOW AVERAGE -3.5 ?	AVERAGE -1.1 ?	3%	103	104
✕ Remove									
Chaddesden Park Primary School	Academy	44	48%	BELOW AVERAGE -2.4 ?	AVERAGE -1.7 ?	BELOW AVERAGE -2.7 ?	0%	102	100
✕ Remove									
England - state-funded schools		673070	60%	0.0	0.0	0.0	8%	105	104
England - all schools		676102	60%				8%	105	104

Showing 6 schools

Figure 2. Primary school attainment for schools within the Chaddesden (formally Derwent) area compared with national average (Department for Education, 2024).

Table 1. National statistics for socio-economic classification for Derby, Allenton and Osmaston and Chaddesden West (formerly Derwent) (Office for National Statistics, 2024).

National Statistics Socio-economic Classification (NS-SeC) Code	Derby (number and percentage)		Allenton and Osmaston (number and percentage)		Chaddesden West (Derwent) (number and percentage)	
Does not apply	52174	19.96%	3303	26.55%	1878	23.58%
L1, L2 and L3: Higher managerial, administrative and professional occupations	21070	8.06%	356	2.86%	254	3.19%
L4, L5 and L6: Lower managerial, administrative and professional occupations	36857	14.10%	1017	8.17%	792	9.94%
L7: Intermediate occupations	23127	8.85%	791	6.36%	565	7.09%
L8 and L9: Small employers and own account workers	16091	6.16%	657	5.28%	380	4.77%
L10 and L11: Lower supervisory and technical occupations	13301	5.09%	670	5.39%	443	5.56%
L12: Semi-routine occupations	25705	9.83%	1437	11.55%	1005	12.62%
L13: Routine occupations	32809	12.55%	2251	18.09%	1472	18.48%
L14.1 and L14.2: Never worked and long-term unemployed	21366	8.17%	1235	9.93%	811	10.18%
L15: Full-time students	18865	7.22%	724	5.82%	366	4.59%
Total	261365		12441		7966	

Table 2. Crime rates over the last 12 months for Sinfin and Osmaston (Allenton area), Chaddesden and Spondon (Derwent area) and Derby City (UK Police, 2024)

Crime Rates (last 12 months)	Sinfin and Osmaston (Allenton)		Chaddesden and Spondon (Derwent)		Derby City	
Anti-social behaviour	353	14.40%	393	14.80%	1051	17%
Bicycle theft	29	1.20%	20	0.80%	120	1.90%
Burglary	59	2.40%	141	5.30%	145	2.30%
Criminal damage and arson	190	7.70%	207	7.80%	307	5%
Drugs	75	3.10%	45	1.70%	318	5.20%
Other theft	149	6.10%	203	7.60%	455	7.40%
Public order	190	7.70%	229	8.60%	707	11.50%
Robbery	19	0.80%	219	8.30%	78	1.30%
Shoplifting	142	5.80%	10	0.40%	609	9.90%
Theft from the person	14	0.60%	174	6.60%	111	1.80%
Vehicle crime	92	3.70%	937	35.30%	133	2.20%
Violence and sexual offences	1075	43.80%	43	1.60%	1990	32.20%
Other crime	40	1.60%	13	0.50%	75	1.20%
Possession of weapons	27	1.10%	20	0.80%	72	1.2%
Total	2454		2654		6171	

Conclusion

The literature illustrates the complex interplay between socioeconomic status, parenting practices, and child development. Understanding these dynamics is crucial when devising interventions aimed at improving developmental outcomes, particularly in areas of known disadvantage. The children being raised in the Allenton and Derwent areas are at increased risk of physical and mental health issues, academic underachievement, and involvement with the criminal justice system as either victim or perpetrator. The association between financial instability and adverse outcomes such as these is pervasive and well documented. Whilst it is beyond the remit of local authorities or those who work with the pre-school population to undo this, it is beholden upon us all to trial strategies to reduce the strength of the association.

Research evidence would suggest the utilisation of play-based interventions is conspicuously valid, as they engage participants and bring joy in addition to the physical, linguistic and cognitive benefits associated with moderate physical activity.

Furthermore, it would be hoped that inviting parents to observe may serve to increase their repertoire of child-focussed activities.

3. Research Methods

Outline of Study Design

Derby Theatre were already working in partnership with Deda and the Derbyshire Cultural Education Partnership (DCEP) to deliver the Canvas Project in areas of high social deprivation prior to the beginning of this pilot study. Six Derby Family Hubs experienced exploratory taster sessions with Deda. Following this, and prior to the involvement of University of Derby academics, it was decided to focus on the Osmaston/Allenton and Derwent Family Hubs. Within these two hubs, the two-year *Move Me!* Project, funded by DCEP, provided one-and-a-half-hour creative dance sessions for children aged 0-5 years.

Three academics with an early years specialism were recruited to help evaluate the *Move Me!* initiative. Initial consideration was given to use of a mixed methods approach, including correlational analysis to investigate contextual demographic data and background statistics. However, the sample size ultimately proved too small to provide meaningful inferential statistics. The study therefore employed a primarily interpretivist paradigm and utilised qualitative research techniques to explore the role of dance and movement in supporting language and cognitive development in children from areas of economic need.

This qualitative approach enabled researchers to capture the depth and complexity of participants' experiences and perspectives, aligning with Creswell's (2013) assertion that it illuminates meaning-making processes within specific contexts. Qualitative research is particularly well-suited for studies such as this that aim to explore human experiences and interactions in depth, as it allows for an interpretive approach to understanding social phenomena (Denzin and Lincoln, 2018).

Research methods comprised semi-structured interviews, in the hope of uncovering rich, detailed insights into how movement-based interventions might foster developmental outcomes. Observations of child engagement were also carried out during sessions and recorded by means of field notes. The data was subsequently analysed using exploratory thematic analysis (Braun and Clark, 2022) to uncover emergent themes.

Outline of study methods

Participants were all drawn from the three identified Family Hubs. Parents or carers of children attending the hub were invited to engage in semi-structured interviews. As some Hubs serve a large number of EAL families, interviews were considered more appropriate than questionnaires. Observations during *Move Me!* sessions

provided an opportunity to gather live data from naturally occurring situations. Immersion in situ provided the researcher with the potential to collect more authentic data than is available via inferential methods (Cohen et al, 2011).

Context is significant in qualitative data collection to support the understanding and the meaning of the data (Savin- Baden and Howell- Major, 2013). It was anticipated anonymised hard data provided by the Hubs and Deda would generate descriptive statistics regarding attendance numbers and SES (drawn from post codes). It was felt that correlational analysis could be conducted if deemed appropriate once the data had been eyeballed. Correlation analysis is a statistical technique used to measure and analyse the strength and direction of a relationship between two or more variables. It provides insights into whether and how variables are related without establishing causation. Pearson's Correlational Analysis evaluates the linear relationship between two continuous variables, calculating the strength and direction of the association. Spearman's correlation provides a nonparametric alternative, which is robust with smaller samples.

Three *Move Me!* sessions were observed using a participatory approach. Field notes were taken to capture:

- Children's verbal and non-verbal communication.
- Interactions between children, movement artists, and peers.
- The structure and cultural content of the sessions.

Participant observation is a hallmark of qualitative research, enabling researchers to immerse themselves in the environment and gather contextualised insights (Spradley, 1980). This method was chosen for its ability to capture natural behaviours and interactions as they unfold, providing a holistic view of the dynamics within the *Move Me!* sessions. (See Appendix B for observation schedule.)

Interviews

Semi-structured interviews were conducted with three movement artists and three parents. Interviews lasted between 30 and 45 minutes and were guided by open-ended questions to encourage detailed responses. Topics included:

- Development of relationships within and outside the sessions.
- The role of language in developmental outcomes.
- Cultural and social experiences related to the sessions.

Semi-structured interviews are a versatile tool in qualitative research, allowing for a degree of consistency across participants while also providing the flexibility to explore participants' unique perspectives in depth (Kvale and Brinkmann, 2015). This approach facilitates a balance between guided inquiry and the emergence of

unexpected themes, as recommended by Patton (2015). The interviews in this study provided nuanced insights into participants' experiences, enabling a comprehensive understanding of the phenomena under investigation.

Setting and Participants

Having a specific purpose in mind, this study adopted non- probability sampling techniques; participants being selected using both convenience and purposive sampling. Convenience sampling was employed to recruit the children and their parents. This approach was chosen due to its practicality and accessibility, as it allowed the researcher to select participants who were readily available and willing to participate (Etikan *et al*, 2016). While convenience sampling has limitations regarding generalisability, it is often appropriate for exploratory qualitative studies in localised contexts.

Purposive sampling was used to select the movement artists facilitating the sessions. This method is well-suited for qualitative research as it involves deliberately choosing participants who have specific knowledge, experience, or insights relevant to the study's objectives (Palinkas *et al.*, 2013). The movement artists were chosen based on their roles in the Move Me! programme and their ability to provide informed perspectives on the pedagogical strategies and cultural elements integrated into the sessions. All movement artists had the relevant knowledge and experience to enable the generation of quality information and valuable insights. A pragmatic approach was taken due to the small scale of this pilot study (Denscombe, 2017).

Six Derby Family Hubs were initially highlighted by Derby City Council for exploratory taster sessions carried out by Deda. Subsequently, three hubs were selected as the core focus of delivery of the workshops based on engagement during the trial period. Within the selected hubs there was no exclusion criteria. All families within the area were invited to a weekly dance and movement sessions aimed at enhancing and supporting social, emotional, cognitive, and physical development of children 0-5. Parents were also invited to attend and engage in the sessions. All those who attended the sessions were deemed eligible to participate in this research.

Children engaging in the activities were observed with parental permission.

The artists leading the sessions were invited to participate in short, semi-structured interviews. Verbal agreement had already been provided by Deda and the artists. The research team conducted the research in agreement with Deda, Derby Theatre and the Arts Council.

Three observation sessions were conducted to document interactions and activities in situ and six interviews took place. The participants included:

1. **Three Children:** Observations centred on their engagement, language use, and interaction patterns during the sessions.
2. **Three Movement Artists/ Practitioners:** Three artists who facilitated the sessions were interviewed to gain insights into their pedagogical approaches, perceptions of children's development, and the integration of cultural elements.
3. **Three Parents:** Three parents of children participating in the sessions were interviewed to understand their perspectives on the impact of the sessions on their children's language, cognition, and social relationships.

Data Analysis

A thematic analysis approach (Braun and Clarke, 2006) was employed to identify patterns and themes within the data. The analysis involved the following steps: Familiarisation: Reading and re-reading transcripts and field notes to immerse in the data. Coding: Assigning initial codes to data segments relevant to language, cognitive development, relationships, and cultural experiences. Theme Development: Grouping codes into broader themes that reflected recurring patterns and meaningful insights. Review and Refinement: Revisiting themes to ensure coherence and alignment with research objectives.

Ethical Considerations

Ethical approval was obtained from the relevant institutional review board. Informed consent was secured from all participants. Anonymity and confidentiality were maintained by assigning pseudonyms to participants and removing identifying information. Participants were informed of their right to withdraw from the study at any time without consequence.

Trustworthiness

To ensure credibility and trustworthiness, the study employed strategies such as member checking, where participants reviewed and validated the findings, and triangulation, by comparing data from observations and interviews. Reflexivity was maintained throughout the research process, with the researcher's positionality acknowledged to mitigate bias (Lincoln and Guba, 1985).

Limitations

This study's findings are context-specific and may not be generalisable to other settings. The sample size, though sufficient for in-depth qualitative exploration, limits

broader applicability. Future research could expand to include longitudinal data or diverse socioeconomic contexts to enhance understanding.

By employing a robust qualitative methodology, this research aimed to illuminate the multifaceted role of dance and movement in fostering language and cognitive development among children in areas of economic need. The findings are in the section which follows.

4. Findings from Interviews and Observations

The data for this study was triangulated, piecing together the information from three movement artists, three parents and three children to ascertain the value in the Move Me! programme offered at two of the Family Hubs in Derby.

Theme 1: Social Interaction and the Development of Relationships

Sub-theme (a): Confidence Building

This theme examines how participation in dance and movement sessions facilitated social connections and bonding among attendees. Participants in the *Move Me!* programme described the relationships formed both among children and between parents and their children. Consistent attendance and the presence of familiar faces were identified as key factors in fostering these relationships. A staff member observed:

"I've noticed how children who were initially shy begin to open up and engage with others through these activities."

Parents expressed similar experiences, noting that their children had developed new friendships and exhibited increased confidence. These sessions provided a structured space for meaningful social interactions, enabling participants to connect, communicate, and build relationships.

One parent said:

"The main reason that I did want to attend a group like this is because I thought it would help with him transitioning into starting a nursery. I feel like it's a similar environment where they're being with the kids and learn and play. So, it's a way of easing him into that kind of environment."

One movement artist commented:

"All those things that I like to put in the sessions come from training we've had. It's just kind of brought an awareness to the 'real' stuff. That's what comes into how we

deliver. But it comes from movement and language, cultural experiences and relationships. They just happen.”

Furthermore, participants emphasised the importance of recognising and reinforcing positive interactions between children, as this validation helped to further strengthen social bonds.

Sub-theme (b): Community Identity

The sessions not only supported individual relationships but also contributed to the development of a collective community identity. Children were observed modelling behaviours from parents and other adults, reinforcing a sense of community belonging. Parents were also introduced to alternative approaches to play, particularly emphasising open-ended and movement-based play. Facilitators modelled various techniques for parents to engage in with their children, expanding their understanding of play and interaction.

In addition to fostering a sense of community, the sessions played a role in the broader development of social relationships. Interview responses suggested that both parents and children established connections with others attending the sessions. One participant noted that their child's confidence had grown significantly over time, transitioning from initial hesitancy to active participation and even performing in front of others. Regular interaction with the same group members contributed to a sense of belonging and routine. However, it was observed that these relationships had not extended beyond the sessions in the cases examined.

One dad observed a change in his daughter's social awareness as a result of the sessions:

“So, when she is feeling more sensitive, she will sort of revert back to sort of guarding or collecting certain toys. Um, but she used to be the first few weeks we came, if anyone came even near her, you can tell. She'd sort of flip out, but now she doesn't really do that anymore. She's sort of chilled out loads more. She's a lot more confident and comfortable with other kids. And she's got a better understanding of like sharing toys, playing as a group. And I've definitely seen her. She wants to copy what other kids are doing now. She likes to see what other children are doing, whereas before it was very much like keep children away from me. Now she sort of says even before she's like, I want to see my friends. I want to see my friends.”

Theme 2: Language and Communication

The *Move Me!* sessions placed a strong emphasis on the role of play in language development. Participants highlighted the ways in which communication skills were enhanced through movement-based activities. One parent noted that their child's language development was progressing well for their age and attributed this progress, at least in part, to participation in the sessions. The structured use of props, music, and repetition was identified as a key strategy for introducing and

reinforcing new vocabulary. For example, activities such as counting, stretching, and using props to describe actions (e.g., "pop the bubble" or "squeeze the sponge") facilitated language acquisition.

One of the movement artists reflected and said:

"I think they really relate to those sorts. I think they're really good words to start developing language. Even with movement. It links to the movement and they can feel it through their bodies as well as learning it."

Parents also recognised the benefits of open-ended materials and creative play in stimulating children's imagination and communication skills. Many parents found this concept novel and expressed appreciation for the inclusion of familiar music, stories, and books from their own childhoods. These culturally relevant materials created a rich and engaging learning environment and encouraged parents to reconsider how they approached play at home. The sessions also provided opportunities to introduce numerical language and mark-making, supporting both language and cognitive development.

One parent commented on this by saying:

"I think it's definitely impacted play at home because I will just get out random things now. Sometimes I'm just like, I don't have anything to do. Let's get out the sponges and get out the cloths, see what you get out of the scarves. And then we can kind of have a really sort of playful morning doing that and like sort of make toys that are a bit different, like we made like fairy wands with a bit of ribbon and a stick, which I wouldn't probably wouldn't have thought to do before."

Theme 3: Regular Attendance

Interview findings indicated that regular attendance was a significant factor in maximising the benefits of the sessions. Consistent participation contributed to the development of routine, familiarity, and confidence among both children and parents. Participants reported that regular attendees exhibited improvements in communication skills and overall confidence.

One parent highlighted the accessibility of the sessions, particularly noting their local availability as a crucial factor given their inability to drive. This parent stated:

"I do look forward to it, yes, 'cos it's the only group we attend."

Another participant commented:

"I didn't get involved in mother and baby sensory or anything like that."

These statements suggest that *Move Me!* provided an important and, in some cases, the only structured social engagement opportunity for some families. Regular attendance contributed to a sense of stability and routine, which was particularly

beneficial in preparing children for transitions to formal early childhood education settings.

Theme 4: Cultural Experiences

Participants also discussed the integration of cultural experiences within the *Move Me!* sessions, with dance and movement serving as the primary medium for cultural exchange and mutual understanding. One parent noted:

"He looks forward to it during the week, and he'll say 'dance'—cos he calls this dance."

Another participant echoed this sentiment, stating:

"He likes to come; he is learning actions and movements."

The sessions provided opportunities for children to engage with cultural elements through music, stories, and movement activities. Parents reflected on drawing inspiration from their own childhood experiences and recognized the value of culturally relevant materials in supporting their children's development.

Additionally, the *Move Me!* sessions maintained strong ties with Derby Theatre, offering families access to termly performances. This relationship reinforced the value of cultural engagement and expanded opportunities for children and parents to participate in the arts. The use of repetition and familiar activities played a role in making sessions accessible to children from diverse backgrounds, as evidenced by the experience of a Polish family who participated in the sessions. Repeated exposure to common activities facilitated shared understanding and communication, even in the presence of language barriers.

One parent stated that their awareness to cultural activities had been heightened as a result of the sessions:

"I've been invited to the museum. Yeah. And the theatre. And I keep thinking I would like to go, but I know she's not quite able to sit still that long, but it's definitely like, I wasn't really aware of the fact that DEDA did things like that. So now I am checking it out every now and then."

Findings from Observations

Observations of the *Move Me!* sessions provided further evidence of their value in supporting children's social interactions, relationship development, engagement, play, language acquisition, and cultural participation. Three children were observed to assess their behaviours and responses during the sessions.

Social Interaction and Relationship Development

Children engaged with peers, adults, and movement artists, demonstrating varying levels of social interaction and relationship-building:

- **Child 1** actively interacted with another child and shared a prop, particularly during parachute play. Their enthusiastic participation suggested a strong capacity for forming connections.
- **Child 2** initially displayed hesitancy but became more engaged upon encountering ribbons, eventually interacting with other children and adults.
- **Child 3** entered the session with enthusiasm, demonstrating familiarity with the environment and actively engaging with the movement artist through playful interactions.

These observations indicate that the sessions provided valuable opportunities for children to develop social confidence and interpersonal skills.

Engagement Levels

Engagement levels varied across the children but generally increased as the sessions progressed. The Leuven Scale of Engagement (Laevens, 1997) was used to assess their levels of involvement:

- **Child 1** maintained high engagement throughout the session (Leuven Scale: 5), particularly during dynamic activities.
- **Child 2** started with low engagement (Leuven Scale: 1) but showed increased involvement over time (Leuven Scale: 4), particularly during open-ended play.
- **Child 3** exhibited moderate engagement initially (Leuven Scale: 3), peaked during the middle of the session (Leuven Scale: 5), and showed signs of fatigue towards the end (Leuven Scale: 3).

These findings highlight the importance of varied, interactive activities in sustaining children's engagement.

Play and Language Development

Observations reinforced the role of play in language acquisition:

- **Child 1** used non-verbal communication such as nodding and pointing, suggesting early language development.
- **Child 2** demonstrated emerging vocabulary skills, using words and phrases such as "here," "lots," and "more" during play.
- **Child 3** actively engaged in play and demonstrated comprehension through responses, though verbal expressions were not clearly recorded due to background noise.

These findings align with research emphasising play as a crucial mechanism for language development.

Engagement in Cultural Experiences

The *Move Me!* sessions incorporated cultural elements, such as music and movement, to foster inclusivity and shared experiences. Observations included:

- **Child 1** gradually engaged in singing and movement-based activities, demonstrating emerging cultural participation.
- **Child 2** actively engaged in repetitive activities, which facilitated shared cultural understanding.
- **Child 3** showed enthusiasm for storytelling and music-based activities, reflecting an appreciation for cultural engagement.

Conclusion

The *Move Me!* sessions provided significant benefits in fostering social interaction, language development, and cultural engagement among children. Regular participation contributed to increased confidence, relationship-building, and cognitive development. These findings underscore the value of structured, interactive, and culturally enriching early childhood programs in promoting holistic child development.

5. Discussion

The impact of poverty on children

The review of recent and relevant literature highlighted that for reasons of parental health, education and working hours, children living in poverty or close to the poverty threshold are more likely to experience difficult living conditions and reduced parental involvement. Financial instability impacts a whole host of areas for families living in poverty, including socioemotional and physical ones (Smith and Mazure, 2021). Furthermore, financial insecurity has been seen to have an impact on parent's capacity to nurture their children (Attanasio *et al*, 2022). Whilst it was neither possible nor appropriate to assess individual participant's levels of poverty, demographic data from Derby City Council (DCC, 2024) recognises participant's home addresses as being situated in areas of social deprivation.

Findings and Implications of the Move Me! Sessions

The findings indicate that both children and caregivers who participated in the *Move Me!* sessions perceived them as highly beneficial. Observations and interviews provide evidence that these sessions broadened parents' perspectives on play and child development. Specifically, participants reported a greater appreciation for play as a form of creative expression, particularly through the use of open-ended materials. This shift in perspective is particularly significant in households with limited access to toys and educational resources, as noted by Trawick-Smith *et al*. (2015).

Furthermore, the results suggest that these sessions fostered increased confidence among participants and contributed to the development of a shared community identity.

Expanding parents' understanding of play and encouraging social and emotional engagement with their children may have broader implications for community well-being and safety. Additionally, there is potential for these sessions to reduce screen time while promoting physical activity—an issue of particular concern in socioeconomically disadvantaged areas (Martin et al., 2022). The data also reveal a strong correlation between the *Move Me!* sessions and the enhancement of social interactions and relationship-building, reinforcing Theme 1 identified in this study.

Beyond social benefits, the cognitive and neural advantages of an open-ended approach to play were also highlighted. Research suggests that such interventions may contribute to enhanced cognitive and academic development by promoting neural plasticity, particularly in environments where structured educational opportunities may be lacking (Turesky et al., 2021). While school readiness is a critical factor in early childhood development, the broader impact of programmes like *Move Me!* suggests they may play a role in supporting early brain development (Owen et al., 2023).

Language Development and Parental Engagement

Interview data indicate that the sessions positively influenced children's speech, language, and communication skills, as captured in *Theme 2: Language Development*. These findings align with existing research on the relationship between community-based programs and language acquisition, which is closely linked to later academic achievement. Notably, in addition to benefiting children, the sessions also had a positive impact on caregivers. Parents and carers reported an increased awareness of how they engage with their children outside the sessions, incorporating more interactive and enriching communication practices. Practitioners involved in delivering the sessions also observed this shift, emphasising that the programme was a learning experience for all participants.

The Influence of Socioeconomic Status on Parenting Practices

As highlighted in the literature review, the relationship between socioeconomic status (SES) and parenting quality is well-documented (Cheng et al., 2021). Parents in low-income households often experience heightened stress due to financial instability, which can negatively impact their ability to engage positively with their children. Cheng et al. (2021) argue that economic hardship is associated with increased parental anxiety, which may reduce the frequency and quality of parent-child interactions, ultimately leading to poorer developmental outcomes. Consequently, the limitations imposed by socioeconomic constraints may contribute to the perpetuation of intergenerational poverty.

Research by Kiernan and Mensah (2011) underscores the importance of positive parenting in mitigating the effects of poverty on children's educational outcomes. The *Move Me!* sessions provided parents with alternative, cost-effective approaches to

play, enabling them to engage with their children in ways they had not previously considered (*Subtheme A: Confidence Building*). The findings suggest that parents developed strategies to cognitively and emotionally stimulate their children in a nurturing environment, with these behaviours extending into the home setting. Thus, the *Move Me!* sessions appear to function as an informal yet effective parenting intervention. Additionally, these sessions contributed to the development of a sense of community among participants, offering structural support mechanisms that could benefit the wider community (*Subtheme B: Community Identity*).

Community Support and Interventions

Families in disadvantaged areas often face limited access to resources that could enhance parenting practices and promote positive developmental outcomes. Kirby, Wright, and Allgar (2020) emphasise the role of community support in fostering resilience among families experiencing economic hardship. Community-based interventions that provide mental health resources, parenting education, and peer support networks can empower caregivers by equipping them with the skills necessary to engage effectively with their children.

The policy implications of such findings are substantial. Kalil and Ryan (2020) argue that targeted interventions addressing both mental health and child development can have significant long-term benefits for families in low-income communities. Their research suggests that even low-cost programmes can help parents overcome barriers to positive engagement, ultimately improving child outcomes and breaking the cycle of poverty. Consequently, interventions such as *Move Me!* should be recognised not only as cultural and educational initiatives but also as essential components of broader social support structures.

The Role of Creative Play and Movement in Child Development

The literature reviewed in this study highlights the importance of creative play and movement-based interventions, particularly during the preschool years. Such programmes have been found to enhance resilience, reduce anxiety and stress, and improve self-esteem (Mental Health Foundation, 2020; NHS, 2019). These findings were echoed by both parents and practitioners involved in the *Move Me!* sessions, where movement was used as a tool for creative expression, play, and language development.

Regular attendance emerged as a crucial factor in maximising the benefits of the sessions (*Theme 3: Attendance and Consistency*). Data suggest that families who participated more frequently became increasingly embedded in the culture of creativity fostered by the programme (*Theme 4: Cultural Experiences*). This observation aligns with broader research on arts-based education, which highlights the role of sustained engagement in fostering long-term developmental benefits.

It is also important to note the cultural dimension of these sessions. Each *Move Me!* session was led by an experienced movement artist embedded within the artistic community in Derby. Additionally, families participating through Family Hubs were invited to termly performances at Derby Theatre and other cultural venues. This

emphasis on cultural engagement reinforced the value of the arts as an integral component of the sessions and contributed to *Theme 4: Cultural Experiences*.

6. Conclusion and Recommendations

The children for whom the *Move Me!* project was designed were born into circumstances of considerable disadvantage. The findings of this study, supported by both qualitative and observational data, suggest that participation in the sessions yielded significant benefits across multiple domains, including social interaction, relationship-building, confidence, community identity, language development, and cultural engagement. Although the long-term effects of the programme were not within the scope of this study, existing literature suggests that interventions of this nature have profound implications for early brain development, parenting practices, resilience, and educational outcomes. Consequently, initiatives like *Move Me!* should be recognised as valuable early childhood interventions with the potential to support both individual and community development.

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