



**Report:
Zest Project**

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Zest Project: Executive Summary

The Zest project was run by Take Art for Foundation Stage pupils in two rural Somerset primary schools. This project combined creative movement with other art forms – in one school with a clay artist and in the other with a film-maker. The pupils of both schools had been identified by Somerset School Development Service as potentially benefiting from an enriched curriculum.

A small-scale research project was commissioned from researchers based at Exeter University. The brief was to explore the experiences of the children motivated by the conviction that involvement in arts activity can have a beneficial effect on children's participation in schooling across the curriculum.

Following discussion with all parties, an over-arching research question was posed: 'how can a creative movement project help children to increase positive dispositions for learning?' A literature review was carried out so that the project could connect with and build on prior work and to research notions of 'disposition' in the theoretical literature.

Carr and Claxton's (2002, 2004) work on learning dispositions was influential both theoretically and methodologically. Drawing on their work, learning dispositions are defined as 'resilience, playfulness, reciprocity, motivation and fascination which might be evidenced in behaviour which exhibits an intensity of experience both physical and cognitive in a strong flow of energy'. The notion of 'self concept' was also thought to be key for this study.

The method incorporated a range of approaches to collect data including sampled observations of six focus children which described and rated their levels of involvement, photos and video clips, interviews with children and staff and notes of meetings between staff and artists.

The data was analysed and organised into simple display of levels of involvement. No consistent patterns of change in these levels across all six children through the duration of the project were found.

Four of the focus children were selected as case studies and their participation is described in detail. These case studies reveal some small positive changes in the children's dispositions for learning in the creative movement sessions towards the end of the project.

During the sessions a number of themes for creative movement evolved. These themes are identified and described. They are informative in terms of understanding *how* the sessions provided a context for the children to exercise their dispositions for learning.

The findings are discussed in relation to the three learning dispositions, in relation to the notion of 'self concept' and in relation to the dispositional potential afforded by the sessions.

Implications and recommendations

Creative movement work which enables children to contribute their own ideas and develops themes from those starting points can provide an environment which is conducive to children developing dispositions for learning such as playfulness and reciprocity in those sessions.

There was less potential for developing resilience, that is, the ability to persist with a task even in the face of setbacks in the creative movement sessions, but potential for increasing motivation, particularly through enjoyment and the themes for creative movement being meaningful to the children. However, in the long term, the open-ended nature of children's participation may support a form of resilience based on autonomy rather than external sources of motivation.

The creative movement sessions can provide an opportunity for the children to extend their sense of self-concept, particularly in the expanded visual dimensions of film with movement work.

Those children who may have most to gain from the work may need longer to arrive at a point where they can begin to show benefits. Projects intended to relate to these learning dispositions should take place over an extended period of a year or more.

A focus on analysing the children's learning in creative movement activity by looking for the 'essence', underlying the conceptual idea or 'schema' in an abstract sense will increase an understanding of the value of the work in terms of children's learning and enable teachers and artists to find points of connection with the mainstream curriculum.

As well as analysing children's activity to identify underlying thinking, artists and teachers should develop a common language for talking about creative movement work in terms of embodied, sensory, affective and creative learning, to balance out the current emphasis on cognitive learning in schooling.

Research which focuses on the processes within creative movement work can identify *how* a project works. Understanding process, and including practitioners professional knowledge and reflections in this activity, is potentially more informative to practice than research which focuses only on outcomes.

The interaction of two art forms results in interesting extensions of creative movement work which deserve further exploration.

Future investigations might explore how creative movement offers a supportive environment for the development of children's self-concept and positive dispositions for learning.

Zest Project: Report

Kerry Chappell and Susan Young
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1. Introduction

This report presents the research strand from the Zest Project. The Zest project was run by Take Art for Foundation Stage pupils in two Somerset primary schools. This project combined creative movement with other art forms – in one school with a clay artist and in the other with a film-maker. A small-scale research project was commissioned from researchers based at Exeter University by Somerset Education Development Service. The brief was to explore the experiences of the children motivated by the conviction that involvement in arts activity can have a beneficial effect on children's participation in schooling across the curriculum.

1.1 Current Context

In the current educational climate, the policy drive to raise standards in the curriculum 'basics' of literacy and numeracy and an emphasis on simple testing, outputs, targets and measurements (e.g. DfES, 1997), has created external pressures on primary schools to focus on narrow academic achievement and cognitive experience (NACCCE, 1999). As a result arts-based curriculum areas and creative, embodied and affective experience can be neglected.

More recently, the recognition that the future will require people who not only have basic skills and knowledge but are also flexible, independently minded and innovative, is leading to a new emphasis on developing creativity as an educational aim (e.g. Craft, 2000). This in turn is leading to interest in approaches for fostering creativity, such as artists in education projects within initiatives like Creative Partnerships. It would be over-optimistic to suggest that this is a renewed interest in arts for arts education sake, for all too often the emphasis is on the arts in the service of academic achievement or personal and social development (e.g. Mirza, 2006). Nevertheless, there is a new vigour around the arts in education.

Experienced educators within constructivist and reflective practice traditions have long realised that an effective education is a generous and well-rounded education, that a 'drill and skill' curriculum is an impoverished one and that fostering creativity and imagination contributes something central and essential to children's learning. They are not merely an educational frill. Yet it is difficult to swim against the tide. And hand-in-hand with testing and tables is the prioritising of evidence-based decision-making (Biesta, 2007). It is evidence which now counts as opposed to professional judgements based on experience. And so research was commissioned for this arts in education project to explore the experiences of the children and to identify the processes by which an arts education project might positively contribute to children's sense of themselves as learners.

1.2 The Project

The project took place in two Somerset schools; one located in a small market town and one in a rural village. The artists made weekly visits across the Spring term from January to March 2007. Two dancers and a clay artist visited the village school, one dancer and a film-maker visited the small town school. In C School, the dance artist and film-maker initially worked separately with the children, one following the other within an afternoon. Later in the project they team taught the children melding creative movement and film together within one session. After each afternoon session the artists entered into reflective discussions with the researcher when on site, and to some extent, dependent on availability, with the C school teachers. At H School the clay artist and two dancers worked in separate sessions but through collaborative planning found ideas and themes that would integrate their work. Reflective discussions with staff took place at the end of each visit day.

The pupils of both schools had been identified by Somerset School Development Service as potentially benefiting from an enriched curriculum. Thus the motive to hopefully increase children's potential as learners through arts activities was a driving rationale for the project.

1.3 Take Art

Take Art is an arts development agency created in 1987 which serves the towns, villages and rural communities of Somerset. The Take Art: Start programme has focussed on the early years and run since 2000. The programme worked to establish a pool of artists who are equipped to work with the very particular needs of this age group and who cover a wide variety of art forms.

1.4 Somerset Education Development Service

The Education Development Service aims to raise achievement of all pupils to enable them to reach their full potential by monitoring performance of schools and by focussing services on schools which need challenge and further support.

1.5 The Schools

H School is a small village school of 37 pupils. This school is receiving particular support from the advisory service. Unfortunately a large proportion of the pupils attending are raised in rural poverty, circumstances which can negatively affect many aspects of their upbringing and their ability to access the opportunities of formal schooling.

C School is a large school with just over 400 pupils and two foundation stage classes. It serves a small market town with quite a large rural working class population. The school serves an area recognised as being one of the most socially disadvantaged in Somerset, with the number of pupils with special educational needs above average.

1.6 The Artists

All the artists (with the exception of one who joined the project part-way through to cover maternity leave) have accumulated experience over many years in working in educational contexts and with young children. In terms of working style, two of the movement artists, Annabelle MacFadyen and Anna Brown have trained in the Jabadao approach to creative movement with early years. This approach emphasises providing an environment within which children can contribute and explore their own movements, thus being certain that it is developmentally appropriate. Annabelle also has experience of working with a long-term Bristol-Bath based project entitled 5X5X5 which is based on principles drawn from practice in the Italian nurseries of Reggio Emilia. This project emphasises the two-way process of children contributing ideas from their own experiences which are then taken as a basis for extended work around themes. Careful observation of the children's activity and post-session discussion to reflect, review and forward plan the work are key elements of this way of working.

Rod Harris is a professional sculptor and through Take Art's early years programme had extensive experience of working with young children in a range of school settings.

Richard Tomlinson is a filmmaker who uses a range of lens-based and digital media in his work enabling the children to combine different media such as drawing, painting, photography, video and audio into one art work.

2 Literature Review

2.1 Introduction

Following on from the negotiation, between the research commissioners and the research team, of the over-arching research question as: 'how can a creative movement project help children to increase positive dispositions for learning?', a literature review was carried out to encompass both theoretical and empirical academic literature within dance education and psychological studies in education.

This research project was commissioned in the context of shifts in educational policy making and theorising which are moving away from the idea that education can equip children and young people with the knowledge, skills and understanding for tomorrow's adult life. It is now increasingly acknowledged that with the future adult world unknown and potentially rapidly changing (NACCCE, 1999), what we might better equip children and young people with is the ability to "learn to learn" (Burgogne, 1998). This capability has been interrogated by a number of educational theorists, but possibly the most influential has been the work of Professor Guy Claxton (e.g. Claxton, 1997). The literature review highlighted that some of Claxton's most recent work, with Margaret Carr in New Zealand may be particularly useful to this study in unpacking 'how a creative movement project helps children to increase positive dispositions for learning?'.

2.2 Defining Dispositions for Learning

In defining the term 'dispositions for learning' for this study Carr and Claxton's (2002, 2004) work was influential both theoretically and methodologically (see section 3). Alongside this, Laever's (1994) work on involvement in the early years classroom was also felt to resonate strongly with the 'dispositions for learning' that the commissioning team wished to interrogate. The articulation of terms in the work of these researchers will be considered first in order to provide the defining framework for the literature review; the relevant theoretical and empirical literature from dance and psychology will then be considered in turn in order to take us to the coalface of current understanding in this area.

Claxton and Carr's (2004) paper draws on both theoretical and empirical work to make an argument for conceptualising and studying learning dispositions. They describe dispositions as being ready, willing and able to learn, and suggest that they are not acquired as such but are learned responses that become more habitual. They call learning disposition "default responses" (p.88, 2004). Thus it is the strength of the dispositions which can be affected by education. Although it is beyond the scope of this study, it is worth noting at this point that these dispositions are thought to be associated both with identity as a learner and self concept (Cross and Marcus 1994). This will be briefly considered later in this review as it may be pertinent for future developments of this study.

In their 2002 article, while acknowledging the array of possible candidates for 'key' learning dispositions, Carr and Claxton highlight three that they select as 'key' to underpinning their discussion of assessment. As this comparatively small-scale study is also attempting to evidence and assess learning dispositions, and has limited resources, it was felt appropriate to also use these three dispositions as key for this investigation. They are: resilience, playfulness and reciprocity.

- Resilience is defined as the inclination to take on learning challenges where the outcome is uncertain, to persist with learning despite temporary frustration
- Playfulness means being willing and able to construct variations on learning situations and to be more creative in interpreting and reacting to problems, particularly important for this study is the inclusion of imagination and experimentation
- Reciprocity is about the confidence and inclination to give opinions and contribute ideas, both verbally and non-verbally, that is to learn 'in relationship'

A point made by Carr and Claxton (2002) which is particularly important to this study when working with these key dispositions, is their acknowledgement of recent debate about the validity of generalisable personal qualities or dispositions. They are clear that much research over the last 20 years has demonstrated that "human learning and performance are indeed much more situation

specific than had often been presumed" (p. 11, 2002). In relation to this study, this means that it cannot be assumed that if a child is seen to be developing their learning dispositions across a number of creative movement sessions that these learning dispositions will automatically also be applied and evident in other areas of their schooling. However, drawing on Donaldson (1978), Carr and Claxton are also clear that this does not mean that dispositions might not vary along dimensions of relative 'disembedding'. That is, some dispositions may be, at least initially tied very closely to particular kinds of task (in this case within the creative movement sessions), but this does not mean that, over time, they may not come to appear in an ever-increasing number of domains and situations. Carr and Claxton are clear that this 'appearance' is dependent on "the practices and intentions of people who may be framing learners' environments and on the opportunities to deploy a particular disposition and thus discover its value" (p. 11, 2002). For this study these people are the Early Years teachers who oversee the children's broader school experience of which the creative movement project is a part.

As stated above, Laevers' (1994) notion of involvement also resonated strongly with the commissioning team's area of interest. Laevers' use and definition of the term involvement has much in common with Carr and Claxton's definitions of resilience and playfulness. Laevers (1994) defines involvement as recognisable by a child's concentration and persistence, characterised by motivation, fascination and an openness to stimuli, and determined by an exploratory drive. What is additionally useful for this study in Laevers' work is that it is geared towards assessing children's involvement via the Leuven Involvement Scale for Young Children. This leads Laevers to also define involvement in terms of observable behaviours such as that it is characterised by an intensity of experience both at the physical and cognitive level, and a deep satisfaction with a strong flow of energy. This kind of descriptor is particularly pertinent for a study focused on creative movement as it references the physical as well as the cognitive and acknowledges the energy dynamic of involvement.

This study therefore proceeded with an understanding of the term 'disposition for learning' that encompassed the notions of resilience, playfulness, reciprocity, motivation and fascination which might be evidenced in behaviour which exhibits an intensity of experience both physical and cognitive in a strong flow of energy. With this in mind, the wider literature relating to dispositions will now be considered.

2.3 Dispositions for Learning within the Wider Dance Education and Psychology Literature

Within the dance education literature there is theoretical consideration of aspects of both learning dispositions and self-concept, but only a small amount of empirically grounded writing. It is perhaps useful initially to contextualise this literature within arguments made to policymakers by the National Dance Teachers Association (2004). The association draws on a host of dance education literature including that of Smith-Autard (2002) and Lowden (1989) to argue for the place of dance in the curriculum on the dual grounds that it provides an education both in dance and through dance. In particular, it argues that the study of "dance as an art form provide [s] the opportunities for developing a range of personal, social, physical and transferable skills. Through working with their peers, pupils develop the ability to organise, lead, co-operate, challenge, discuss, debate and collaborate...They develop their capacity to think and to work confidently, trusting their own ideas and judgements" (p. 5, 2004). Woven within this argument are references which resonate with the learning dispositions under investigation in this study i.e. resilience, playfulness, reciprocity, motivation and fascination.

In turn it is also useful to focus down on how creative movement is interpreted in Early Years settings. Particularly pertinent for this study is an article by Greenland (2001). She is an experienced creative movement/early years practitioner who, with a dedicated team via Jabadao (a national development agency promoting awareness of the importance of movement for learning and wellbeing), has developed the concept and practice of 'body intelligence and movement play'. This practice was being used to varying degrees by the creative movement specialists engaged in the Zest project (see above for biographies), so it is important to consider its philosophy here. Greenland argues that a human being's experience of the world begins in movement and sensation, and that "we must continue to refine and develop our ability to make use of sensory-motor intelligence at the same time as we develop other forms of intelligence" (p. 3, 2001). At the heart

of Greenland's argument is her experience, not derived from empirical study, but years of expert practice, that children in early years settings thrive on learning via what she calls 'body intelligence'. This is the capacity to "come to understanding by direct participation with sensation, feeling and movement, and to make this knowledge and understanding useful", and it is particularly related to "how human beings address and solve problems in our bodies" (p. 1, 2001). The very place of dance / creative movement within the early years curriculum is therefore embedded through this work within a philosophy which argues for movement play and bodily intelligence to be given equal weighting with the 'intellect'. Playfulness as a disposition is obviously intrinsic to this philosophy, as are the ideas of encouraging children's fascination and motivation; Greenland refers to the resulting 'lively minds' that she argues will ensue from the integrated physical and intellectual approach which she proposes. Reciprocity is also key to the approach with an emphasis on "our relationship with ourselves and others" (p. 6, 2001). Resilience is perhaps the least obviously articulated of the dispositions under consideration here; with what might be argued an alternative emphasis on following explorations rather than persisting with challenges.

Returning to the question under consideration in this study: how can a creative movement project help children to increase positive dispositions for learning?, part of the answer to this question already lies in the theoretical dance education literature which makes clear arguments for creative movement / dance to be present within the early years curriculum. These arguments centre around the balanced integration of bodily intelligence and intellect to create lively minds through playfully oriented movement activity in relationship with the self and others. This study is therefore seeking to step off from here to consider how evidence might be sought for whether and how this activity is occurring in one particular early years setting.

2.4 The Related Notion of Self-Concept

Before reviewing the literature pertinent to the methodological approach used in this study, it is worth briefly considering the literature on self-concept from more psychologically focused empirical studies. As detailed above, studying self-concept alongside learning dispositions in such a small scale study was felt to be too large an undertaking, but as the two concepts are connected and, perhaps useful for future developments of this study, some of the reviewed literature is briefly detailed here.

Within psychological studies, self concept is the cognitive aspect of self related to self image (Huitt 2004). It is thought to be learned, organized and dynamic (Purkey 1988), and Strein (1995) argues that it is inherently phenomenological. Because self concept is learned it is malleable, but it is organised and has a stable quality, which gives consistency to personality. This consistency means it is resistant to change. If it changed easily the individual would lack a consistent personality (Purkey 1988).

Within psychological studies, there is a question as to whether self concept is in fact a unitary construct or domain specific. Similarly to the discussion above regarding learning dispositions, older measurement scales tend to view self concept in a unitary fashion and calculate a single score (Coopersmith 1967, Piers & Harris 1969). More recently self concept has been separated into two constructs: perceived competence and social acceptance (Harter & Pike 1984). There is also a question about the extent to which self concept is domain specific, ie. that children view themselves in different ways depending on the context. In designing a scale to measure the self concept of 4-7 year olds Harter and Pike (1984) did not include a measure of self worth because their own empirical research and theory suggests that below the age of 8 children have no concept of "personness". In addition, until later childhood, children do not have a sense that the self can be evaluated in any abstract way. Younger children are also unlikely to be able to discriminate between their ideal self image and their real self (Stipek 1981). This is in line with general cognitive development, which shows that younger children often over estimate their competence in a given domain. This makes measurement of self concept with younger children very difficult. The Harter and Pike scale divides the concept into perceived competence, which is measured on cognitive and physical dimensions and social acceptance which is measured on peer and maternal dimensions. They point out that the social acceptance category is not necessarily a measure of self concept,

since lack of friends or maternal support can be accounted for by a deficiency in the other rather than a reflection of the self (op.cit). Again this would be in line with general developmental psychology and the egocentric nature of young children.

This discussion highlights the main reason as to why it was felt inappropriate to include investigation of influences on self-concept in this study. Even within well-resourced full-scale studies, it is felt to be difficult to study because younger children have a less well-developed concept of self. Also, with only a short intervention and investigation timeline with two relatively small groups of children it would have been empirically meaningless to attempt to track changes in self-concept causally attributable to the creative movement intervention using the kinds of scales developed in the above detailed psychological studies.

Some studies have been carried out to investigate whether and how dance contributes to developing self-concept, although tellingly no studies have been found carried out in the early years. This literature review highlighted Graham's (2002) empirical research into the development of adolescent's self-concept through dance, and a wider review of self-concept studies in the arts by Sharp, Benefield and Kendall (1998). Across these sources, of which the latter review includes theoretical and empirical studies, the following main conclusions can be drawn. The authors of these studies often argue that the arts have a key role to play in developing self-concept. However, following empirical studies, which often use experimental pre and post test designs, sometimes with adequate numbers of participants for this kind of study, sometimes not, the strongest conclusion reached by Sharp et al (1998) was that "there is simply insufficient consistent and compelling evidence at this time that arts education will necessarily lead to positive non-arts outcomes" (p. 4, 1998). This conclusion applied across the self concept investigations.

2.5 Focusing the Methodology

Sharp et al (1998) recommend that further research into the contribution of the arts in education is carried out, and that there is a need for studies using both experimental and qualitative approaches. In relation to this study this last point is vital, and it brings us to the discussion of the methodology chosen for this study drawing on this literature review. Increasingly since the turn of the century there has been recognition of the fact that the sole use of experimental pre- and post- test designs to ascertain impact of arts interventions is problematic (e.g. Fisk, 2000). It is vitally important that methodologies are selected, and indeed research questions are asked that are both appropriate to the concept under consideration, but also that take into account the constraints and resourcing available. Fisk (2000) reviewed a number of large-scale studies, some working with hundreds of teachers and young people which were able to employ pre- and post-tests to study aspects such as self-concept. But even in these studies these were supplemented by extensive use of qualitative data collection and analysis techniques including interviewing and observations. The latter were necessary in order to understand the qualities of the learning under consideration, and the detail of how the learning was happening which could not be interrogated via the tests.

In preparing this study, and drawing on the above literature review and their combined previous experience, the researchers therefore felt that because of the small scale of the intervention under investigation it was not appropriate to attempt to 'prove impact' of the creative movement sessions on the children's learning dispositions. Rather, particularly bearing in mind Carr and Claxton's (2002) work in developing assessment protocols in this area a more qualitative approach to the study was decided upon that would have two objectives:

- To develop the foundational beginnings of a methodology for investigating learning dispositions in creative movement in the early years
- To consider in an emergent way how creative movement contributed to the children's learning dispositions in the situation under consideration

The methodology is discussed in detail in the following section, but in brief it was developed using the researchers' own experience with qualitative techniques and heeding Carr and Claxton's (2002) advice "that no single method is adequate on its own and that what is necessary is the development of instruments and approaches that integrate these different assessment methods"

(p. 9, 2002). The assessment methods referred to are: dynamic assessment, customised challenges, learning stories, self-report questionnaires and learning logs. The methodological decisions that led to the selection of the involvement scales and other techniques employed here are detailed in the next section.

One final point is worthy of consideration in completing this literature review that has recently been clearly articulated by Biesta (2007). There is an increasing trend within government approaches to educational research in the UK and the USA towards evidence-based practice, that is practice which is developed by using the results of experimental impact studies into 'what works' to design, and indeed resource future developments in practice. This trend goes against the ideas of researchers such as Ridgway, Zawojewski and Hoover (2000) who argue against such narrowly impact based educational research particularly within arts education. In line with this, Biesta warns that opponents of such evidence-based education have raised questions about the appropriateness of an approach drawn from medicine for application to education, and have queried the positivist assumptions underlying such approaches to education (and of importance here, arts education). There is not space to consider all the nuances of his arguments here but to briefly summarise, he argues that educational research must pay attention to the importance of teachers/ practitioners' professional action based on judgements of what is educationally desirable in particular situations. This study has been carried out bearing in mind these arguments. In particular it has turned away from a purely impact based approach and has aimed to use qualitative techniques to understand how creative movement might be contributing to children's learning dispositions in a particular situation, simultaneously acknowledging teachers' / artists' developing reflective practice. The findings of the study are articulated below in such a way as to be available to teachers/ practitioners/ managers to, as Biesta states use research findings "to make professional problem solving more intelligent" (p.18, 2007) rather than provide proof of 'what works' in creative movement sessions in the early years.

3. Methodology

3.1 Introduction

Researching any artistic work which prioritises sensory, embodied, unpredictable activity presents challenges. These challenges are compounded when the artistic work involves young children in educational contexts. It calls for the design of methodological approaches which are sensitive to the characteristics and qualities of creative movement, are adaptable to young children and practical in school situations.

The research focussed on children in the Foundation Stage. At H school with a small pupil population there were only 6 children of Foundation Stage age (Key Stage 1 children also participated in the sessions) and so the same number of children were randomly selected from the school with the larger intake.

The two researchers made five visits to each school at regular intervals through the duration of the twelve week project. One researcher also visited both schools to gain an overview of the whole project.

3.2 The Methods of Data Collection

No single method was adequate on its own and so a combination of approaches was adopted.

3.2.1 Observations

Sample observations of each of the six children were made at regular intervals (approximately ten minute) throughout the session (see appendix 1). The observation procedure encouraged systematic and detailed focus on children's actual participation. A brief description of the child's participation in an activity was noted on the form together with an assessment of their level of engagement. The levels of engagement were based on The Leuven Involvement Scale for Young Children (Laevers, 1994), with some observable indicators adapted for the children's involvement in movement activity.

The researchers also took fieldnotes pertinent to the area of enquiry around the use of these sample observations.

3.2.2 Photos and video clips.

During the sessions photos were taken to capture visual detail of activity and to provide an aide memoir for subsequent analysis. Some video clips were also taken at H School and the filmmaker recorded movement activity at C School as integral to his working process.

The children at one school were used to photos being taken as part of record-keeping and on occasions would pose. To avoid the posing, photo taking was carried out unobtrusively.

3.2.3 Meetings between artists and teachers

At the end of most visits the artists and teachers met to discuss the day's activity, the children's participation and to forward plan. The researchers attended these meetings on the days when they were present in school. These discussions provided another source of information. The meetings at H School tended to be longer and covered a wide range of areas in comparison with the meetings at C School which were curtailed by a staff meeting.

3.2.4 Artists' and Teachers' Notebooks

The artists kept notebooks for planning, observations and post-session analysis. Staff in each school wrote observation notes during the sessions. All these sources of information were made available to the researchers at the conclusion of the project.

The artists varied in the quantity and nature of the information they compiled in their project notebooks. For some, used to project working where documentation is an important working tool, the notebook was not only a place for planning but for record keeping, analysis, sense making and problem solving.

3.2.5 Informal Interviews with Teachers and Children

One informal interview was carried out with each of the teachers in order to gather their perspectives on the children's dispositions for learning as demonstrated in general classroom settings and within the project sessions. Using photographs from previous sessions, informal interviews were carried out twice with each of the children in both schools. These particularly focused on glean information about the children's feelings and intentions within the sessions. Some children were able to contribute in these interviews, but some did not yet have the confidence or verbal communication skills to do so.

3.3 Observation Tool in Practice

In using the semi-structured observation tool, some complications arose with the identification of involvement. Active movement alone was not necessarily a clear-cut indicator of involvement. For example, being quite still, alert and watching others moving might represent a high level of focus and imaginative projection into the activity.



Figure 1: Children engaged in watching one another

In Figure 1 the children are framed as a house within a space mapped on the floor but they are involved in watching one another – primarily one child ‘making a journey’ through a landscape at the further end of the room. Even B. who had opted out and was standing at the back of the room (on the left of the photo) is drawn in to watching. Another child, R. in the centre of the photo, although not watching the action, is absorbed in looking down to watch others on the floor. The adults too are watching intently. Thus, according to the involvement scale, this might not reveal much action, but the sense of interested and motivated participation, and co-participation – *reciprocity* - around the same event is high. This photograph was taken in the final week.

Equally, a high level of active involvement might be observed which was not focussed on the activity of the main group. For example, one boy was observed to leap boisterously on to another boy as part of a partner activity. His action was over-energetic and although the boundaries for this activity were widely set, his action transcended those boundaries because it risked injury to his partner. So although high in energy, implying intense involvement, it lacked self-regulation in relation to the task in hand.

Instances where these kinds of activities were observed were described in the scales and notes made in the margin to indicate the adapted understanding of the indicators for involvement.

It should also be noted that making instant assessments, in relation to observational criteria is always tricky and relies on a certain level of prior experience and on-the-spot decision making. Some observations, however, were very straightforward to make. A child opting to sit out in protest at not being offered a turn when he thought he should have been, had clearly chosen to disengage himself from an activity.

3.4 Ethics

The research was conducted within the University of Exeter, School of Education and Lifelong Learning ethical guidelines for research. Permission letters explaining the project and its research were signed by parents of participating children.

4. FINDINGS

4.1 Intro

The data was analysed in order to respond to the research question: ‘how can a creative movement project help children to increase positive dispositions for learning?’. Following the literature review the term ‘dispositions for learning’ was defined as: ‘resilience, playfulness, reciprocity, motivation and fascination which might be evidenced in behaviour which exhibits an intensity of experience both physical and cognitive in a strong flow of energy’. The literature review and knowledge of the dance teachers’ experience led the researchers to suggest that part of the answer to the research question already lay in the theoretical dance education literature (inherent within the dance artists’ practice) with arguments centring around the balanced integration of bodily intelligence and intellect to create lively minds through playfully oriented movement activity in relationship with the self and others. This study is therefore seeking to step off from here to consider how this is occurring in one particular early years setting.

The findings for the study are therefore represented in three different ways below. The first shows the results from the use of Laevers Involvement Scale across the project. The second delves into some of the children’s stories across the project to consider how the creative movement project might be contributing to the individual’s learning dispositions, and the third considers the more abstracted themes from across the analysis.

4.2 Involvement Scale Results

As detailed in the methodology section one of the tools used to collect data was Laevers Involvement Scale. The results from these are shown in Tables 1 and 2 below.

	Child Bi	Child R	Child Be	Child C	Child L
24.01.07 (Annabelle + Anna)	3-4, 4	3, 2	2, 2	3, 3-4	-
28.02.07 (Annabelle + Claire)	2, 1-2	1, 2	4, 4	2-4, 3,	-
14.03.07 (Annabelle + Claire)	2, 1, 1,	3, 4, 3,	2, 2-1, 3	2, 2, 4	1, 3, 1
28.03.07 (Annabelle + Claire)	2, 3-2	4, 4	2, 2	4, 4	3, 3

Table 1: Involvement Scale results for H School (one child left the school part-way through the project and so the results for 5 children are displayed)

	Child N	Child J	Child Ca	Child B	Child A	Child Co
15.01.07 (Anna)	3-4, 3-4, 2	3, 2, 2-3	2, 2, 2	3, 3-4, 1	2, -, -	-
29.01.07 (Anna)	1-2, 2, 2-3	3-4, 3, 3-4	3-4, 3-4, 3	3, 3-4, 3-4	-	3, 3, 2-3
12.02.07 (Claire)	1, 2, 2	4, 4, 2-3	3-4, 1-2, 2	4, 4-5, 4-5	3-4, 1-2, 2	2, 3, 1-2
5.03.07 (Claire)	3, 1, 1	5, 3-4, 4	1-2, 3-4, 2	3, 1-2, 3	2-3, 3, 3	2, 3, 2
19.3.07 (Claire)	3, 4, 5	-	2-3, 1, 2	4, 4-5, 1	3-4, 3, 3	2, 2, 3

Table 2: Involvement Scale results for C School

For a small scale, short term project, on their own the results from these observation scales do not say much. However, they can be used alongside the researchers' notes on the involvement scale, the wider fieldnotes, staff and student comments and photographic and video evidence to move us beyond the question of did the creative movement impact on the children's learning dispositions, towards understanding how the creative movement might be influencing those dispositions. In order to illustrate this, two case study 'stories' are presented from each school. For each site the stories have been selected because the children were present for all observed sessions and their data was felt to be the most illuminating regarding the research question.

4.3 Case Studies

Two children from each school were selected from the sample of six for more detailed and focussed description as case studies. The written descriptions of activity on the observational schedules, combined with photos, video clips, observation notes made by school staff and artists, the artists' notebooks and conversations with the children provided mixed sources of data which could be assembled to construct these case studies. The value of the case studies is that they plot and illustrate the children's unfolding experiences through the development of the project. These begin to reveal the texture and complexity of experience for individual children and the interdependent nature of setting, events, media and adult interventions with the children's responses and actions. Through this process the case studies draw attention to any changes in the children's participation and to the kinds of situations which lead to the development of positive dispositions for learning.

4.3.1 Case Study 1: Nancy

In the second week of the project (first observation) Nancy averages a 3 on the involvement scale, this indicates that she is mainly, but not always continuously engaged. Two of her observed episodes are marked as 3-4 which indicates that she has some intense moments of activity; one of these sees her "immersed in rolling, she has sparkling eyes and looks like she is thoroughly enjoying the activity". In terms of the dispositions for learning, alongside this level of involvement, there is evidence from this session's fieldnotes that Nancy is *motivated* to be engaged, she "holds hands ready for the friendship dance" (the notes indicate that there was also "excitement" for the three girls doing this and this action is not necessarily about pleasing the teachers by being 'ready'). There is also evidence from the data in this session that Nancy was *fascinated* and demonstrated *persistence* and *reciprocity* in a movement exploration. This was within an activity which involved drawing round your partners body and seeing how you physically fitted into it: "drawing round her partner with great concentration", "Nancy tries to fit in Jane's. Jane comments that she's not at the end...Nancy has a conversation with Anna [dance teacher] re fitting in. Anna suggests that they both try fitting into Anna's shape, they both manage it". The drawing and fitting activity provided Nancy with an opportunity to ask questions and explore both with her partner and the teacher to satisfy her curiosity about not fitting into her partner's shape and fitting into the teacher's shape, the latter part of the exploration prompted by Nancy herself. It should be noted that Nancy showed *persistence* rather than *resilience* here as there was no major challenge to her exploration, thus demonstrating only one dimension of the resilience disposition for learning. Regarding *reciprocity*, Nancy certainly demonstrated the confidence and inclination to give an opinion both to Jane and Anna about not fitting into Jane's shape, with the reciprocal exploration continuing both verbally and non-verbally.

So the creative movement session certainly provided the space for Nancy to demonstrate the learning dispositions under scrutiny. But how did they develop across the project? By looking at the table, for the next three observations Nancy's numerical scores only averaged 1.7. Photographic evidence from observed session 3 (12.2.07) shows Nancy sitting to the left of the picture seemingly reticent about getting involved. The sessions had developed by this point to include creating and playing with movements in and around cardboard boxes, objects of which Nancy seemed uncertain and slightly afraid, despite her positive disposition to engage in creative movement learning in earlier sessions. In interview, her classroom teacher had described her as not wanting to try things that she thought "I can't do". Indeed, when interviewed about a similar image of herself from a previous session, Nancy explained: "I might get shy. I might get scared". Her lack of involvement therefore made it difficult to display any of the dispositions for learning being studied. This non-involvement was not helped by a change of dance teacher to someone that

Nancy did not know, due to maternity cover a little later in the project, which seemed to add to Nancy's uncertainty.



Figure 2: Nancy on left of image uncertain of boxes

Interestingly during the final observation of the project, Anna the first dance teacher dropped in to watch whilst on her maternity leave and joined in with some of the session. Working closely near Anna initially, and with no cardboard boxes used in this session, Nancy quickly became engaged in the creative movement, even reaching a 5 (intense activity/greatest involvement) described in the fieldnotes as: "she is happily smiling and experimenting with her body parts in front of the projector. She moves her hand. Then stands up and lifts her leg up and down from the knee, then sits on bottom and kicks legs up and down as shadow. She watches the next person intently and laughs as they do different shapes". Figure 3 also shows her, on the far left, engaged at level 4 (continuous/intense activity): "she freezes v well when Claire gives 'freeze'. She says 'I'm a frog'. She jumps up and down like a frog".



Figure 3: Nancy engaged at level 4

Returning to the learning dispositions under scrutiny, *resilience* is not a disposition engendered for this child within the creative movement sessions, as it was acceptable to the dance teachers for any of the children, including Nancy, not to join in and to persist with a particular activity if they chose not to, and for some time Nancy chose not to. However, when engaged, the last observation shows Nancy again exploring *playfully*, both in terms of her 'as if' behaviour of the frog, and also

in terms of her extended movement explorations with body parts regarding how she can make shadows in front of the projector. *Motivation* and *fascination* are both also evident within this last observation as the exploration was extended rather than momentary and it might be suggested that because of her fascination with this process her involvement reaches a classification of level 5. *Reciprocity* is harder to attribute during this episode as she is exploring on her own, but she engages with laughter with the next child's exploration, and offers interpretation of herself out loud as a 'frog', which indicates that when she chooses to engage she does so with a reciprocal approach.

4.3.2 Case Study 2: Brian

Brian's average involvement rating across the observations was 3; if the two 1 ratings are removed (fieldnotes indicate that these periods involved long periods of waiting for turn-taking for shadow-making when all Brian could do was sit and wait, understandably he was therefore not particularly engaged), this rises to 3.5. Just one example from the fieldnotes, amongst a number for this child, can be used to demonstrate how Brian was engaged and how he was often demonstrating in an above average way the dispositions for learning under scrutiny.

In the last observation (see also Figure 4), the fieldnotes describe Brian as follows: "B feet to wall (see photo)...He is running backwards and forwards. Richard (the film maker) tells him to slow down. He stands with his feet right next to the projector. He seems to be revelling in playing with his shadow, particularly close up, doing and watching himself."



Figure 4: Brian exploring his shadow with his feet on the wall

This episode shows Brian engaging in moving *playfully* with his shadow, and how its size and shape changes as he experiments with different distances from the projector and also how he turns his body into different configurations (in Figure 3, he is particularly concentrating on being upside down). He described it in interview as "we liked doing it...making it bigger". He is, it seems, so *motivated* and *fascinated* by this experimentation, and perhaps by exploring the feeling of fast movement itself, that Richard tells him to slow down, possibly attempting to re-focus his experimentation a little. Although *reciprocity* is not evident in this episode as the task required solo exploration with shadow, there are numerous examples from across previous observation where Brian explores and engages reciprocally, offering ideas and going so far as to go on imaginary journeys with his peers when given the space to do so. Figure 4 evidences this and relates to the following fieldnotes: "sitting in the driver's seat of the car that the group has been

making. B is nudging his co-driver as they pretend to swerve around corners. Claire asks B 'what are you in the car?' B responds 'racing driver', throwing his body into turning the steering wheel, making engine noises, creating the story of the journey".



Figure 5: Brian driving

Resilience is again the learning disposition that it is difficult to find evidence for. Persisting in the face of challenges that come in the children's way is not a common occurrence within the creative movement sessions. Although, persisting with explorations without challenge is often in evidence for Brian across the episodes. Both examples above show Brian persisting with his explorations, and often the observations show him to be the last to come back to the group to bring the task to a close.

4.3.3 Case Study 3: Leo

This first year of Leo's full-time schooling had been interrupted by a number of absences. Although present at the first clay-making session he missed the first couple of weeks of creative movement sessions and so missed the settling in period. He often gave the impression of being detached from the creative movement sessions and slightly bemused. In an early session he is described in observation notes as 'having his thumb in his mouth' and sitting, 'his legs hunched up close against his chest in a rounded body position, slightly apart from the action and watching'. Even when he did participate, it was to imitate the movements of others rather than take the initiative. The field notes contain the following observation: 'at the drum beat, L. falls back down, responding later than the others and looks around to see what others are doing, giving the impression that he prefers (indeed needs) to imitate the movement of others rather than finding his own.' And again in the notes is written that 'this session has involved some more complex verbal instructions than is often the case, and L. is relying on visual cues and imitation to find his way'. Leo appeared to be finding it difficult to find a point of access, to engage and to be *playful*. As would be expected from these descriptions, the involvement scores are low during this early session.



Figure 6: The first week with clay outside, Leo stands at the back watching and not participating actively

During a later session a change occurred. One theme of running up and down pathways mapped out in the space of the room which evolved in later sessions had given rise to the idea to move as animals. For this activity Leo crawled up and down, not a movement he had imitated from any other children. For artists familiar with the Jabadao approach, the opportunity for children to revisit and rework movement patterns – such as crawling - from earlier childhood which they might have missed out on is seen as a positive opportunity to establish a developmental foundation to their bodily movement ‘programming’. At a later moment in the same session the theme of houses was revisited and the children were linking together to form house-like structures with windows and doors. When asked about his contribution to the structure Leo said he was ‘a horse’. This moment of verbal confusion between ‘house and horse’ was raised in the post session discussion between artists and teaching staff. Here we learnt that Leo’s home life is woven in with a family history of keeping horses and working with horses. His desire to be a horse and to imitate the horses in movement, such as crawling, suddenly made sense.

During the final session, the children were creating imaginary landscapes in the space of the hall and moving from position to position. Leo was occupied for quite some time in edging a field boundary, making his own space up one end of the hall using a number of small carpet pieces and interspersing this activity with energetic running up and down the room. Later, when individual children were invited to show a movement from place to place, Leo ‘horse raced’ on all fours along his pathway. Aware now of his recurrent theme, the adults verbally endorsed it.



Figure 7: Leo 'being a horse'



Figure 8: Leo collecting up mats



Figure 9: Leo laying the mats in a line

Leo had a tendency to opt out of the ongoing flow of the session and various field notes and photos evidence these moments when he withdraws for no obvious reason. One example is captured on a video clip when he suddenly gives up his field boundary making to sit on one side, hunched, head in hands. But this lasts for a few seconds and he soon resumes his field making – a brief example of an increase in *persistence* and engagement with the activity. During this time there are no comments from watching artists; or intervention, or praise. When he is asked to return to the circle, he does so promptly. He has little interaction with others and offers no verbal comments – this was quite typical behaviour.

From observations, Leo might be interpreted as a child who lacks experience at interacting verbally with others and finds it difficult to access schooling which is language orientated. Therefore the opportunity to work non-verbally in movement, and to play with ideas such as field boundaries and horses which are meaningful to him and thus *motivating*, enabled him to find a pivoting point of connection. He repeated the same movement ideas with little elaboration, but this needs to be considered in light of his shift from imitative and insecure participation, to that where he was offering his own movement repertoire drawn from personal experiences.

4.3.4 Case Study 4: Ryan

During the first week of observations “the children are linking to make doors and windows. Ryan crawls through the human doorways, butts his head into another boy’s knee and knocks him over. He leans onto the dancer, Anna’s knee and hugs it tight with both arms. He aeroplanes his arms and runs around the outside of the ‘doors and windows’ group and then tries to walk straight through a ‘wall’, pushing at the children.”



Figure 10 Ryan crawling through doorways in the wall

Ryan moved with great freedom and energy, but seemed to lack awareness of the consequences of his actions on others. At the end of the day Ryan’s exuberant but misdirected contact with others is discussed. It is decided that recognising one’s strength and being aware of the consequences for others will become an introductory theme, a boundary to be set, for next week. Later field notes describe him as acting out ‘carrying a heavy treasure’. But he was running, small-stepped and light-footed, with his arms out stiff and straight ‘like a fork-lift truck’, giving no impression of the bulk or weight of the ‘treasure’ which he had just been describing. Thus, while agile, quick and neat in movement, he appeared to lack embodied imagination for weight, his own weight or that of objects.

Ryan's spontaneity and exuberant body movements resulted in moments of loss of self-regulation. Observation notes describe him moving with great delicacy and poise with quick tiny steps from spot to spot on the floor, precisely arriving and stopping. On another occasion he 'freezes' on command in an 'interesting shape', but the next moment, runs around the periphery of the group without focus.



Figure 11: Ryan freezing in a new shape

However, Ryan's scores on the involvement rating scale move from a low point in the second observation, when he was exploring the boundaries of freedom, to a point of high engagement in the sessions by the final week. The egg theme, being curled up inside, under a table, inside an egg, inside an imaginary igloo, inside the rocket house – attracted Ryan who is frequently described in fieldnotes as being curled up inside, sometimes for quiet moments of absolute stillness. By the final week, his need to seek bodily contact with others is still emerging from the notes 'sitting close next to Annabelle, leaning against her side, resting his hands on her legs' but there are no more recorded incidents of misdirected contact with other children. When ideas are invited for a movement, he jumps up to show his idea for roly-poly movements. His exuberance and spontaneity remains, but more moderated.

4.4 Broader themes

This third section draws themes from across the individual case studies and offers broader analysis. Carr and Claxton (2004) draw attention to what they term 'dispositional milieu' meaning the extent to which an activity has the potential to encourage dispositions. It is clearly relevant, therefore, to examine the themes which evolved during the work and were 'co-constructed' in a two-way process between children's and artists' input and to consider the ways in which these themes enabled the children to become involved and develop positive 'dispositions' for learning.

4.4.1 Internal, External & Self

Analysis suggested that within the creative movement sessions there was a constant interplay and tension between movement experienced internally and movement/objects (both real and imaginary)/others perceived externally. This interplay is inherent within creative movement and dance as young children are encouraged to move and create, as well as share their creations and watch those of other children. Here, it emerged strongly as understood in relation to the children's developing sense of self.

In particular, the children experienced the internal/external interplay through their work inside and outside of the cardboard boxes (see Figure 2 and 45above, and Figure 12 below), physically exploring body parts, relationships, sensations (see Brian rocking his weight in Figure 2) and movement dynamics within and outside the box shape and its enclosing or excluding framework. This was alongside other examples of their work on internal/external e.g. that seen above in Nancy's case study involving drawing around your partner and investigating your relationship with the ensuing outline.



Figure 12: Creative movement explorations inside and outside of boxes

In this project this dynamic was magnified again because of the inclusion of film and shadow work (see figure 4 above). For example, within one post-session discussion Richard commented on how the children had “enjoyed identifying themselves on film” [when they watched the play back], that is perceiving themselves and others from the outside. Within the fieldnotes one of the researchers also noted that the children were “very engaged...Richard is playing with the fact that he’s on playback and sitting talking to them. He says ‘How can that be?’” [Richard played back an image of himself from seconds before and then appeared from behind the screen to stand next to the playback image of himself]. Here the children were perceiving Richard experiencing being himself as well as perceiving an image of himself. The children and teachers were creating, presenting and watching images of themselves and others in a variety of realtime and virtual set ups. This magnified the normal interplay within a creative movement session between internal and external triggering them to experience and think about, if not to understand, how this might all be possible.

Anna, the dance teacher commented on how one of the children had managed to cover herself entirely with a box, and another child commented: “she’s disappeared!”. Anna wanted to pick up on “this theme, keep using it, watching and looking at disappearing”. She also commented on how “when children become informed about their own bodies, they are more able to take their own risks, through understanding their ego and social relationships, it’s about knowing yourself”. The connection between internal/external and development of some kind of self concept working in relationship with others emerged as a strong theme within the work. This will be discussed further in the next section.

4.4.2 Being Inside and Being the Outside

A similar – but differing in important respects - theme of internal/external arose from the way activity evolved at H school. The clay gave rise to more concrete imagery from the solid material moulded into shapes and objects which then fed into imaginative transformations in bodily

movement. Thus interesting differences between the possibilities afforded by the film medium in interaction with creative movement in contrast to the clay plus creative movement become apparent.

At H School the theme of eggs arose from the first week of working with the clay. The theme was continued into the creative movement sessions and evolved into a number of interesting directions. The children shaped themselves into eggs, crawled into egg shapes, either under one another or under a gym podium and the whole group clustered, enclosed inside a stretch-lycra 'shell'. Imaginary creatures lived in these eggs – chicks and dinosaurs mainly - and hatched out.

In her notebook Annabelle writes that she intuitively thought the egg theme was an important one to develop with the children. Her notes provide illustration of how the children could find ideas to elaborate around the egg based on their own experience – and introduce, humorous ideas – *playful ideas* - such as being a hard-boiled egg or having laid an egg.

Figure 13: Notes From Annabelle's MacFadyen's notebook:

Session 1 (clay) C. rolling a smooth ball, 'it's a dinosaur egg'. 'This egg is huge!' Lots of talk with C and B about eggs and what could come out of them. B. has a TRex dinosaur egg. L. talks about Godzilla, he's bigger than TRex. C.'s egg finally breaks open and King Kong comes out.

Planning for session 2: Elements from observation to take into working: Making eggs and creatures coming out.

Session 2: Group 1 Children rolling into a ball now. We remind children of eggs with clay – what is inside your egg? 'Baby chick, TRex, Elephant, ostrich.' Children make sharp movements and use different body parts spontaneously to push out of egg. Creatures move in different ways. J. is a 'hard boiled egg'! Some running up and down, lots of excitement. Some go back to the egg and do it again.

Group 2 – suggestion to make 'one big egg and creature all together emerges'. All together and moving and then a few break off and make own eggs. O. pretends to sit on R. – 'I've laid an egg' – and laughs. Now children make eggs in twos and threes. Now I am the egg, kneeling and R and F are under me in the egg. The two settle and are very still, espec. R. They want to stay there for a long time, very still.

Session 4: 'what shall we do to finish? Children ask to make eggs. Some choose to use the material and others want to be human eggs. C and R in golden egg, Ch, B and K use other fabric as an egg, some do egg cracking routine, C. flies as a bird, some run out, J. makes fabric into wings.'

The moulding of clay had also given rise to constructions of walls and doorways, which was again taken up in movement and extended into houses, castles and igloos. Thus the inside and outside theme re-emerged in another form.

4.4.3 Pathways

The theme of lines and running along the lines as pathways again arose from the first week of clay-working when the children created long strips of clay across the playground and ran up and down them. The pathways were transformed into masking tape lines on the carpet floor of the hall and on one occasion a paper pathway. The main school hall where the movement work took place offered a long, open space. The children enjoyed the physical freedom and sense of energy in running up and down. Visible mappings on the floor assisted the children in learning how to manage their own movements in relation to others within the space. In later sessions pathways extended into journeys further afield as these two notebook entries from Rod Harris illustrate:

"The whole class had visited the Yeovil main post office and had seen how the post is sorted. They followed the journey of a letter which was posted locally and went to Edinburgh. It went by foot, bicycle, van, truck, train, aeroplane. So we made the journey in clay . . . Some children wanted to continue working through their break time." (Rod Harris – notebook entry 21.03.07)

"We continued with the idea of a journey, travelling from home to a place of their choice. Some of the children worked together in groups, going for a sleepover, to the bicycle racing track, or to the swimming pool. Another group went to the fairground. There is much more 'creative' bashing of the clay into a road, the sea, a wall, a mountain, rather than just 'bashing' the clay for the sake of it." (Rod Harris – notebook entry 28.03.07)



Figure 14: Golden lycra made by Annabelle to enable the children to cluster inside as an egg

4.4.4 Conclusion: Finding the Essence

A tension that arose in H School will be used here to pull together a key concluding point for all of the above broader themes. Although clay, and indeed movement, has transformatory potential, it is also a medium which tends towards the production of objects which, in turn, can convey strong symbolic meaning. Thus the clay became eggs, but also morphed into eggs for dinosaurs, for jungle themes, into King Kong. The clay became guns prompting themes of super-hero play and the children's everyday experience of film and video. This raised dilemmas about the connotations such objects carry. Themes from popular culture conventionally have no place in schooling and are considered inappropriate for young children. However it is clear that moving image, TV, film or video, plays a central part in children's cultural lives. What should teachers and artists do?

Within the context of this project, the answer was to abstract the themes to 'find the essence'. The King Kong theme, for example, was abstracted to find the essence of size and physicality, recognising one's strength and strength in relation to others – as we saw with the case study of Ryan. Physicality of self and how that contributes to overall self-awareness was demonstrated feeding into general self-concept.

In relation to all four of the above broader themes, although this 'finding the essence' was not as strongly actioned, the same notion was more subtly at play as a fundamental aspect of the arts processes being used. Thus eggs, houses and boxes, would suggest the essence or theme of enveloping and containment (internal/inside and external/outside); pathways, both made and moved along, suggest straight-line trajectories. This 'finding the essence' in relation to the symbolic activity inherent within all of the arts activities here will be discussed further in the next section.

5. Discussion

5.1 Introduction

This is a small-scale piece of research and we make no claims for the applicability of findings beyond the specific contexts within which the work took place. The strength of this research, however, is that it provides detailed and, in our view, insightful description of the children's experiences and the processes which took place during the sessions. It is rare in an early years education arts project for two experienced researchers to be able to focus on a small number of children over the complete duration of the project visiting five sessions out of twelve. The intense and collaborative nature of the research supports our claim for its value and rigour. The requirement for arts projects to be evaluated by funders can lead to inflated claims for positive findings derived from lightweight evaluation procedures rather than substantiated by carefully assembled evidence. The challenge with research such as this into children's creativity is that it is dealing with things that do not lend themselves to being pinned down – but these are the essential aspects to attempt to understand.

It is our view that this work is strengthened by being connected and integrated with a review of prior work in the field and by its adoption of a recognised conceptual framework, the 'learning dispositions' of Carr and Claxton (2002, 2004). Thus, what follows is a discussion which treads cautiously in considering the contribution of this project to these children's dispositions for learning. As stated earlier, we were less interested in impact than in looking at process, in understanding the *how*. It is understanding of process which is ultimately more useful.

5.2 Relating to the Dispositions for Learning

The fundamental principle upon which the project was founded was that the children's moving should be self-initiated, generated from their own fund of imagery and movement vocabulary. The role of the artists was to provide a context which would encourage the children to contribute ideas, would receive ideas positively and provide input to support, extend and develop those ideas. Thus the approach was dedicated to fostering creativity, imagination and playfulness. In its underlying principles, therefore, the project was already likely to offer the 'dispositional milieu' of which Carr and Claxton write. However, the project was short-term, only twelve weeks, and so any changes were likely to be in the early stages.

5.2.1 Resilience, Motivation & Fascination

An important aspect, one which can easily be overlooked, is how much the children enjoyed the physical movement, the manipulation of the clay and the visual tricks of digital filming. It is easy in school contexts focussed on achievement in cognitive skills to neglect this simple fact. The analysis shows that no strategies were needed to persuade or coerce the children in to participating; with enjoyment came self-motivation – an increased 'inclination to take on learning challenges'. Enjoyment fuelled by *fascination* was also evident in activities such as Brian's weight rocking in Figure 2.

The open-ended nature of the activities within this project meant that risk of failure was reduced because success was not pre-defined. In one sense, therefore, as suggested in the literature review, the opportunity provided by the arts activities to meet with challenges and to test out *persistence* may actually be reduced in comparison with other more goal-directed activities. Equally, it can be argued that the movement activities provided a context for children to set their own challenges for exploration and risk-taking – thus enabling the children to develop confidence (exemplified in Leo's activities) and positive self-concepts. To take part in the movement sessions, for some children, required a bold step to launch themselves into the group, or the space, and a willingness to take the risk. These were unfamiliar adults presenting a new activity in which the children had to commit themselves 'whole-bodily'. With freedom to move how you choose come opportunities to exercise autonomy. But freedom of choice can mean confusion and uncertainty. Noticeably, two of the case study children held back at first. In the view of Carr and Claxton, 'persistence' is not something a child acquires. What might be seen are changes in the way children respond to what they perceive as challenging activities. As the sessions progressed, there were some observable

changes in how the case study children participated. The two who held back found points of entry, one who was over-exuberant found more self-control.

Nevertheless, there were instances noted by both researchers of children being able to 'take time out' from activities and withdraw themselves voluntarily with no expectation that they should re-enter the activity until they were ready to by their own decision. Children would opt out if the ongoing activity somehow overwhelmed them, for emotional or physical reasons. A tendency to give up in the face of frustration or confusion could be interpreted as having low persistence. But learning to recover from such moments and to do so of your own volition, as, again was evidenced in the case study children, could be a sign of increasing *resilience*.

Also, although self-concept (mentioned above in relation to confidence) was not the central focus for this piece of research, it was evident within the theme of 'Internal, external and self' that arose as part of the dispositional milieu in C school. This reinforces the idea raised within the literature that this too would be a fruitful area for further consideration to which creative movement in the early years contributes. In particular the analysis suggested that self was experienced in an embodied way, with children internally experimenting with what their physical self was on their own and externally in relation to others. And equally importantly perceiving themselves and others via sharing of movement and also via projection in the film work. There is perhaps an interesting question of how creative movement develops embodied autonomy and self-concept, which may support a deep-rooted kind of resilience based within that autonomy rather than an externally sourced motivator, such as teacher approval.

5.2.2 Playfulness

Clay as a medium is wonderful stuff to play with - it has considerable exploratory potential. Rod in his notebook writes 'C. contributed to the making of a volcano, which became a swimming pool with a bridge, then transformed into a large spider.' The moving body can also transform itself. It can become an egg and then change to become something inside the egg as at H school, or represent an octopus and equally quickly change to a fish as with the filmed movement work at C school. This requires not only a trickier imaginative projection - how to move and shape body parts to represent something - but also shifts of imaginative perspective. The transformation of movement and perceptions of self-image were considerably expanded by the possibilities afforded by the integration of digital imaging, as exemplified in the children's wonderings (if not solutions!) to the question of Richard's multiple representations of himself described in 4.4.1 above

Thus the project sessions were high in potential for the children to exercise playfulness, imagination and experimentation, as evidenced by the case study descriptions. The play of Leo, although he returned continually to the same theme and it therefore lacked variability, should be understood in terms of his finding and needing to consolidate a point of entry to the creative movement sessions. For the children at C school there was also the space to find their own entry points: for Brian the cardboard box tasks facilitated an imaginative racing car journey, and for Nancy, although the cardboard boxes proved inhibiting, she gained entry via imaginative and experimental forays into body size and shape via the drawing around bodies task, and into being a frog shown in Figure 3.

Under a constructivist view of learning the child's mind is not one of simply copying impressions from the world but of constantly constructing and reconstructing an individual conception of the world - thus the ability to imaginatively transform ideas and to think analogically are key tools in assisting children to develop flexible, productive learning.

5.2.3 Reciprocity

Importantly, reciprocity according to Carr and Claxton is about using others as a valuable learning resource, being both able to express and receive ideas. Most of the group sessions provided discussion times when children were invited to express ideas in response to open-ended questions.

Usefully for this project, reciprocity refers not only to contributing ideas verbally but also non-verbally. Thus creative movement provides opportunities for children to communicate and contribute non-verbally. A prime example is detailed above in Nancy's case study, as well as a

strong example of non-verbal reciprocity in Ryan's case from a session in which gym equipment and pathways mapped on the floor had suggested an activity of 'travelling'. Ryan had noticed another member of his group opting not to travel but to become a mechanical barrier which would only open on payment of a toll to pass. He elaborated this idea, curling over the bench and enacting machinery movements with vocalisations and quite restricted but very controlled movements of arms and legs. The remaining children in the group, still travelling, understood the emerging barrier theme and, interpreting the movements of the human barriers, paid their tolls to silent outstretched limbs. For this group of children, responding positively to demands was acted out non-verbally in gesture as part of an imaginative scenario.

It is important also to consider how the sessions supported a climate of trust – which is central to reciprocity. Working as a group, needing to be more aware of one another as they moved in and around, in contact with or in interaction with others helped to build interpersonal skills and develops forms of trust. The children were trusted and then started to feel trusted. And consider the following observation recorded in a field notebook.

"One of the dancers is on all fours to contribute to an evolving group movement. One child wants to jump over her and asked if he could. The dancer gave no verbal reply, but, looking at him, merely crouched down a little lower (presumably having made a quick assessment of how high he could jump). The boy ran and jumped over successfully but still the dancer said nothing, no comment either of caution or praise, just a simple, silent expectation that he could do this. In the absence of any evaluation by the adult, the child is left to make their own evaluation, an assessment of his capabilities and a realisation, in this instance, that he had judged correctly what he could achieve, was trusted to do it and he did. The dancer merely made an adjustment of height to ensure his success."
SY Field notes

5.2.4 The 'Dispositional Milieu'

The above discussion demonstrates how the case studies example aspects of resilience, motivation, fascination, playfulness and reciprocity. As stated throughout, as well as attempting to demonstrate these influences, this small piece of research is also looking to offer understanding of process rather than purely impact. In line with Carr and Claxton's (2002, 2004) suggestions, the emergent broader themes can be used here to demonstrate aspects of the 'dispositional milieu' which contributed to the influences on learning dispositions, and which the researchers believe are worthy of further process-based investigation.

Analysis suggested that the dispositional milieu in the creative movement sessions included the constant interplay between movement experienced internally (inside) and movement/objects (both real and imaginary)/others perceived externally (outside). It emerged strongly as understood in relation to the children's developing sense of self, which has already been detailed as connected to learning dispositions. Studies within the psychology literature, which use scales to measure children's self-concept, suggest that it cannot be measured in the Early Years because children under the age of 8 have no sense of 'personness'. However, supporting Greenland's (2001) writing about the Jabadao approach, observations within this research demonstrated children seemingly experimenting bodily with ideas of self, self-image and other - particularly through the creative movement/film work - integrated with their demonstration of learning dispositions. The researchers therefore recommend further research into how embodied knowledge contributes to the 'dispositional milieu' within creative movement for children's early, non-verbal development of self-concept, and its relationship to learning dispositions. Work in later primary phases in the USA and UK has begun to conceptualise notions of embodied self (Stinson, 2004; Chappell, 2006); and this may provide useful starting or debating points to frame future process based investigations in the early years.

The other important aspect of the 'dispositional milieu' within the creative movement sessions was 'finding the essence'. By this we mean thinking about the underlying fundamental, embodied conceptual ideas. One way of considering this that has been used in educational contexts is

schema theory. Although subject to criticism and often applied over-simplistically, schema theory can provide a theoretical tool for interpreting children's playful activity in terms of its abstractions – or fundamental concepts. The original work to develop schema theory by Athey (1990) was designed to demonstrate the cognitive activity which underlies children's activity when they may appear to be 'just playing'. It also serves to highlight the continuity between apparently divergent activity when children appear to flit from idea to idea. So the conceptual primary – or recurrent schema - of 'containment' for example, threaded through much of the work with eggs and boxes. It was clear from listening to planning conversations and to reading the artists' notebooks, that underlying ideas such as strength, or 'being inside and emerging' or travelling from place to place, were drawn from the children's ideas and developed into themes.

An additional advantage of thinking about 'the essence' of activity is that it can deflect attention away from content which might raise anxieties, such as content drawn from children's experiences of popular culture. Schema theory has been productively useful to educationalists working in varying curriculum areas in the early years. Worthington and Carruthers (2003) have applied schema theory to mathematical thinking, Matthews to art (1999), Pahl to productive symbolic activity linking in to literacy (1999) and Nutbrown to early learning across the curriculum (1994/2006). By coming to understand children's self-initiated activity in terms of its essences, or conceptual primaries, these writers demonstrate how children's learning can be identified, elaborated and consolidated. Moreover, it can be consolidated within curriculum areas such as mathematical thinking or literacy. We suggest that the search to understand the thinking, the cognitive activity which underlies dance / creative movement activity – and importantly to evolve a language for talking about this learning, whether it be schema theory or any other appropriate theory – will support the recognition of its value and how it is continuous with learning in other curriculum areas.

6. Conclusion

Taking into account that this is a small-scale piece of research and the researchers make no claims for the applicability of findings beyond the specific contexts within which the work took place. In response to the question: 'how can a creative movement project help children to increase positive dispositions for learning?', this study is able to draw the following conclusions in this context:

Resilience

- In encouraging resilience, enjoyment and its relationship to motivation and fascination was a key aspect
- The open-ended nature of the activities within the dance sessions may have provided fewer opportunities for resilience than a more goal-directed teaching and learning environment; because of this persistence rather than resilience was most often demonstrated by the children
- On occasion the open-ended nature of the activities could lead to some uncertainty and children therefore holding back
- However, because of the open-ended nature of the activities over time, the children were afforded a great deal of opportunity to build on their confidence when persisting autonomously; the researchers therefore suggest that the question of how creative movement develops embodied autonomy, which in the long term may support a deep-rooted kind of resilience based within that autonomy rather than externally sourced motivators such as teacher approval, is worthy of further investigation

Playfulness

- The project sessions were high in potential for the children to exercise playfulness, imagination and experimentation; the case studies demonstrated these developing over time for the key children
- The imaginative transformation of movement and perceptions of self-image were considerably expanded by the possibilities afforded by the integration of digital imaging

Reciprocity

- Most of the group sessions provided discussion times when children were invited to express ideas in response to open-ended questions; verbal reciprocity was clearly in evidence
- Non-verbal 'discussions' were also given considerable space within movement improvisations; and again were evidenced in development.
- The creative movement sessions therefore allowed for and showed evidence of the children's developing verbal and non-verbal reciprocity (both expressing and receiving ideas)
- The climate of trust within the creative movement sessions was felt to be central to evidence of reciprocity

Dispositional Milieu in Creative Movement

Interplay between internal/inside and external/outside

- The dispositional milieu in the creative movement sessions included the constant interplay between movement experienced internally (inside) and movement / objects (both real and imaginary) / others perceived externally (outside)
- It is suggested here that this was strongly related to the children's developing sense of self, as children were seemingly experimenting bodily with ideas of self, self-image and other, particularly through the creative movement / film work (see also resilience above),
- The researchers therefore recommend further research into how embodied knowledge contributes to the 'dispositional milieu' within creative movement for children's early, non-verbal development of self-concept, and its relationship to learning dispositions.

Finding the Essence

- The other important aspect of the 'dispositional milieu' within the creative movement sessions was 'finding the essence'; the fundamental characteristic of arts-based processes of engaging in symbolic representation.
- It is suggested that this aspect, rooted in the artists' aesthetic and artistic understanding should not be underestimated as part of the milieu that allows for the development of learning dispositions.
- One way of further investigating this may be to consider children's symbolic work through the lens of schema theory

Appendix

Appendix 1 Involvement Observation Sheet

Initials of child Date No of children present
No of adults present

Description of 2 minute period	5	4	3	2	1
Time					
Time					
Time					

Involvement Level

<i>Involvement</i>	<i>Indicators</i>
L1 Low Activity	Simple stereotypic, repetitive, and passive. Child absent + displays no energy. May stare into space (but may be a sign of inner concentration)
L2 Frequently interrupted activity	Engaged in activity but half of observed period includes moments of non-activity/staring into space. Frequent interruptions to concentration
L3 Mainly continuous activity	Child is busy at an activity but at a routine level + real involvement missing. Some progress, but energy lacking + conc is routine, also easily distracted
L4 Continuous Activity with Intense moments (immersion)	Activity has intense moments where L3 activity can have special meaning. L4 is for kind of activity seen in some intense moments – Stimuli from enviro cannot seduce child from activity
L5 Sustained Intense Activity	Continuous + intense activity = greatest involvement. In observed period not all involvement signals need to be there , but essential ones must be present for almost all the obs period

Involvement Definition

Involvement definition:

A quality of human activity:

- Which can be recognised by a child's concentration and persistence
- Is characterised by motivation, fascination, an openness to stimuli and an intensity of experience both at the physical and cognitive level, and a deep satisfaction with a strong flow of energy
- Is determined by the exploratory drive and the child's individual developmental needs
- As a result of involvement there is evidence to suggest that development occurs (Laevers 1993)

Involvement signals

- Concentration – attention of the child is directed toward the activity. Nothing can distract the child from his/her deep concentration
- Energy – child invests much effort in the activity and is eager and stimulated. Such energy is often expressed by loud talking (*might this alternatively be 'loud'/'expansive movement in case of dance'?*). Mental energy can be deduced from facial expressions which reveal 'hard' thinking
- Complexity and creativity – signal is shown when a child freely mobilises his/her cognitive skills and other capabilities in more than routine behaviour. Child involved cannot show more competence – he/she is at their very best. Creativity does not mean that original products have to result, but that the child exhibits an individual touch and what she/he does furthers his/her own creative development. Child is at the very edge of his/her capabilities.
- Facial expression and posture – nonverbal signs are extremely important in reaching a judgement about involvement. It is possible to distinguish dreamy empty eyes and intense eyes. Posture (*and quality/ intensity/strength of dynamic of gesture in dance – although beware that children may also be using their body for less strong and more soft dynamic purposes as part of their dance/movement work*) can reveal high concentration or boredom. Even when children are seen only from the back their posture can be revealing
- Persistence – duration of concentration at the activity. Children who are really involved do not let go of the activity easily; they want to continue with the satisfaction, flavour and intensity it gives them, and are prepared to put in effort to prolong it. They are not easily distracted by other activities. Involved activity is often more prolonged but it can be dependent on the age and development of the child
- Precision – involved children show special care for their work and are attentive to detail. Non-involved children gloss over detail, it is not so important to them.
- Reaction time – children who are involved are alert and react quickly to stimuli introduced during an activity eg children fly to proposed activity and show prolonged motivation and keenness
- Language – children can show that an activity has been important to them by their comments eg they ask for the activity repeatedly. They state that they enjoyed it!
- Satisfaction – children display a feeling of satisfaction with their achievements

NB signals are channels for observer awareness not scales. Observer can use signals to build an image of the child. By trying to establish how the child really feels and by trying to become that child, the level of involvement can be ascertained

Recommendations for obs sheet use in our context (adapted by KC):

- Observe each of the 6 children for 2 mins at a time
- Observe each child 3 times per hour (ie approx every 20 mins) but not continuously
- Record each observation on child obs sheet
- Enter decision re dominant level of involvement for each 2 min obs by ticking appropriate box.

References

- Athey, C. (1990) *Extending Thought in Young Children*. London: Paul Chapman Publishing Ltd.
- Biesta, G. (2007). Why "What Works" Won't Work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57, 1, pp. 1-22.
- Burgogne, J. (1998). A declaration on learning. *People Management*, 1, pp.28-29.
- Carr, M. and Claxton, G. (2002) Tracking the Development of Learning Dispositions *Assessment in Education*, 9, 1 9-37
- Chappell, K. (2006). *Creativity within late primary age dance education: Unlocking expert specialist dance teachers conceptions and approaches*. Ph.D. thesis; Laban, London:
<http://kn.open.ac.uk/public/document.cfm?documentid=8627>
- Claxton, G. and Carr, M. (2004). A framework for teaching learning: the dynamics of disposition, *Early Years*, 24 1, 87-96.
- Claxton, G. (1997). *Hare brain, Tortoise mind: why intelligence increases when you think less*. London: Fourth Estate.
- Coopersmith, S. (1967) *The antecedents of self-esteem*. San Francisco, W.H. Freeman.
- Craft, A. (2000). *Creativity across the primary curriculum. Framing and developing practice*. London: Routledge.
- Cross, S.E. and Marcus, H.R. (1994) Self-schemas, possible selves, and competent performance, *Journal of Educational Psychology*, 863, 423-438.
- DfES. (1997). *Excellence in Schools*. London: DfES.
- Donaldson, M. (1978). *Children's Minds*. New York: W W Norton.
- Fisk, E. (Ed.) (2000). *Champions of change: The impact of the arts on learning*. Washington: Arts Education Partnership.
- Graham, S. (2002). Developing Intellectual, Social and Emotional Literacy through Dance Education.
- Greenland, P. (2001). *Movement play*. Leeds: Jabadao Centre for Movement Studies.
- Harter, S. & Pike, R. (1984) The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children, *Child Development* 55, 6 1969-1982.
- Huitt, W. (2004) Self-concept and self-esteem. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. [Available at <http://chiron.valdosta.edu/whuitt/col/regsys/self.html> accessed April 2007]
- Laevers, F. (1994). *The Leuven Involvement Scale for Young Children (LIS-YC) Manual*. Experiential Education Series No 1. Centre for Experiential Education: Leuven.
- Lowden, M. (1989). *Dancing to learn*. London: Falmer Press.
- Matthews, J. (1999) *The Art of Childhood and Adolescence*. London: Falmer Press.

Mirza, M. (Ed.) (2006). *Culture vultures: Is UK arts policy damaging the arts?* London: Policy Exchange.

National Advisory Committee on Creative and Cultural Education. (1999). *All our futures: Creative and culture and education.* London: DFEE.

National Dance Teachers Association, (2004). *Maximising opportunity. Policy Paper 2004.* Burntwood: NDTA.

Nutbrown, C. (1994/2006) *Threads of Thinking* (First Edition/Third edition) London: Sage

Pahl, K. (1999) *Transformations: Meaning Making in Nursery Education.* London: Trentham Books.

Piers, E. and Harris, D. (1969) *The Piers-Harris Children's Self-Concept Scale.* Nashville, Tenn: Counselor Recordings and Tests.

Purkey, W. (1988). *An overview of self-concept theory for counselors.* ERIC Clearinghouse on Counseling and Personnel Services, Ann Arbor, Mich. (An ERIC/CAPS Digest: ED304630)

Ridgway, J., Zawojewski, J., and Hoover, M. (2000). Problematising evidence-based policy and practice. *Evaluation and Research in Education*, 14, 3/4, pp.181-192.

Sharp, C. with Benfield, P. & Kendall, L. (1998). *The effects of teaching and learning in the arts: A review of research.* London: Qualifications & Curriculum Authority.

Smith-Autard, J. (2002). *The art of dance in education* (2nd ed.). London: A & C Black.

Stinson, S. W. (2004). My body / myself: Lessons from dance education. In L. Bresler (Ed.), *Knowing bodies, moving minds: Towards embodied teaching and learning.* London: Kluwer Academic.

Stipek, D.J. (1981) Children's perceptions of their own and their classmates' ability, *Journal of Educational Psychology*, 73 404-410.

Strein, W. (1995) *Assessment of Self Concept*, ERIC Digest ED389962, Clearinghouse on Counseling and Student Services, Greensboro, NC.

Worthington, M. & Carruthers, E. (2003), *Children's Mathematics, Making Marks, Making Meaning.* London: Paul Chapman Publishing.