Children's Perception of Choice in their Play at Home, in the School Playground and in the Out-of-School Club

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Summary (Abstract)

In the United Kingdom and Republic of Ireland, with the exception of England, each county has their own Government play policy or strategy. Each document identifies the importance of children's play in all areas of their lives. These policies and strategies are based on a definition of play being freely-chosen by the child. This is an adult generated definition of play, based on rhetoric with little research from a child's perspective as to whether being freely chosen is a defining characteristic. The social construction of childhood stresses the importance of children as co-constructors of their lives; however children's voices and views are not always represented accurately in policy development and policy implementation. There is already conflict in policy development and subsequent implementation of policy by practitioners in other areas of children's lives, for example in early years education. This conflict may emerge in implementing play policies and strategies based on adult generated definitions around choice rather than a child's perception of whether and in what ways, choice is important. This thesis investigated children's levels of perceived choice in their free play when playing at home, in the school playground and the out-of-school club. The aims of the research were: What do children choose to play at home, in the school playground and the out-of-school club? How much choice do children perceive in these self-defined play activities? Does children's perception of choice differ across context? Does children's perception of choice differ in relation to social context?

This thesis adopted a critical realism approach within an ecosystemic theoretical framework using a mixed-method sequential two study process. Study 1 was quantitative and involved the development a self-administered questionnaire, the Play Detective Diary. The Play Detective Diary allowed children to record who they played with and who made decisions in the play. Study 2 was both quantitative and qualitative where an experimental procedure was developed, the Manipulation of Affordance Scenario Task (MAST). This pictorial based task manipulated the structural, functional and social affordances of children's play and children's responses about choice were recorded through interviews. The results from both studies found that children's perception of choice varied across context (home, school playground and out-of-school club) and the variation in choice was strongly influenced by who children were playing with. When the structural, social and functional affordances were manipulated there was a reduction in choice as a result of; other people controlling the play (being told what to do and takes over play); the play activity being inhibited (play being distracted and lack of resources) and; the play space being limiting (play space too small and play space specific to the play activity). When playing with other children or with adults there was an increase in the perceived level of choice in relation to social affordances only. Children described this as being due to their play being enhanced (more variety and provides support) or the child feeling as though they were able to dominate the play (tell others what to do). The reasons children gave for changes in their perceived level of choice most often related to functional-social affordance reasons; this is a combination of the activity and the people involved in the activity.

The investigation of choice in children's play showed children perceived a variation in perceived choice in relation to context and who is involved in their play. Children do not need to have all the choice on what, how, who, when and where they play. Children have to exercise and negotiate choice in their play, and this aspect is important with respect to play policy and strategy development, and subsequent implementation through professional

practice. The social construction of childhood revolves around participation, decision making and children being active agents in the process. By providing children a voice and allowing their perceptions to be explored, this can aid in policy development, and in turn support professional practice and reduce potential conflict between policy development and implementation. This is discussed in relation to children's rights, play theory and play policy and practice across children's services. A choice continuum is proposed to support children's play across different professional contexts.

Declarations and Statements

I declare that the work has not been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

This thesis is the result of my own investigations, except where otherwise stated and the other sources are acknowledged by footnotes giving explicit references and that a bibliography appended

I give consent for the thesis, if accepted, to be available for photocopying and for inter-library loan, and of the title and summary to be made available to outside organisations.

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Definitions and Abbreviations

BBC:	British Broadcasting Corporation
BPS:	British Psychological Society
CET:	Cognitive Evaluation Theory – a sub theory within SDT
CPC:	Children's Play Council (now Play England)
CSSIW:	Care and Social Services Inspectorate for Wales
CYPU	Children and Young Persons Unit, Northern Ireland
DCELLS:	Department for Children Education Lifelong Learning and Skills
DCFS:	Department for Children Family and Schools
DCMS:	Department for Culture Media and Sport
DCYA:	Department for Children and Youth Affairs
DfE:	Department for Education
DfEE:	Department for Education and Employment
DfES:	Department for Education and Skills
DFP	Department for Finance and Personnel, Northern Ireland
EYFS	Early Years Foundation Stage is the formal education for primary aged school children in England
GCI:	Good Childhood Inquiry
HCL:	House of Commons Library
ILAM:	Institute of Leisure and Amenity Management
KCN:	Kids Clubs Network (now 4Children) is the national organisation supporting childcare in England
MAST	Manipulation of Affordance Scenario Tasks
NCAC:	National Children's Advisory Council
NCO:	National Children's Office, Republic of Ireland
NPFA:	National Play Fields Association (now Fields in Trust)
NPI:	National Play Institute
NVivo:	Computer package used in qualitative analysis
OFMDFM	Office for First Minister and Deputy First Minister, Northern Ireland

Ofsted:	Office for standards in Education (England)
OIT:	Organismic Integration Theory – a sub-theory of SDT
PDD:	Play Detective Diary
SDT:	Self-Determination Theory
SG:	Scottish Government
SPSS	Statistical computer package used on quantitative data
UNCRC:	United Nations Convention on the Rights of the Child
UNICEF:	United Nations International Children's Education Fund
WAG:	Welsh Assembly Government
WG:	Welsh Government (formally Welsh Assembly Government)

Chapter 1: Introduction and Outline to the Thesis

1.1 Introduction

> 'Children play wherever they are. This might be indoors or out. Children play in their home, at school, in childcare and play provision, and in the public and private places they visit with their friends or with adults.' (Cole-Hamilton & Gill, 2002, p14).

Children's play is an important aspect of childhood and integral to children's health and development (Mayall, 2002; Lester & Russell, 2008). Childhood is considered to be a social construction (Prout & James, 1997; Corsaro, 1997, Mayall, 2002) that has developed into a social constructionist paradigm (Goldson, 2001) and has a key role in United Kingdom legislation that impacts on all aspects of children's lives (Cohen, Moss, Petrie and Wallace, 2004). Mayall (2002) stated that for children, play is an integral aspect that defines childhood. The social construction of play can be traced back to the social reform and education in the 19th century (Holme & Massie, 1970), to the growth of out-of-school provision during the 20th century (Cranwell, 2003) and even the role toy libraries play in supporting communities (Ozanne & Ozanne, 2011).

The social construction of childhood and play has been helped by the formation in 1989 of the United Nation Convention on the Rights of the Child (UNCRC) (United Nations International Children's Emergency Fund (UNICEF), 2009). The UNCRC was formally adopted by the UN General Assembly in 1990 and encompasses children's social, economic, cultural, civil and political rights (Lansdown, 2001). Lester and Russell's (2010) review of children's rights within the UNCRC puts the case forward that children's self-directed play can support the themes that run through the convention of protection, provision and participation. Having rights implies making informed choices, however, as Lansdown (2001) argues, within the childhood of the welfare state (Hendricks, 1997) children "have neither autonomy nor the right to make decision on their own behalf" (Lansdown, 2001, p87). For children, being able to make informed choices on their play reflects Article 31 of the UNCRC which clearly states that children have a right to play (UNICEF, 2009).

The social construction of childhood (James & Prout, 1998) has, over the last 15 years, resulted in new ways of involving children in research. Punch (2002) identified three broad areas that must be considered: adult's more powerful position in society compared to children, adults' perceived attitudes towards children and that children are different from adults. The combination of these three broad areas determines whether children in childhood are perceived as week and needy or strong and competent (Moss and Petrie, 2002).

This different perception of childhood can be found in government legislation that have an impact on children's lives (Cohen et al., 2004), both indirectly and directly influencing children's play. For example, over the last 10 years there has been important Government Legislation that has had an impact indirectly on children's play in the United Kingdom include National Childcare Strategies (Department for Education and Employment (DfEE), 1998/2004; WAG, 2006a; Department for Children and Youth Affairs (DCYA), 2006; Scottish Government (SG), 2009), Every Child Matters (DfES, 2003), Rights to Action (WAG 2004) and the Childcare Bill (House of Commons Library (HCL), 2006). Direct impact on children's play involve specific play policies and strategies (Welsh Assembly Government (WAG), 2002; Department for Education and Skills (DfES), 2003; Office for First Minister and Deputy First Minister (OFMDFM), 2011, Scottish Government (SG, 2013). However, as Dympna (2005) states "there is a general absence of children's voice in policy development" (p24).

By 2008, the countries that make up the United Kingdom (England, Scotland, Wales and Northern Ireland) in addition to the Republic of Ireland all had a national Childcare Strategy. At this time, Wales had a play policy and strategy (Stobart, 2008) and the Republic of Ireland had a play strategy (2004). Both England and Northern Ireland were working on a play strategy. In 2009, England had a national Play Strategy (Department for Children, Family and Schools/Department for Culture Media and Sport (DCFS/DCMS), 2009), however after the 2010 elections; the spending review of the coalition government revised the money for many services, including the money allocated for play. The result was funding being cut to support children's play and the English National Play Strategy being abandoned. Currently in the United Kingdom and Ireland, Wales (WAG, 2002; WAG, 2006b), The Republic of

Ireland (NCO, 2004), Northern Ireland (OFMDFM, 2010) and Scotland (SG, 2013) have a current play policy and strategy. Although some of these policies clearly reflect the importance of children's right to play (WAG, 2002; DCFS/DCMS, 2009) and the role of play in it's role in learning and social construction (WAG, 2002; OFMDFM, 2008, SG, 2013), the placement of play in government policies has been used to meet government targets rather than meet the play needs of children (Powell & Wellard, 2008).

Lester and Russell's (2008) review of play, policy and practice identified three main strands: theory and research evidence; social policy and provision for play. Their review found that personal choice was a key component of play, however as Lester and Russell (2008) state:

> "Many of the key characteristics often cited, such as freedom of choice, may not always apply absolutely (in group play, there has to be some compromise in order for the play to continue not every player can do exactly as she or he chooses if they want to remain with the play group)"(p38).

As well as freedom of choice being difficult in social situations, children are also spending less time playing outside particularly away from any adult supervision (Gill, 2007). There has been an increase of children playing more in structured environments such as out-of-school provision (Smith and Barker, 2000) as the result of the governments National Childcare Strategy (DfEE, 1998) and the development of children centres in England (Department for Education (DfE), 2012) and integrated children centres (Children in Wales (CIW), 2012) in Wales. With an increase of children spending less time playing outside and more time within structured play environments, there is a growing tension between current policy and implementing choice in play. A similar tension exists in early years education (Wood, 2004a; 2004b; 2007). The areas of conflict revolve around the perception and use of play development in policy and implementation of policy through professional practice, the perception of learning-based play and free play and practitioner's ability to be adaptable. In addition, there is also an aspect whether adult professionals are willing to listen to children, and how listening can be done successfully (Komulainen, 2007).

Coalter and Taylor's (2001) literature review on play identified three elements that characterised definitions of play: freedom of choice: spontaneity and an absence of

extrinsically imposed rules. These three elements are still evident in government legislation and professional practice in children's play and it is the first element, choice that was the focus of this thesis.

1.2 Research Questions and Method.

The aspect of choice has been discussed in depth by many philosophers for over two millennia in relation to free will and making choices on the basis of one's own desires or meeting some preferable outcome (O'Conner, 2011). The definition of play in being freely-chosen in current play policy has not considered children's views on whether choice is important. From a social construction standpoint, the lack of children's views in current play policy ignores children as co-constructors. This is particularly important as children identify play as fundamental to their perception of what constitutes childhood (Mayall, 2002). For adults who work with children, working to definitions of play which have not taken into account children's views may result in professional practice meeting policy requirements, rather than meeting children's needs. The meeting of policy requirements rather than children's needs has been identified as a conflict that exists in early years education (Wood, 2004a) and this conflict exists in other areas of professional practice such as playwork and childcare.

The research questions for this thesis were:

1. What do children choose to play at home, in the school playground and the out-of-school club?
2. How much choice do children perceive in their play?
3. Does children's perception of their choice differ across context?
4. Does children's perception of their choice differ in relation to social context?

The research undertaken in this thesis is based on a mixed-method study around children's perception of choice in their free play across three domains: the home; the school playground at lunchtime and out-of-school provision. The research sets out to explore choice in play, as set out by government policy (e.g. WAG, 2002) and endorsed by professional practice

(SkillsActive, 2004) from a child's perspective in three different play environments: home; school playground and out-of-school club. These three environments are considered with the concept of the institutionalized triangle (Rassmusen, 2004) and stated within Government legislation to be important in children's lives (SG, 2013).

1.3 Research Methods

The thesis consists of two sequential studies carried out in four out-of-school clubs in South West and West Wales between May 2009 and February 2011. Supported by the literature, study 1 used a self-administered questionnaire, the Play Detective Diary (PDD). Children recorded their own play experiences when playing at home, in the school playground and attending out-of-school club provision. The results of study 1 formed the basis of study 2 where children's choice was further explored within the concept of affordances (Gibson, 1986) by developing a hypothetical experiment procedure, the Manipulation of Affordance Scenario Tasks (MAST) experiment. The MAST experiment involved the manipulation of structural, functional and social aspects of children's real play experiences and their responses to hypothetical scenarios across the three settings of the home, the school playground and the out-of-school club. This was complimented by recorded interviews. The Play Detective Diary, MAST experiment and recorded interviews enabled a triangulated (Denzin, 1979) method to investigate children's perceived choice in order to critically evaluate the results in relation to play theory, policy and professional practice. This study not only has considered the social aspect of children's play, but also the structural (play space) and functional (activities that take place in the play space).

1.4 Context of the Study

The context of this study has reflected play theory, legislation and professional practice around the importance of children's perceived choice in their free play when playing at home, in the school playground and the out-of-school club. This thesis draws on research reports, journal articles, book chapters, newspaper articles and conference reports. This has covered areas of play, playwork, education, childcare, sociology, psychology and biology that reflect

the interdisciplinary nature of studying play (Schwartzman, 1978). The detail of the thesis is set out in the following chapters:

1.4.1 Chapter 2: The Importance of Choice in Children's Play

Chapter 2 addressed the research questions of the thesis and the importance of choice in children's play in relation to government policy, play theory and professional practice. The review then considers how the play environment supports children's choice in their play (Children's Play Council (CPC)/National Playing Fields Association (NPFA)/PlayLink, 2000) when playing at home, in the school playground and the out-of-school club based on Rasmussen's (2004) concept of the institutional triangle and Gibson's (1986) affordances. The review highlighted the different types of affordances: structural, functional and social. Using the work of Heft (1998), Kyttä, (2002) and Hyvönen and Juujärvi (2002), the affordances within the institutionalised triangle of home, school playground and out-of-school club were evaluated.

This was followed by a review of the definition of play and free play. This was discussed in relation to the motives and content of play (Ellis, 1973). The motives of play reviewed studies on adult and child perception of what play is and the content of play covered the different types of play. A separate review of free play was undertaken as this is the term used, from an adult perspective, when children have the time and space to control the content and motives of their play.

The concept of choice was reviewed with respect to how choices are made in social environments and discussed choice in relation to Self-Determination Theory (Ryan and Deci, 1985). Self-Determination Theory is examined further in relation to two sub-theories: cognitive evaluation theory (CET) (Ryan & Deci, 2000) and organismic integration theory (OIT) (Deci & Ryan, 1987) with respect on how choice is supported or controlled. The chapter concludes on the importance of choice in the areas of the play environment; intrinsic motivation; learning, self efficacy, choice strategies and the negative aspects of choice.

1.4.2 Chapter 3: Children's Voices in Research

Chapter 3 outlines the use of children as research participants with respect to the research methods adopted being able to act as a voice for children. Although children are not active participants in the development and undertaking of the research, the research tools allow children to voice their levels of perceived choice in their play. Ethical considerations and the research centred approach with children are discussed.

The use of a mixed method approach then explained using both quantitative and qualitative methods in data collection. The pros and cons of using a mixed method approach are discussed and reflexivity in the research process is considered. The chapter concludes by outline the research map based on Bronfenbrenner's (1995) Process-People-Context-Time (P-P-C-T) model and incorporating Barbour's (1999) and Miller and Kuhaneck's (2008) dynamic models of play.

1.4.3 Chapter 4: Study 1: An Exploratory Study of Children's Choice in their Free Play

Chapter 4 provides a detailed account of study 1 using the Play Detective Diary (PDD). The development of the PDD was described in detail including piloting the research tool, the procedure used and how the data was obtained. Reliability and validity was considered in relation to four broad categories of extraneous variables: participant variables; researcher variables; environmental variables and measurement variables (Heiman, 2002). The use of inter-rater reliability for the Play Detective Diary was used for the classification of play types Limitations of the research are also considered.

The different elements of the Play Detective Diary are discussed with the recording of play types, the social aspect of play and children's perceived choice. The recording of perceived choice was based on six questions to reflect the definition of play being freely-chosen, intrinsically motivated with no external goals. Ethical considerations of the PDD are discussed. The results of the 401 play episodes recorded from 22 participants and the differences in perceived choice are presented.

The results are discussed in relation to the institutional triangle of the home, the school playground and the out-of-school club as outlined in Chapter 2. The differences in perceived choice across both environmental context (home, school playground and out-of-school club) and social context (playing alone and with other people) are discussed. The results of the PDD are analysed in relation to children's rights and the potential benefits of children having choice in their play and the important role adults may have in supporting children making choices in their play. The chapter concludes with the need to investigate further the characteristics that afford children choice in their play to support policy recommendations and the UNCRC as discussed in Chapter 2.

1.4.4 Chapter 5: Study 2: Mixed Method MAST Experiment and Interviews

Chapter 5 provides a detailed account of the Manipulation of Affordance Scenario Tasks (MAST). The experimental procedure undertaken was developed from the results of Study 1 and involved children deciding how much choice they have in their favourite play activity when playing at home, in the school playground and the out-of-school club. The development of the MAST experiment was discussed in detail with respect to the piloting of the research tool and the MAST procedure. Reliability and validity are again considered in relation to four broad categories of extraneous variables: participant variables; researcher variables; environmental variables and measurement variables (Heiman, 2002) and both inter-rater coding and Cronbach Alpha were used. Limitations of the research process are also considered.

The recording of the data involved children scoring how much choice they had from 0 (no choice) to 10 (all the choice) based on their favourite play activity at each of the three different play environments to produce a baseline score of choice. This baseline score for choice was then compared with any change in choice when different structural, functional and social affordances were manipulated. In addition to any change in choice, children were asked to give reasons for both any changes in choice when the affordances were manipulated. All responses were recorded and transcribed using the NVivo computer package. The ethical implications of both the MAST experiment and conducting interviews are discussed. The

sample consisted of 48 children who both took part in the MAST experiment and interviews. Data from the interviews were analysed using NVivo using a Grounded Theory (Glaser & Strauss, 1967) approach.

1.4.5 Chapter 6: MAST Experiment Results

Chapter 6 discusses and analyses the results from the MAST experiment. The results compared the perceived baseline level of choice across the three environments for each chosen play type. Comparisons for the level of choice when the structural, functional and social affordances were manipulated, both within and between the three environments, are shown. Differences in perceived choice in relation to gender are compared. The changes in choice are compared using ANOVA and significant changes of choice in relation to the manipulation of social affordances are discussed using ANOVA.

1.4.6 Chapter 7: MAST Interview Results

Chapter 7 discusses the development of the open coding categories using a grounded theory (Glaser & Strauss, 1967) focusing on thematic analysis. From the transcription of 48 interviews, the children's responses were coded. Seven open coding categories emerged where choice was reduced where play was being controlled, inhibited or limited. Three open coding categories emerged where children perceived an increase in choice where children felt their choice was enhanced or increase choice enabled them to dominate the play.

The key factors around control, inhibition, limitation, enhancing and dominating, which formed axial coding categories, are discussed in relation to social, structural and functional affordances. It emerged reasons for both a decrease and increase in choice involved a combination of different affordances, rather than single affordances on their own. The different affordance combinations were: structural affordance; functional affordance; social affordance; structural-functional affordance; structural-social affordance; functional-social affordance and structural-functional-social affordance. The comparison of the responses when the structural, functional and social affordances in relation to the open and axial coding are discussed between the three play environments. The chapter concludes discussing and

analysing the results around the concept affordances in relation to social constructions, behavioural streams (Barker, 1963), Piaget's (1962) assimilation and accommodation, habitualisation (Berger & Luckmann, 1966) and the social order (Mead, 1934).

1.4.7 Chapter 8: General Discussion and Conclusions

Chapter 8 provides a general discussion and conclusion of the thesis and begins by revisiting the research questions and reviewing the mixed method research process. The results from both study 1 and 2 are reviewed on what children choose to play, how much choice children perceive to have and levels of choice across context at home, in the school playground and the out-of-school club. Changes in choice in relation to the social, functional and structural affordances are considered with implications on play theory, practice and policy. This is discussed in relation to a choice continuum model being proposed, based on Deci and Ryan (1985). This model aims to support professional practice and suggests a more realistic definition of choice for both policy and practice. The chapter concludes with suggestions for further research in children's choice in their free play.

Chapter 2 The Importance of Choice in Children's Play

2.1 Introduction

The importance of choice in children's play is reflected in policy, theory and practice. However, there is very little synergy between these three concepts, a point highlighted in an extensive review of play by Lester and Russell (2008). Factors such as no clear definition of play, different professional interpretations of play and play being used to meet adult agendas have been well documented (Lester & Russell, 2008; Powell & Wellard, 2008). One aspect that appears to be fundamental to children's play is that it should be freely chosen. Although freely chosen play within Government legislation is clearly stated to be integral to children's healthy development (WAG, 2002), this view appears to be supported by rhetoric rather than empirical research. This thesis aims to address children's perception of choice in their play through two sequential studies. The research questions exploring children's choice in their free play are:

1. What do children choose to play at home, in the school playground and the out-of-school club?
2. How much choice do children perceive in their play?
3. Does children's perception of their choice differ across context?
4. Does children's perception of their choice differ in relation to social context?

The form the literature review has taken begins by addressing play policy as it stands across the United Kingdom. This is explored further in respect of choice as defined in play policy and how it relates to both play theory and practice. The importance of choice in children's play environments are discussed in relation to Gibson's (1986) affordances. Three types of affordance in the play environment discussed: social affordances (Clark & Uzzel, 2002); structural affordances (Hyvönen & Juujärvi, 2002) and functional affordances (Heft, 1988). The play environment and affordances are explored in relation to children's play in the home, the school playground and out-of-school club using Rasmussen's (2004) concept of the Institutional Triangle.

The difficulty in defining play and free play in relation to the content and motives of play (Ellis, 1973) is analysed and discussed on how this relates to individual people. Reasons for the importance of choice are discussed in respect of Self-Determination Theory (Deci & Ryan, 1987). Research around choice is reviewed relation to the environment and activities that children are engaged in, intrinsic motivation, learning and self-efficacy. Different choice strategies are discussed and potential negative aspects of choice are covered. The review concludes by revisiting choice and affordances, self-determination theory and play theory, policy and practice. The review ends with a revisit of the research questions.

2.2 Play Policy in Relation to Theory and Practice

Within the last decade, the Governments within the United Kingdom and the Republic of Ireland have developed policies to highlight the importance of children's play. In 2002, Wales became the first country in the United Kingdom to produce a national policy specifically for children's play (WAG, 2002). This was closely followed by the Republic of Ireland (NCO, 2004), England (DCFS/ DCMS, 2008), a Play Policy in Northern Ireland (OFMDFM, 2010) and most recent, A Play Strategy for Scotland (2013). In England, funding for play provision was recently withdrawn due to government austerity measures resulting in the abandonment of the Play Strategy (CFS/DCMS, 2008). In 2011, the Welsh Assembly Government made it a statutory obligation under the Children's and Families (Wales) Measures (WAG, 2010) for all local authorities in Wales to carry out a play sufficiency audit to ensure sufficient play opportunities for children and young people. The audit is based on both the Play Policy for Wales (2002) and the Play Policy Implementation Plan (2006). The play sufficiency came into effect in November 2012 (WAG, 2012).

The development of national play policy and strategies does not always reflect a consistent professional practice. This is highlighted by SkillsActive (2011) where in their UK Play and Playwork Education and Skills Strategy, Aim 1 considers playwork as a distinct profession from education and its different approach to play within children's workforce and play strategies. This different professional view of play was also explored by Play England (2008) with their position statement around play in schools and integrated settings. From the playwork perspective, play is clearly viewed as freely-chosen, and if not it may not be

considered as play by the profession. From an education perspective, Hyvönen and Pirkko (2011) study in Finnish schools, found play and learning as dichotomous concepts and were not able to integrate the two, either in their professional thinking and practice. This view was reflected in the evaluation of the Foundation Phase in Wales (Siraj-Blatchford, Sylva, Laugharne, Milton and Charles, 2006) where play as an educational tool was not considered as play defined in the Play Policy for Wales (WAG, 2002).

2.2.1 Government Play Policy and Strategy across the United Kingdom

These policies for play have been developed in collaboration with various children's service professionals in early education, care and playwork settings, along with government officials and academics specialising in play and child development. Although the policies differ in length and style, there appears a general agreement about what constitutes play and how they link in with Article 31 of the UNCRC (UNICEF, 2009) the right to play:

> "Play encompasses children's behaviour which is freely chosen, personally directed and intrinsically motivated. It is performed for no external goal or reward, and is a fundamental and integral part of healthy development - not only for individual children, but also for the society in which they live" (WAG, 2002: p3; SG, 2013, p12).
>
> 'Play is freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child. (NCO, 2004, p6).
>
> "Play is what children and young people do when they follow their own ideas and interests, in their own way and for their own reasons" (DCMS, 2004, p6; DCMS, 2006, p6; DCFS/DCMS, 2009, p 11).
>
> "When playing, children define their own goals and interests, decide what is success and failure and pursue these goals in their own way" (OFMDPM, 2008, p11).

Children's play and having choice on how, where, when and who children play with appears to be important not only as a basic human right within the UNCRC but also within Government policy and legislation. Lester and Russell (2010) argue that "Play is not a luxury to be considered after other rights; it is an essential and integral component underpinning the four principles of the CRC" (p12). Free choice is clearly evident in all of the aforementioned policies, perhaps most notably by the Republic of Ireland (NCO, 2004) who state "play is

what children do when no-one else is telling them what to do" (p11). Current policies state that play is freely-chosen in accordance with the UNCRC but there is limited evidence across contexts that this criteria for play is being met (Davey & Lundy, 2011). In addition, Brown (2008) has argued that play need not always be freely chosen (nor indeed personally directed or intrinsically motivated). He suggests this is an idealised notion of play that occurs relatively infrequently. Else (2009) states that choice is critical within play where "free choice is best but often choice between alternatives is sometimes all that is needed" (p31). It is likely that children will experience different levels of choice according to where their play occurs and how policy is interpreted by the various professionals involved in its implementation (Powell & Wellard, 2008; Lester & Russell 2008).

Powell and Wellard (2008) reviewed English government policy themes from transport to out-of-school childcare (up to the year 2008) that made specific mention to play. Their review found:

1. There was no single definition of play across the different policies
2. Where play was mentioned in one departmental policy, it was not always followed up in another policy from the same department on the same subject
3. Children's right to enjoy informal play and recreational activities is generally supported by policy rhetoric, but the provision of such play opportunities is seemingly often subsumed beneath other pressing departmental priorities or targets
4. Provision for informal play or recreation appears to be better supported when linked to recreational activities for the population as a whole and quality of life for everyone

(Powell & Wellard, 2008, p31-32).

This discrepancy in the use of play within government policy is evident in Welsh Government Policy. The Welsh Assembly Government's Play Policy for Wales (WAG, 2002) and Play Policy Implementation Plan (WAG, 2006a) have a clear definition of play. However in the evaluation of the Foundation Phase Pilot in Wales (Siraj-Blatchford et al., 2006), it was clearly stated that from an educational stance, play within the Welsh Play Policy was giving "mixed messages" (Siraj-Blatchford et al., 2006, p6). This noted that teachers appeared confused about what was meant by the term play in the curriculum guidelines, as

compared to its meaning within the play policy, both documents being published by the Welsh Assembly Government. Recognition of such confusion is important as policy will influence how professionals perceive play and subsequently interpret policy and plan their practice (Moss & Petrie, 2002). This in turn will influence children's play experiences, a component of which is likely to be the level of choice afforded to them across contexts (Wood, 2004a; 2004b; 2007). Wood's (2004b) study of the use of play in early years education identified conflict between policy-making and policy implementation:

> "Activities of policy-making and policy implementation are fundamentally different and are pursued in multiple contexts by different people with different, and sometimes conflicting agendas" (p366)

Wood (2004b; 2007) stated that in early years education policy, practitioners found how play was to be used within teaching learning outcomes was controlling. This was due to different interpretations of play between policy and practitioners. Practitioners found the assessment of early learning outcomes in children's free play (where children are perceived to have more choice) contravened the notion of choice during this time period in the school or playgroup. There was a belief that educational policy provided a unidirectional relationship between the use of play and teaching and learning. This unidirectional relationship went against early years practitioners own professional position, their own knowledge and their own skills. Care with current policy on play, although having no specific outcome, is that play may have a unidirectional relationship between play having to be freely chosen. The development of play policies and strategies will face the same dilemma as with educational policy with the tension between contemporary socio-cultural theory and practitioner's perceived role as a facilitator. This conflict found within early years education can relate across different professional practices working with children and play.

2.2.2 Play Policy, Professional Practice and Choice in Children's Play

The Scottish Play Strategy (SG, 2013) states policy makers, planners and practitioners have to ensure play is embedded in the heart of children's lives and children should "make choices about where, how and when they play according to their age, ability and preference" (p9). This is an important statement as it considers choice more than just selecting an activity to

engage. Although choice is not the only defining feature of play, studies based on children's own perceptions of their play activity consistently indicate that it is one of its most important qualities, separating it from other modes of action (e.g. King, 1979; Wing, 1995; Howard, 2002). In a study of 111 children aged 3 to 6 years, Howard (2002) found that choosing to take part in an activity was used more frequently to define play than whether the activity was enjoyable and fun. Various consultation exercises undertaken in England with children aged 8-14 years attending out-of-school provision (e.g. open access schemes, out-of-school clubs, holiday playschemes) have also highlighted that choice within play is important to the children (SkillsActive, 2006; Henshall & Lacey, 2007; Kapasi & Gleave, 2009). In America, a study of high and low quality day care environments by Wiltz and Klein (2001) found that choice was an important element of the day for children as young as four years and that the more choice children had in their play the longer they tended to engage in the chosen activity.

In the school classroom, choice has also been found to impact positively on children's learning and development. Reynolds and Symons (2001) demonstrated that children more effectively searched text when they were given choice about participation in the activity. McInnes, Howard, Miles, and Crowley (2009) found that children who were given choice about engaging in a practice session for a problem solving task performed significantly better after this practice than those children who were asked to engage in practice of the same task. Understanding that children see choice as an important element of play is useful for professional practice and the provision of playful environments (Howard & Westcott, 2007; Howard & McInnes, 2010). However, as has been demonstrated by Siraj-Blatchford et al. (2006), the level of choice afforded to children in their play is likely to be influenced by a variety of factors. These factors will include the use of play within curriculum-based attainment targets, the policies and procedures of the organisation, an individual's perception of play and how play within the Governmental play policy is interpreted.

The Welsh Assembly Government Play Policy (WAG, 2002), Scottish Play Strategy (SG, 2013) and the Play and Leisure Statement for Northern Ireland (OFMDFM, 2008) all recognise that having choice in their play is a critical factor that enriches children's learning and emotional well being. Castonguay and Jutras (2009) citing the American Academy of Paediatrics (2007) stated that:

> "Child-driven free play, the kind of play that usually occurs in neighbourhood outdoor spaces, offers unique developmental benefits. It contributes to the physical, cognitive, social, and emotional development of children, and can help them develop protective assets and increased resiliency" (p101).

Given the importance of choice within children's play in relation to its developmental potential and that choice is often seen by children as an indicator of play activity, the question should be raised that if choice is a fundamental part of play, as clearly indicated by government legislation, how much choice do children have in their free play?

This question is also pertinent for those who work with children in playwork environments such as out-of-school clubs. Freely-chosen play and choice is found within the first playwork principle (Play Principles Scrutiny Group (PPSG), 2005) that supports professional practice in these types of play environments. The importance of children making choices in their learning, often through play, has been highlighted in early years education within the Foundation Phase in Wales (WAG, 2008) and the Early Years Foundation Stage (DfE, 2012) in England, although choice in play is still set and controlled by adult (learning) agendas. However, it is in the playground during breaks and lunchtime where children are in an environment for having more choice in their play (Blatchford, 1998; Thomson, 2007). This environment, however, is often shared with a great number of other children.

Where children play, whether it is at home, in the school playground during lunchtime or in the out-of-school club, one important aspect of children's play is that it is a social activity. Although some children may prefer to play on their own at certain times, research over the last 80 years on children's play has demonstrated the social aspect of play in their development (Parten, 1934; Vykotsky, 1978, Smilansky, 1968, Broadhead, 2004). This raises another question on how freely-chosen is play when playing with a friend or a group of children. What happens to children's freely-chosen play when adults are involved?

2.3 The Play Environment

2.3.1 The Importance of the Play Environment

At the 1998 Institute of Leisure and Amenity Management (ILAM) conference in Bournemouth, the Rt. Hon. Chris Smith, then Secretary of State for Culture, Media and Sport set out a direct challenge to the play and Playwork field on the benefits which are derived from play and play provision. The response to this was a collaborative piece of work by the Children's Play Council (now Play England), the National Playing Fields Association (now Fields in Trust) and PlayLink with the publication of Best Play (2000). Best Play, based on four case studies of supervised play provision, outlined six objectives which any play provision should focus on. Objective one stated:

> "The provision (play environment) extends the choice and control that children have over their play, the freedom they enjoy and the satisfaction they gain from it" (CPC/NPFA/PlayLink, 2000, p8).

This outcome, from this professional aspect, stresses the importance of having choice and autonomy in free play within the play environment. The play environment is not just about supervised play provision, such as the school playground or out-of-school club but also where children play with little or no adult intervention in their play such as at home. Hughes (1996) also identified the importance of choice in the play environment when he stated "Neither the range nor variety of available choices should be the subject of selection, or manipulation by anyone else" (p17) and citing Koestler (1964) "Behaviour which is not freely chosen, is not play" (Hughes, 1996: p17). Hughes' work and research has resulted in the development of The First Claim (Play Wales/PlayEduation, 2001) a quality assurance framework for the playwork environment. Within the quality assurance framework, freely chosen play is cited as an important criterion for children that the play environment should support.

Moore, Sugiyama and O'Donnell (2003) developed a physical environment scale for the quality of early childhood settings which included childcare. The scale involved a framework based on both the indoor and outdoor space to support the development of the child. Their results found the more choice the physical environment offered to children would in turn help support the child's cognitive, social and emotional development. The focus on the variety of

the physical environment demonstrates the importance of having choice; however how much choice children had in choosing where they wanted to play was not included in the scale.

The importance of children's choice within the physical environment was studied by Barbour (1999). Barbour observed the play behaviour of eight children with varying physical competence in relation to the types of play they participated in, who they played with and any strategies used during play. Barbour found that the playground design either facilitated or constrained children's choice of activity, choice of play partners and how long play was maintained. The physical environment of the school playground thus had both a positive and negative effect on children's choice on what they played and who they played with.
Although the physical environment is important in supporting children's choice in their free play, both the activities on offer and other people in the play space will also have in influence on children's choice. The play environment has three broad aspects that may influence choice: the physical environment itself, the activities and what takes place in the environment and the people present. Henricks (2011) summed this up where he stated the play environment allows children to not necessarily be in control of it, but can test and tease it, as well as the objects and other children in the space

The size of the play area, the types of play that takes place and who occupies the space will strongly affect the behaviour and children may be socialized even though children's needs may not be met (Rivlin & Wolf, 1979). This can be considered in relation to affordances (Gibson, 1986).

2.3.2 Affordances and the Play Environment

Gibson's (1986) concept of affordance is about the interaction between the environment and the organisms where an affordance:

> "Cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. ….it is both physical and psychical, yet neither. An affordance points both ways, to the environment and to the observer (Gibson, 1986, p129).

Chemero's (2003) outline on Gibson's theory argued that affordances are "relations between the abilities of organisms and features of the environment" (p189). Abilities are defined as functional properties of the organism (Chemero 2003). The focus on the functional properties and children's use of the outside environment has resulted in different types of play activities in outdoor environments being researched. Heft (1988) developed a functional taxonomy of affordances in outdoor spaces based on three books: One Boy's Day' by Barker and Wright (1951), 'Children's Experience of Place' by Hart (1979) and 'Childhood's Domain' by Moore (1986). Heft's (1988) taxonomy is based on the quality of the environment and what it afforded to the child. Heft's taxonomy had nine main groups in relation to the topography of the environment, fixed and mouldable objects and shelter and related to structural and functional affordances.

This taxonomy was further developed by Kyttä to include a social aspect when comparing different types of outdoor spaces in two countries (Kyttä, 2002; 2003; 2004). Kyttä's developed a model of children's possibilities for independent mobility and their opportunities to actualize affordances which were underpinned by Gibson's (1986) ecological perceptual psychology (affordances) and Bronfenbrenner's (1986) ecological developmental psychology. Kyttä (2003), citing Miller et al. (1998), highlighted the need to recognise both positive and negative affordances and the role choice has to play in affordances. According to Miller et al. (1998) environmental demands require choice otherwise the demand is not an affordance.

Hyvönen and Juujärvi (2002) used children's own creativity to discuss playful environments they would like to play in. Each session was videotaped, transcribed and analysed in relation to the types of affordance a playful environment would afford and how same and mixed gender groups of children play. Hyvönen and Juujärvi (2005), based on the work of Heft (1988) and Kyttä (2002), developed a taxonomy of affordances for their study: 'functional activity', 'emotional emotionality' and 'structural' which was split up into natural and constructed environments. Their grounded theory (Glaser & Strauss, 1967) approach declared no significant differences between boys and girls in their physical play or their shared themes in their emotional play. Joint activities included games such as hide and seek or role-play developed around themes of fear and safety, excitement, fascination and humour

in both natural (woods) or constructed (playgrounds) environments. However, when playing in own gender groups, girls play focused on dressing up around beauty, fairy features and horror and interacted with both the flora and fauna whilst boys engaged in more rough and tumble and competitive play involving running around and climbing. Boys' play had a balance between aggression, destruction and competition alongside care and sociality.

Chawla and Heft's (2002) article on children's participation in their communities make specific reference to the role of affordances. They make reference to the changes in affordances children have to adapt to as they move from infancy to adolescence and the importance of the relation between the individual and the environment:

> In infancy, learning about the environment may be a relatively simple matter of learning about the functional properties of ones immediate surroundings, whereas by adolescence, it requires an emerging understanding of local ecosystems, as well as political systems" (Chawla & Heft, 2002, p205).

The relationship between the individual and the environment occurs as a performatory activity (actions directed to another person and/or object for an intended purpose) making use of known environmental properties or an exploratory activity (discovering new properties of the environment) and uncovering new functional properties in the environment (Chawla & Heft, 2002). The different play environments children use to play will offer different performatory activities as children get older.

Historically in the United Kingdom two distinct play environments where children play are the home (and surrounding neighbourhood) and the school. Over the last 25 years a third environment where children play on a daily basis which has emerged is the out-of-school club (Care and Social Services Inspectorate for Wales (CSSIW), 2009; SG, 2010; Department for Finance and Personnel (DFP), 2012; Smith et al., 2009). The out-of-school club is generally used by parents as a childcare provision where children are looked after both before the start and at the end of the school day to around up to 6pm. This triad of play environments of home, school and out-of-school club will be discussed in relation to the Institutional Triangle (Rasmussen, 2004) and identified as three environments where children's play need to be considered with equal importance in Government legislation (SG, 2013).

2.3.3 The Institutional Triangle

Rasmussen's (2004) study of Danish Childhood makes reference to an increasing adult influence on children's lives within what was termed the 'institutional triangle' of private houses, school and recreational facilities where:

> "The general pattern of everyday life for Danish children between 6 and 10 years old brings them to large institutionalized locations: private homes, schools and recreational institutions. Each of these settings may be regarded as large 'places for children' made by adults. Data from empirical research projects show there is a strong relationship between these places and the time regimes that structure the everyday life of Danish children" (p156).

In the United Kingdom, the institutional triangle that has developed over the last 20 years could be considered as the home, the school and the out-of-school club. A similar pattern has also been identified in America, where in 1997 children spent an average 21 hours per week in school and a further 22½ hours a week in day care (Hofferth & Sandberg, 2001). In England and Wales, the number of out-of-school provision rose from 350 clubs in 1990 to an estimated 5000 clubs in 2002 (Barker et al., 2003). By 2009, there were 541 out-of-school clubs and 77 open access play schemes registered in Wales (CSSIW, 2009) and 2,024,000 children using before and after school provision in England (Smith et al., 2009). In addition, there were 719 out-of-school clubs and 67 holiday playschemes registered in Scotland (SG, 2010), and in Northern Ireland there were 5,957 places available for children to attend an out-of-school club (DFP, 2012). With the increase of breakfast club facilities it is now possible for a child to arrive at school at 8am, have formal schooling between 9am and 3pm and then finally go to out-of-school club until 6pm.

In addition to attending school and out-of-school provision, children are spending more time playing inside the house. Newspaper headlines of children stuck inside the house, prohibited from playing certain games in playgrounds and having even more limited time for free play are not uncommon:

> "Is it time to let children play outdoors once more? Fears of traffic and 'stranger danger' are keeping youngsters indoors. Now the government wants to reverse the decline in outdoor play" (Observer, 30th March 2008)

> "No playground for superschool – the most expensive state school in the UK will not have an outdoor space for students when it opens in September" (BBC News, 6th May 2007)
>
> "Kids need the adventure of 'risky' play A major study says parents harm their children's development if they ban tree-climbing or conkers" (Observer, 3rd August 2008)
>
> "Where do the children play? Children need more contact with the natural world, argues Adrian Voce - but they are getting less. It's time to recognise their right to free play outside" (Society Guardian 2nd August, 2006)
>
> "Worry over nut allergy knocks out school conkers for six" (Independent, 29th October, 1999)

These headline articles are backed up by research stating that children are spending less time playing alone or with peers outdoors, and more time both indoors and under adult supervision (Santer, Griffiths and Goodall, 2007; Beunderman, Hannon and Bradwell, 2007; Layard & Dunn, 2009). There is growing concern that children's choice within their free play is being restricted in relation to rural out-of-school clubs (Smith & Barker, 2001), within school playgrounds (Blatchford & Sumpner, 1998; Thompson, 2003) and within the home environment (Valentine & McKendrick, 1997; Beunderman et al., 2007). Children whose play is predominately within the institutional triangle where there is adult presence may as a result have a reduction in freely-chosen play. The barriers to choice in play are often outside the control of the child (Hillman, 2006). This will be discussed in relation to the home, school playground and out-of-school club environment.

2.3.4 The Institutional Triangle and Affordances: Home

In the United Kingdom, The Children's Society's "A Good Childhood Enquiry' found children had strong feelings on how they choose to spend their free time (Pople, 2008; Layard & Dunn, 2009). The importance of choice in their free time was also found by Henshall and Lacey (2007) report on behalf of Play England in support of National Playday in 2007. Their research involved carrying out focus groups with 34 children aged 8 to 11 years and 30 children aged 12 to 18 years. In relation to playing outside the home, both groups stated:

> "Having the freedom to choose what to do, and where to spend time, particularly in contrast to time spent in school, was very important" (Henshall & Lacey, 2007, p17).

The Good Childhood Inquiry (GCI) makes the point that up to around five years of age the adult determines the child's lifestyle (including how they want to play) whether it is in the home or in childcare (Graham, 2008). Graham (2008) stated that after the ages of five children begin to determine aspects of their lifestyle, this includes how and where they want to play. In America, Giddings and Halverson (1981) undertook a week long study of pre-school children's choice of toys to play with at home based on diary accounts submitted by mothers. They found that "much of the play appeared to be autonomous, with choices of play materials clearly made by the child" (Giddings & Halverson, 1981, p74); however most toys had been chosen and bought by an adult. Although the play appeared to be autonomous, a separate study undertaken by Bianchi and Robinson (1997) using diary records found that parents who were termed well-educated structured their children's time more so than less educated parents. After the age of five, mothers support children's autonomy in their play by offering fewer play suggestions (Damast, Tamis-LeMonda & Bornstein, 1996).

In the home environment, research on affordances has been focused on children and young people's perception of their neighbourhoods. Kyttä's (2003) study of affordances and independent mobility considered children and young people to be functionally active perceivers of their environment.

Castonguay and Jutras (2009) researched the perception of 7-12 year old Canadian children in relation to their preferred and disliked places to play in their local neighbourhood. Children photographed the positive aspects of their neighbourhood they liked. This was followed up by being interviewed to explain the photographs they had taken. Castonguay and Justras (2009) found that children identified liked places by the higher number of positive characteristics that afforded them the largest number of activities to engage in (functional affordances). Their study found, using chi square analysis, younger children choose spaces near houses where they knew the people, whereas older children chose to play in parks and playground. They put forward the notion that whilst younger children preferred to play in places that were familiar and associated with positive social experiences with friends, older

children preferred space that offered the greatest amount of land use. Older children's greater preference for parks and playgrounds is also consistent with children's gradual gain of autonomy (Prezza et al., 2001; Spilsbury, 2005). For the two broad age groups the local neighbourhood afforded different needs in relation to not only the functional affordances but also the social and the emotional affordances.

Clark and Uzzell (2002) carried out a study of nearly one thousand English children and young people's (aged 7-16 years) and their use of the environment. Their study focused on the affordances of the home, neighbourhood, school and town centre environments. The research used Likert-based questionnaires and focus groups based on 34 different affordances that included functional, emotional and social aspects of the environment. The findings of the study suggested that people are mediators in the perceptual process where affordances available to an individual change with the presence or absence of other people. This relates to Chawla and Heft's (2002) performatory activity where children and young people are making use of known environmental properties. The town centre provided more places for social interaction (though not significantly) whereas the neighbourhood provided significantly more places for retreat. The home environment did not support interactive behaviours but provided retreat behaviours with friends or for security-seeking.

> "Whilst there was no clear relationship between preference for an environment and the perception of affordances, there was a relationship between preference and how often the environment was used. Those who least preferred the neighbourhood and town centre environments used those environments least for social interaction. A similar result was not found for the school and home and this could be because adolescents have less choice about their use of these environments. For environments where there is a choice about use, preference effects use" (Clark & Uzzell, 2002, p106).

Although their study using questionnaires found no clear relationship between preference for an environment and the perception of affordances, there was a relationship between preference and how often the environment was used. Clark and Uzzel (2002) concluded that adolescent use of the environment was based on two types of activities, of social interaction

and retreat. Again, the aspect of what choice is afforded to the child was not discussed in any detail but was identified as an important element on the use of an environment

Studies of affordance with middle childhood children have been undertaken in Malaysia (Suhaizan, Shamsuddin and Bin Said, 2008; Said & Sarofil Abu Bakar, 2005). Suhaizan et al. (2008) interviewed 120 children aged between 6 and 12 years and compared the use of home and neighbourhood gardens between children living in urban and rural settings. Their results found some commonalities where the home and neighbourhood environment afforded a variety of landscape elements and spaces for physical and social activities. However they also found differences between the urban and rural children.

The urban children appear to depend on man-made landscape inventions, such as play equipment and preferred to play in neighbourhood gardens. Rural children tended to interact more with the natural environment such as plants and animals and tended to stay in their own gardens. Reasons provided for their results were that the terrace-housed neighborhood of urban children offered little variety of landscape elements for physical and social play. Therefore, the children extended their range of play further away from their home gardens. On the other hand, the rural children were much occupied by the diversity of the flora and fauna and topographical elements in their home gardens. The research was undertaken in both school and home environments. In the school environment, children were given rewards which bring into question the reliability of the data which could have been influenced by children receiving incentives.

Likewise, the neighbourhood playground affords the children the opportunity of play that generates bonding. Children perceive the outdoor setting as a comfortable place when it provides moderate and varied levels of stimulation for the senses. They are stimulated by its play equipment and vegetation that trigger preferences and fascination. Both the different type of settings, stream and playground, are perceived to be comfortable when they provide moderate and varied levels of stimulation for the senses (Said & Sarofil Abu Bakar, 2005). The neighbourhood playground contents are fixed and provide no chance to manipulate the environments compared to the stream setting. Apart from the microclimate factors, it affords little or no change in its form, colour and texture (Said & Sarofil Abu Bakar, 2005).

Although this and other studies undertaken lack rigorous statistical testing compared to Kyttä (2002; 2004) and Clark and Uzzel (2002) their comparison of children playing in urban and rural gardens (Suhaizan et al., 2008) found commonalities of behaviours (how children played), however urban children preferred to play in the neighbourhood garden whereas rural children preferred to play in their home garden. They concluded that urban children went further from home to play as their "terrace-housed neighbourhood offered little variety of landscape elements for physical and social play" (p11).

Fagga, Curtis, Clarke, Congdona and Stansfeld's (2008) study looked at 2370 adolescents' alienation and perception of their neighbourhood in relation to socio-economic characteristics and their mental health. Using a likert questionnaire it was found that respondents were more likely to have negative perceptions of their neighbourhood when they lived in more disadvantaged areas. Neighbourhood alienation was greater for females and adolescents with poor mental health but less so for Asian and Black adolescents.

Yilmaz and Bulut's (2007) study of neighbourhood playground use by children in Turkey carried out 300 face to face interviews with children aged up to 14 years of age. The questionnaire had a focus on how children play in three neighbourhood playgrounds from different socio-economic areas. The results found that in the lowest socio-economic area there were difference around age and gender, where boys were more dominant playing in the playground used mostly by children aged 10 to 14 years of age. Yilmaz and Bulut (2007) suggest factors relating to this include girls having to help out at home and the lack of play equipment for younger children.

Min and Lee's (2006) carried out 91 field observations on the play of 7-12 year old children in Seoul, South Korea. They were interested in neighbourhood places that were of psychological importance to children, what attributes and values do children consider are important to the places they play and how do children use the places. Their results found that what children do and how they do it in a particular place, defines the place for the children. This related to the location and layout of a setting, the play materials and interesting objects available in the place, the social opportunities, the functional capabilities of the setting and the spatial qualities and fewer physical/social barriers. Thus the important aspects were that

the setting was encouraging and less restraining, close to home or school, had easy daily access, affordances and functional opportunities for types of play children liked to do, friends and colleagues were always available and children could be free from outside controls and interferences. Reasons for the importance varied between types of settings, in relation to what the environment can support and offer the child. Min and Lee (2006) stated a setting became important because:

> "It provided affordances and functional opportunities for play children liked to do. A setting also became important because of friends and colleagues who were always available there who gave a sense of social security and belonging. Finally, a setting became important because it is the place where children could be free from outside controls and interferences" (p59).

As Min and Lee (2006) argued early in their paper, previous studies on affordances asked children for reasons; attributes and activities associated with their preferred settings and identified some significant features linked to the preference. Although their study allowed children to state their choice of why certain areas were important to them and what they did in these areas, other aspects of choice in relation to how much choice they had in playing and what choice did the environment afforded were not considered. Reasons for choosing certain areas were different in relation to age. Older children (11 and 12 years) used space for functional support for specific activities and less interference, whereas young children were more inclined to use an area for its size, play materials and play objects available. This reflects the results from Roedder, Lakshmi-Ratan and Lakshmi-Ratan's (1992) study on children's product choices where young children make choices based on visually salient features, whereas older children tend to categorize on the basis of underlying features of function or use.

Min and Lee (2006) concluded that there was a three way relationship between age, play type used and reasons for use. Their space occupancy behaviours, reports of their favourite places and of places where they prefer to spend time altogether indicate that students are aware of their environment and make choices accordingly

Adults recognize the importance of choice in children's play but there is often a contradiction between their beliefs and their actions. Nucci and Smetana (1996) study of adult's view on the personal freedom of their children concluded that as long as children's activities did not conflict with the parents moral or prudential values, children had much freedom to choose their play activities and playmates. However they found that most choice was with children aged 7 years or over and most conflict occurred with sons over choice of activities. Jeffers and Lore (1979) showed that infants played differently when they play in one of the children's home environment compared to when they play in a neutral environment. When one of the children are playing at their home, the child often plays more aggressively by taking charge of the play over the other child. Children often have to adapt how they play when in different play environments. This ability to adapt their play, as Karsten's (2003) research on children's use of public and neighbourhood space showed, may be based on tolerance and culture between children and adults in the community.

In Italy, the age between 8-10 years is considered to be a turning-point in relation to children's play (Prezza & Pacill, 2007) from an independent mobility point of view where:

> "Before this age, children are commonly considered too young to be autonomous (rarely will you find independent children under age 8), whereas after age 11, children (who finish primary school) are expected to be ready to be independent in their movements in the territory" (Prezza & Pacill, 2007, p157).

In England, a study undertaken by the Joseph Rowntree Foundation showed that children living on an estate in England spent more of their free time in 'street play' compared to private school children who were more likely to be in organised activities (Sutton, Smith, Dearden and Middleton, 2007). Sutton et al. (2007) explain:

> "Street play was valued and enjoyed by the children. Its popularity was likely to have been further underscored by the obstacles of entertaining friends at home because of the limited space and resources within children's homes, and limited opportunities to access clubs and organised activities" (pviii).

Adult perspectives on what influences children's choice in play include pressure to adhere to adult values, for example adults placing more emphasis on the learning gained through play

(Feldhusen & Hobson, 1972 cited in Fisher, Golinkoff, Gryfe and Hirsh-Pasek 2008), anxiety about children playing outdoors due to increasing traffic and worry over strangers (DCSF/DCMS, 2008), fear of litigation (Play Safety Forum (PSF), 2002) and increased time spent in organised childcare (Smith & Barker, 2000). These fears are not only having an impact on children's play in the United Kingdom but throughout other parts of the world (Singer, Singer, D'Agostino and DeLong, 2009). Singer et al.'s (2009) study involving 2400 mothers from 16 countries found both boys and girls would spend more time watching television or playing on a computer or games console than playing outside.

2.3.5 The Institutional Triangle and Affordances: School Playground

Moyles (1994) stated that "outside the school building lies an area in which the writ of adults plays a less decisive part" (p4) and differences of how the school playground is used can vary on gender (Thorne, 1993) and the activities taking place (Pellegrini, Blatchford, Kato and Baines, 2004). However, both Government and school policies have a major influence on how children use the play space in respect of what areas children use, what activities take place and who children can play with (Maclean, 1996; Pellegrini, Kentaro, Blatchford and Baines, 2002; Thomson, 2003; Weller, 2007). This could range from adult organised and monitored activities to the banning of certain types of games for health and safety reasons, e.g. conkers for fear of fragments of the horse chestnut going into a child's eye or potential nut allergies.

The importance of playing in the school playground for children was identified by Hume, Salmon and Ball (2005). They found that children mapped or photographed the school playground as an important area for them indicating that "there may also be important social connections made at school that may encourage children's perceptions of this environment as important and enjoyable" (p11). However, where the school playground was once considered to be the space where children were permitted freedom to play as they chose (Factor, 2004), there is now less choice and more restrictions on opportunities to play (Blatchford, 1998). Thomson's (2003) study of four primary school playgrounds reported that despite some games and crazes being freely-chosen by children, teachers were placing a ban to reduce the risk of injury. Thomson (2003) goes onto state:

> "Games encouraged in the school playground are quite often instigated and monitored by the adults, who govern, process, and organise these games into packages. These are then reintroduced to the children in an artificial format" (p57).

School playtime is often monitored by staff during break times and by supervisors during lunchtime. However, as Blatchford and Sumpner (1988) note from their review of school break times, there is often a negative view of children's behaviour where school staff are adopting more deliberate policies with regard to lunchtime supervision (Sharp & Blatchford, 1994) resulting in the amount of time for play being reduced. Maclean (1996) made the claim that school rules and regulations in addition to increasing fears of litigation have removed play equipment that offers a high degree of complexity in favour of equipment that is 'safe'.

Studies of affordances undertaken in the school playground have been linked in with physical activity and play. Ozdemir & Yilmaz's (2008) study with 290 Turkish primary school children investigated their perception and use of the outdoor school environment, particularly in physical activity play. Using both questionnaire and interviews with students and teachers their results found that students could not "freely perform their chosen activities during recess due to the crowded schoolyard conditions" (p292). They stated crowdedness was a problem during recess however despite the lack of play opportunities "students become accustomed to these spaces, and over time they adapt their behaviour and play routines to these environments for better or worse" (Ozdemir & Yilmaz, 2008, p295). Space, therefore, was a crucial factor in the affordance of the Turkish school playground. Similar finding were found by Harten, Olds and Dollman's (2008) study in Australia of 136 children aged 8-9 years where the amount of space for free play significantly affected the physical play of boys, but not for girls.

Stratton and Mullan's (2005) research into Welsh children's physical activity during recess focused on playground markings. Using Sportstester heart rate telemeters (Electro-Polar, Kempele, Finland) children were measured for their heart rate and play duration during recess. Children's baseline measurements were taken prior to the painting of the school playground. They were interested in whether painting playgrounds with multi-coloured

markings would increase in the amount of physical activity. There results from 120, 4-11 year old children found that the increase in the amount of MPVA in late primary school children was more than double compared to early primary children. However, Stratton and, Mullan (2005) correctly identify other factors that could play a part in children's physical activity, and any other type of activity, during recess. These include seasonal factors, social relationships, playground equipment, adult prompting and the school curriculum.

Ridgers, Stratton, Fairclough and Twisk (2007) also carried out research on 470 children's physical activity in relation to playground markings using heart rate and accelerometry. The study was undertaken in 15 elementary schools in North West England where children played in the sporting playground. The playground was had a zonal design: red sports area, blue multi-activity area and a yellow quiet play zone. Their results suggested that playground markings and physical structures are an effective method for significantly increasing children's recess physical activity levels in the longer-term. Although the data was collected six weeks and then six months after the playground zoning was completed, the aspect of 'neophilia' must always be taken into account when new or novel aspects or changes are introduced into a study. The development of new playground markings may have resulted in interest in the playground, but may have not been sustained over a longer period of time.

In separate studies, Fjørtoft's (2001), Fjørtoft, Kristofferson and Sageie (2009) and Storli and Hagena (2010) investigated children's physical activity comparing natural vegetative environments and traditional playgrounds with fixed play equipment. Fjørtoft's (2001) study involved a comparative study of 5-7 years olds Norwegian kindergarten children motor play use and mastery of the landscape using the EUROFIT: European Test of Physical Fitness, the Motor Fitness Test (Adam et al., 1988). Two groups were compared, one group using a traditional playground for 1-2 hours a day and another group in a forest. Children's motor fitness was found to be higher with children's functional use of the forest compared to the traditional playground. Fjørtoft (2001) put forward:

> "As the child perceives the functions of a landscape and uses it for play, the landscape might have a functional impact on children's behaviour and play performance" (p115).

The focus on this study was on children's motor (or physical) play however the vegetation in the forest area provided afforded shelter and hiding, social play and construction play. It appears Fjørtoft (2001) is indicating that the forest afforded more choice for children. However, shelter and hiding and social play are types of play that can take place in more conventional purpose-built playgrounds, however the forest offers more flexible use of the environment.

Storli and Hagena (2010) explored children's physically active play outdoors in a traditional playground and natural (nature) environment and how these environments influence children's physical activity. Children were fitted with accelerometers that measured their movement at three specific times: one day in winter and one day in spring in the playground and one day in spring in a more natural surroundings. This was followed up with two observations being carried out on which children played in each environment using Heft's (1988) affordance taxonomy. Their results found there was no significant difference in accelerometer measurements between the different environments or in the group from one day to another. Storli and Hagena (2010) acknowledged that the accelerometer did not measure certain activities such as upper body movements when cycling and swimming. What they did find was that children who had either a high or low accelerometer measurements in one environment would also have the same level (high or low) in the other. Storilia and Hagen (2010), based on a very limited data set it must be stressed, concluded the physical activity level of children in either a playground or natural setting was independent of the environment.

Fjørtoft et al. (2009) looked at the affordability of playground and more natural environments on seventy 6 year old children's physical activity using GPS tracking and heart-rate monitors. There results, as with Storli and Hagena (2010) found that the amount of level of physical activity did not differ between the different space and quality of each environment, however a gender difference in activities was observed. Boy's favoured playing football on the flat asphalted area whilst girls favoured more intensive physical activity in the forest yard. Fjørtoft et al. (2009) offer the explanation that the open space favoured locomotion and moderate to vigorous physical activity in the asphalt schoolyard, while running around and

exploring the forest area were documented by movement patterns that enhanced more moderate levels of physical activity.

In addition to the studies of affordance and physical activity in children, research on how different play environments affords play to children have been undertaken. Kasalı and Dogan's (2010) study of 5th, 6th and 7th grade students on their preferred use of space during recess used both interviews and observations. Their results found that students' preferences of how they spent their time during recess was down to spatial properties of the environment which has been stated by others (Pellegrini, 2005). Across the three schools under study, the most popular activities were playing games, playing board games, wandering and talking. For girls wandering and talking was the most popular activity and for boys playing ball games. However differences between the school class groups were identified where among sixth grade students there were difference in the most popular activity (school 1 was playing games, school 2 was talking and school 3 playing ball games). For 5th grade students the most popular activity was playing ball games. There appears to be other factors not just the physical space that may influence what children did at recess in the three schools. Kasali and Dogan (2010) suggest that children make special choices and there is a shift in students' perception of the availability of space as they get older.

Lucasa and Dyment (2010) school playground observation of 5-12 year old children in Australia found that difference in where children played related to the surface and size of the play environment. Where the surface was hard it was favoured by boys playing football whereas the larger natural grassy areas had equal number of boys and girls with more variety of play taking place. They surmised these natural environments engaged them in less organised and more unorganised 'free' play as they had trees, shrubs, native grasses, logs, rocks and gardens to play with, something that are not always present in the school playgrounds in the United Kingdom. The fact that boys tend to dominate is replicated in other research of children's school ground play (Sluckin, 1980; Pellegrini et al., 2002).

Willenberg, Ashbolt, Holland, Gibbs and MacDougall (2010) undertook a study of a large sample of 3006 children using qualitative and quantitative methods on how 8-10 year old

children respond to their school playground environment. They used a mixed-method approach of observation of their physical play and focus groups. They found that a greater proportion of children engaged in vigorous physical activity where loose equipment or teacher supervision of the playground at lunchtime were provided, compared to settings with no loose equipment or teacher supervision and there was a higher levels of vigorous activity were particularly marked for boys. Children's accounts reflected an awareness of the borrowing process and the range of loose play equipment such as balls, skipping ropes, racquets and hula-hoops that their school employed. They observed that, as each school term progressed, there was less equipment available for use, attributing the dwindling access to balls thrown onto roofs or in trees during play, whether on purpose or accident. In children's views, teachers often left balls where they landed as 'punishment'. They were aware of end-of-term staff practices of teachers collecting all balls for re-use the following term. Children consistently commented that the provision of more sports equipment stimulated physical activity. The findings suggest that, higher availability of loose equipment and higher levels of supervision were likely to contribute to an increase in vigorous physical activity on the playground. Fixed play equipment and markings (particularly colour) are seen by children as areas inviting active play but had a greater impact on moderate activity levels. Children liked a mix of playground areas with different surfaces including open spaces

Beate and Sandseter's (2009) 7 day study of 29 Norwegian children aged 4-5 years explored affordances for risky play in an ordinary preschool playground and a nature-type playground. Using both video observations and interviews children's mobility in the playgrounds was analysed using the affordance taxonomy developed by Heft (1988) and Kyttä (2004). Children in the ordinary pre-school environment stated they were generally allowed to do want they wanted (chose) to do, however when questioned, children explained restrictions to their play on climbing, bicycling (nearby younger children) and play fighting. Children in the nature-type playground had restrictions on walking too far particularly near the stream, climbing on one specific steep cliff or high trees. The use of knives for whittling was closely monitored by an adult; however children did not consider rules put into place for their safety as a constraint on their free play.

Fjørtof and Sageie (2000) carried out a 9 month study of 46 children aged 5-7 years when using a forest as a playground in their kindergarten. Their study involved the use of Geographic Information System (GIS)-Software to develop and analyse thematic maps of the vegetation and topography in conjunction with the classification of play devised by Frost (1992) of functional play; construction play and symbolic play. Fjørtof and Sageie (2000) found that there were some core areas of the landscape that children used more frequently in their play. They also found children would give these areas a particular name which illustrated their functional use (tree stump became the Pirate Ship) where the activities (play) taking place closely linked to both the structures and the functions they represented. The choice of landscape and link to function also had a clear influence by the seasonal changes. They summed up their research

> "Landscape diversity was related to different structures in the topography and the vegetation, which were important for children's spontaneous play and activities (Fjùrtoft & Sageie 2000, p94).

The use of Frost's (1992) classification did not take into account physical play or static play.

Separate studies comparing kindergarten children's play in open spaces and closed playgrounds were carried out by Sandseter (2009) observing children's risky play behaviour and Fjørtoft (2001) motor skill behaviour. Although it was no surprise that both increased motor skills and risky behaviour were observed in the open spaces, Sandseter (2009) found that in both types of environment children stated that they were almost allowed to do anything they wanted to do. Each environment, although different, still afforded choice to the child on how and where they wanted to play.

The studies undertaken in relation to what the playground affords the children in relation to physical play found that factors of crowdedness, topography and the physical marking have an influence on how children play. Other studies on the affordance of the playground and how children play found that spatial factors, control from teachers and differences in risk taking between built and natural environments will influence how children play. It is evident that the presence of adults makes a difference in how children play.

Factor (2001) also identifies an increased adult presence in Australian schools where teachers are introducing adult-focused game equipment during break and lunchtimes to encourage the development of skills needed for highly competitive adult team games. Armitage's (2001) study of primary playgrounds sums up the design and time allocated to playground play where "neither the feely chosen, self-directed play of playtimes, nor the playground itself, is afforded the same priority in the overall education of the child" (p39). It appears that the school playground does not afford children the choice it once used to.

Sluckin's (1981) ethnographic study of primary schools in Oxford challenges the notion of freely-chosen play in the school playground. Sluckin (1981) identified three types of child in the playground: leaders, teasers and attention seekers where the dominant leaders would own the game:

> "As we have seen there is some advantage to 'owning a game', whence it is this child who can 'make all the suggestions, choose who can play and chuck people out if they don't behave" (p47).

Thompson (2003) warned that although the school playground at break times should be the space for choice, there is a lack of creativity, originality or spontaneity down to too strict supervision. There appears to be a social factor that clearly acts as a barrier to choice. Another barrier in the school playground identified by Thompson (2005) was how children would make a certain area of the play space their own, a concept of territorialisation (Sack, 1986). The fundamental attribute of territorialisation is about possession of an area.

The research undertaken in primary schools, although recognising the importance of freedom and choice in the school playground has focused on the games children play during break and lunchtimes. In turn the games played are studied in relation to developmental factors such as socialisation (Morrow, 2003) (Hume et al., 2005), adjustment to school (Pellegrini et al., 2004), identity development (MaClean, 1996), children's peer and play culture (Factor, 2004) (Blatchford & Sumpner, 1998), gender identity (Karsten, 2003), scrutiny of children's behaviour (Blatchford ,1998) (Boulton, 1999) and children's use of the playground (Armitage, 2001). Although the outside playground environment has also been researched in relation to what it affords to the child, research on how the school playground affords choice to the child is lacking.

2.3.6 The Institutional Triangle and Affordances: Out-of-School Club

Children attend out-of-school clubs from the end of the school day for a period of between 1½ hours to 3 hours. The age of the children can range from 4 years up to 11 years of age (Primary school age). Out-of-school provision may take place in community centres, village halls or more commonly in primary schools. The running of the club is down to the management committee which may be a voluntary committee separate from the school or run by the school themselves. Children generally play for the majority of their time in the out-of-school club except when a snack is provided. There is often a mixture of structured activities and unstructured activities depending on the staff, management committee and the school where applicable.

Since 1993 there has been a major increase in the number of primary schools that have had a childcare provision running from their premises once the school day has finished. Two Government programmes have played a major role in this increase with the Out-of-school Childcare Initiative (OSCI) by the Conservative Government in 1993 with £60,000 from DfEE for 50,000 out-of-school places in England and Wales and in 1997 National Childcare Strategy provided £300,000 for 30,000 new out-of-school clubs for up to 1,000,000 children (Smith and Barker, 2000) through the Lottery funded New Opportunities Fund (NOF). Out-of-school childcare places were further increased in England with the development of 3507 children centres (DfE, 2012) and in Wales with the opening of 20 integrated children centres (Children in Wales (CIW), 2012).

Kids Clubs Network (KCN) (now known as 4Children) commissioned Brunel University to find out the attitudes and experiences of children using out-of-school clubs. In total over 300 children who attended out-of-school club provision were consulted and their views were outlined in four categories: children choose to go; children like to be active; playworkers care and listen to children and a child centred environment (KCN, 1998). The report highlighted the positive experiences such as making friendships, undertaking activities that may not take place in their home and that attending out-of-school clubs allow "children spending quality time in free play than they would at other times" (p4). Smith and Barker (2000), however also point out the research showed that the children's play was defined and planned by adult

staff who not only controlled the social space for the children but also their playwork practice was shaped by "institutionally embedded conceptualisations of acceptable play" (p249).

In 2002, the Children's Play Council published 'Making the Case for Play' (Cole-Hamilton, Harrop & Street, 2002) which was a report based on the submission of 108 reports of consultations (mostly by questionnaires) with school aged children and parents carried out by organisations in the public, statutory and third (voluntary) sectors. In total Making the Case for Play was based on consultation from over 13,000 people. The focus on choice in relation to play in these consultations appears to be restricted to two factors: choice of activities and factors that restrict choice. What influences choice and what difference choice has was not clear. The report concluded that:

> "A frequent complaint from children is that there are not enough play opportunities and that children's activities are curtailed by lack of choice, space and facilities" (Cole-Hamilton et al., 2002, p52).

In 2006, SkillsActive undertook a consultation with 4-16 year olds in 9 supervised play settings. The most important factor to children across all settings was that the children "wanted freedom and choice and ultimately to play and have fun" (p6). The indication, in this consultation report anyway, is that choice leads to fun. Interestingly when asked what the children liked about the adult supervisors (playworkers) the response was that they let the children have freedom and choice; they allowed children to do what they wanted. This suggests that children had to have some form of permission or authorisation before they could make any choice.

Although the majority of out-of-school clubs are run by a voluntary committee, the influence the school has directly or indirectly on the running of the clubs has contributed to what Smith and Barker (2000; 2004) have termed the institutionalisation of childhood. This is where the presence of the school system, particularly if the out-of-school club is run in the school will "influence children's lives and organise their days' (Frones, 1994 as cited by Smith & Barker, 2000, p150). Smith (2010) found adults working in out-of-school provision created barriers to children's choice as they had to adopt an authoritative and safe guarding position as a result of organisational policies from the school and government legislation.

Although there has been no specific research on affordances in out-of-school provision the importance of affordances, particularly linking in with outdoor play, has been linked to playwork practice (Lester & Maudsley, 2006). Bower et al. (2008) did carry out a study of affordances in a day care environment. Their study focused on the social and physical activities afforded to children aged 3-5 years in their day care. Their results found that centres with higher physical activity environment scores had children who were more physically active while in child care. While minutes of active opportunities are important, other environmental factors also affect physical activity of children while in child care. Centres with more money can buy more types of equipment, invest on qualified staff and have more attractive premises to play in.

The study of affordances needs to consider the structural, functional and social aspects of each of the three environments of home, school playground and out-of-school club. Chawla and Heft (2002) and Kyttä (2001) make reference to the work of Barker (1963) with respect to behavioural setting. According to Barker and Barker (1963) behavioural settings are "self-bounded parts of a community" (p129) where Chawla and Heft (2002) interpreted them as a cluster of affordances that "possess perceivable, functionally significant properties"(p209), whilst Kyttä (2002) interpreted them as affordances shared by a group of people in a designated place at a certain time. The home, playground and out-of-school club can be considered as three distinct behavioural settings where the choice can be influenced by a combination of structural, functional and social affordances.

2.3.7 Affordances and Children's Choice in their Play

There appears to have been more research undertaken on the structural affordances both in neighbourhoods and in school playground and functional affordances in playground. There is little research undertaken on social affordances in out-of-school clubs. However the research reviewed here does show that there appears to be more complexity with regard to how other affordances may also have an influence on how children play. Kyttä (2003) identifies the role of choice in affordances where:

> "Intentional activity appears in situations where there is the possibility of choice between various affordances. Choice may also involve the question of whether an affordance will be actualized at all" (p53).

Kyttä's (2003) focus on mobility and motion revealed a lot of significant information regarding the environment children use where "perception as an activity in an ecological reality" (px). Kyttä (2003) did not use direct observations but interviewed children about their perceived affordance to study children as functionally active perceivers in the environment where:

> "Children of different ages perceive affordances that correspond to their bodily qualities, to the functional demands of ongoing activity, and to their current intentions. A child can have his or her own affordance preferences. A common affordance preference with children appears to be that they are fascinated by affordances that push their limits and capacities" (Kyttä, 2003, p51).

One important aspect of affordances is the need to address not only the positive but also the negative with regard to the actualization of an affordance. One important aspect highlighted by Kyttä (2003) in the actualization of affordances is that "choice may also involve the question of whether an affordance will be actualized at all" (p53). Although the research by Hyvönen and Juujärvi (2002) identified the variation in children's play, the importance of choice and the affordance of choice were not covered by the research.

What is important here is not just the choice of activity the environment affords but the choice of what, where, when and of the play and who children are playing with. In addition what happens to choice if there are changes to the perceived or functional affordances? Busby's (1994) ethnographic study of children's free play in a children's pre-school playground highlighted the importance of choice in relation to the "how, what and whom to play with from all the activities provided" (p54). Although through the one hundred and sixty visits Busby made she did highlight the emotional and social aspects of children's choice in their free play, reasons for their choice and factors affecting choice were not covered in depth. The importance of the aspect of choice in relation to environmental affordances not only relates specifically to outcome 1 of Best Play but also take into account the indoor environment where children play, an area neglected with regards to research around

environmental affordances. This is particularly relevant in Britain with regards to the 'institutional triangle' of home, school and out-of-school club

Although the studies carried out on outside environments identify functional aspects, the focus tends to be on the activity the child engages in, i.e. the content rather than the motive. Even Kyttä's (2002) adaptation of Heft (1998) focused on social play activities rather than the social interaction between people. It appears that different environments all support children's choice in their play, however, how choice is supported and any subsequent effect on children's behaviour are not discussed in any detail. This is an important oversight particularly with regards to English, Welsh, Northern Ireland and Republic of Ireland play policies and strategies. In turn this will impact on professional play practice that have a strong emphasis on children's freely-choice of their play (motive) and how the play provision (environment) should support and enhance choice, as stated in Best Play (CPC et al., 2000).

2.4 Children's Play

2.4.1 Why Study Children's Play?

> "You can discover more about a person in an hour of play than in a year of conversation" (Plato: 428 BC-348 BC).

The study of children's play has been undertaken across many diverse disciplines such as education (Montessori, 1914), anthropology (Schwartzman, 1978), social sciences (Parten, 1934; Corsaro, 1997; Broadhead, 2001), child development (Piaget, 1962) and the therapeutic benefits of play (Smilansky, 1968; Jennings 1998). Smith's (1986) review of play research acknowledged the concentration of research that has been undertaken to support cognitive and creative outcomes; however he highlighted the need for a research impetus for the potential benefits of free play to children's social and emotional development. A more cross disciplinary review of play research was needed.

In the last 10 years there have been comprehensive literature reviews that highlighted the cross disciplinary aspect of play in relation to policy and practice (Powell & Wellhard, 2008, Lester and Russell, 2008) free play in early childhood (Santer et al., 2007), adult led play provision (National Play Institute (NPI), 2002), play in the natural elements (Lester & Maudsley; 2006) and children's right to play (Lester & Russell, 2010). What each of these reviews highlight is how the study of play can cover a broad spectrum of areas: child development; learning; cognition; exploration; imagination; creativity; emotion; psychological well-being; physical ability; health and social skills. Santer et. al. (2007) review of the value of free play in early childhood acknowledged research within the pre-school and early years field was easily obtainable:

> "As more is known about the play of 3-5 year olds than older children, further research should be carried out to investigate free play experiences of children aged 5-7 years, both in the school contexts and in the community (Santer et al., 2007, pxvii).

The age range of between 6 and 11 years appears to have been neglected with regards to play research which is particularly important as children's perception of choice and how they play change as they get older and more experienced (Chaillé, 1978: Smith & Volstedt, 1985; Ruff & Lawson, 1990). In turn, there is little or no detailed research on children's choice in play which is surprising in light of theory; policy and practice revolve around the concept of freely chosen play. In addition there is a need to research the aspect of choice in play from a child's perception as the nature of play is quantitatively and qualitatively different in relation to children's ages and experiences (Howard, 2002).

Santer et al. (2007) claim that free play is a "highly motivating process in which children have participated across cultures and throughout history" (p69), however they also identify an inconsistent approach to free play across sectors and a clear definition and understanding of what play is. Garvey's (1977) study of play in nursery settings cited that one of the five aspects 'critical' (p4) for a definition of play "It is not obligatory but is freely chosen by the player" (p4). The age and experience of a child in nursery will be different from that of children at primary school age and it could be argued that freely-chosen play may become more difficult as adult expectations of children change as children get older and children's social circles become more complex (Parten, 1934; Broadhead, 2004).

If more children are spending more time playing within the institutionalized triangle the need to focus research on school-aged children between early years and secondary school is long overdue. There needs to be further research to clearly demonstrate if choice is important in relation to children's free play in older primary children of 6 years and above and to investigate their play experiences both within their school contexts and in the community (Santer et al., 2007).

2.4.2 What Do We Mean When We Talk About Play?

> "There are several steps in the process of understanding play. The first step is to define play. The second is to establish the motives for and the content of play. The final step, and usually the reason for taking the first two, is to use the answers in the planning of play" (Ellis, 1973, p2).

The problems with step one, to define play, has been highlighted by many authors (Hutt, 1966; Ellis, 1973; Schwartzman, 1976; Smith & Vollstedt, 1985; Pellegrini & Smith, 1988[a]; Howard, 2002). Definitions of play may discriminate in terms of either the player's motive or the attributes of the play itself (Ellis, 1973). It is clear that definitions of play used within government policy appear to reflect the motives of the playing child. For example the English Government's review of play stated "Play is what children and young people do when they follow their own ideas and interests, in their own way and for their own reasons" (DCMS, 2004, p6). Government policies are developed with an input from chosen professionals for the topic under study.

Smith and Volstedt (1985) found that play was viewed differently by play professional and inexperienced students based on a play criteria of five aspects. The five criteria Smith and Volstedt (1985) developed, based on Rubin et al. (1983) and Kransnor and Peplar (1980), were intrinsic motivation, positive affect, nonliterality, means/ends and flexibility. Freely-chosen was not considered as a criterion, although choice has been considered as the drive for motivation (Deci & Ryan, 1985). Using video footage of children playing and looking at the agreement between the criteria and at the judgments of play, their results found that both

experienced and in-experienced play professional found intrinsic motivation was not an important criterion for play. This was particularly evident in social and pretend play where some playful behaviour observed was strongly influenced or constrained by another child's actions. However, as Smith and Volstedt (1985) point out intrinsic motivation maybe difficult to identify from direct observations or behavioural cues.

This has implications with research undertaken on children's choice if observational research is used. It is evident from Smith and Volstedt's (1985) study that it is difficult to identify if children's choice is freely-chosen as any observational judgement can only be at an "inferential motivational level" (Smith & Volstedt, 1985, p1048). Reasons why children choose to play in a certain way, with a certain toy, in a particular place or with a particular child cannot be ascertained just through observations.

Fisher, Golinkoff, Gryfe and Hirsh-Pasek (2008) explored potential differences in parent and expert beliefs about the nature and academic value of play whilst Driscoll and Easterbrooks (2007) researched the play interaction between young mothers and children. Fisher et al. (2008) revealed that mothers differ in their beliefs about what play is and about the learning value of play and placed these mothers to three groups: all play mothers (who felt that structured play was more beneficial); traditional mothers (who perceived relatively equal levels of importance between structured and unstructured play) and uncertain mothers (who perceived little learning benefits of play). Driscoll and Easterbrooks (2007) also identified three groups when young mothers played with their children: sensitive-engaged (more supportive and could synchronise their behaviour with their children), inconsistent-directive and intrusive-prohibitive (both these groups displayed inconsistency and were more intrusive on the child's play).

The findings from both studies would indicate that parents in the all play mother, uncertain mothers, inconsistent-directive and intrusive-prohibitive groups have potentially a more negative effect on children's choice of play. The all play mothers or intrusive-prohibitive mothers would appear to control the child's play to meet what the mothers felt were important. The uncertain mothers or inconsistent-directive mothers who do not see play to be important may not provide an environment for play to take place. The traditional mothers or

sensitive-engaged mothers would appear to be creating an environment for both structured and unstructured play, which would suggest that children would have more choice in how and what they want to play as mothers are more supportive rather than controlling or neglectful. One important difference identified by Driscoll and Easterbrooks (2007) was that:

> "Mothers in the 'sensitive-engaged' cluster were more likely to accurately read their child's cues and support the child in his/her focus of attention ……..transitions between play activities tended to be smoother and more rhythmic when compared to mothers in the other two clusters" (p662).

The intrusive-prohibitive mothers were also more likely to over stimulate or interfere with the child's play and to encourage their own focus of interest rather than the child's. Mothers who showed inconsistent-directive play behaviour were more likely to have abrupt, unpredictable changes in behaviour where the child's focus of play may be changed by the mother without warning so leaving the child without appropriate support and prevent him/her from engaging in a sustained focus of play. Fisher et al. (2008) concluded that although mothers share, to some degree, a play-learning belief espoused by play theorists and evidenced by empirical research, their observed category of structured play did not match the kind of play discussed in the theoretical or empirical literature. The mothers valued structured play and ascribed slightly more learning value to this form of play than its unstructured counterpart which differed from the values of play by the experts. Their research acknowledged the difficulty in defining play, where they state:

> "To fully understand what constitutes play, we must go beyond experts to parents' implicit beliefs of play and how these beliefs are fostered not only by the individual, but by culture and society" (Fisher et al., 2008, p315).

This statement can be taken further, that not only going beyond experts, parents, culture and society, but to children's implicit belief and perception of play through observation and interpretation or children's perception of how they view play. Children have a clear perception of what they recognise as play (King, 1979; Wing, 1995; Howard, 2002) and often children's perception of adult behaviour can be acted out through their play (Gordon, 2002). Children's perception of adult play behaviour, where the adult is more controlling or neglectful, will have influence on the choices children make in their play. Ceglowski (1997)

stated “often what we espouse as free play from the adult perspective, children view as work “ (p111), where often play-based classroom activities set up by adults are perceived as work by children.

Although this thesis focuses on children’s perception of choice, children do not play in isolation and as discussed earlier, children are playing more often in environments where adults are present. This could be at home, where children are allowed less time to play outside or if they attend out-of-school provision before and after school. The three groupings of mothers: all play mothers/intrusive-prohibitive, traditional mothers/sensitive-engaged and uncertain mothers/inconsistent-directive, could also be used in relation to other adults within the institutionalized triangle of playworkers and lunchtime supervisors. The play behaviour of adults will have an impact on the choices children make in their play and their motives for playing. Another influence on the motives of children’s choices in their play is the content of the play.

2.4.3 The Content of Play

The content of play has generally been researched using play types. Piaget (1962) described three play types in relation to his stages of cognitive development of pretend play, symbolic play and games with rules, a classification extended by Smilansky (1968) who added construction play type. Wada (1978/1932) as cited in Takeuchi (1994) developed a classification of play types in Japan which consisted of experienced play; pretended and expressive play; expressive play; cognitive play, plays with little labour and physical play. Pellegrini and Smith (1998b) outline three play forms: exploration; fantasy and locomotor, which they state may have distinct functions indicating a biological need. Hughes (1996; 2001, 2002) undertook a review of the literature and identified 16 different play types: symbolic play; communication play, rough and tumble play, exploratory play; fantasy play, dramatic play, socio-dramatic play, creative play; social play; imaginative play, deep play; locomotor play; mastery play; object play, recapitulative play and role play

Research on children’s pretend play is an area most thoroughly studied (Pellegrini & Smith, 1998b) particularly as it is easy to observe and code whilst other types of play, for example

symbolic play, is often harder to research as it may be internal to the child and not visible. Study of games with rules is often kept to observation in places like the school playground particularly with junior school aged children. Pellegrini et al. (2004) study of games in the playground makes the clear distinction and benefit of games that are "activities guided by explicit rules that are set in advance" (p109). Detailed study of the games children play in the playground has also been carried out by Slutkin (1981) and Davies (1982) in ethnographic studies whilst Smyth and Anderson (2000) looked at children's physical and social play in relation to coordination impairments. The large amount of research in relation to the social benefits of play have been recognised in many areas, for example, friendship and the transition between playgroups and school (Weller, 2007; Morrow, 2003), the development of social skills and social hierarchy in the playground (Pellegrini, et al., 2002), children's free play in pre-school (Parton, 1934) (Corsaro, 1997) and the types of games played in school playground (Pellegrini et al., 2004). Parton's (1934) classification of social play is still being used in early year's education in the Foundation Phase in Wales (Department for Children Education Lifelong Learning and Skills (DCELLS), 2008).

Research on children's observed play behaviour is influenced by whether the preferred definition of play is based on categories, criteria and continuums (Howard, 2002). Problems of using criteria is that even if one of the criteria is missing the activity may still be perceived as play and a continuum may still be subjective by the observer (Howard, 2002). Play has been difficult to define, classify and interpret and varies in relation to context and experience (Howard, 2002). Sutton-Smith (1975) stated that play is "an opposite type of adaptation having to do with subjective reactions to experience rather than objective accommodation" (p204). Sutton-Smith (1975) considers play to be on a continuum which "while always personal, begins at one end with rather repetitive responses to experience and may develop at the other into highly innovative ones" (p209). This would suggest that in order to meet the child's subjective reactions they need to have some form of choice of their play. Where children appear to have freedom in their choice it is often referred to as free play. As with play, free play is also difficult to define and interpret. Definitions of free play vary in relation to early years practice, playwork practice and education.

2.4.4 What do we mean by Free Play?

Although there are critics of the use of the term free play (Melville, 2007; Battram, 2008) free play tends to be considered as unstructured play that is child-led away from too much adult influence. Santer et al. (2007) in their literature review of free play in early childhood define free play as:

> "Children choosing what they want to do, how they want to do it and when to stop and try something else. Free play has no external goals set by adults and has no adult imposed curriculum. Although adults usually provide the space and resources for free play and might be involved, the child takes the lead and the adults respond to cues from the child" (pxi).

There is a clear role for adults in children's free play in providing a suitable environment and facilitating children's experiences (Santer et al., 2007). Bergen (1988) based on Neumann (1971) developed a schema for play based on the amount of choice, possibility and opportunity children have in their play. When children have the greatest degree of choice the schema is termed free play. As the level of choice moves from the child to the adult the schema changes to guided play, directed play, work disguised as play to work.

Ceglowski (1997) describes free play in the classroom as an "allocated time for children to select their own activities and play with them as they choose" (p109). However, Steinman (1970) as cited in Ellis (1973) raises a question that is still relevant today:

> "The idea of arranging free play may sound like a conflict of terms to many. Indeed a distinction is often made between free play and controlled or structured activity. Controlled play is not free play. However when this distinction is made, one wonders to whom the word "free" refers. Does "free" refer to the behaviour of the child? Or does it refer to the lack of behaviour of those designated by society to implement the child's socialization and education. When one frees himself from the task of controlling a child's behaviour, he does not free the child. Instead he merely passes the controlling functions to others or the physical environment itself (Steinman, 1970, p6).

Steinman's comment suggests that children's behaviour in their free play will always be influenced by both the environment and the people within. In turn, the play opportunities will influence play behaviour. This relates to the structural, functional and social affordances.

The play environment and the people within will have some form of influence around children's choice. The interaction of the environment and the people within it is discussed by Bruce (1994) in her concept of free-flow play. Free-flow play is supported by twelve features: active process; intrinsically motivated; has 'as if' possibilities; wallowing; based on first-hand experiences; support development; be in control; initiated by child or adult; be solitary; with groups and is an integrating mechanism. Bruce (1994) suggests that free-flow play exists across all cultures and "is part of the infrastructure of any civilization" (p198). The importance of the play environment to provide opportunities for free play has also been raised by others (Santer et al. 2007).

Santer et al. (2007) state that free play offers a unique environment where both liberation and constraint coexist "because children are aware that if they do not act within their role then the play sequence may disintegrate" (p38). This aspect of liberation and constraint is important as it can incorporate everything within the play environment, the environment itself, the activities that take place and what people are in the play environment. The combination of the three will have a major influence on how children play and how much choice they may perceive they can have in different play environments.

Play is an important part of childhood (Mayall, 2002) and whether playing alone, with other children and with or without adult presence, play is important when considering childhood as a social construction (James & Prout, 1997). When children play at home, in the school playground or when attending an out-of-school club they have to be able to adapt to the different aspects each environment offers. Berger and Luckmann (1966) stated that all human activity, and this would include play, is subject to habitualization. Habitualization is any repeated action which eventually is reproduced with the minimal of effort and often this involves the narrowing of choice. The ability to narrow choice through habitualization avoids ego depletion (Baumeister et al., 1998).

2.5 Choice

2.5.1 Why Is Choice Important?

Choice can be a noun to exert the right, power, or opportunity to choose, to have an option, an alternative or selection to choose from. It can also be an adjective relating to being carefully chosen or worthy of choice. Finally it can be an idiom, a choice made by preference (www.dictionary.com)

Cooley (1902) believed choice to be the function and activity of the will where, in his view choice is:

> "A comparatively elaborate process of mental organization or synthesis, of which we are reflectively aware, and which is rendered necessary by complexity in the elements of our thought. (p53).

Cooley (1902) also felt choice reflects the state of the social order:

> "In its social aspect-for all, or nearly all, our choices relate in one way or another to the social environment-it is an organization of comparatively complex social relations" (p53).

These complex social relations reflect children's perception of an activity being play or work. Research undertaken in classroom environments have shown that primary school aged children are able to differentiate between play, work and learning (King 1979; Howard 2002). Howard (2002) using the Activity Apperception Story Procedure (AASP) also demonstrated that children "were able to distinguish play from work and learning from not learning in response to the photographic stimuli" (p499) and for children choice was more important when playing than having fun. King (1979) identified choice being an important factor in children's perception of play in addition of the role of the teacher:

> "The activity was defined as play if the child was free to choose the activity, the materials, and the course of events, and if the products or acts were individual and the teacher was not involved" (p85).

The important point raised by King (1979) is that choice is not just about the activity but the course of events. The course of events can be decisions around where the play takes place and what other children may have been involved. The importance of choice has been highlighted by Smith (2010) in her study of children's empowerment in out-of-school provision. Interviews undertaken with both playwokers and parents of children who use out-of-school provision, both agreed that enabling children's choice and autonomy contributed to their confidence, independence, self-esteem and empowerment (Smith, 2010). These benefits have also been identified as important when children exercise choice in the school playground (Blatchford & Sumpner, 1998). McInnes, Howard, Miles and Crowley's (2009) study of children's behaviour when undertaking a task under either a formal or playful condition placed choice as an emotional cue. Their study of play and learning found that when the amount of choice decreased due to more adult presence, this led to lower levels of performance and differences in children's motivation and engagement compared to when an adult was not present. This aspect of choice and motivation has been investigated within Self-Determination Theory (SDT) (Deci & Ryan, 1985).

2.5.2 Choice and Self-Determination Theory

Self-Determination Theory (SDT) is an approach to human needs in relation to autonomous or self-determined (Ryan & Deci, 2006) motivation and controlled motivation (Deci & Ryan, 2008[a]). SDT is:

> "Concerned not only with the specific nature of positive developmental tendencies, but it also examines social environments that are antagonistic toward these tendencies" (Ryan & Deci 2000, p69).

In SDT it is not the environment that matters but what the environment means functionally in terms of supporting people's psychological needs (Vallerand, Pelletier and Koestner (2008). SDT focuses on three basic psychological needs: competence; relatedness (desire to feel connected to others) and autonomy (Ryan & Deci, 2000). Within SDT, it has been proposed that choice is important with regards to intrinsic motivation (Deci & Ryan 1985, Ryan & Deci, 2000; Deci & Ryan 2000; Gagne 2003) and is used in one of three ways: no choice,

controlled choice and autonomous choice where "autonomy means to act volitionally, with a sense of choice" (Deci & Ryan 2008; p15-16) where:

> "It seems that when people are more able to satisfy all three of their basic psychological needs the regulation of their behaviour will be characterized by choice, volition, and autonomy rather than pressure, demand, and control, and the result will be higher quality behaviour and greater psychological well-being. (Deci & Ryan 2000, p243).

Patall, Cooper and Robinson (2008) carried out a Self-Determination meta-analysis based on choice. The meta-analysis research investigated the effect of choice on multiple related outcomes (intrinsic motivation, effort, task performance, subsequent learning, perceived competence, satisfaction with the task, preference for challenge, pressure or tension and creativity) and at the type of choice (number of choices made in a single manipulation, age of the participant, experimental setting, use of a yoked or matched design and the effect of choice and reward). Their results suggested that overall; choice has a positive effect on intrinsic motivation and the related outcomes of effort, task performance, perceived competence and preference for challenge. However, Patall et al. (2008) made reference to the brief research periods undertaken in relation to choice thus the designs could only "examine only the most short-term effects of choice" (p294). The effect of choice also appeared most influential when:

1. Control participants were explicitly denied choice
2. When control participants were aware of the choice alternatives but were not allowed to choose
3. The effect of choice was greatest when yoked designs were used compared to matched designs in which choice was reduced or designs in which no attempts were made to control for the task

The initial meta-analysis looked at 56 research papers that had used adults as participants and 28 that had used children. In addition 29 studies had been undertaken in a traditional university laboratory, 11 in a laboratory within a natural setting and only 5 took place within natural settings. Deci, Koester and Ryan (1999) found that tangible rewards on intrinsic

motivation had a more negative effect on children than for college students, thus care needs to be taken when looking at the effects of choice in relation to children and adults. Patall et al. (2008) identified in their meta-analysis the amount of choice is also important to consider where the largest positive effect of choice on intrinsic motivation was found when participants made two to four choices in a single experiment compared to when either only one choice or five or more choices were selected. Moller et al. (2006) conclude that:

> "The concept of choice has multiple meanings, and effects of choice will depend on precisely how the term is defined. As the current studies showed, it is important to distinguish between autonomous and controlled forms of choice" (p1035).

This thesis investigated children's perception of choice in their play with choice being a measure rather than children choosing from a selection of options. This is an important statement as choice in children's play is not just around what to play, where to play and who to play with, but what factors will influence choice.

Self-determination Theory (SDT) three basic psychological needs of competence, relatedness and autonomy is around promoting choice (Deci & Ryan, 1987). Within the SDT there are two sub-theories: cognitive evaluation theory (CET) and organismic integration theory (OIT) (Ryan & Deci, 2000). CET is framed in terms of social and environmental factors that facilitate versus undermine intrinsic motivation where:

> "Choice, acknowledgment of feelings, and opportunities for self direction were found to enhance intrinsic motivation because they allow people a greater feeling of autonomy" (Ryan & Deci, 2000, p70).

The CET framework can support or impede people's psychological needs (Ryan & Deci, 2000) by supporting or hindering different types of motivation in relation to that emanating from the self (intrinsic motivation) and that which may be internalized or integrated from others (external motivation). Deci and Ryan (1987) explain this with regards to children's autonomy (promotion of choice) is supported or controlled. This is elaborated further within the second sub-theory of organismic integration theory (OIT).

The OIT is the regulation of intentional behaviour along a continuum of autonomous to controlled (Deci & Ryan, 1987) where:

> "Some intentional behaviours, we suggest, are initiated and regulated through choice as an expression of oneself, whereas other intentional behaviours are pressured and coerced by intra-psychic and environmental forces and thus do not represent true choice" (Deci & Ryan, 1987: p2).

The OIT continuum ranges from non-motivation (amotivation), through different forms of external motivation to intrinsic motivation. The different forms of external motivation relate to the contextual factors that either promote or hinder internalization (the taking in of a value or regulation) and integration (value of regulation is transformed that will eventually emanate from the self) of the regulation for other people's behaviour. Internalization of other people's behaviour is linked to the three basic motivational needs: relatedness; competence and autonomy. Autonomous motivation (promotion of choice) can consist of both intrinsic motivation and the types of extrinsic motivation where another person's behaviour has been integrated whilst controlled motivation is related to internalization of other's behaviour.

Deci and Ryan (1987) stated "a person's perception of an event is an active construction influenced by all the kinds of factors" (p1033) and it is how they respond to the event where, quoting Gibson (1986) the "external event is an affordance for their constructive interpretations" (p1033). The active construction and interpretation within SDT are factors that reverberate within the social constructive paradigm of childhood. The different social milieu children encounter affords both similar and different experiences. The basis of SDT and affordances may provide an insight into factors that may influence choice in relation to the structural, functional and social affordances. These aspects of the social and environmental factors of the play space may support or control choice (Ryan & Deci, 2006) at home, in the school playground and the out-of-school club, where choice is an important aspect of affordances in relation to humans (Cutting, 1982).

2.5.3 Models of Play and Choice

Choice is pivotal in Miller and Kuhaneck's (2008) dynamic model for play. Their model has a central theme of fun embedded in children being able to make choices on their play. The link between fun and choice is having an appropriate level of challenge, child characteristics, activity characteristics, relational characteristics and contextual characteristics. This model aligns with Ryan and Deci's (1985) autonomy within SDT where by children having choice contributes to their positive emotions and meanings, preference and mastery skills. However, not all play is fun (Sutton-Smith, 1997), and as Ryan and Deci (1985) state that choice maybe controlled which suggests some limitations with Miller and Kuhaneck's (2008) model. If choice is on a scale of being autonomous at one end and controlled at the other, as Deci and Ryan (1985) suggest, it then raises the question of how freely-chosen is children's choice if choice is being influenced by others?

Barbour (1999) studied the impact of the physical setting on children's play behaviours and peer relationships. Using observational study, Barbour (1999) found children's play behaviours were determined in part by the interrelationships among the physical setting or playground; levels of physical and peer relationships. Barbour developed a model on the impact of playground design, and as with Miller and Kuhaneck (2008), placed choice as the strategic feature of her model. The model has an interrelation between the condition (physical competence of the child), context (recess on the playground), play behaviour, condition (social status) and the consequence (peer relationship and skill development).

From the models developed by Deci and Ryan (1985), Barbour (1999) and Miller and Kuhaneck (2008), choice is important for positive social relationships, competence and through developing skills and a sense of mastery. Bruner (1973) stated that mastery play begins as early as 6 months. The infant develops simple actions into more advance actions through continual modular routines in play. Bruner (1973) believes that early skilled behaviour is derived from internal biological sources and is shaped by the environment. As children mature, choice becomes a factor that emerges as children negotiate their play. Bruner (1983) alluded to this when he stated:

> "Two children playing together can exchange ideas, can negotiate their intentions, can elaborate as needs be, and can go on for as long as necessary. One alone has difficulty sustaining play activity. And three is indeed a distracting crowd" (p67).

From research outlined previously, it is known that factors that affect choice are mostly based on social factors. This includes parental fears stopping children playing outside (Gill, 2007) and can increase in childcare provision (Smith & Barker, 2000). However, other factors that may also affect choice could be the organisation of the play space and how the nature of the play takes place. Choosing a play activity is only one aspect. There is always where the play will take place, who is involved, who makes up the rules of the play and how and when it finishes.

2.5.4 What Impact Does Choice Make?

There is a lack of both quantitative and qualitative research on how much choice children have in their free play. However, there has been research undertaken around the benefits of choice with respect to the environment and activities that take place, intrinsic motivation, learning, self-efficacy and choice strategies. Often the research is undertaken through task-based experiments rather than observations. A review of the impact of choice is discussed.

2.5.5 Choice, the Environment and Activities

One early piece of research undertaken was McDowell (1937) who investigated 20 two and three year old children's choice preference from indoor play within their nursery. Although the results were based on a limited amount of play materials to choose from and no statistical analysis was carried out, McDowell found choice to be important and that children were able to make informed choices from a young age. A more detailed study of choice with 4 year old children in nursery daycare was undertaken by Wiltz and Klein (2001). Using a range of methods (classroom observations, field notes, analytical descriptions and interviews, children's drawings, children's conversations and picture-stories) they found that the quality of the environment had an effect on children's choice in their play. In high quality environments children were less keen to leave their chosen activity to be interviewed and when they did their answers described their chosen activities in detail. They also found their

activities were more non-directed (child-led) than adult-led. In contrast children using low quality environments had less choice, more rules governing their free play time and were more directed (adult-led) and when interviewed spent more time reciting the sequential order of the day's schedule than their play activities. In addition, when asked what they did and what they liked best, results from both types of environments fell into three broad types of activities: non-directed (child-led), directed (teacher led) and functional (snack and nap time) (Wiltz & Klein 2001).

Canning's (2007) non-participative observations of children in nursery settings highlighted the importance of choice in adult-free play environments. When we talk of adult-free play environments, it is more accurate to refer to adult-free play activities as in any childcare setting children are rarely, if ever left alone in the environment. Canning considered the amount of freedom of choice and the engagement of children in play situations and stated that children who exercise choice also exercise empowerment, a factor Smith (2010) researched in out-of-school provision. Whilst Smith (2010) felt that children in the out-of-school provision developed self-esteem and independence, Canning (2007) felt children in the nursery setting develop their own observation skills.

Fabes, Martin and Hanish (2003) carried out an observational study of 203 pre-school children's gender stereotypical activity choices in relation to playing alone, with other children and playing near adults. They found that boys were more stereotyped in their activity choices than girls whether playing in same sex or mixed sex groups. Girls' activity choices were less stereotyped when they played with groups of boys. Girls would be more likely to spend time playing near adults, although this occurred only when children played in same-sex peer groups. In same sex groups (boys or girls) the presence of more than one other same-sex peer appears to push young children toward more extreme, but consistent, same-sex peer play qualities than when playing in same-sex dyads. In mixed sex groups there was more potential for patterns of play to be modulated but this was found to take place more often in the presence of adults.

2.5.6 Choice and Intrinsic Motivation

The influence of choice on intrinsic motivation was studied by Greene and Lepper (1974) using a pre-test and post-test task experimental procedure. Through a drawing task they demonstrated that pre-school children who were given a reward for drawing (extrinsic motivator) in an experimental situation later, showed less intrinsic interest in the same activity when playing in their pre-school, compared to children who had engaged in the activity with no extrinsic reward. The results were replicated by Lepper and Greene (1975) where again pre-school children were less inclined to choose an activity if provided with extrinsic rewards in a pre-test and post test situation. They also found that children were less inclined to an activity if there was an increased adult presence.

Tafarodi, Milne and Smith (1999) and Tafarodi, Mehranvar and Panton (2002) found that when university students had the choice to name characters in a story task, although having choice did not increase their level of interest, it was found that there was an increase in confidence when they were completing the task. The increase in confidence was down to students being able to personalise the task which enhanced their self-image within the task itself. The importance of having choice in personalising a task was also found to be important by Cordova and Lepper (1996) when providing choice to 72 school children on a fantasy based mathematical task. Activities where children are able to exercise choice also lead to increased motivation, self-regulation and metacognition (Whitbread, 2010).

2.5.7 Choice and Learning

Reber, Hetland, Chen, Norman and Kobbeltvedt (2009) investigated choice in relation to interest in learning and perceived control with undergraduate students. Their focus was what they termed example choice where students select an area of interest to study from a given selection. The aim of example choice was:

> "To achieve the same joy and interest students experience with situational triggers such as jokes, ice cream, or embellishments in computer programs by directly connecting these positive emotions to a topic that is relevant to the learner's goals and individual interests" (Reber et al., 2009, p538).

This is particularly important in view of research that demonstrates how increased choice or the perception of choice, leads to superior developmental effect (Reynolds & Symons, 2001; McInnes, Howard, Miles & Crowley (2011). It has been suggested that enabling choice over and during participation in an activity, allows children to set and amend target outcomes which itself leads to increased flexibility through the lowering of behavioural thresholds (Brown 2003; Howard 2010a).

D'Ailly's (2004) experiment with 11 year old Canadian and Chinese children and found the results from a computerized animal, number and colour naming learning task. They showed when based on time and the number of clicks on the computer mouse, choice had no significant impact on children's interest, effort, or learning outcome based on the premise of the self-determination theory. However, although gender and cultural differences were found with interest in the computer task, both Canadian and Chinese children's level of interest and the actual effort exerted in learning were not influenced by the manipulation of different choice conditions.

The importance of choice on learning appears to be contradictory with regards to the benefits to children having choice. Choice may increase results but may not increase interest in a task.

2.5.8 Choice and Self-Efficacy

Self-Efficacy is about how people deal with their environment through cognitive, social and behavioural organisations (Bandura, 1982). Self-efficacy contributes to motivation and learning (Bandura, 1993) and is determined by social, situational and temporal circumstances. Bandura identified four aspects that influence self-efficacy: performance accomplishments (based on personal mastery experiences); vicarious experience (what other people do); verbal persuasion (what other people say) and emotional arousal (reaction to stressful and testing situations) (Bandura, 1977).

Bandura (1982) stated that in our daily lives we make decisions about what course of actions to take where:

> "Given appropriate skills and adequate incentives, however, efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (Bandura, 1977, p194).

In contrast to choice being pivotal in self-determination theory, choice is also an important aspect of self-efficacy, the way people cope with stressful situations (Bandura , 1977), what Bandura (1993) terms "self-efficacy determination" (p135). Self-efficacy enables people to have "influence choice of activities and environments" (Bandura, 1993, p135). The role of choice in self-efficacy, in both a personal and a social context, is influenced by the behavioural settings (i.e. the play space), choice of activities (what children play) and eventual coping strategies (Bandura, 1977).

Starling's (2011) study of unstructured play in nature found no relation to any increase in children's self-efficacy using a pre and post test method. The study was undertaken in a summer camp where 21 children had the option to choose to have free play in one of three areas for a 45 minutes period. Although no increase in self-efficacy was found, Starling (2011) noticed, through field notes and observations, children chose their daily unstructured time based on the experience they desired that day. This daily experience was often with other children where aspects of goal setting and mastery were recorded. Bandura (1993) explains that choices people make cultivates competencies, interests, social networks and affects the direction of personal development. Social networks involve negotiation; negotiation indicates that choice may need to be an important negotiation factor.

2.5.9 Choice Strategies

The concept of choice being a progressive mental organization (Cooley, 1902) was reflected in the study by Bereby-Meyer, Assor and Katz (2004) on choice with Israeli children aged 8-9 years and 12-13 years. Based on four choice strategies researched from the literature (random choice rule, lexicographic strategy, equal weighting and weighted additive compensatory process) children were asked to make choices based on two alternatives to consider and one with four alternatives to consider. They found that children used different choice strategies based on the complexity of the task involved. Children aged 8–13 years

used both lexicographic (choices made by selecting the attribute most important to the child and then choosing the alternative that has the highest value on that attribute, ignoring all other attributes and their values) and equal-weighting strategies (choice is made by examining the values of all attributes in a compensatory way) when able to choose correctly between two alternatives (each with three attributes), In complex situations, such as those with four alternatives, the youngest children apply the lexicographic strategy regardless of its appropriateness when cognitive demands appear to high for the child whilst adolescents were more able to use equal weighting strategies more accurately . Bereby-Meyer et al. (2004) indicate the importance of "the adaptive nature of children's decision-making behaviour" (p142).

The use of different choice strategies by children have also been researched in the field of marketing in relation to product selection. Cardoso, de Araujo, and Coquet (2008) questionnaires with 313 school-aged children found that their choice of clothing was positively related to age, sex, environment, parents' income, self-esteem, susceptibility to interpersonal influence and utilitarian value (functional value). Roedder et al.'s (1992) study on children's product choices found that choice selection when comparing known to new projects of milk and fruit juice was age related. Young children's choices can be modeled with rather simple non-context-dependent models, such as a Luce model by categorizing objects on the basis of visually salient features (e.g. colour or size). Older children tend to categorize on the basis of underlying features of objects, for example function or use, where their choices may need to be modeled with more complex contextual choice models, especially in those instances where inter-object similarity is salient to these children. In this case, because context effects must be considered explicitly, measurement procedures will need to be more complex in order to estimate the choice model.

Wartella, Wackman, Ward, Shamir, and Alexander (1979) found that younger children, when asked to evaluate a product, use simple mechanisms based on a single attribute instead of compensatory strategies. As they grow older, they use more and different kinds of information in purchase decision-making. Moreover, they found that kindergarten children base their choice mainly on perceptual features while third-graders tend to take the most important attributes into consideration. Although it is evident children use different strategies

to make choice selection, the choices made were on choosing a single item from others. Children's use of choice in their play may not only rely on using different strategies but the environment they are playing in.

Iyengar and Lepper (2000) carried out three different studies in relation to the possibility there may be different motivational consequences when provided with limited (psychologically manageable) choices compared to an extensive choice (psychologically excessive). The first study with 754 adult shoppers involved the selection of jam from either a choice of 24 or 6 different varieties. They found consumers were more likely to purchase a variety of jam when offered a limited choice (in this case six). Their second study involving 197 undergraduates found they were more likely to write an essay for extra credit when they were provided a list of only 6 rather than 30 essay topics. Their final study found 134 undergraduate enjoyed the process of choosing a chocolate more from a display of 30 than from a display of 6; however there was more regret on the final choice of chocolate selected from the display of 30 compared to the display of 6. Iyengar and Lepper (2000) found that an extensive-choice although initially may be more appealing was more likely to hamper people's intrinsic motivation to purchase products resulting in choice overload. Individuals who made choices in the extensive-choice context often felt frustrated and dissatisfied with the choice made compared to the limited choice contexts. Ryan and Deci (2006) argue that the study undertaken by Iyengar and Lepper (2000) gave the impression that SDT was about advocating choice and not, as Ryan and Deci claim, is about facilitating 'choicefulness' (p1576).

The research undertaken to highlight the role of choice in intrinsic motivation, learning, types of choice strategies, the play environment and activities undertaken have shown that choice is an important factor. However, the research has been based on experimental procedures that are often carried out away from children's natural setting, or if carried out where children play, based on adult observation and interpretation (Greene & Lepper, 1974) or the use of computer simulation (Tafarodi et al., 1999; 2002). What appears to be missing from the research is children's perception of choice based on their own observations or experiences. There is no research measuring choice from a child's perspective, as most research undertaken around choice is often on children's choice of activity. The choice of activity is

only part of the play process (Sturrock & Else 1998) as choice will also relate to where play takes place, who is involved in the play and when play begins and stops. Any study of children's choice in their play needs to take into account the who, what, when, why and how. Factors that may affect choice also need to be considered, those in the child's control and those that are not.

2.5.10 Negative Aspects of Choice

Schwartz (2004) makes a strong case that although choice is important in our well-being and has psychological benefits; too much choice has the opposite effect of empowerment and raising self-esteem. Making decisions requires effort, mistakes can be made and the psychological consequences of the mistakes are more severe. Choice is also linked in with social ties and the constraints that come with them will reduce levels of choice. In line with these views, some psychologists have suggested that choice may have disadvantages (Schwartz, 2000, Schwartz et al., 2002). This has been highlighted in children's play by Vygotsky (1978). Vygotsky (1978) believed that play creates demands for children to act against impulses that creates a "conflict between the rules of the game (play) and what he would do if he could suddenly act spontaneously" (p99) wherein choices made when playing are reduced (Csikszentmihalyi & Bennett, 1971) particularly when children need to adapt to certain customs and cultures (Mead,1934). This leads children to accept certain rules and customs in different environments, what Berger and Luckmann (1966) term habitulization. Habitulization may result in a decrease in choice, and can takes place in both social and non-social environments. Children exposed to the same events or environment can spend less energy on decision making due to familiarity. This implies children's need to make choices can be at different intensities depending on how familiar the social and non-social environment is to the child.

Another negative aspect of choice is that it involves energy in making decision. In particular, according to the self-regulatory perspective proposed by Baumeister et al. (1998) and Muraven & Baumeister (2000), all acts of choice or self-control are effortful and draw on a limited resource that can be depleted, analogous to a source of energy or strength. Because all acts of volition or self-regulation draw on the same resource, any act of volition or self-

regulation will have detrimental effects on subsequent acts that continue to require self-regulation. Consequently, engaging in a choice can result in a state of fatigue called ego-depletion, in which the individual experiences a decrease in the capacity to initiate activity, make choices, or further self-regulate. Clearly if choice is affected by ego-depletion then this will have an affect on children's motivation to choose. Ryan and Deci (2006) questioned Baumeister et al. (1998) experimental procedure claiming the experiment was around providing a high choice, or controlling condition, rather than having true choice conditions. When introducing a true choice condition to an ego depleting task, Ryan and Deci (2006) found true choice was not ego depleting.

2.5.11 Choice in Play Theory, Policy and Practice

The importance of choice in children's play has been stated in government policy (Powell & Wellard 2008; Lester & Russell 2008), based on play theory, and is integral in professional practice (PPSG, 2005). The importance of choice in children's play, however, is based on rhetoric rather than research-based evidence. This rhetoric has formed the basis of professional project, particularly in playwork, where as indicated earlier, it has been stated that behaviour that is not freely-chosen is not play (Hughes, 1996). However, Lester and Russell (2008) make the point that freely chosen play appears to be difficult in social situations. Henricks (2008) historical overview of the nature of play indirectly also makes a similar point where he states play is a "relatively free or voluntary activity in which people set the terms and timing of their own involvement" (p159). The key aspects are that play is relatively free and individual people set the terms of their involvement. In a review of the BIG Lottery's Child Play Programme in England (Hall & Day, 2009), the study of Local Authority Play Strategies found that with regards to free play, although choice and control for children and young people was central to free play, this notion was deemed an "aspiration" (p12).

Research undertaken on choice has been based on the selection of an activity from a pre-determined set and a pre-test post-test analysis made. Choice, however also relates to other aspects of the child's play, such as where in the play environment it takes place and who is also playing. No measure of choice has been undertaken to indicate whether all aspects of

children's play has to be freely chosen. The assumption that play has to be freely-chosen may not be accurate but has never been tested. This lack of research has implications to play theory, policy and practice. The impact on professional practice relates to all aspects of children's play: childcare, play therapy; lunchtime supervision; playwork and teaching.

In Britain today, three distinct play environments have emerged where children are spending more time at home, in the school playground and the out-of-school club where children are playing under the supervision of adults. This is being referred as the institutional triangle (Rasmussen, 2004). The more time children spend within the institutional triangle under adult supervision results in a reduction of time available for them to play unsupervised. Considering multiple contexts, Canning (2007) proposes that adult presence in children's play in a nursery setting often leads to disempowerment and reduced opportunities for social and emotional development. Smith (2010) also found both parents and playworkers described how enabling children's choice and autonomy in out-of-school provision contributed to their confidence, independence, self-esteem and empowerment. A lack of time to spend in authentic free play has been highlighted in relation to out-of-school clubs (Smith & Barker, 2001), within school playgrounds (Blatchford & Sumpner, 1998) and within the home environment (Valentine & McKendrick, 1997; Gill, 2007; Beunderman et al., 2007).

For each of the three environments (home, school and out-of-school club) different factors will have an affect on children's choice within their free play. For example, Smith and Barker (2000) found that in out-of-school provision, children's choice in their play was clearly influenced by the activity that was chosen, the space that was available and the supervising adults' perception of play. Hart (2002) stated how choice in children's play is important in their free play and how adults, where necessary, need to play a supportive role.

The difficulty of studying play is that it can mean different things to different people in different contexts (Howard, 2002). The importance of play in children's lives differs between play and non-play professionals. The different perspectives on what constitutes play, and how play should be addressed, can cause conflict between policy and practice as highlighted by Wood (2004a; 2004b; 2007) within early years education. In turn, the conflict can be between adults perception of the importance of choice in play being freely-chosen and if this

is important from a child's perspective. The study of children's choice in their play, from a child's perspective, needs to take into account factors that are influenced by the environment; the activity itself and the other people in the play space. How the environment, activity and other people interact with each other in relation to children's choice in their play also needs to be explored.

The benefits of having control over choice is for many people the factor that defines what they do as play and not work or learning. Other benefits of choice is that it is linked with intrinsic motivation, more interest in the activity chosen, empowerment, increase self-esteem, observational skills, learning and the development of positive social skills. How and why children make choice is critical in both self-determination theory and self-efficacy determination. By assuming play has to be freely-chosen, people who find making choices difficult may find too much choice could be a hindrance, e.g. be ego depleting, rather than being freely-chosen play being supportive. To support children's health and development, knowing what level of choice and how to support that level of choice may be far more beneficial than assuming that play has to be freely-chosen.

2.6 Conclusion and Research Questions

The Welsh Assembly Government Play Policy (2002) clearly states that children having choice in their play is a critical factor that enriches learning and emotional well being. Given the importance of choice within children's play in relation to its developmental potential, that choice is often seen by children as an indicator of play activity and that children are spending increased time in supervised environments within the institutional triangle, this thesis considers how much choice children have in their play within the home, the school playground and the out-of-school club. Importantly, it considers children's own perceptions of choice via a self-report methodology. The importance of choice as a defining feature of play for children has been repeatedly demonstrated. In addition, having choice about participation in an activity has been seen to positively influence children's learning and development (Bandura, 1993). There is still little research however on how much choice children perceive themselves to have during their play and what kinds of factors influence this choice. This thesis focuses on children's perceptions of choice in their free play at

home, in the school playground and in the out-of-school club. The implications of the findings for play theory, policy and practice within children's services are then considered.

This thesis aims to address the following research questions through a two study sequential exploration into children's choice in their free play across different contexts:

1. What do children choose to play at home, in the school playground and the out-of-school club?
2. How much choice do children perceive in their play?
3. Does children's perception of their choice differ across context?
4. Does children's perception of their choice differ in relation to social context?

3. Children's Voices in Research

3.1.1 Introduction

The challenge with regards to conducting research with children is, as Kellett and Ding (2004) identify, "to find appropriate techniques that neither exclude nor patronise children" (p165). Although the research undertaken in this thesis did not use children as active participants in the research process, it was important that children's voices and opinions were heard. James (2007) states that during the 1980s and 1990s, where childhood was considered more as a social construction (Prout & James, 1997), children emerged as social actors encouraged to speak out. However, James (2007) questions the authenticity of using children's voices in research with respect to how children's perspectives are presented, particularly how childhood is understood. This chapter outlines the research map developed and the balance to providing a voice for children and adult representation of children's voices in relation to children's perception of choice in their play.

3.1.2 Children as Participants

The methods used in research involving children range from passive participants particularly in experimental design, to children being fully involved in the research process. Any research involving children has to ensure an ethical approach underpins the whole research process (Alderson & Morrow, 2004) with an understanding of childhood (Alderson, 2005; Farell, 2005) and how researchers react to childhood (David, Tonkin, Powell & Anderson (2005). In recent years there has been a move from children being viewed more as participants rather than as subjects or objects (Kellet & Ding, 2004).

One popular way of involving children as participants is supplying them with cameras and asking them to take photographs of their favourite places to play, as well as their least favourite and the use of drawing (Barker et al., 2003). Howard (2002) used photographs and stories in her study of children's perception of play, whilst Petterson, Bishop, Michaels and Rath (1973) used photographs of play equipment in their research of children's choice preference. The advantage of using photographs is that it provides children with relevance to any study which is an important factor when researching with children (Donaldson 1978).

However, as highlighted by Smith and Volstedt (1985), a study of choice needed to use a method that did not rely on observational judgement. Therefore the involvement of children in gathering data for this research needed to develop a quick and easy process that would keep them interested but still provide relevant and robust data. The research process used children as both active participants in data collection and passive participants in a manipulation experiment. These will be discussed further in this chapter.

3.1.3 Ethical Considerations with Both Participants and Researcher

Any code of ethics and conduct will relate to both ethical principles and decision-making (British Psychological Society (BPS), 2006). Both need to adhere to the aspects of autonomy, beneficence, justice and nonmaleficence (Kitchener, 1984; Beauchamp & Walters, 1989; Alderson & Morrow, 2004). Undertaking research with children has specific aspects: This includes obtaining consent from both children and their gatekeepers, safeguarding children, clarity of language, constructs of childhood, power relations, building a rapport with children, privacy and confidentiality, context, the cognitive abilities of the children, research methods used, validity of children's answers and the interpretation of the results and different adult and children's perception of the research process (Punch 2002; Mauthner, 1997).

Ethical considerations need to encompass all those that are involved in the research. This includes the role of the researcher (Alderson & Morrow, 2004; Alderson, 2004). The researcher needs to be reflexive. Reflexivity should be a central part of the research process where researchers critically reflect not only on their role and their assumptions (Davies, 2008), but also on the choice of methods and their application (Punch, 2002) and the relationship with the participants (Alderson & Morrow, 2004).

It is critical that for anybody who becomes a participant in the research, informed consent is obtained. The importance of informed consent can not be underestimated as it is the "legal means of transferring responsibility for risk-taking from the researcher to the participant" where "consent is only 'informed' if the risks are explained and understood" (Alderson & Morrow, 2004, p35). Informed consent should be from both the children in their research and their gatekeepers (NCB, 2003).

Alderson and Morrow (2004) identify three aspects that the researcher needs to focus on which are the research relationships (e.g. listening skills), power (e.g. respecting children's rights and interests) and emotions (e.g. being aware of your own feelings). In addition the research can be influenced by the researchers own personal experience of childhood and their personal and professional experience as an adult (Grieg & Taylor, 1999). This again points to the need for the researcher to adopt a reflexive stance to the research particularly in an area such as children's play.

Two other factors that need to be taken into account with regards to research with children are 'generational issues' (Mayall, 2000) and 'interpretive reproduction' (Corsaro, 1998; Corsaro & Molinari, 2000). Generational issues are links between the research goals and methods of researching children and childhood and were evident in the ethnographic research undertaken by King (1978) in the school classroom. The development of the Play Detective Diary used in study 1 took into account the age range of the children (6 years to 12 years) and used a tick box procedure that, once explained, children could use on their own. Interpretative reproduction consists of three types of collective actions: children's creative appropriation of information and knowledge from the adult world, children's production and participation in a series of peer cultures and children's contribution to the reproduction and extension of the adult culture (Corsaro, 1998). In study 1, children were recording their own play in their own peer cultures where adults were also present. In study 2, children were asked to respond when aspects of their chosen play were manipulated and reasons why their play changed were recorded via interviews.

3.1.4 Research Centred Approach with Children

Innovative methods can be more interesting and fun (for the children and the researcher). However, they should be referred to as 'research friendly' or 'person-friendly' techniques, rather than the patronizing term 'child-friendly' (Punch, 2002). Many adults might also benefit from them and find them more appealing than traditional methods (Punch, 2002). According to Punch, the challenge is to strike a balance between not patronizing children and

recognizing their competencies, while maintaining their enjoyment of being involved with the research and facilitating their ability to communicate their view of the world.

Spender and Flin (1990) have four recommendations for optimising responses from children in quantitative research:

1. Use unambiguous and comprehensive instructions at the start of the interview
2. Avoid leading questions
3. Explicitly permit 'don't know' responses to avoid best guesses
4. Interview children on their home territory if possible

The choice of research participants is equally important. Kellett and Ding (2004) make reference to three distinct periods of childhood: early years; middle childhood and youth. They argue that middle childhood "has been relatively neglected by researchers outside the field of developmental psychology" (p161). A view shared by Santer et al. (2007) in relation to the study of children's free play.

The principal focus of play research has been on pre-school and infant age ranges (Smith et al., 1986) up until the 1990's (Kellett & Ding 2004) as it was assumed that within these two age groups "more rapid changes and adjustments were being made" (Hill, Layborn and Borland, 1996 as cited by Kellett & Ding, 2004). Within early years, the research undertaken has often focused on easily observable aspects of play. This includes pretend play and social play where the benefits of play meet other agendas for example problem solving in education, health (importance of physical play) and well-being (play therapy). However, as Smith et al. (1986) pointed out "how we observe play may affect the kinds of play we record" (p40). The focus of this research was children's perception of choice in their play with children aged between 6-12 years, an age group that has been termed middle childhood. Middle childhood has been defined as:

> "The period sandwiched between 'early years' and 'youth' that is generally associated with the primary school years" (Kellett & Ding 2004, p161).

Children are studied by adults and their behaviour interpreted by adults. Smith (1986) stated that in the preceding 20 years, the study of children's play focused on cognitive growth and creativity as important outcomes particularly in areas of education. During this period, the growth of a new 'profession' in the United Kingdom arose in Playwork. The study of children's play in non-educational environments (adventure playground, open access play and closed access out-of-school clubs) has focused more on play rather than the educational and therapeutic benefits (Hughes 2001) with the emphasis that play should be freely-chosen (PPSC, 2005). The problem of devising innovative research using child participants, particularly in the very subjective area of children play, poses problems particularly in relation to the reliability and validity of the research process and subsequent results.

3.2 Research Process

3.2.1 Introduction

Grieg and Taylor (1999) identify four different research designs when researching with children: cross-sectional, longitudinal; correlational and experimental which can be qualitative, quantitative or a mixture of both. This raises the dilemma whether research with children is ontologically positivist or interpretive naturalist and epistemologically realist or constructivist. It also raises the question as whether children are objects or subjects of research (Woodhead & Faulkner, 2000).

The topic of choice and play can be conceived in both objective and subjective terms. The epistemological approach used in this thesis gave careful consideration into which method of research was required, particularly as different research paradigms exist. Thomas Kuhn (1970) defined paradigms as:

> "Some accepted examples of actual scientific practice-examples which include law, theory, application, and instrumentation together-provided models from which spring particular coherent traditions of scientific research" (p10).

Kuhn argued that paradigm models are copied within any given field and compete with each other (Tashakkori & Teddlie 1998). Historically this has been the case in relation to the paradigms of quantitative and qualitative research.

3.2.2 Quantitative v's Qualitative Research

Bryman (1992) describes quantitative research as rationalistic; an inquiry from the outside, functionalist, and positivist. By comparison qualitative research is naturalistic, an inquiry from the inside, interpretive, constructivist and naturalist-ethnographic. The differences between the two research methods are summed up by Smith (1983):

> "If the realist-quantitative version of objectivity focuses on the known, the idealist-interpretive version is concerned with the realm of the knower" (p10).

The epistemological preoccupations in quantitative research are measurement, causality, generalization and replication (Bryman, 2004) which links theoretical concepts with empirical research (Bryman, 1989). The approach to data collection often relies on the collection of numbers (Trochim, 2008) employing an experimental or correlation design to reduce errors (Firestone 1987) with an emphasis of objectivity and generality (Torstenson-Ed, 2007). The results are often tested through statistical analysis to identify if results may be due to chance. The strength of quantitative research is it may show something has taken place but its weakness is it does not give the scope for the reasons why. Examples of quantitative research include the use of scales. Howes (1980) developed the Peer Play Scale which relies on adult observations scoring on pre-determined criteria. Another popular scale is the Penn Interactive Peer Play Scale which has been used for both parent and teacher observations (Fantuzzo & Hampton, 2000). A more popular quantitative research tool used in children's play is questionnaires (e.g. Rothlein & Brett, 1987) which may be completed by either adults or children.

Qualitative research relies on data as a collection of words (Trochim, 2008) concentrating on the perspectives of who is being studied with a focus on the interpretation of observations (Bryman 1989). This is often carried out through the use of case studies, interviews or

observations with an emphasis on subjectivity and context (Torstenson-Ed, 2007). A typical qualitative approach is ethnography (Firestone, 1987) which helps to provide meaning to any results obtained by contextualising rather than generalising (Bryman, 2004). Examples of qualitative research undertaken in play include the use of focus groups (Henshall & Lacey, 2007; Kapasi & Gleave, 2009) and interviews (Thomson, 2007). Focus groups allow children to speak with their peers, although there is a risk of a dominant person taking over the group. Interviews can be undertaken on an individual basis and can obtain a lot of information, but they are time consuming to carry out, transcribe and analyse. Another qualitative method is the manipulation of the play space alongside observation study (Harten, et al., 2008)

Both quantitative and qualitative approaches to research have their individual strengths and weaknesses (Burke Johnson & Onwuegbuzie 2004), however Bryman (1984; 1992) notes that the literature on quantitative vs. qualitative research tends to focus more on distinctiveness and compatibility methodologies in relation to data collection, data recording and data analysing rather than focusing on them as particular techniques. The outline of these two distinct research paradigms historically meant that research undertaken is influenced by levels of epistemology, of 'middle range' theory and methods and techniques (Brannan, 1992). This has influenced whether a researcher adopts a quantitative or qualitative approach, resulting in a divide that still exists between the 'traditional' sciences (e.g. scientific experiments) and approaches used in the social sciences (e.g. ethnography).

However, in recent years a combined quantitative and qualitative approach to research has evolved (Burke Johnson & Onwuegbuzie, 2004; Armitage, 2007) collecting data in a sequential manner. This approach stands midway between objectivity and subjectivity (inter-subjectivity) and generality and context (transferability) (Torstenson-Ed, 2007) where the method of research:

> "Is to try to interpret each notion by tracing its respective practical consequences" (Burke Johnson and Onwuegbuzie, 2007, p17).

The importance of "practical consequences" was highlighted in the mixed method meta-analysis carried out by Bryman (2006). Incorporating Green et al.'s (1989) five reasons for

carrying out a combined quantitative and qualitative study (triangulation; complementarity; development; initiation and expansion), Bryman's (2006) found that when comparing research rationale and actual data collection from 232 social science articles:

> "When multi-strategy research is employed – practice does not always tally with the reasons given for using the approach" (p109).

A mixed method approach may involve using different approaches to address a single research question, or different approaches used to explore different aspects of the research question. This was given careful consideration within this study of children's choices in their play. The subjective-objective aspects of play meant that both quantitative and qualitative research tools were required and a mixed method of data collection was used. Storlia and Hagena (2010) used a mixed method when studying children's physical activity in the school playground. This was achieved by using an accelerometer to measure amount of calories used and field observations for 2 days. Willenberg et al. (2010) also used a mixed method approach exploring children's physical activity and their perceptions in the school playground. They used the SOPLAY (System for Observing Play and Leisure Activity in Youth) for the quantitative to gain quantitative data and focus groups for the qualitative data.

3.2.3 Mixed Method Study

Mixed method research, in the gathering of child indicator and trends, is being increasingly used to gain children's views as an important part of the research process (Mason & Hood, 2010). The use of both quantitative and qualitative approaches in mixed method research can be placed in three broad groups: equivalent status designs; dominant-less dominant designs and designs with multi-level use of approaches (Tashakkori & Tellkie 1998). The use of mixed methods, or the third paradigm, Burke Johnson and Onwuegbuzie (2004) explain in relation to education research:

> "Is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies and across studies" (p15).

They outline the strengths of mixed method research where narratives can add meaning to numbers whereas numbers can add precision to narratives, where grounded theory (Glaser & Strauss, 1967) can emerge with broader research questions being generated. The study of play, its personal nature to the participant and the researcher, makes mixed method approaches a useful research tool particularly using grounded theory. Corbin and Strauss (1990) stated that the research process and empirical findings should be based on strict criteria where the aim of grounded theory is to:

> "Explore basic social processes and to understand the multiplicity of interactions that produces variation in that process" (Heath & Cowley 2004, p 142).

Grounded theory requires analysis directed towards theory development (Holloway & Todres, 2003), however as Braun and Clarke (2006) point out, grounded theory uses thematic analysis where themes capture something important about the data in relation to the research. The emergence of themes using grounded theory can "identify unfamiliar and concealed meanings, attitudes, values, beliefs and knowledge" (Hyvonen, 2011: p69). The research undertaken in this thesis questions play theory, policy and professional whether children perceive their play is freely-chosen so a grounded theory approach is used, with a strong focus on thematic analysis.

The process of grounded theory is through the development of codes, concepts and categories in the words and phrases that highlight areas of importance from the data (Allen, 2003), which accounts for behaviour for all those involved (Backman & Kyngäs, 1999). The use of a literature review has been debated between Glaser and Strauss (Heath & Cowley 2004) but Allen (2003) points out that this is a misconception and that the use of literature as part of the data collection was part of Glaser and Strauss's (1967) original work on grounded theory. Heath and Cowley (2004) identify two issues with regards to grounded theory in relation to the role of induction and emergence against deduction and speculation. Hyvonen (2011) used a grounded theory approach to investigate Finnish teacher's perception of play in the classroom. Teachers were interviewed to give them the opportunity to express their views around teacher-child and child-child interaction. The grounded theory approach enabled teachers to share their different viewpoints and experiences.

With equivalent status designs, the use of the quantitative and qualitative methods can be sequential where either a quantitative or qualitative approach is used first, followed by the other method undertaken separately. With sequential studies the two phases are separate. Another approach is parallel or simultaneous where both qualitative and quantitative methods are undertaken at the same time. The key to equivalent status designs is that equal weighting is placed on both approaches that contribute to the results obtained (Tashakkori & Tellkie 1998). This was the approach taken for the research into children's choice of play where a quantitative exploratory study was undertaken and the results obtained were used to develop a quantitative experiment and qualitative interviews, with a grounded theory approach used for the latter. The weaknesses of mixed methods are the strain put on the researcher to be able to effectively do both approaches and that the research becomes costly and time consuming (Burke Johnson & Onwuegbuzie, 2004).

3.2.4 Critical Theory and Critical Realism

Combining a positivist and interpretive paradigm using a mixed method approach to research fits in with critical theory (Cohen et al., 2003). Critical theory is concerned with oppressions and inequality in society and seeks to "emancipate the disempowered, to redress inequality and to promote individual freedoms within a democratic society" (Cohen et al., 2003, p28). Critical theory provides the opportunity for participants to voice their views, but as James (2007) points out, children's views may be translated by adults in what they feel is normal for childhood. This is particularly pertinent when researching children's play.

A major issue in researching children's play is the subjective nature to both the researcher and the research participants in relation to the objectivity of the research. This in turn has a major influence on the ontological, epistemological; methodological and methods used in conducting research. Weed (2009) used a critical realism approach in his study of sport and exercise, and citing Downward (2006):

> "Critical realism adopts a stratified ontology across three domains: the real, the actual and the empirical. It assumes that actual events have real causes, but that

> empirical understandings of such real causes are only possible through observations of actual events" (p508-509).

Critical Realism was originally proposed by Roy Bhasker (1975) and considers the internal and external relations between objects and events (Yeung, 1997) where any understanding of reality is likely to be provisional (Bryman, 1992). This research adopted a critical-realism approach to investigate children's perception of choice in their free play. This approach was to gain data from children's actual play experiences in two sequential studies. The two studies combined empirical data collection derived from children's own recording of their play and a task experiment and interviews based on their play experiences. Both studies considered Bronfenbrenner's Ecological Systems (1986) and process-person-context-time (1995) as this allowed factors both within and outside the child's play environment to be taken into account.

3.2.5 Bronfenbrenner's Ecological Environment and Process-Person-Context-Time (PPCT) Model

Bronfenbrenner (1995, 1999) developed a bio-ecological model for research that involves two propositions. The first is the complex interaction between persons, object and symbols in its immediate external environment referred to as proximal processes and the second the form, power, content and direction of the proximal processes. Bronfenbrenner (1995, 1999) stated that when both aspects are investigated in research design it is referred to as a "process-person-context-time model (PPCT)" (Bronfenbrenner, 1995: p621). Bronfenbrenner (1995) explained the complexity of the PPCT process in relation to human development:

> "Human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to as proximal processes". (Bronfenbrenner, 1995, p620)

This research has play and the play activity as the process, children as the person and the three play environments of home, school playground and out-of-school club as the context and the time children spend in these three environments. This study focused on the central element of Bronfenbrenner's ecological system (1986) the microsystem, however it is not possible to study one system in complete isolation as the other systems will always have an influence or impact. The microsystem is the complex interrelations within the immediate setting (Bronfenbrenner, 1986) where a microsystem:

> "is a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (Bronfenbrenner, 1986, p7).

Veitch, Salmon and Ball (2006) used an ecological based approach to gain parent's perception of the influence on children's active free play. The ecological model was used to develop a range of questions at the individual, social environmental and the physical environmental levels as they felt that it would "broaden understanding of both individual and environment influences on children's active free-play" (Veitch et al., 2006; p6). It is this broad understanding of individual, environmental and types of play that was considered in this study.

The ecological approach of this thesis developed a research map based on the dynamic play model (Miller & Kuhaneck, 2008) and the impact of playground design (Barbour, 1999) as reviewed in Chapter 2. This provided the framework for the research design interrelation between the condition (physical competence of the child), context (home, school playground, out-of-school club), play behaviour, condition (social status) and the consequence (factors affecting children's perception of choice) (Barbour, 1998; Miller & Kuhaneck, 2008). This map can be found at the end of this chapter.

3.2.6 Reflexivity in Research

Reflexivity is a process of self-reference (Davies, 2008) and citing Babcock (1980) involves a number of dichotomies: private/public; individual/collective; implicit/explicit and partial/total. Having worked in childcare, playwork and open access play environments

professionally since 1996 as a practitioner, trainer and lecturer these dichotomies are evident in the rhetoric of children's play being freely chosen. Many practitioners in playwork feel that if something is not freely chosen it is not play. This has often resulted in a dualism between the playwork profession and other professions. The rhetoric of play being freely chosen questions both my professional practice and my private thoughts. Sutton-smith (1994) makes clear reference to the interaction of somebody's personal and academic life:

> "I have reached that point in life when the scholarly pretence of impersonality is no longer a convincing disguise for myself. It is my belief, furthermore, that a central issue in social science at this time is to understand the way in which the narrative of the investigator's personal life interacts with his or her scholarship" (Sutton-Smith, 1994, p3).

In addition to having a professional practice in children's play, play is an essential role in childhood and subsequently everybody has their own play experiences that are subjective and personal. It was important to acknowledge and differentiate personal play experiences from the research process. Reflexivity was an important aspect of the research process as it allowed to watch the narrative of how the personal life interacts with scholarship and to reflect on our own subjectivities (Davies, 2008).

Bryman (2004) stated that for any research, reliability is concerned with issues of consistency of measures whilst validity measures what it is supposed to measure. Lincoln and Guba (1985) proposed two primary criteria for assessing a qualitative study: trustworthiness and authenticity. With respect to conducting research with children Mayall (2000) stated the need to link the goals of research with childhood (generational issues) where children fit into the adult world, what Corsaro (1998) termed interpretive reproduction. Hammersley (1992) stated any empirical account, which included any quantitative data, must be plausible and credible taking into account the amount and kind of evidence used. Hammersley (1992) also stated that the researcher can 'reflect' on an external social reality, a representation of the world under investigation.

3.2.7 Research Map

The research tools developed for this mixed method two study sequential research incorporated the process-people-context-time model (Bronfenbrenner, 1995). The first study, The Play Detective Diary (PDD), required children to record their play experiences using a quantitative self-administered questionnaire. Children, although not co-constructors of the research process, did contribute to the development of the PDD and were actively involved in the collection of data by completing their own PDD. The second study developed a quantitative manipulation experiment, Manipulation of Affordance ScenarioTasks (MAST), supported by qualitative interviews. The MAST experiment involved children being passive participants by providing a score of choice when their play was manipulated. The qualitative interviews provided children to provide reasons for any changes relating to the manipulation of their play. The methods used in both study 1 and study 2 considered the reliability and validity in relation to four broad categories of extraneous variables: participant variables; researcher variables; environmental variables and measurement variables (Heiman, 2002) within the PPCT (Bronfenbrenner, 1995) research process. The P-P-C-T model identified the difficulty and importance of reliability and validity of the research process and this is discussed in the method sections of both study 1 and 2.

The research framework developed was based on Barbour (1999) and incorporating Deci and Ryan (1985) levels of choice and Miller and Kuhaneck (2008) dynamic model of play. This is shown in figure 1 at the end of this chapter. The structure of each study was based on contextual characteristics (the three play environments were each study was carried out), child characteristics (social aspect of the child), strategies (levels of choice) and interviewing conditions (play detective diary and the MAST experiment and interviews). The results from study 1 were used to develop study 2.

The critical-realism approach recognised that all data obtained from children would be interpreted by an adult; however it was important to have data collected from real life contexts. Study 1 used a self-administered questionnaire where children recorded their own play activities to obtain a measurable level of choice. The advantage of children recording

their own data is that information obtained will have come from the children themselves; however the disadvantage is that children may forget, or get disinterested.

The research tools for study 2 contemplated observational tools, such as the Peer Play Scale (Howes, 1980) or the Penn Interactive Peer Play Scale which has been used for both parent and teacher observations (Fantuzzo & Hampton, 2000). It was decided that observing and making judgements around children's choice would pose the same issues Smith and Volstedt (1985) found when trying to score for intrinsic motivation where inferences could only be made. The development of a manipulation experiment provided the scope to compare measurements from a baseline score and this was supported by carrying out individual interviews. The manipulation experiment would also provide the opportunity to use photographs as a visual stimulus. The advantage of the manipulation experiment allowed changes to children's real life play experiences, although the responses provided after each manipulation would still be hypothetical as scenarios were manipulated by an adult. This procedure for study 2 fits in with the critical-realism approach. The interviews were analysed using thematic analysis through a grounded theory approach.

3.3 Conclusion

This chapter discussed the epistemological approach to this research and the use of a sequential mixed method approach. This is shown in the following table.

Table 1: Research Method, Research Tools and Research Questions

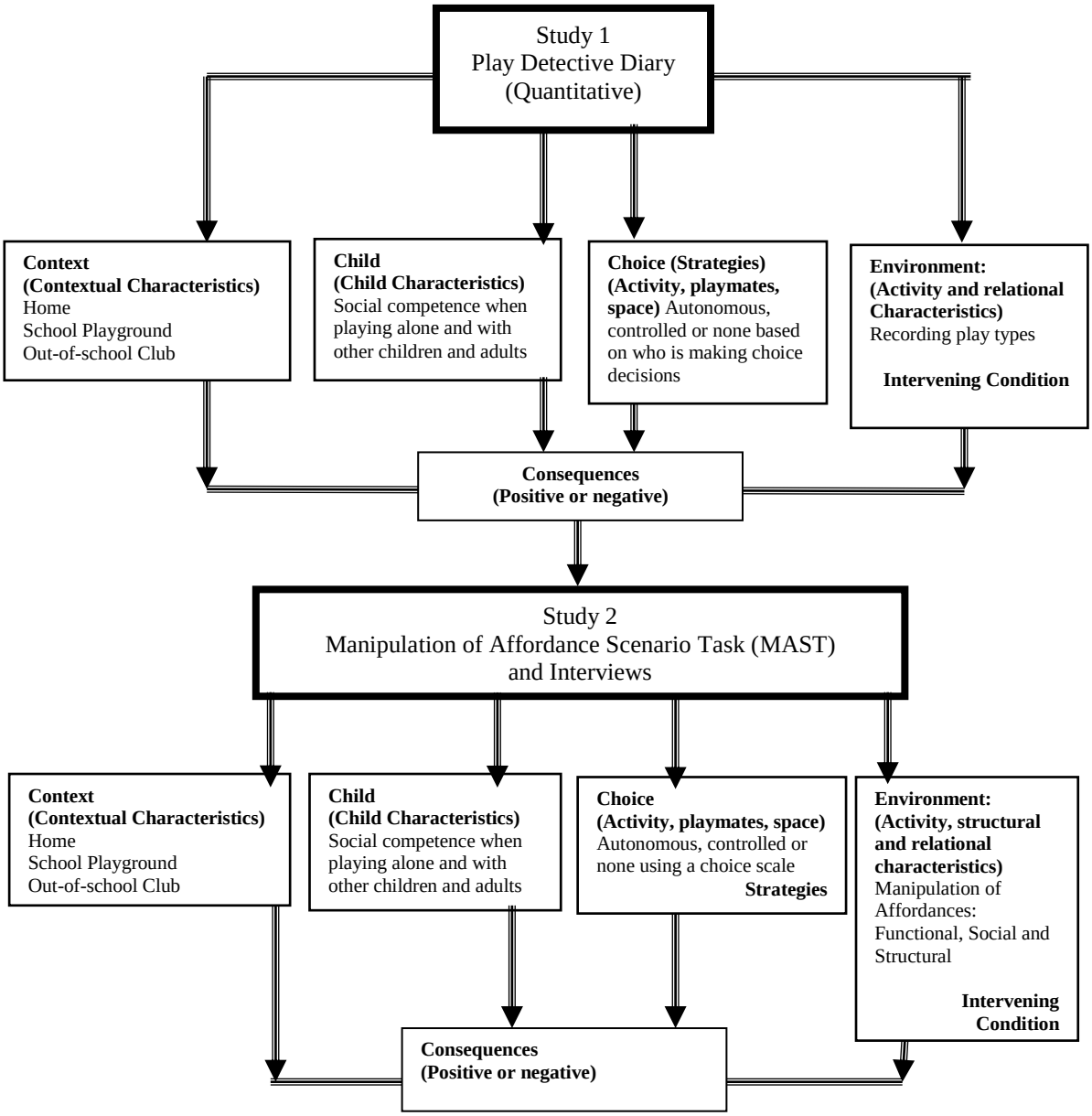
Method	Research Tool Developed	Research Questions
Quantitative	Study 1 Play Detective Diary	1. What do children choose to play at home, in the school playground and the out-of-school club? 2. How much choice do children perceive in their play? 3. Does children's perception of their choice differ across context?
Quantitative and Qualitative	Study 2 MAST Experiment Interviews	4. Does children's perception of their choice differ in relation to social context?

The pros and cons of both quantitative and qualitative research were discussed and the use of a sequential mixed method approach was explained. Study 1 was quantitative and study 2 was a combination of both quantitative and qualitative.

The ethics of using children as participants was discussed and the need to develop innovative research methods to collect data. Children were not considered to be passive objects in the study, particularly in Study 1 where children were responsible for recording their own data, however they were not involved in designing the research methods or analysing the data. The research methods used were to provide a voice for children on how they perceive choice in their free play.

The subjective-objective aspect of children's play can make it a difficult topic to study. Difficulty arises in children's role in the research process, data tools developed and the interpretation of the results. Grover (2004) states the importance of giving voice to the vulnerable rather than meet the political and social agendas of others. Woodhead and Faulkner (2000) point out that transcribing and analysing children's data tend to reflect the adult research questions rather than the child's experience. This dualism between child data and adult understanding contribute to the need for identifying and reducing the impact of extraneous variables that can affect the reliability and validity of undertaking research (Heiman, 2002), as well as a reflexive approach required by the researcher.

Figure 1: Sequential Research Method Map (Based on Barbour, 1999; Deci & Ryan, 1985 and Miller & Kuhaneck, 2008)



Chapter 4 Study 1: An Exploratory Study of Children's Choice in their Free Play

4.1 Introduction

The purpose of exploratory research is to find out what is happening; to gain fresh insights, ask questions and assess phenomena in a new light (Robson, 1993). These reasons underpinned the exploratory research into children's own choices in their free play in order to explore its importance as outlined in play theory, national policy and professional practice. Greig and Taylor (1999) describe four approaches of doing research with children: cross-sectional; longitudinal; correlation and experimental.

The exploratory research used a correlation approach as it closely met Greig and Taylor's (1999) aim of examining "the relation between two or more child scores and tentative explanations" (p72) and acknowledging the advantage of this approach of being easy to implement and the disadvantage of not implying cause and presence of other potential variables. This was undertaken using a self-report questionnaire – The Play Detective Diary (PDD).

4.2 Research Method for Study 1

4.2.1 Development of the Play Detective Diary

The research tool that was developed for the exploratory study took into consideration how the data was to be collected and the relationship between the child participants and the researcher. Punch (2002) stated:

> "children tend to lack experience of communicating directly with unfamiliar adults in a one-to-one situation, a more innovative approach such as using task-based methods can enable children to feel more comfortable with an adult researcher" (p330).

The use of developing task-based methods when conducting research with children was experienced from personal professional practice when organizing a children's rights conference (King, 2002). The conference consisted of four groups of children aged between

7-16 years of age who carried out research on their local play provision and delivered their results to an audience of adults. This reflexive account of personal practice provided a base for developing the Play Detective Diary.

The Play Detective Diary (PDD) arose for the need to produce a research tool that was quick, easy and fun to use. Children needed to record their chosen play and a measure of choice within their play was required. The structure of the PDD was a self-administered questionnaire and took six months to develop and was piloted with the help of a 7 year old and 9 year old. Their help was invaluable as the age range of children to use the PDD was 6-11 years. The PDD was designed to be age appropriate for the target sample, utilising a multiple choice tick box method combined with small sections for writing or drawing. Children were asked to describe the play they engaged in, who they played with and to judge who made the choices within their play. The value of eliciting children's views using play based methodologies is well established (Howard, 2002).

4.2.2 Piloting the Play Detective Diary

The need to pilot any research tool is important, particularly with a questionnaire, to ensure those who are completing the instrument have the same understanding of what is required as the researcher (Oppenheim, 1992). The input of children throughout the design process was invaluable as it allowed dialogue, sharing of ideas and constructive criticism. For example, to get the wording appropriate for this age group took several attempts in relation to what the researcher was asking and what the child understood and the information they provided. The first problem was asking children to write down what type of play they had engaged in during the day. Phrases such as play activity or game were avoided as these words often suggest adult initiated play, however during the construction of the PDD it was found the initial wording of "name one way in which you played today" was confusing. It was through dialogue with two children aged 7 years and 9 years that helped appropriate and meaningful wording emerged and was used to inform the construction of the PDD.

The 7 and 9 year old children piloted the PDD over a two week period in March 2009. Whilst completing the PDD they provided verbal feedback on how easy it was to complete

the sheets and that it was not too time consuming. From the pilot study, only one amendment had to be made in relation to the recording if an adult was involved in the child's play or not.

4.2.3 Procedure of the Play Detective Diary

The Play Detective Diary (PDD) was designed for children to record the play activities using a tick box procedure where the children were asked to become detectives, making notes about their play each day on a special record sheet. The PDD asked children to record information about one play activity each day that occurred at home, one that occurred in the school playground and one that occurred in their out-of-school club. Whilst there are differences in the range and amount of materials available to children across these contexts, all offer children the opportunity to exercise choice about the activities they engage in. Controlling constraints across contexts was unnecessary as the study was designed to reveal children's own levels of perceived choice.

The out-of-school club environment was chosen to collect data from children for the following reasons. Firstly as children clearly can distinguish work from play in the school classroom (King, 1979; Howard, 2002) it was felt that going into the school environment may have given the impression that the data collection was part of their academic studies and children may have felt that they had to take part in the research. Although the object was to collect data on how children play in the school playground, any consultation and data collection would have had to be undertaken within classroom time.

Secondly in the home environment it would have been logistically impossible to visit individual children in their homes to explain the research. There would also have been expectation for each child's parent to help support their children to complete the PDD; with the possibility some parents would have been more supportive than others.

Thirdly there needed to be an adult to support children in completing the data entries, if required, and the out-of-school clubs are run by paid staff to support children in their play. Each out-of-school club supported the research process by offering a member of staff to facilitate the handing out and collecting of play detective diaries and helping children with

any of the questions. All staff supporting the research had the research process explained with particular emphasis on not giving children leading questions. It was important that the children themselves decided on the play activity they were recording and to answer the questions on each PDD sheet.

Fourthly, rather than sending children home with the play detective diaries and possibly not seeing them again, the play detective diaries were left with the out-of-school club to look after them. This ensured that children attending the club would be able to record their data.

Lastly children do not have to attend an out-of-school club as opposed to having to attend school and having somewhere to live. Thus by collecting data when children attended the out-of-school club this ensured a play detective recording sheet for each environment would have been completed within a 24 hour period where children would have played at home, in the school playground and in the out-of-school club. This could not have occurred if data collection took place at home or during school time as children may not attend the out-of-school club on particular days.

At each of the out-of-school clubs used in the research, the approach undertaken was to explain how to complete the PDD by visiting the club. On each occasion any child who showed an interest in becoming a play detective was shown how to complete the play diary sheets. This was done by firstly finding out if children understood what a detective was. When an understanding was obtained, it was then explained that the researcher's role very similar to that of a detective. It was also explained the research was being undertaken as part of a Swansea University project. Most children aged 7 and over had an idea of what a University was. The nature of the research was explained to children in child friendly terms to show them what to do. During each visit, groups of no more than four children at a time were spoken to and the research process explained. Any child who was interested in becoming a Play Detective had the necessary consent from their parent or carer before any data was recorded by the child. For consistency, all children completed their diary entries at the out-of-school club and the number of play diary sheets each child recorded was not predetermined. Children only completed diaries if they chose to do so. These measures were

designed to ensure the authenticity of children's responses. Data were collected over a 12 week (2 terms) period.

Each child who became a Play Detective was given a PDD which contained 30 play diary sheets (10 to record their play at home, 10 in the school playground and 10 in the out-of-school club). All the PDD's were left with the supervisor of the out-of-school club who agreed to hand them out to the children each time they were in the out-of-school club. The supervisor was informed their role was to hand out the PDD and to help, when needed, to read out the questions. They were under strict instructions not to lead the children into any answers and not give any suggestions to what they should record. At week 6, children were revisited at each club and they were asked to go through each PDD diary sheet completed. Children were asked to explain what they had recorded on each play diary sheet which demonstrated their understanding of the questions and what was required from them.

The drawback of undertaking the research in the out-of-school club was that children's attendance was variable with children attending between one and five days a week. For children attending one day a week, the research project had to run for 10 weeks, spanning two school terms. This was a long time to keep children interested and also placed an additional time demand on the out-of-school club and staff. Each club had to be visited on at least four occasions prior to the research being undertaken. The first visit to each club was to explain the research aims and process to the staff and to provide consent forms for parents. The remaining visits were to meet the children and to explain the research aims and process. Many parents did not send back the consent forms and for some children this meant that they could not take part in the research until consent was gained. This delayed the starting of children being involved in the research.

4.3 Reliability, Validity and Limitations of the Play Detective Diary

The development of the PDD considered the reliability and validity in relation to four broad categories of extraneous variables: participant variables; researcher variables; environmental variables and measurement variables (Heiman, 2002) within the PPCT (Bronfenbrenner, 1995) research process.

4.3.1 Participant Variables

In relation to personal variables, the recording of the play types, social aspect and choices made within free play enabled children to record their own play experiences. By using children to record their own play experiences provided stronger ecological validity to the data collecting process as it related to real activities in real environments that children are present in (Grieg & Taylor, 1999). Ecological validity refers to the extent to which the environment experienced by the subjects in a scientific investigation has the properties it is supposed or assumed to have by the investigator.

The club supervisor had the role to hand out the PDD each day and to help with any reading of the questions. The adult facilitating the diaries at each out-of-school club met with the researcher prior to the study taking place in the out-of-school club. The adult facilitators were primed not to ask or give leading questions or answers or to say which box should be ticked. Children were also asked not to confer with other children when completing their diary sheets to avoid other people's personal characteristics or experiences that may influence their responses. Both the adult facilitator and the children completing the PDD were again met half-way through the data collection process. Each child went through their PDD and it was again stressed that children had to complete their diaries on their own. The adult facilitator was reminded not to give leading questions or suggest which boxes should be ticked.

4.3.2 Researcher Variables

The influence of researcher variables across the three domains was reduced by children completing the diary sheets supported by a member of the out-of-school club staff. The absence of the researcher for most of the data collection reduced their behaviour and characteristics that may influence the participant's responses. It was important for the children and researcher to meet in order to have a clear understanding of what would be involved in collecting the data. It was also important for the researcher to meet all the children half way through the data collection process to ensure they were completing the PDD correctly. However, the only researcher input was to classify the named activities on the play detective diary sheets into play types and interpret the data collected.

4.3.3 Environmental Variables

The three environments used for this study were the child's home, school playground and out-of-school club. The storage of the PDD and completion of diary sheets in the out-of-school club ensured children were able to feel relaxed and not pressured into taking part. It was felt that if children were completing the PDD whilst in school they might of felt obliged to complete them as school is a more formal environment rather than the more informal out-of-school club. Children still had to adhere to the out-of-school club's policies and procedures, and in turn the club had to run within the parameters set by the school. This included what areas the children may use, and may not use. All of the out-of-school provision were registered with the Care and Social Services Inspectorate for Wales (CSSIW).

4.3.4 Measurement Variables

The influence of extraneous measurement variables, the stimuli presented or the measurement procedure employed that may influence scores will always be difficult when children are participants and adults are interpreting the results (Woodhead & Faulkner, 2000). The use of a tick box enabled a quick and easy process for children to participate in.

The starting point was for children to decide one way they played. It was important to get the wording right so as not to lead children into an answer. The measure was for children to write down one thing they played and for the researcher to place each play type into a category and score for each category. Children were asked to make their play recordings within a 24 hour period prior to attending the out-of-school club. Play recordings were asked to be made at the same time during the day:

- At home in the evening between getting home and going to bed the night before -
- In the school playground at lunchtime that day
- In the Out-of-school club that day

The rationale for each specific timing was that children did not always attend the out-of-school club everyday so they may not have been able to remember how they played if the last

time they attended the club was the previous week. In relation to playing at home, the reason for selecting the night before was that most children do not have much time to play on a school morning at home, particularly if they attend a breakfast club. Therefore the 24 hour period for recording was devised.

The difficulty in deciding where to assign children's play into play types was subject to much discussion. For example, playing dolls could be object play (the doll itself), dramatic play (playing mums and dads) or even creative play (making up a new game). For the five play types used in this study a clear guideline was devised in relation to the focus of play activity. For example, if the child had written played with dolls this would be counted as object play type. If however they had written played mums and dads with my dolls this would be placed under dramatic play type. To reduce the extraneous measurement variables for the five play types were operationally defined from the following guidelines were devised:

- Dramatic Play: Here the child or children are taking on a specific role or function or re-enacting an event or situation
- Creative Play: Here the child or children are making something using the material available to them.
- Object Play: Here the child or children's focus is on a specific object that can be manipulated and moved that is integral to play.
- Physical Play: Here the child or children are engaged in high energy play that may include an object but the object is fixed and cannot be moved.
- Static Play: Here the child or children are engaged in play where there is none or very limited movement and with limited interaction with an object

The reduction of extraneous variables in relation to the social aspect of the play detective diary was achieved in operationally defining who children played with into playing individually (alone), with one other child (friend or relative), group of children (two or more other children) and with or without an adult. These enable the following combinations:

Table 2: Different Social Play Combinations for the Play Detective Diary

	Individual	Friend	Group
With Adult	Child and adult	Child and another child with adult	Child in group with adult
Without Adult	Child only	Child and other child only	Group only

The different social play combinations were also used with children's choice within their free play. The play detective diary was constructed as an exploratory tool in what can be termed a descriptive study which has a greater external validity but less internal validity (Heiman, 2002). External validity is the degree to which we can draw the correct inferences when generalizing beyond a study for example ecological validity and temporal validity. Each play detective diary sheet was an actual record of what, how and who children played with, within a 24 hour period. The play types, social aspect and choice within free play all had strong ecological and temporal validity as it showed what children played, who they played with and the choice in their free play.

4.3.5 Reliability of the Play Detective Diary

The reliability of classifying children's choice of play into one of the five play types was undertaken by asking two independent play professionals to code each diary sheet into a play type. One was a Regional Play Development Officer based in West Wales and the other a Postgraduate Research Student with experience of children's play. Each independent play professional was given the description of play types developed for this study and all the Play Detective Diaries. Thus once all the play diary sheets were coded for play types, they were re-coded independently by two experienced play professionals. There was an inter-rater reliability rate of 88%. This demonstrated the use of the play type classification had high reliability and validity.

At both out-of-school clubs all children were met half-way through the data collection process. Each child went through each diary sheet and they were asked to give reasons for the boxes that were ticked. It was evident through conversation with children that they were able to give clear reasoning why they had ticked certain boxes with regards to who was playing with them and who were making choices, in many cases providing specific names of the children or adult involved. When talking with one particular child on the recording of one diary sheet, the child explained in detail what the play activity was and how it was played, who was involved and gave a clear explanation to whose idea it was to play, why it was played in a certain place, who was in charge and how other children followed orders and finally how and why the play finished. It was clear that children had a clear understanding of recording a play episode, who was playing with them and who was making the choices within the chosen play type.

The scoring system of 1 the child making the choice and 0 with a friend, group or adult making the choice meant that for the child to have all the choice in their play they would have to score 6. This scoring system provided more chance of a score of 0 (3-1 chance), however there were very few total scores of 0.

4.3.6 Limitations of the Play Detective Diary

The Play Detective Diary provided a quick and useful research tool for children to record their play experiences. One limitation was that it took a long time to complete and many children lost interest and did not complete all 30 diary sheets (10 for each play environment). The process may have been speeded up if the researcher attended the club each evening, however, this was not feasible and may have been more of a hindrance to the day to day running of the club. Another limitation was how much time children spent on their play activity was not recorded. It could be that an activity that lasted on 2 minutes compared to one that lasted an hour would have different perceived levels of choice as there would be less time for anybody to make any decisions.

Although children were told not to confer with other children when completing the diary, there was the possibility that other children could have influenced the data recording. In

addition, the adult facilitator could have also influenced the data collection by providing leading questions or suggestions for which box to tick. When both children and the adult facilitator were met half-way through the research, it was clear all children could complete their own PDD. Each adult facilitator explained that all PDD's were put on a table and children were reminded during the session that they would need to complete their PDD for the day.

The out-of-school club was chosen as the play environment to collect the data. There is the possibility that being in the out-of-school club with the club supervisor facilitating the PDD could have influenced the amount of choice children were recording. Children may have either consciously, or subconsciously, scored higher for the out-of-school club due to the presence of the adult supervisor. This relates to the power relationship between children and adults. Although this would seem unlikely, there is the possibility this could have happened.

4.4 Recording of Data

The Play Detective Diary was designed to make collecting the research fun and have some meaning to the children (Donaldson, 1978). This followed the approach used by King (1982a; 1982b) who asked children to "code their own school experiences" (cited by Ceglowski, 1997: p108). In the present study children were asked to record their own play experiences and to decide who were making the choices in their play. The choices were made by the children themselves, other children or adults. Children recorded of one play activity for one play episode each day for each environment (three in total each day). Each play episode recorded was divided into three distinct parts: Types of Play (name of the activity or equipment being played); Social Aspects of Play (who was playing with them) and Choices Made within Play (who they played with and judge who made the choices in how, where and where the play took place).

4.4.1 Recording Types of Play

One of the most widely researched play types is pretend play (sometimes referred to as dramatic play). It has been associated with aspects of creative thinking, cognition, social

behaviour, therapeutic benefit and perspective taking (Fein 1981; Whalen, 1995; Jennings, 1998). Pellegrini and Smith (1998a) suggest that play types have specific but also integrated developmental functions, for example physical play is not only important for physical development but may also have a role in the development of cognition and social organisation. Which play type children choose to engage in may contribute to their social, emotional, biological and psychological development. This study considered the presence of five play types: dramatic play, creative play, object play, physical play and static play, which were derived from the literature (Piaget, 1962; Smilansky 1968; Wada 1978, Hughes, 2002). Children were asked to write the activity they had engaged in (for example watched television at home, played football in the school playground and drew a picture at club). It was the researcher who coded the child's description of their play into a play type category.

4.4.2 Recording Social Aspect of Play

The social aspect of play between children ranges from simple onlooker behaviour to complex social interaction (Parten, 1934; Corsaro, 1997, Broadhead, 2001). In some social environments there is evidence of a hierarchy amongst children (Pellegrini et al., 2002) which form complex social networks (Jeffers and Lore, 1979) which can change during the course of a year (Blatchford, 1998). To explore the social nature of choice in children's play in this study, children were asked to record whether they played alone, with a friend (which indicated one other child only) or in a group (two or more other children). In addition, children were asked if an adult was involved or not with their play. Both questions used a tick box procedure.

4.4.3 Recording of Perceived Choice Within Free Play

The aspect of choice is a key component of what makes play quite distinct from other activities where the inherent value of play is dependent on children's perception of choice and control (McInnes et al., 2009). To understand the level of choice children perceived during their play activities across the three contexts, they were asked to respond to six questions (a)

Who came up with the idea to play (b) Who made the final decision this would be played; (c) Who decided where the play took place; (d) Who was in charge of the play and (e) Who finished the play. These six aspects of choice reflected the freely-chosen, intrinsically motivated for no external goals aspect of play as stated in government policy and professional practice, but focusing on the element of choice. For each of these six questions children had to choose one of four responses: (1) themselves; (2) a friend (one other child); (3) a group (two or more children) and (4) an adult.

The final question asked whether the play finished in the way they wanted it to. The choice of answer was yes, kind of, not really and no. Answers of 'themselves' and 'yes' attracted a score of 1, indicating the child had the total choice for that question. For each recorded play activity, the maximum score for choice was 6 and no choice at all would score 0.

The six questions were not considered in isolation from one another but interconnected in relation to who was making the choice within the play process. For example the fictitious play episode below may have taken place:

> "In the school playground a child announced to a group of six friends that they should play a game of tag but then changed their mind. However, the group may like the idea and choose to play tag and the child whose idea it was may then play but the final choice to play was a group decision. Within the group one child tells the other children who will be 'it' and where in the playground the game of tag will take place. This game of tag lasts until the bell rings. The bell rings half-way through a game and so the children stop to line up"

Through this scenario it is clear the child who first thought of playing the game of tag had little choice in relation to deciding to play tag, organising the game and choosing where it will be played and how it finished.

Children were asked to become play detectives in order for them to record how they play in the three different environments of home, school playground and out-of-school club. Each time children attended their out of school club they were asked to complete three play diary

sheets per day (one for each environment) over the last 24 hour period. This meant that the recording of how they played at home recorded how they played the night before. This was chosen as often children do not have time to play in the mornings as they are getting ready for school and their time is limited.

Children were asked to draw a picture of themselves on the front cover to personalise their play detective diary and tick a box for either boy or girl and write down their age in another box. At no time were any child's name or address asked for so for the diaries to remain anonymous.

4.5 Sample

The research was undertaken at two out-of-school clubs in South West and West Wales. The first club was based in a newly built primary school which ran four days a week from 3.15 to 4.45p.m and caters for children aged 4-11 years. The out-of-school club is registered to cater for up to 16 children each day. The range of activities included arts and craft, a games console and sports equipment. Children were encouraged to ask what they wanted to play with and on frequent occasions this meant the playworker getting the item requested from the cupboard. The primary school is located within a village situated east of a large urban town in Carmarthenshire, Wales. The club ran in the school dining room in a newly built primary school. There was easy access to the outside playground and children had freedom to move from the inside to the outside engaging in the activities of their own choice, provided an adult was available to be outside with them. There were three members of staff employed, one co-ordinator and two playworkers. The out-of-school club was visited during May 2009 on three occasions (6th May 2009, 7th May 2009 and 15th May 2009).

The second out-of-school club was also based in a newly built primary school within the largest urban town in Pembrokeshire. This club had use of two open plan classrooms with access to the outside playground. The club ran for 5 days a week from 3.30pm to 6.00 pm and catered for children aged 4-11 years and was registered to have up to 40 children. There were four members of staff, one co-ordinator and three playworkers. There were a range of activities on offer from two games consoles, art and craft and there was also a planned

activity delivered by one of the playworkers but children could choose whether to participate or not. Access to an outside area was available; however this only occurred when a member of staff took a group of children outside. The out-of-school club was also visited on three occasions during September 2009 to explain to the children what the research was about and how to become a play detective.

In total 22 participants aged between 6 years and 11years (13 female, 9 male) became Play Detectives. The highest age group with six participants was children aged 7 years and 9 years. This was followed by children aged 8 years (5 participants), 6 years and 11 years (2 participants) and finally 10 years (1 participant). The average age of participant was 8.18 years (sd 1.20).

4.6 Ethical Considerations

The research was conducted in accordance with the ethical principles of the British Psychological Society (2006) and was approved via the University research committee. Prior to any data collection an ethical application was completed and submitted to the ethics committee within the Centre for Child Research at Swansea University. Once ethical approval was gained the following procedure was undertaken to gain consent to undertake the study at each of the two out-of-school clubs:

- An introductory telephone call to the manager/chairperson of the out-of-school club was made to arrange an initial meeting to discuss the research
- At the meeting the manager/chairperson was informed of the rationale of the research, the commitment required and the involvement of the staff and children at the out-of-school club. Both the manager/chairperson agreed to speak to the headteacher of the respective schools where the out-of-school clubs ran to gain their consent
- A second meeting was arranged to meet the out-of-school club staff to inform them of the research and for consent to carry out the research. At each out-of-school club, one member of staff agreed to act as a facilitator for children to record their results.

The staff also agreed to circulate to parents consent forms to agree to their children taking part in the research

- Finally three visits were made to each out-of-school club to meet the children. In small groups of two or three the children had the research explained to them, what was involved and to gain written consent from the children.
- At each meeting it was clearly stated the voluntary nature of the research and that any party (manager/chairperson, staff, children) were free to withdrawal from the research without prior notice or any reason having to be given

The procedure outlined above aimed to address consent from both children and their gatekeepers as Alderson and Morrow (2004) explain "consent is the central act in ethics" (p96-97). It also addressed the aspect of developing a rapport, not only with the children, but also with the staff at the out-of-school club and also being aware of any power relationships between the researcher and children.

4.7 Exploratory Results

In total 401 play detective diary sheets were completed by 22 children. The average number of sheets recorded by each child was 18. Across the three contexts, 133 play diary sheets were completed for the home environment, 135 in the school playground and 133 at the out-of-school club. Each PDD sheet was analysed as an individual play episode. As the focus of the study was to compare children's play types and perceived choice across the three contexts rather than any differences between the two out-of-school clubs, data from each of the sample sites were combined.

4.7.1 How Children Played at Home, in the School Playground and in the Out-of-School Club

Object play type was the most popular across all three environments (51.1% home, 51.9% school playground and 44.4% out-of-school club) where playing football, recorded mostly by boys, and skipping, recorded mostly by girls were the most frequently occurring activities.

Most dramatic play types occurred in the school playground (17.8%) as did most physical play type (23.7%). Most creative play activities took place in the out-of-school club (21.1%). There was no creative play recorded in the school playground. Static play was most popular at home (21.8%).

Children reported playing mostly on their own at home (39.8%), with a friend at the out-of-school club (39.8%) and with a group in the school playground (57.8%). Children described their play as being mostly without adult presence across all three environments (60.9% at home, 64.4% school playground, 53.4% out-of-school club).

Within the home environment 46 different play activities were recorded across the 5 play types. Children were more likely to play on their own or with one other person. When playing on their own children were more likely to engage in static or creative play types. Object, physical and dramatic play types would involve another child.

In the school playground 49 different play activities were described and were likely to be group games. The most popular play activity was skipping followed by football. The physical play types involved 17 different activities with many of these being variations of chase games.

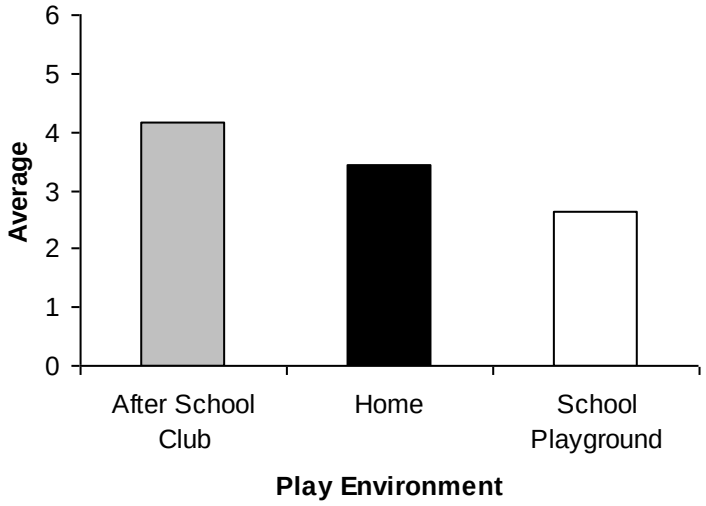
Children described the widest variety of activities at the out-of-school club (59 in total) and children were more likely to play with a friend or on their own. Football was the most popular activity followed by skipping which would involve more than one child. Many of the creative play type activities could involve children doing them on their own but within a social group setting. For example the adult may initially set up an activity or a child may be colouring a picture on their own but alongside others. Also in the out-of-school club it was not uncommon for children to play on the games console by themselves but have other people watching.

4.7.2 Levels of Perceived Choice and Differences in Choice When Playing at Home, in the School Playground and the Out-of-School Club

Using the scoring system previously described, the lowest possible level of choice (indicating no choice at all on the part of the child) was 0 and the highest (indicating complete choice on the part of the child) was 6.

The mean score for choice varied across the three environments (as shown in Figure 2). The overall mean level of perceived choice in the out-of-school club was 4.16 (sd 1.84), at home 3.45 (sd 2.10) and in the school playground 2.64 (sd 1.97). The out-of-school club offered a higher level of choice than either the home or school playground environments ($p<.05$).

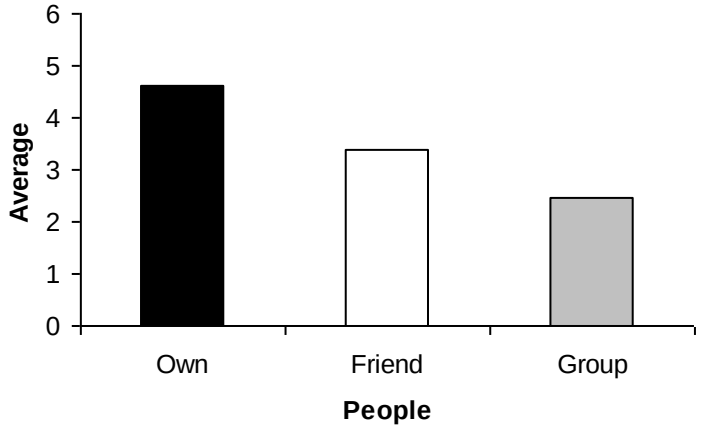
Figure 2: Mean Score for Choice across the Three Environments



4.7.3 Differences in Perceived Choice According to Social Context

Perceived choice varied according to social grouping (as shown in Figure 3). Overall perceived choice was influenced by the presence of others. When children played on their own the mean level of perceived choice was 4.60 (sd 1.74). When playing with a friend the mean choice was 3.40 (sd 1.78) and in a group the mean choice was 2.45 (sd 2.00). Children perceived significantly more choice when playing alone compared to playing with a single friend or with a group ($p<.05$)

Figure 3: Perceived Choice and Social Groupings



The mean level of perceived choice when playing without an adult was 3.82 (sd 1.95) and dropped to 2.78 (sd 2.13) when playing with an adult. This difference was significant ($p<.05$).

Although there was some gender differences with the main play types recorded, for example more girls involved in skipping or creative play types, there was no significant difference in levels of choice for gender.

4.7.4 Summary of Findings

The level of choice significantly differed between the out-of-school club and playing both at home and in the school playground. There was also a significant difference in levels of choice when playing alone and playing with other children and when an adult was or was not involved in the play. Although the play types most popular did not differ across the three play environments with object play being the most popular, the activity itself showed variation where at home most activities were computer or console based often with the child playing alone. In the school playground and out-of-school club there were more group activities, the former with taking place with limited resources and the latter with a more resourced play environment. The out-of-school club had the most different types of activities recorded.

4.8 Conclusion

The results from this exploratory study showed the out-of-school club provided the highest range of play activities; this was followed by the school playground and then the home environment. Across the three environments object play was the most popular, football for boys and skipping for girls. In the school playground and the out-of-school club, the range of play types children engaged in reflected organizational policies and procedures. Out-of-school clubs are set up to provide a play environment for children whilst their parents were working, studying or having respite and this was reflected in the variety of play types recorded. The school playground however is often considered a space where children let off steam between lessons, facilitating physical games or role play. If well resourced however, children will engage in different play types such as creative activities in the school playground, as has been demonstrated in the Scrapstore Project (Armitage, 2009). Whilst choice is influenced in some way by the amount of resources available, consistent with the suggestion of Smith (2010), the relationship between social and material factors influencing children's choice appears complex. Findings presented here demonstrate that the widest range of activities was found in the context that children also perceived to offer the highest level of perceived choice. The lowest choice level however was recorded for the school playground and children recorded more activity types here than in the home environment. Exploring the social factors influencing choice across contexts provides some insight into this complexity.

Levels of perceived choice reduced significantly according to social context. The highest choice was recorded when playing alone, reducing when another child was present and reducing further still when playing in a group. Children's perception of choice in their free play was also significantly reduced if an adult was involved in the play activity. This pattern is consistent with studies that have elicited children's perceptions of play, finding that children are more likely to see an activity as play if no adult is present (e.g. King, 1979; Wing, 1995; Howard, 2002).

Smith (2010) and Thompson (2003) both make reference to the supervisory role that adults often have to adopt which may act as a barrier to children's choice in play. Similarly, Canning (2007) makes the generalized claim that adult involvement in play leads to disempowerment. The findings of Howard (2002) and McInnes et al. (2011) however,

demonstrate that the impact of adult presence on children's perceptions can be influenced by experience. Consistent with the findings of these studies in relation to children's perceptions of play, adult presence at the out-of-school club did not lead to as greater reduction in choice amongst the children in this study than in the other two settings. This raises the question as to what aspects of professional practice in the out-of-school club may differ from the school playground and consequently lead to differences in perceived choice.

The limited and sometimes contrived choice afforded to children during play in educational settings has been well documented (e.g. Wood, 2007; Walsh, Sproule, McGuiness and Trew, 2011) and may have influenced children's perceptions of choice in the school setting. The club settings were staffed by playworkers, trained to be sensitive in supporting children's play process, facilitating choice as to what children play, where, when and with whom (PPSG, 2005). As has been argued elsewhere, all professionals working in contexts where children have the opportunity to play would benefit from training in relation to the play process (e.g. Howard, 2010). Training for adults about the play process outside of playwork such as the Playtime! Project (Newstead, 2010), may increase children's perceptions of choice and subsequently impact positively on confidence, autonomy, esteem and sense of empowerment. If children become used to accepting adults as play partners, research also demonstrates that they are likely to transfer this perception to play based learning situations, enabling adult support and scaffolding to occur (McInnes et al., 2011).

Davey and Lundy (2011) state that rights based perspectives on children's play provide a definition of play which "emphasises freedom, safety, choice and equality as core conditions" (p11). A dynamic definition, where play means different things to different people at different times, concords with the growing body of literature surrounding children's perceptions of their play and how these perceptions of play are influenced by experience (Howard, 2002; McInnes and others, 2011). Just as perceptions of play are flexible, children show flexibility in terms of how much choice they are prepared to accept in their play and their play is not always entirely freely-chosen (Brown, 2008).

Although the presence of other children and adults in this exploratory study led to decreased choice, children still considered the activity they recorded to be play (as they personally

selected it for inclusion within their diary). Choice levels also differed in relation to where the play was taking place and what resources were available. Whereas this study focused on the social aspects of children's choice, future interest might usefully explore the relationship between the material and social environments, as suggested by Smith (2010). A more structured examination of choice during play in terms of the play space, the resources available and the social context could be examined in relation to the concept of affordances (Gibson, 1986; Kyttä, 2004). The PDD explored the types of play, the social aspect of play and level of choice children had in relation to where and how children play. The more structured examination of choice, developing the results from this exploratory research, could incorporate three aspects of affordances: structural affordances for the play space (Hyvönen & Juujärvi, 2002); functional affordances for the activity taking place (Heft , 1988) and social affordances for who is involved in the play space and play activity (Clark & Uzzel, 2002).

Understanding more about the factors that influence children's choice in their play would be beneficial in enabling practitioners to facilitate this choice. This is particularly important in view of research that demonstrates how increased choice or the perception of choice, leads to superior developmental effect (Reynolds & Symons, 2001; Reber et al., 2009, McInnes et al., 2011). It has been suggested that enabling choice over and during participation in an activity, allows children to set and amend target outcomes which itself leads to increased flexibility through the lowering of behavioural thresholds (Brown, 2003; Howard, 2010). Activities where children are able to exercise choice also lead to increased motivation, self-regulation and metacognition (Whitebread, 2010). Facilitating a sense of choice in play would also ensure a more accurate match between policy and practice, as detailed in National and International legislation.

This exploratory research demonstrates variation in the way children play and the level of choice they perceive over this play across different environments within the institutional triangle of the home, the school playground and the out-of-school club. Children perceived the highest levels of choice in the out-of-school club and the least choice in the school playground. Professionals across children's services would benefit from increased knowledge surrounding the factors that influence choice. This is particularly the case when we consider that the institutional triangle involves increased activity under adult supervision

and that adult presence can be a feature that significantly reduces children's perception of choice. For provision across children's services to facilitate children's choice during play as is highlighted by policy recommendations and the UNCRC, there is a need for research to investigate the nature of the characteristics which afford children choice in more detail. This was undertaken in Study 2 with the MAST experiment and interviews with children

5. Study 2: Mixed Method MAST Experiment and Interviews

5.1 Introduction

Study 2 used a mixed method approach of experimental study (quantitative) and children's interviews (qualitative) and, in addition to the exploratory Play Detective Diary in Study 1, provided a triangulated method of investigating choice. An experimental research strategy involves the assignment of participants to different conditions where one or more independent variables are manipulated (Robson, 1993). This was undertaken by the development of the Manipulation of Affordance Scenario Tasks (MAST) experiment which involved a repeat measure of choice when the structural, functional and social affordances of children's play were manipulated. This approach reflected a single-subject changing criteria experimental design (Robson, 1993). The incorporation of the interviews was to enable children to provide reasons for any change in their choice when their play was being manipulated. The interview technique used was a focused interview (Robson, 1993) which allowed children to express their views and feelings within the control of the affordance being manipulated. It was important to use an approach where children were free to speak uninterrupted so interviews were recorded and transcribed (Bryman, 2004). All interview responses were analysed using a grounded theory approach (Glaser & Strauss, 1967) to identify any emerging themes.

5.2 Development of Research Method for Study 2

5.2.1 Development of the MAST Experiment

The development of the MAST experiment went through many transformations. Initial thoughts included children completing scaled questionnaires developed through Self-Determination Theory (Deci & Ryan, 1985). This idea was rejected as whilst it would provide some measure of choice, it would lack realism and would not engage children. Another method considered was an observational study using structured criteria, e.g. Peer Play Scale (Howes, 1980). The problem of this method is that it relied on adult judgements and could be quite intrusive of children's play and would be difficult to observe children at home. In addition, as indicated with intrinsic motivation (Smith & Volstedt, 1986), any observation of choice could only be made at an inferential observational level, i.e. it would be

difficult to observe choice. The use of film was also considered, but as with observational study, the difficulty would be being able to film children whilst playing at home or to capture on film when children have made a decision. The very subjective nature of choice, as with play, meant that a research tool needed to be developed that was not too long to complete but enable children to make judgements based on real life experiences. This was developed through the MAST experiment.

The MAST procedure took three months to develop with the help of a 7 year old and 9 year old child. Their input, as with the development of the PDD, was invaluable as it helped to shape the questions for clarity. The MAST experiment required the use of photographs to stimulate responses as they can be a powerful tool to use in experimental research (Howard, 2002). The photographs selected needed to reflect the different types of house children live in, a typical school playground with grass, concrete and some fixed play equipment and a room where an out-of-school club could take place. The photographs were used to manipulate the structural, functional and social affordances. Children needed to give a numerical value on the level of perceived choice. This was achieved by making a choice scale. The choice scale was made of cardboard and the numbers coloured in using colouring pencils. The reason for this was to make the choice scale look less like a 'formal mathematical tool' such as a slide rule, but try and keep in with the experiment being a playful activity. The numerical value children scored was written down on a recording sheet by the researcher. Children were also asked to provide reasons for any change in their perceived level of choice.

5.2.2 Piloting the MAST Experiment

The piloting of the MAST experiment was undertaken with four children aged between 8 years and 11 years. Each child went through the MAST experiment process and was asked for verbal feedback on the clarity of the questions and the use of the choice scale. It was evident that each of the children that piloted the MAST experiment understood the task and provided reasons for any change in choice for each of the affordance manipulation. Children were clearly able to relate real-life experiences of their play at home, at school and at the out-

of-school club from the stock set of photographs selected and when their play was manipulated by hypothetical situations.

5.2.3 Sample

The research was carried out in three different out-of-school clubs which were run as holiday playschemes in West Wales between August 2010 and February 2011. The reason for carrying out the research when the out-of-school club ran as a holiday playscheme was it would allow more interviews to be undertaken at one session in the holiday playscheme as they ran from 8am until 6pm. A total of 9 visits were achieved with each holiday playscheme visited on three occasions.

In total 48 children participated in the MAST experiment and were interviewed. The age range of the children was six years at the lower end and twelve years at the upper end with most children being aged between 7 and 8 years. There was an even spread of gender with 24 males and 24 females.

Table 3: Sample Age and Gender in Study 2

Age	Number Male	Number Female	Total
6	3	3	6
7	5	6	11
8	6	8	14
9	5	3	8
10	3	2	5
11	1	1	2
12	1	1	2
Total	24	24	48

The participants in study 2 were different from those who participated in study 1.

5.2.4 Procedure of the MAST Experiment

It was decided again to use out-of-school club provision to collect the data for the same reasons provided for the collection of data using the Play Detective Diary in Study 1. The experimental procedure was set up prior to interviewing each participant.

1. A quiet area was set up in the participants out-of-school club where a laptop was set up which contained photographs for each of the three environments of home, school playground and out-of-school club.
2. An Edirol MP3 recorder was set up to record each interview
3. A sliding scale made out of cardboard with numbers ranging from 0-10 with a sliding window which children could move to select any number. The idea of making the scale was to make it more appealing for children to use. The scale had two extremes where 0 was no choice at all and 10 was all the choice
4. A score sheet for each child was completed by the researcher for level of choice across each environment

The length of time for each experimental procedure and interview varied for each individual child. Some children's responses were one word answers and the experimental procedure and interview would finish in 20 minutes. Other children were more vocal in their responses and the total time would run to 40 minutes. It was important that children were able to express their views without being restricted as the research was providing a voice for children. As the interviews were being recorded it was possible to discard any information that was not relevant to the question being asked.

Once the area had been set up, children with the appropriate consent from parents and carers were brought to the research area one at a time by the club supervisor. The procedure was explained to the children and they were asked if they would like to take part. The children were also asked if their answers could be recorded. No children objected to have their voice recorded.

The first part of the experiment was to assess children's understanding of choice. Children were asked if they knew what choice meant to them and could they provide an example of when they had to make a choice. Out of the 48 participants only two children could not give a definition of choice. The two children were then asked a series of questions in relation to choosing what they would like for breakfast from a selection of five cereals and where they would like to have their breakfast from a selection of different rooms. Upon discussion of

their answers both the children clearly were able to make choice even though they were unable to give an initial understanding of what the word choice could mean.

5.3 Recording of Data

5.3.1 Recording Choice in the Home Environment

The area of West Wales where the research was undertaken is a mixture of urban, urban-rural and rural towns and villages. This indicated that the homes children live in would range in size, shape and location. To gauge an idea of the type of home environment children were asked to select a house that most closely matched their own as it was explained that it was not possible to see the house where they lived. There were five photographs to choose from:

1. House in an urban environment next to a busy road
2. House in an urban environment on a quiet estate
3. House in an urban-rural environment on a fairly quiet road
4. House in a rural environment attached to another house
5. House in a rural environment situated on its own

Once children selected one house they were asked their favourite thing they liked to play when at home. They were then asked where inside or outside the house they played their favourite game the most. Children were then asked to use the choice scale to state how much choice they have when, where and how they played their favourite thing at home. Children were asked to give a reason if they chose a number less than 10.

The changes in structural affordance involved children being told firstly their play was to be moved to a different area of the house. Depending where children initially identified where they played their favourite thing the child's play could be moved to a different room inside the house if their play was indoors. Conversely children's favourite play outdoors was moved from the front garden to the back garden. Once the change to the play space was described children were asked what would happen to their play. They were then asked to re-score their level of choice and provide reasons for any change in choice. A second structural affordance

scenario was set where the child's favourite place to play was back in their original choice of space but this time the space was reduced by half. Again children were asked what would happen to their play. The scale was re-set to the baseline score and children were again asked to score for their level of choice and reasons for any changes.

For the functional affordance scenarios, children were first asked what would happen to their play if other children were also playing their own games in the same space they were using which is being termed here as proximal activity. For example, if a child's favourite game was in the kitchen then a brother or sister could have been playing their own game in the kitchen at the same time but not with them. This scenario was used to introduce different types of play that differed to the play chosen by the child. As before children were asked if their play would change. The choice scale was again set to the baseline score and children were asked to move the scale and provide reasons for any change. Secondly the scenario was set that the other children had left the space but had left their toys or equipment lying around. This would enable the child to play with the equipment which they could use instead of their own chosen play or incorporate it into their play. Children were asked again what would happen to their play and to score their level of choice from the baseline value and reasons given for any change in level of choice.

The social affordance scenarios involved asking children if their play would change if other children or adults wanted to play in their favourite play activity. The scenario was initially explained that the child's parents had some adult visitors who they did not know who had a child of the same gender and age with them, who were also unknown to the child. The visiting unknown child wanted to join in with the child's play. The child was asked if their play would change if the unknown child joined in with their play. Children were then asked to score their level of choice from the baseline value and provide reasons for any change. The scenario was then extended where the participant's parents had another two visiting adults again unknown to the child. Each adult had a child of the same age and gender, both unknown to the child, both of whom wanted to play as well. Again changes in play and levels of choice were recorded. The final stage involved the children leaving the play space and one of the unknown adults joining in with the play. As before any changes in play and choice were recorded.

A second scenario was set up this time the participants parents were having a party where both adults and children were invited. This allowed the scenarios similar to the above but with a known single child, a known group of children and a known adult.

The stock phrases used in relation to the manipulation of structural affordances in the home environment can be found in the appendix 4. Interestingly children who provided responses during the interviews provided examples of the scenarios based on real life experiences such as step brothers or sisters or uncles and aunts coming to visit.

5.3.2 Recording Choice in the School Playground

For the school environment children were shown one photograph of a school playground which contained grass, flat concrete surface, and fixed play equipment (climbing equipment and shelter). The children were asked to imagine this was their school playground. The reason for showing a school playground photograph was that children attending the out-of-school club may not have all gone to the same school and as with the photograph of houses it would not have been possible to have taken photographs of each of the children's school playgrounds. The use of a single photograph meant that children were making decisions using the same visual stimulus. The respondents were asked the favourite thing they liked to play in the school playground at lunchtime. Lunchtime was chosen as it is the longest period of the day where children are able to play which is not connected to any form of education. Children were then asked where they would play their game on the photograph provided. Finally children were asked to score their level of choice when playing their favourite thing.

As with the home environment, the same procedure of changing the structural, functional and social affordances was undertaken by introducing different scenarios. For the structural affordance the child's play was moved from one area of the playground to another. If children played on the grass then it was moved to the concrete and visa versa. If children played on the fixed play equipment, the fixed play equipment was then moved to the grass area. The second change in structural affordance involved the child's initial chosen play space being reduced by half. For each change in structural affordance the child was asked if

there would be any changes in their play and if their level of choice would change and provide reasons for any change in choice.

For the functional affordance the proximal activity was other children playing different things to what the child was playing such as tag, hoops, skipping, bean bags or football but in the same play space. Children were asked if having other types of play in the same play space would change how they would play and their level of choice. Secondly the play space was vacated by other children but their equipment was left lying around. Children were asked if having equipment lying around would change their play and their level of choice.

The social affordances scenarios were set up where there were new children in their class who they did not know. At lunchtime own new child wanted to play with the respondent and they were asked if their play and level of choice would change. Another two new unknown children were introduced into the scenario who wanted to play. Again changes in play and choice were recorded. With respect to the unknown adult this was explained as a new lunchtime supervisor starting and it was their first day at work. The lunchtime supervisor wanted to join in with the play. Any changes in play and choice were recorded.

With respect to a known child and group of children this was explained as children they did know but did not usually play with in the school playground. For the known adult this was an existing lunchtime supervisor who knew the respondent and was known by them. For each scenario changes in play and choice were recorded.

The responses children provided when the affordances were manipulated in the school playground were again based on their real-life experiences. Children often commented when new children had started in their school and reference was often made around ‘bossy’ lunchtime supervisors.

5.3.3 Recording Choice in the Out-of-School Club

Many out-of-school provisions are based on school premises and use either a school classroom or the school hall. Although only two of the three out-of-school clubs in this study

were based on school premises, children were asked to choose where they would play based on two photographs. If children choose to play inside they were shown a photograph of a large room based in a school that consisted of a table area, soft seating area and carpet space. The room also had books on shelving. Children were asked to imagine this room was their club room. For children who stated they would play outside the photograph of the school playground was used again. As with the school playground photograph children did not have any problem in extrapolating how they played in their out-of-school club to the photographs presented to them.

Changes in structural affordance involved moving their play space to a different area within the club room if an inside play activity was chosen or to a different part of the playground for an outside play chosen activity. The changes in size again consisted of the play space being reduced by half. For both changes in the structural affordance any chance in the respondent's play or choice were recorded.

As with the school playground, changes in functional affordance in the out-of-school club involved the introduction of proximal activities and then children leaving the play space but their equipment being left behind. Any changes in play and choice were recorded.

For the changes in social affordance with unknown children this was explained with the introduction of new children to the out-of-school club. Initially a single unknown child wanted to play, followed by another two unknown children. Interestingly one child being interviewed explained that this scenario happened to her that very morning. For the unknown adult this was explained as a new member of staff (playworker) who wanted to play with the respondent. This scenario was as real to life as you can get as out-of-school staff are employed to help facilitate children's play which includes playing with children.

With regards to the known children who wanted to join in with the participants play, this was explained as with the school playground where children were known but did not normally play with them during the running of the out-of-school club. The known adult was explained as one of the existing members of the playwork staff.

The manipulation of scenarios across each of the settings were achieved by changing the structural, functional and social affordances and then recording the change in perceived level of choice. The scenarios were based on three affordances: structural (changes in space and reduction of play space); functional (proximal activities and equipment being left lying around) and social (introduction of either known or unknown people to the child's play).

5.3.4 The Interviews

Whilst the MAST experiment was being undertaken children were asked to provide reasons for any change in the amount of choice they would have when either the structural, functional or social affordances were manipulated. All responses were recorded using an Edirol MP3 recorder. Each interview was transcribed using the Nvivo programme to code the transcripts and develop a thematic approach to analysis. The importance of developing a systematic approach to coding has been identified by Coffey and Atkinson (1996) in order to make the data both manageable and open up more diverse analytical possibilities. The responses for a change in the level of choice were coded using the grounded theory (Glaser & Strauss, 1967) method. This involved the coding of all data into open coding which breaks down the data analytically to form categories and axial coding to form sub-categories (Corbin & Strauss, 1990).

5.3.5 Data Collection

The data collection took place in August 2010 during the Summer Holidays and February 2011 during the half-term holidays. The first out-of-school club was in a local authority run primary school situated in an urban town and was registered with CSSIW to have up to 40 children attending. This out-of-school club had access to three rooms in the primary school and the outside play area. The second was in a privately run elementary school in an urban town catering and registered for up to 48 children. Children used the school canteen as the holiday club room and had access when allowed to the playground outside. The third out-of-school club provision was in a community centre in a small town and registered for up to 48 children attending. Children had access to two large rooms and either a hall or outside play area when accompanied by a playworker. Children attending each of these out-of-school

clubs lived a range of distances from the venue spread throughout the county. In each of the out-of-school club provision there were a range of structured and unstructured play opportunities on offer however the play was either inside or outside, where children had to be accompanied by one of the playworkers at all times.

5.4 Study 2: Reliability and Validity of the MAST Experiment and Interviews

The design and results obtained from the MAST experiment are discussed in relation to personal variables, researcher variables, environmental variables and extraneous measurement variables.

5.4.1 Personal Variables

As with the Play Detective Diary children were asked at the beginning what their favourite thing they played when at home, in the school playground and the out-of-school club. This again meant that the child's character and temperament were not necessarily factors which may have any influence on their favourite chosen play as they were beginning the experiment from their own play experiences.

5.4.2 Researcher Variables

The researcher was present for the whole time any participant was taking part in the MAST experiment and being interviewed. The researcher manipulated each of the three affordance variables and used a set script for each participant. Leading questions were avoided and everything that was said was recorded and transcribed using NVivo. There was no time to build any rapport with the children, as with the Play Detective Diary, where children were met on 2 or 3 occasions. The time for each experiment and interview ranged from 20 minutes to 40 minutes.

5.4.3 Environmental Variables

The out-of-school club was used to undertake the experimental research as it again was considered a more relaxed environment to interview the participants. The experiment/research was conducted when children were attending the out-of-school provision during the school summer holidays and the February half-term holidays and would be there from around 8am to 5pm. This meant that there would be enough time for each participant to finish the experiment/interview and still have enough time to play in the holiday playscheme.

Although children were asked to talk about actual play experiences at home, in the school playground and the out-of-school club, the manipulation of each environment was based on hypothetical situations. The use of stock photographs to illustrate the home, school playground and out-of-school club environments enabled children being exposed to the same visual stimuli. This enabled consistency as it was not possible to take photographs of each individual child's home or school playground. Children attending the holiday playscheme also attend different schools. The stock photographs ensured children were making decisions of choice based on the same photographic environments, but based on their own personal experiences.

5.4.4 Measurement Variables

There were four extraneous measurement variables: baseline choice; changes in structural affordances and choice; changes in functional affordances and choice and changes in social affordance and choice (see MAST chapter and Appendix 4 for more detail of how each affordance change took place). Although children were basing their answers on hypothetical situations, their score for choice and reasons provided were still based on real life experiences. Children were asked the same stock phrases for each manipulation, which although fictitious, were plausible.

What became apparent during the course of the interviews was the responses children provided were clearly based on real-life experiences. When the affordances were being manipulated at home, children would tell stories of siblings being in the way or parents being bossy. Some children did not live with their siblings in the same household, so when the

social affordances were manipulated and a known child came to play, children related to a sibling, step-sibling or cousin. The same scenarios occurred in the school playground and the out-of-school club. Children told stories of bossy children who would bully them in the playground or grumpy lunchtime supervisors. When one child was asked what would happen if a new child was at the club and wanted to play with them, they replied that situation actually happened that day. It was clear the responses provided by children were based on their real-life play experiences.

5.4.5 Reliability of the MAST Experiment and Interviews

The reliability of the scales was tested using Cronbach Alpha. Cortina's (1993) review of Cronbach Alpha states that:

> "It is a function of the extent to which items in a test have high communalities and thus low uniqueness. It is also a function of interrelatedness, although one must remember that this does not imply unidimensionality or homogeneity" (p100).

The reliability of each scale was determined using the Cronbach alpha coefficient. Cronbach alpha checks the internal consistency of the scale to ensure the scale is measuring the same underlying construct (Pallant, 2001) in this case, changes in choice. An ideal value for internal consistency for the Cronbach alpha coefficient is 0.7. Four Cronbach alpha tests were carried out: home choice scale; playground choice scale; out-of-school club choice scale and a combined scale for choice of all three environments. The results showed that the home choice scale was .644, playground choice scale was .93 and the out-of-school club was .9. A combined Cronbach alpha had a value of .902. Overall the scale for choice had good internal consistency.

To check the reliability of scoring for the open coding categories, 10% of the transcribed interviews were given to a second scorer with experience in children's play but not involved in any of the interviews. The second scorer was provided with the open coding categories and was asked to place interview responses into one of the ten categories. Once scored any differences in score from the first and second marker were discussed and agreement was

made on which category any response should be placed. There was in total a 90% agreement between the first and the second scorer. This indicated good inter-rater reliability.

5.4.6 Limitations of the MAST Experiment and Interviews

The main limitation of the MAST experiment was that children were scoring levels of choice on hypothetical situations that were manipulated by an adult. Although children clearly were able to transfer their real life experiences to the manipulated scenarios, the results have to be clearly considered they are based on hypothetical situations, and the results interpreted by an adult.

The manipulation of a play activity by eliciting responses from hypothetical situations could result in responses that are based on the experimental research process, rather than linking in with children's actual play experiences. The importance of starting the experimental process with children stating their own play preferences enabled the manipulation of real life experiences. The interviews did allow children discussion on why their level of choice changed and children did state on many occasions that the manipulated scenarios had actually taken place and their responses were based again on real life experiences. However, as Deci and Ryan (1987) state, any event perceived by people is an active construction influenced by many factors, and responses may have been provided to please the researcher.

As with the data collection in study 1, the use of the out-of-school club to collect data may have had an influence on the recorded levels of choice. All data collected was obtained with no members of staff present so their influence would have been far less than in study 1 where the club supervisor was in charge of handing out and collecting the PDD. The time it took to transcribe and analyse the data and develop the open coding categories meant it was not possible to have returned to the clubs and discussed the results with the children.

5.5 Ethical Considerations

Prior to any data collection a second ethical application was completed and submitted to the ethics committee within the Centre for Child Research at Swansea University. Once ethical

approval was gained the following procedure was undertaken to gain consent to undertake the study at each of the two out-of-school clubs:

- An introductory telephone call to the manager/chairperson of the out-of-school club was made to arrange an initial meeting to discuss the experiment and interview
- At the meeting the manager/chairperson was informed of the rationale of the research, the commitment required and the involvement of the staff and children at the out-of-school club. The staff agreed to circulate to parents consent forms to agree for their children to take part in the research
- Prior to the experiment and interview it was clearly stated to the children that their participation was of a voluntary nature and they were free to withdraw from the research at any time
- Children were asked if they were okay for the interview to be recorded

Prior to any children being interviewed a meeting took place with the club supervisor at each of the three out-of-school clubs used. Consent was obtained from what is termed the gate keepers (Woodhead & Faulkner, 2000) for use of the out-of-school club and access to the children attending. The club supervisors all agreed to give parents information about the research and what would be involved. Parents were then asked to sign a form to give consent for children to take part and for children's answers to be recorded using an Edirol MP3 player. Children were brought to the quiet area by the out-of-school club supervisor and the experimental procedure was clearly explained. Children were assured they did not have to take part and could leave at any point during the experiment. This last point was relayed to each child twice during the experimental procedure.

Two children did start participating but withdrew early in the process and their data was not used. No children, or parents and carers objected to having the interviews being recorded.

5.6 Conclusion

This chapter outlined the mixed method approach of Study 2 involving the Manipulation of Affordances Scenario Tasks (MAST) and recorded interviews with the participants. The MAST experiment involved children identifying their favourite thing they played at home, in the school playground and the out-of-school club which was based on their real life experience. For each environment the structural, functional and social affordances were manipulated by hypothetical scenarios, however their responses were based on how it would change their play and how much choice they would have on their real life experiences. The level of choice was collected by children using a scale of 0 (no choice) to 10 (all the choice).

The reliability and validity of both the MAST experiment and interviews was discussed and limitations to the research process were considered. Ethical considerations were also discussed.

The interviews allowed a qualitative approach using grounded theory to identify any themes if children's level of choice changed. The recording of each interview allowed a thematic analysis using Nvivo. The results for the MAST experiment is discussed in Chapter 6 and the interviews discussed in Chapter 7.

6. Study 2: Mixed Method MAST Experiment Results

6.1 Introduction

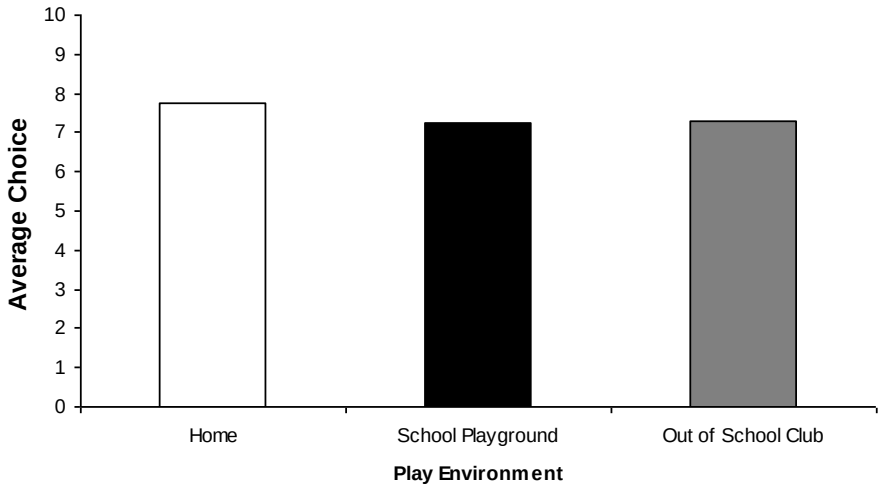
This chapter analyses the results from the MAST experiment. The different levels of choice between the three play environments when the structural, functional and social affordances are manipulated are discussed using the statistical test ANOVA. In total, three ANOVA tests were undertaken comparing perceived levels of choice between each play environment, between gender and comparing choice between known people and unknown people across the three play environments.

6.2 MAST Experiment Results

6.2.1 Comparison of Baseline Choice at Home, in the School Playground and the Out-of-School Club

The average levels of baseline choice are shown in Figure 4 below:

Figure 4: Comparison of Baseline Choice at Home, in the School Playground and the Out-of-School Club



These results are an overall level of baseline choice not separating the chosen type of play (play type in relation to the functional affordance) or where the play took place (structural affordance). When children were asked to rate their levels of choice for their favourite chosen play at home, the average score was 7.77 (sd 2.50). This compares with 7.27 (sd 3.27) in the school playground and 7.31 (sd 3.12) in the out-of-school club. It appears there was not much difference in levels of perceived choice when children are engaged in their favourite type of play at home, in the school playground and the out-of-school club when scoring a single play episode for each environment.

These results differ from the results obtained from children using the Play Detective Diary in Study 1. In Study 1 there was significantly more choice in the out-of-school club compared to at home and in the school playground. In study 1, the average score for choice for each child was based on up to 30 individual play episodes for each play environment. The level of choice in Study 1 was an arbitrary score of 0 to 6 based on who was making the choice decisions in their play based on 22 children completing 401 play episodes. In Study 2, it must be stressed that the perceived levels of choice were actual scores from children based on 48 children recording a single play episode for each environment. .

6.2.2 Play Types and Where Children Played at Home

The number of play types recorded when playing at home is shown in the table below with the average level of choice. Children felt they had most choice when playing physical play types (8.25, sd 2.22) and the least choice when doing creative play types (5.67, sd 2.08).

Table 4: Play Types and Baseline Choice at Home

Home	Number	Choice
Dramatic	4	6.75 (sd 4.71)
Creative	3	5.67 (sd 2.08)
Object	37	8.00 (2.26)
Physical	4	8.25 (2.22)
Static	0	0

When playing at home the most popular play type was object play (37 children) followed by dramatic and physical play (4 children) and creative play (3 children). No static play was

recorded at home. Dramatic play involved re-enacting a profession (schools or doctors) and was played either in their bedroom (1 child) or downstairs (3 children). Creative play involved making things mostly in their bedroom (2 children) but one child made dens outside in a nearby field. All four children who chose a physical play type played on their trampoline in the garden. The object play type could be sub-divided into the following categories: sports (football and cricket) which was played outside by 5 children, games console (x-box ®, Wii® or DS®) which was mostly played in their bedroom (7 children) or the living room (2 children), computer (5 children) mostly in the living room, pets (dog, cat and rabbit) by 5 children mostly outside (3 children) and specific toys (11 children) mostly in their bedroom (7 children) or the living room (4 children).

When children were asked where they played their favourite play at home three areas emerged. These were the bedroom, living room or outside (garden or nearby field). The table below shows that at home most children preferred to play in their bedroom (22 children) followed by outside (14 children) and in the living room (12 children).

Table 5: Where Children Played and Baseline Choice at Home

Home	Number of Children	Baseline Choice
Bedroom	22	7.05 (sd 2.66)
Living Room	12	8.75 (sd 2.18)
Outside	14	8.07 (sd 2.30)

When comparing the average score for choice it was when playing in the living room (8.75, sd 2.18) children felt they had the most choice, followed by playing outside (8.07, sd 2.30) then playing in the bedroom (7.05, 2.66). Although most children played in their bedroom, most choice was perceived when playing downstairs in the living room.

There was no gender difference in the type of play children engaged with at home. Both male and female participants were mostly engaged in object play with the x-box®, Wii® or DS® or computer being the most popular object being played with. Singer et al. (2009) found across 16 different countries, when children were not at school, watching television was the most common leisure activity irrespective of age and gender. Many of the games consoles used, such as the x-box® and the Wii® require a television monitor, thus there appears to be a

change in television use for many children from watching programmes to playing console games.

For both gender, playing in the bedroom was most popular. More males played outside in the garden and more females played in the living room. These findings are very similar with a study of children's play at home undertaken by Giddings and Halverson (1981) where more boys played outside compared to girls; however their results found where there was no significant between genders where children play at home.

6.2.3 Play types and Where Children Played in the School Playground

In the school playground static play types had the most choice although only one static play type was recorded. The most popular play type was physical play (7.50, sd 3.24) where children felt they had the same amount of choice when undertaking dramatic play types (7.50, sd 2.43).

Table 6: Play Types and Baseline Choice in the School Playground

School Playground	Number	Choice
Dramatic	6	7.50 (sd 2.43)
Creative	0	0
Object	17	6.76 (3.73)
Physical	24	7.50 (3.24)
Static	1	9.00 (sd 0.00)

In the school playground no creative play types was recorded. The most popular play types was physical play (24 children) followed by object play (17 children), dramatic play (6 children) and static play (1 child). The dramatic play types tend to involve either a chasing type game (werewolves and humans, army games, sonic, zombies and Star Wars by 5 children) and were predominately played on the grass. The other dramatic play type was a role play game of mums and dads played on the fixed play equipment. The object play types had football (12 children), the most recorded play activity, which was mostly played on the grass followed by skipping (3 children), netball and hoop (1 child each). The skipping, netball and hoop were all played on the concrete. When adding up the different number of play activities recorded, the most popular play type was physical play. Physical play type can

be further sub-divided into chasing games (tag, stuck in the mud, hide and seek, duck duck goose and follow the leader) where the preference was jointly between the grass and the concrete, playing on the fixed play equipment (6 children) and walking and talking on the grass (2 children). One child selected just chatting on the fixed play equipment as their favourite way to play.

The school playground provided three areas where children played with most children playing on the grass (24 children), followed by the concrete playground (16 children) and lastly the fixed play equipment (8 children) such as monkey bars and seating area.

Table 7: Where Children Played and Baseline Choice in the School Playground

School Playground	Number of Children	Baseline Choice
Grass	24	7.12 (3.19)
Concrete	16	6.75 (3.80)
Fixed Play Equipment	8	8.75 (2.05)

Most children had more choice when playing on the fixed play equipment (8.75, sd 2.05) followed by the grass (7.12, sd 3.19) and lastly the concrete playground (6.75, sd 3.80). Playing on the fixed play equipment tended to be more solitary games (climbing, doing flips) whereas the grass and concrete involved play with two or more children.

In the school playground, more males engaged in object play with football being the most popular play activity. There were more females engaged in physical play types with chasing games such as tag being played mostly. Both males and females preferred to play on the grass firstly, followed by the concrete and then the fixed play equipment. Pellegrini et al.'s (2002) study of children's use of the playground found use of the playground changed during the school year. For both boys and girls, chase games are the most popular at the beginning of the school year, whereas by the end of the school year boys are more engaged in other physical activities such as football, whilst girls continue with chase games. The latter was reflected in this study where football was most popular with boys, chase games with girls.

6.2.4 Play Types and Where Children Played in the Out-of-School Club

Although dramatic play type had the highest score for choice this was only recorded in the out-of-school club by two children. Creative play type had the second highest value (8.33, sd 3.08) with physical play type the least (6.25, sd 4.40).

Table 8: Play Types and Baseline Choice in the Out-of-School Club

Out-of-school club	Number	Choice
Dramatic	2	9.50 (sd 0.71)
Creative	9	8.33 (sd 3.08)
Object	27	7.15 (sd 3.07)
Physical	4	6.25 (sd 4.40)
Static	6	6.50 (3.15)

In the out-of-school club object play was the most popular play type (27 children) with playing on the console the most popular activity. This was followed by creative play (9 children), static play (6 children), physical play (4 children) and dramatic play (2 children). The choice of the creative play type involved drawing, making things and colouring and was mostly done on a table, although 2 children preferred the carpet and 1 child at a designated seating area (sofa). Most physical play involved playing outside with tag being the most popular choice. The static play type was mostly in the designated seating area (sofa) which involved either watching the TV or a DVD or chatting. The object play type mostly involved playing on a games console (12 children) and could take place on the carpet, table or at the side of the room. Playing on the computer was also played either on the table or the side of the room. All sporting choices (football, cricket, badminton) were played outside whilst playing with specific toys (hoop and ball, spinning dish) were played on the carpet. There were only two children who engaged in dramatic play types in the out-of-school club.

In the out-of-school club, three distinct areas emerged where children played: at a table; using floor space or outside.

Table 9: Where Children Played and Baseline Choice in the Out-of-School Club

Out-of-school club	Number of Children	Baseline Choice
Table	12	6.75 (sd 3.86)
Floor Space	26	7.65 (sd 3.19)
Outside	10	7.10 (sd 2.03)

Most choice was when children had some floor space (7.65, sd 3.19) followed by playing outside (7.10, sd 2.03) and lastly playing at a table (6.75, sd 3.86).

Nearly all the males were involved in object play in the out-of-school club mostly playing on the games console. The most popular play type females engaged in was creative play type involving arts and crafts, followed by physical play type. No males recorded any creative play type. There was no difference in gender preference where the play took place in the out-of-school club. Garrick et al.'s (2010) review of the foundation stage carried out a small study of out-of-school use by children also found no difference in gender play. They found both boys and preferred more physical play as a result of having to play on hard surfaces in the school playground. This study had most children playing inside, hence object play types being more prevalent for both boys and girls.

6.2.5 Summary of MAST Experiment

Study 1 provided the opportunity for 22 children to record 401 play episodes over a combined period of 10 days (stretched over 12 weeks). This allowed children to potentially record 10 different play activities for each environment. The MAST experiment allowed children to record one play activity for each environment only. There were some similar patterns emerging from Study 1 and Study 2 in relation to play types and social groupings:

- In Study 2 the number of different activities recorded was nearly identical across the three play environments where out of a possible 48, 21 were recorded at home and 22 in both the school playground and out-of-school club. In Study 1 most activities were recorded in the out-of-school club, followed by the school playground and at home
- Object play types were most recorded play types at home and in the out-of-school club in both Study 1 and Study 2. In the school playground, object play was mostly recorded in Study 1 and physical play type in Study 2 (although the results in both studies were very close together).
- At home, play types that only involved the child were recorded mostly in both Study 1 and Study 2 and playing on a games console was the most popular activity.

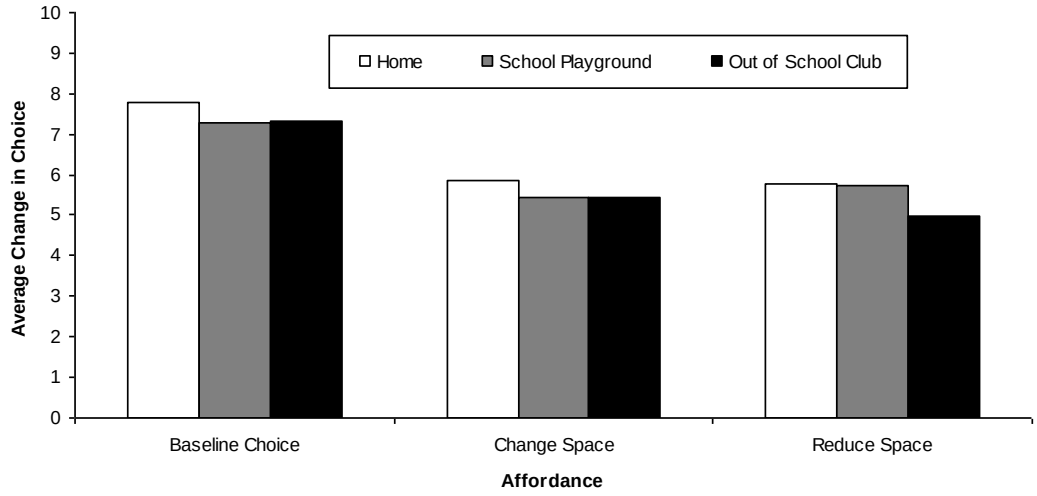
- In the school playground, group games were most popular in both Study 1 and Study 2 with football the most popular activity
- In both Study 1 and Study 2 object play was the most popular play type in the out-of-school club, however in the former football was the most recorded activity and the latter playing on the games console
- The differences in play between gender reflects other research when playing at home, in the school playground and the out-of-school club

6.3 Manipulation of Affordances

6.3.1 Manipulation of Structural Affordances and Changes in Choice across Context

The levels of choice when the structural affordances were manipulated are shown in Figure 5.

Figure 5: Manipulation of Structural Affordances and Changes in Levels of Choice at Home, in the School Playground and the Out-of-School Club



At home children had less choice in their play when the structural affordance was manipulated where the level of choice fell to 5.83 (sd 3.28) when the play was moved and 5.81 (sd 2.89) when the space was reduced.

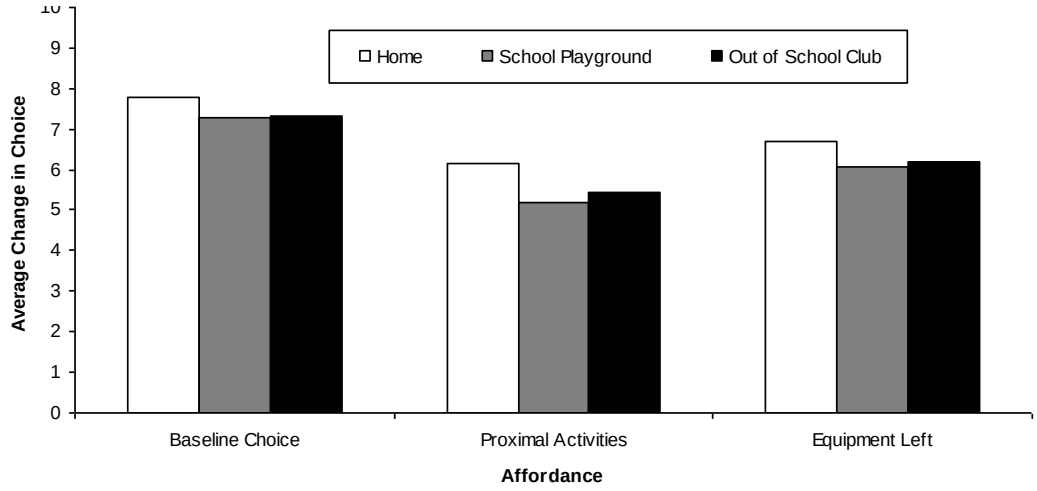
In the school playground children scored choice fewer when the structural affordances were manipulated (5.46, sd 3.68 when play was moved and 5.75, sd 3.23 when the space was reduced).

The same pattern could be observed in the out-of-school club when the play space was changed (5.44, sd 3.50) and when the play space was reduced (4.96, sd 3.58). This low figure for the play space may relate to the fact that many children recorded their play inside using the open space away from tables.

6.3.2 Manipulation of Functional Affordances and Changes in Choice across Context

Figure 6 shows the levels of choice when the functional affordances were manipulated.

Figure 6: Manipulation of Functional Affordances and Changes in Levels of Choice at Home, in the School Playground and the Out-of-School Club



A similar pattern occurred when the functional affordances were manipulated where across each of the three environments the level of choice dropped more for proximal activities (other children playing their own games in the same play space) compared to equipment being left in the play space.

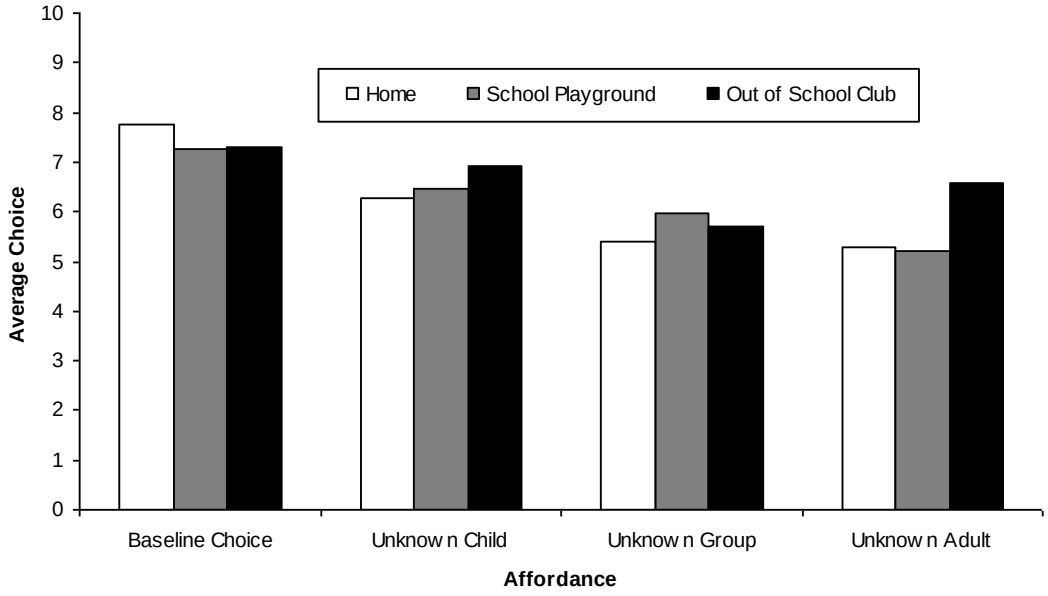
At home, the level of choice fell to 6.19 (sd 3.20) for proximal activities and 6.71 (sd 3.32) for equipment being left. In the school playground the level for proximal activities was 5.19 (sd 3.80) and for equipment left was 6.08 (sd 3.61). In the out-of-school club the level of choice was 5.70 (sd 3.58) for proximal activities and 6.13 (sd 3.55) for equipment being left.

Although the play space in both the school playground and the out-of-school club is generally bigger when compared to the space available at home, the more space is compensated by more children wanting to use the space. This would reflect the levels of choice between the three environments where the home would have the least children using the space and the school playground at lunchtime having the most number of children playing at the same time.

6.3.3 Manipulation of Social Affordances and Changes in Choice across Context

Figures 7 and Figure 8 show the levels of choice when the social affordances were manipulated.

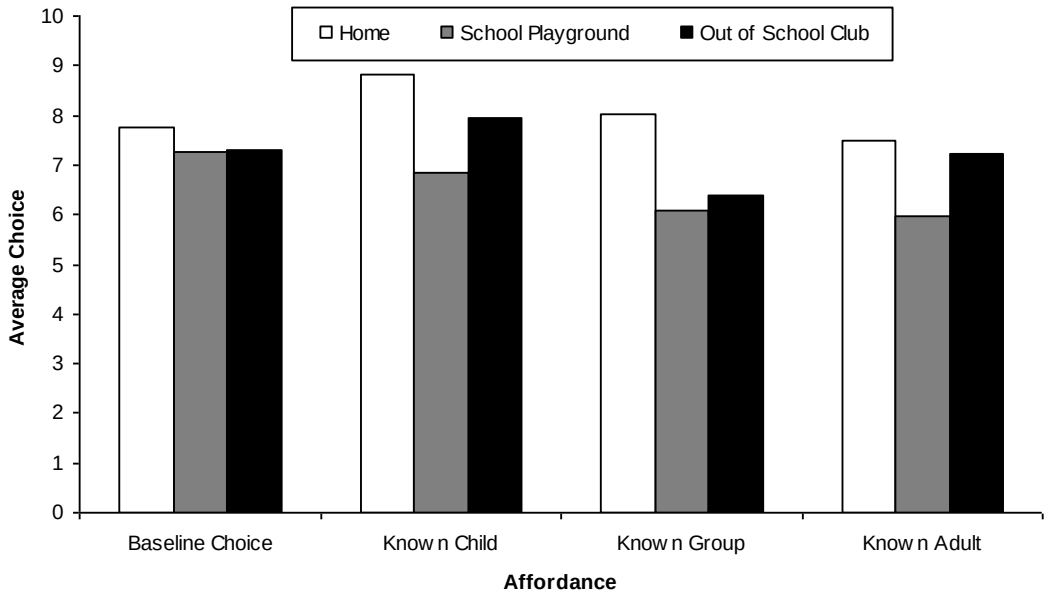
Figure 7: Manipulation of Social Affordances and Change in Levels of Choice with Unknown People at Home, in the School Playground and the Out-of-School Club



At home playing when an unknown person joined in with their play, children scored their level of choice lower than the baseline choice (6.29, sd 3.06 unknown child, 5.52, sd 3.61 unknown group and 5.29, sd 3.66 unknown adult). In the school playground the level of choice fell with an unknown child to 6.46 (sd 3.63), an unknown group to 6.98 (sd 3.53) and unknown adult to 5.21 (sd 3.57). In the out-of-school club the level of choice was 6.96 (sd 3.12) for unknown child, 5.70 (sd 3.56) for unknown group and 6.57 (sd 3.45) for unknown adult.

When the social affordances were manipulated the level of choice decreased when an unknown child, unknown group and unknown adult joined in with the play across the three settings.

Figure 8: Manipulation of Social Affordances and Change in Levels of Choice with Known People at Home, in the School Playground and the Out-of-School Club



When playing at home, when known people join in with their play the level of choice for playing with a known child is 8.83 (sd 212), a known group 7.96 (sd 2.07) and known adult 7.48 (sd 3.09). In the school playground, when a known child joins in the level of choice is 6.85 (sd 3.62), known group 6.08 (sd 3.67) and known adult 5.96 (sd 3.70). In the out-of-

school club, when a known child joins in the level of choice is 7.96 (sd 2.85) for a known child, 6.36 (sd 3.38) for known group and 7.23 (sd 3.20) for known adult.

The levels of choice have a positive change when a known child joins in with the play both at home and in the out-of-school. The levels of choice for a known child in these two environments increased above the baseline value. This increase above the baseline value also occurs when a known group of children join in the play at home. There is also a noticeable difference between the level of choice when playing with a known adult at home and the out-of-school club compared to playing with known adults in the school playground.

6.4 ANOVA and Changes in Choice

6.4.1 ANOVA and Structural, Functional and Social Affordances

Table 10 shows the difference between baseline choice levels and the choices levels following manipulations. An ANOVA statistical test was carried out to compare the mean scores of choice for each of the manipulated affordances (structural, functional and social) both within each setting and between each setting.

Affordance Type	Cues manipulated	Difference between baseline choice levels and choice levels following manipulations		
		Home	School	Out of School Club
Structural Affordances	Change Space	-1.97	-1.81	-1.87
	Reduced Area	-1.96	-1.52	-2.35
Functional Affordances	Proximal Activities	-1.58	-2.08	-1.61
	Equipment Left	-1.06	-1.19	-1.18
Social Affordances	Unknown Child	-1.48	-0.81	-0.35
	Unknown Group	-2.25	-1.29	-1.61
	Unknown Adult	-2.48	-2.06	-0.74
	Known Child	+1.06	-0.42	+0.65
	Known Group	+0.19	-1.62	-0.95
	Known Adult	-0.29	-1.31	-0.08

Table 10: Difference Between Baseline Choiice and Levels of Choice When Affordances Were Manipulated across Each Setting

The ANOVA multivariate test showed a significant difference in levels of choice with baseline choice, manipulated structural affordances, manipulated functional affordances and manipulated social affordances (Wilks' Lambda p=0.000). There was also a significant difference with baseline choice and the manipulated structural affordances, manipulated functional affordances and manipulated social affordances across settings (Wilks' Lambda 0.046). The ANOVA statistical test within-subjects contrasts showed a significant difference within each setting between baseline choice and each of the manipulations ($p<0.05$) except for when playing with a known adult (p=0.85).

The table shows there is a difference in choice across the three environments when unknown people and known people are introduced into the play. Two key aspects appear to be when known children join in and when known adults join in. The level of choice both at home and in the out-of-school club is greater than the baseline choice when known children join in with the child's play. Interestingly, the level of choice when playing with a known adult (playworker) is nearly the same as when playing with a known adult at home. The manipulation of social affordances provided a clear area for further analysis. A second ANOVA was carried out in relation to gender but no significant difference was found. A third ANOVA was carried out only using the data from the manipulation of social affordances (both unknown and known people).

6.4.2 ANOVA and Social Affordances Only

The third ANOVA compared levels of choice when the social affordances were manipulated across each setting. Levels of choice were compared across each setting, between playing with known and unknown people and finally comparing playing with an unknown child and known child, unknown group and known group and unknown adult with a known adult.

The ANOVA multivariate results showed a significant difference between playing with known and unknown people (Wilks' Lambda p=0.000). There was also a significant difference in levels of choice between playing with a known or unknown person across settings (Wilks' Lambda p=0.002). There was also a significant difference between playing with known and unknown child, between a known and an unknown group and a known adult

and unknown adult (Wilks' Lambda p=0.000). The ANOVA statistical test within-subjects contrasts showed there was a significant difference in playing with a known and unknown person within settings (p=0.001). There was also significant differences between playing with a known and unknown person (p=0.000) and between playing with a known and unknown child, known and unknown group and a known and unknown adult (p=0.000).

When combining the mean score for choice for all known and unknown people for each setting, it is at home that the greatest difference emerged in the average amount of choice, between playing with unknown people and known people. There was no significant difference in choice between known and unknown people in relation to gender.

6.5 Conclusion

Study 1 found that when children recorded their play using the Play Detective Diary the level of choice significantly differed between the out-of-school club and both playing at home and in the school playground. Levels of perceived choice reduced significantly according to social context that highlighted the complexity of the social environment in relation to children's choice. Smith (2010) suggested the need to explore the relationship of material and social environments and this was undertaken in Study 2 using a manipulation experiment (MAST) based on Gibson's (1986) concept of affordances.

An ANOVA carried out showed that there were significant differences when comparing levels of choice with baseline choice, manipulated structural affordances, manipulated functional affordances and manipulated social affordances both within and across settings. The results from Study 2, as with Study 1, highlight the complexity of choice in children's play as children still felt they were playing even when their level of choice changed when the affordances were manipulated.

The manipulation of the structural affordances (change space and reduce space) did see a decline in choice where in the out-of-school club and at home, choice was more reduced when the play space was reduced, however in the school playground, choice was less when the play was moved to a different area. Castonguay and Justras's (2009) notion that

children's use of places to play, particularly with older children, around land use, may have been reflected in the results of the school playground where special properties (Kasal & Doğan, 2010) maybe more relevant than actual size of area, relating to the highest number of functional activities that may take place. It could be that the physical nature of the environment may have more relevance to how children play than the size of space in the school playground. This could also reflect that physical structure was more important for outside play than inside as most activities recorded in the home and out-of-school club were inside a building.

The manipulation of functional affordances (proximal activities and equipment being left) showed a similar pattern across all three environments, where more choice existed when there were no other children playing in the same play space, even if they left their equipment lying about. Although Willenber et al.'s (2010) study found children had an awareness and utilised a range of loose play equipment (balls, skipping ropes, racquets and hoola-hoops) their availability in these hypothetical situations did not increase children's choice when engaged in their chosen play activity.

It was the manipulation of social affordances that provides the most interesting results as shown by the ANOVA tests. There was a significant difference in choice when playing with known and unknown people. At home, when a known child joins in with the play the level of choice across all three environments increased, and for both at home and the out-of-school club the level rose above the respective baseline values. In the out-of-school club the level of choice was at a level similar to when children played with a known adult at home. Playing with a known adult at home and in the out-of-school club was far greater than playing with a known adult in the school playground. This was also reflected in Study 1.

Min and Lee (2006) stated there was a three way relationship between age, play type and reasons (functional) for using a play space. The MAST experiment used a three way study of structural, functional and social affordance manipulation and although significant changes in the level of choice was found, the complexity of choice in children's play will be discussed further in the next chapter from the interviews carried out.

Chapter 7 MAST Interview Results

7.1 Introduction

Each of the 48 participants in the MAST experiment was simultaneously interviewed to explain any change in choice. Using a Grounded Theory approach (Glaser & Strauss, 1967), each interview was transcribed using NVivo to analyse the data to develop open and axial coding categories. The open and axial coding was used to identify any themes that emerged from analysing the responses children provided for reasons in a change in choice when the structural, functional and social affordances were manipulated.

7.2 Initial Development of Open Coding Themes

Each of the 48 interviews recorded on the MP3 recorder was downloaded into the NVivo software package. The responses children provided for a change of choice were transcribed and every sentence was analysed to identify any emerging themes. To begin with, no limits were placed on the number of themes that emerged for either the baseline choice or for when the manipulation of the structural, functional and social affordances. Once each interview had been transcribed and analysed and responses placed into an open code theme, the content of all codes were re-read and where similar themes were identified, they were joined together.

7.2.1 Open Coding Themes

The number of primary open coding themes that emerged when children were asked why they did not have all the choice were seven at home, four in the school playground and three in the out-of-school club. All open coding themes are shown below:

> Baseline Choice at home: Lack of resources, takes over play, told what to do, other children playing their game, space too small and Space/Activity/People
>
> Baseline choice in the school playground: Lack of resources, other children playing, takes over play, told what to do

Baseline choice in the out-of-school club: Other people playing, takes over play, told what to do

The themes developed from the responses, why children felt they did not have all the choice in the play, found to be across all contexts in each of the play environments.

7.2.2 Manipulation of Structural Affordances and Open Coding Themes

Across the three play environments, over twenty primary open coding themes were created, some of these themes were found within the baseline choice:

Manipulation of Structural Affordances at home: Not enough resources, told what to do, space too small, Space/Activity/People, distraction, space specific, unsuitable surface, takes over play, stops play, noisy, reduces how play takes place, adults present, sad, boring, don't like it

Manipulation of Structural Affordances in the school playground: Distraction, space too small, site specific, unsuitable surface, lack of resources, reduces how play takes place, cause an injury, don't like it, not very good

Manipulation of structural affordances in the out-of-school club: Told what to do, safety, unsuitable surface, distraction, Space/Activity/People, reduces how play takes place, move equipment, cause an injury, younger children present, crowded, other children have more space, further develops play, unhappy, more fun

In addition to some open coding themes appearing within the baseline choice, different themes emerged such as unsuitable surface, play being distracted and cause an injury. Some responses were more emotive with words being used such as "don't like it" or "more fun".

7.2.3 Manipulation of Functional affordances and Open Coding Themes

The same process was undertaken from the responses children provided in a change in the level of choice when the functional affordances were manipulated:

> Manipulation of Functional Affordances at home: Told what to do, space to small, Space/Activity/People, distraction, safety, prefer to play on own, being ignored by other children, cause an injury, interrupts play, annoyed, happy, good
>
> Manipulation of Functional Affordances in the school playground: Told what to do, distraction, Space/Activity/People, safety, space too small, nobody to play with, cause an injury, reduces how play takes place, move play to different place, dodge people and equipment, fun
>
> Manipulation of functional affordances in the out-of-school club: Other people playing, takes over play, told what to do, safety, distraction, Space/Activity/People, space too small, other children in the way, reduces how play takes place, move to a different play, noisy, bad

As before, some open coding themes had emerged within the baseline choice and the manipulation of structural affordances. New themes that emerged were move to a different play and having to dodge people.

7.2.4 Manipulation of Social Affordances and Open Coding Themes

The manipulation of the social affordances produced the most number of primary open coding themes.

> Manipulation of social affordances at home: Not enough resources, takes over play, told what to do, other children playing, space too small, distraction, safety, play with other children, get to known child, not with adults, cause an injury, stops play, reduces how play takes place, good, happy, fun, adults make play fairer, other children's lack of ability, other children develop play

Manipulation of social affordances in the school playground: Lack of resources, told what to do, takes over play, other children playing, distraction, space too small, Space/Activity/People, not with adults, not with children, move play to bigger space, crowded, stops play, reduces how play takes place, noisy, annoyed, unhappy, not fun, don't like it, nervous fun, other children develop play

Manipulation of social affordances in the out-of-school club: Other people playing, takes over play, told what to do, distraction, don't know them, play with other children, stops play, pay taken over, reduces how play takes place, fun, nervous, more variety, more competitive

From the analysis of the responses with the baseline choice and the manipulation of the structural, functional and social affordances, the number of open coding themes was highest with regards to social affordances. Some themes did show some similarities, e.g. site specific and unsuitable surface.

The ANOVA analysis showed that in some circumstances the introduction of known children, known group and known adults had a positive effect on choice where children felt their play improved. When other people join in with their play, children stated that this provides more variety where they could take on a role in a game or doing more themselves. The following themes also emerged:

Manipulation of social affordances a home: Provides variety, provides support
Manipulation of social affordances in the school playground: provides variety; somebody to play with, tell people what to do
Manipulation of social affordances in the out-of-school club: provides variety, provides support, tell people what to do; know how to play

No new open categories or groups emerged from interview 40 onwards. This demonstrated the grounded theory approach had reached theoretical saturation of data (Morse, Barrett, Mayan, Olsen & Spiers, 2002).

7.2.5 Final Development of Open Coding Themes

Further analysis of the open coding themes, which involved looking again at each response in detail, found many open coding themes showed similarities. Using NVivo, similar open coding themes were collapsed together and eventually ten open coding themes emerged. Seven open coding themes were as a result in the reduction in perceived choice. These were: told what to do; play is taken over; play is distracted; lack of resources; space too small; play space specific to the activity and a combination of the play space, activity and people present (Space/Activity/People). There were three themes which resulted in an increase in choice: provides support; provides variety and tell others what to do. Examples and definitions of each open theme are shown in Table 11:

Table 11: Ten Open Coding Themes

Open Coding Category	Definition	Example
Told What To Do	The focus is on somebody telling the child how, where or who they have to play with	"*If you get seen doing something you shouldn't do you get a telling off*" (7 year old girl doing an obstacle course on the bars in the school playground)
Play Taken Over	The focus is on the play being taken over by somebody else who dominates the play	"*Well, I don't have all the choice because may be people want to watch different movies*" (8 year old girl watching a DVD in the out-of-school club)
Play is being distracted	The focus is on other people or objects in the play space that may be involved in the child's or their own play but at no point does anybody take over the play but it does form some kind of distraction.	"*Yes because I would have to pause it and pick up everything*" (9 year old girl playing with DSI in her bedroom with other toys being left out)
Not enough resources	The focus is on the lack of resources for the play activity taking place	"*I'll tell them they would have to wait their turn because it's only two players*" (9 year old boy playing the Wii in the lounge when a known group of friends arrive)
Space is too small	The focus is on the play space not being of suitable size for the play type being played	"*Because then I would be a bit squashed*" (7 year old boy playing on the Sony Playstation® in the out-of-school club when told the space was being reduced by half)

Space is Specific for the play type	The focus is on where the play space is specific for the type of play that is taking place in relation to surface	"*Because it wouldn't be so good as the concrete*" (11 year old female playing netball on the concrete in the school playground and asked to move onto the grass)
Space/Activity/People	The focus is on the combination of the play space, other people and the activity taking place	"*Yeah, if we didn't use the whole space and only used the grass if we went on the playground we would play football we would, because in school teachers say you're only allowed um football every Tuesday, Monday or Thursday*" (9 year old boy playing hide and seek tag in the school playground)
Provides Support	The focus is on another person providing some form of assistance to the child's play	"*Because it would be better because they could get the high books and I would have more choice*" (Eight year old girl playing libraries at the side of the room when an unknown adult joins in)
Provides Variety	The focus is on providing more variety to the child's play	"*Because they know how to play it and they will sit down with you and talk to you*" (Seven year old girl playing 'dares' on the seat when a known child joins in)
Tell others what to do	The focus is on the child telling the other people how, where or who they have to play with	"*Because I could tell her what to do and I would have choice*" (Eight year old girl on the climbing frame when an unknown child joins in)

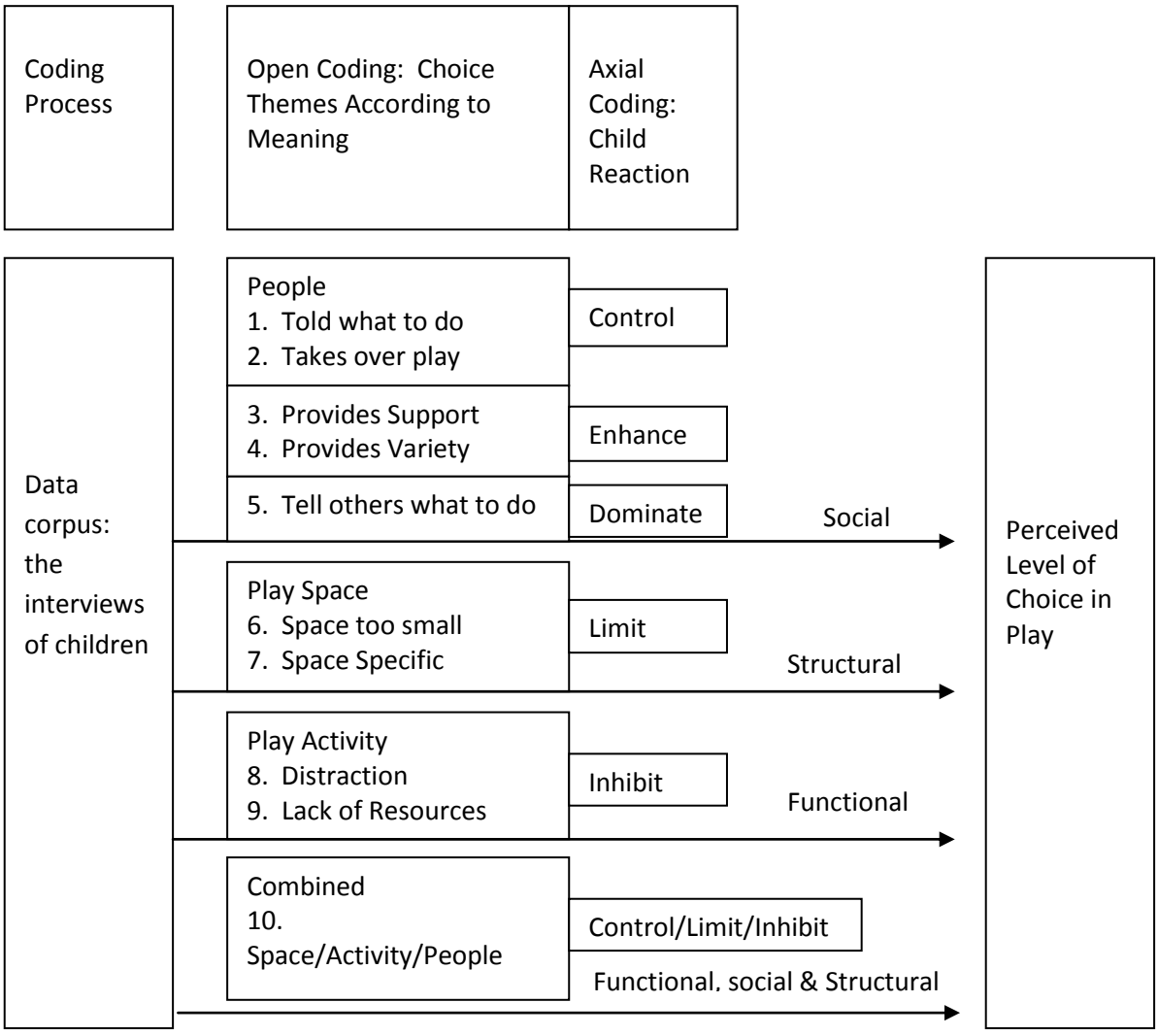
The 10 open coding themes can be organised into four headings:

1. People (negative response): Told what to do and takes over play and (positive response): Provides variety, provides support and tells people what to do
2. Play Activity (negative response): Play is Distracted and Lack of Resources
3. Play Space (negative response): Space too small and space specific
4. Space/Activity/People: Consists of people, play activity and play space

7.2.6 Axial Coding Sub-Categories

Hyvonen (2011), citing Strauss & Corbin (1998), makes reference to the overlapping nature of emerging open and axial coding. Using Hyvonen's (2011) grounded theory coding process template, five axial codes emerged from the 10 open coding themes on why children's perceived levels of choice changed. The axial coding relate to children's reaction to a perceived change in choice. Three axial codes relate to a negative change in choice: controlled; inhibited and limited, whilst two axial codes relate to a positive change in play: enhanced and dominance. The open coding themes and axial coding child reactions link in with either the social, functional or structural affordances. This is shown in the coding diagram below:

Figure 9: Coding Process Model for Perceived Change in Choice (Based on Hyvonen, 2011)



7.3 Baseline Choice, Open Coding Themes and Axial Coding Sub-Categories: Across the Three Play Environments

From the seven open coding themes created, key points were highlighted where children provided reasons for a reduction in their perceived levels of choice when playing at home, in the school playground and the out-of-school club.

7.3.1 Baseline Choice, Open Coding Themes and Axial Coding Sub-Categories: When Playing at Home

At home, both boys and girls were mostly engaged in an object play type and mostly played in their bedrooms. When asked why they did not have all the choice the main open coding theme was children felt their play was being controlled by being told what to do. This was primarily down to parents placing strict rules over the time they could play or other children placing constraints. These are reflected in the comments below:

> "Q*uite a lot of choice but only some of the time as parents control*" (Twelve year old girl playing on the computer in her bedroom)
> "*Because I don't get to choose who I play with my mum says sometimes have you're little sister have a go when I'm in the middle of doing something*" (Six year old boy playing with the DS® in his bedroom)

When analysing other comments why children perceived they did not have all the choice in their play, it was the activity itself that was being controlled, particularly if playing on a games console. This is shown in the comments below:

> "*I'll have in between because normally if I'm bad I wouldn't get to play on it, it gets taken away*" (Seven year old boy playing x-box® in the bedroom)
> *"My mum says do you want to do some hard work or play on the DS"* (Nine year old boy playing on the DS® in the lounge)

The comments around being told what to do show no gender bias towards either more a male or female perspective. Children's level of choice when playing at home appears to relate to

social reasons where parents or other children place constraints on the play. In addition, there is a combination of social reasons and the specific play activity, the functional aspect of the play. For one child, it was the play space itself that was deemed unsuitable to play, i.e. the level of light was deemed unsafe. When asked why their level of choice changed, children referred specifically to themselves as their responses contained words such as 'I' or 'me'. This reflects that most children were playing by themselves and engaged in a play activity that involved an object, such as a games console.

7.3.2 Baseline Choice, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the School Playground

In the school playground, children's perceived their level of choice was reduced by being controlled by being told what to do. In addition children's perceived choice was inhibited by their play being distracted. Children stated that it was mainly other children who were dictating the play as shown in the comments below:

> "*No, not a lot because we have quite a few people to play football and say if there is about eight of us playing then everyone is going to have their own ideas so who goes in goal, who goes in defence because other people usually tell you boss you about a bit and I'm not the kind of person who bosses people around really*" (Twelve year old boy playing football on the concrete in the school playground)
> "*About six because there might be somebody else on it and not one of my big fans they would probably say no*" (Twelve year old boy playing football on the concrete in the school playground)

The comments above demonstrate how children have to compete with other people's ideas. Children's conflicting personalities are also evident. One child clearly states they do not like bossing people around, whereas they are quite aware of other children being bossy. The responses from the children show the combination of how other children may control the play activity. This shows children are commenting on the social and functional aspect of their play.

In addition to other children, some children felt it was the playground supervisor who was telling children what to do in their play resulting in a decrease in choice. This is shown in the comments below:

> "*If you get seen doing something you shouldn't do you get a telling off*" (Seven year old girl doing an obstacle on the grass at lunchtime)
> "*You have to line up because you can't go all at once on the bars*" (Seven year old boy playing on the monkey bars in the school playground)

The comments above show how the school supervisor is having control over the play space by enforcing school rules (not allowed to go on the grass), rather than the play activity. In addition to being told what to do, some children also felt their perceived level of choice was inhibited where their play was being distracted. This is shown in the comments below:

> "*I've gone a point short because someone could hurt themselves and because football is well, you know, something very hard and you can easily break your leg*" (Ten year old boy playing football on the grass at school during lunchtime)
> "B*ecause most of my friends join in and it gets loud and I get annoyed"* (Eight year old girl playing Tag on the concrete on the school playground)
> "*Because really, if some people are playing here they are getting in the way of the pitch"* (Ten year old boy playing football on the grass in the school playground)

The distraction of children's play and subsequent decreased in perceived level of choice relate to safety of the child where they could be hurt, children getting in the way or the level of noise gets to a level which becomes annoying.

The comments around not having all the choice in their play by being told what to do or their play being distracted were from both boys and girls. Some of the comments focus on other people in the play space, others on the combination of other people and the play activity or combination of other people and the play space.

7.3.3 Baseline Choice, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the Out-of-School Club

In the out-of-school club children's lack of choice was down to the staff (playworkers) telling them what to do, thus children's perceived choice was being controlled. The playworker tends to reduce choice by stopping the activity the child is engaged in as other people may want to use it or they have to move from one area of the club to another, e.g. inside to outside. Children's reduction in choice appears to relate specifically to club rules:

> "*But we are not allowed to go on club penguin as they have not got the internet*" (Seven year old girl playing on her laptop)
> "*Sometimes you have to go outside after lunch and breaks you can't go on it*" (Nine year old boy playing on the computer)

Rules within the out-of-school club prevent children from accessing the internet, and some play activities are closely monitored by the staff, such as what DVD to watch. Children also made reference to other people having an influence on the play activity, as shown in the comments below:

> "*Because sometimes if you've been on the playstation® a lot like a long really much well you sometimes get taken off or sometimes people don't let you go on*" (Ten year old boy playing on the Sony Playstation®)
> "*Um, at school we would have the normal teams but here we would have to pick numbers*" (Ten year old boy playing football on the grass)

The reduction in choice in the out-of-school club was mainly down to the playworkers exercising control around rules and regulations. The combination of other people and the play activity are evident in the comments such as the playworker staff not allowing internet access or having to give up the games console to let somebody else have a go.

7.3.4 Summary of Baseline Choice, Open Coding Themes and Axial Coding: Sub-Categories across the Three Play Environments

When children were asked for reasons why did they did not have all the choice in their play, the main open coding theme that emerged whilst playing at home and in the out-of-school club, was children being told what to do. In the school playground, two open coding themes emerged, where children felt they were both being told what to do and their play was being distracted, resulting in not having all the choice in their play. The themes and key points did not have any bias towards any gender. The key points that emerged from the main open coding for each environment are shown in Table 12 below:

Table 12: Baseline Choice and Main Reason for Lack of Choice Across the Three Play environments

	Main open coding category	**Axial Coding**	**Key Point**
Home	Being Told What to Do	Controlled	Parental Control Children Control
School Playground	Being Told What to Do	Controlled	Children Control Lunchtime Supervisor Control
	Play is Distracted	Inhibited	Safety Noise People in the way
Out-of-school club	Being Told What to Do	Controlled	Playworker Control

The same process of highlighting key points was undertaken for the open coding themes that emerged from the manipulation of structural, functional and social affordances.

7.3.5 Manipulation of Structural Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing at Home

When the structural affordances were manipulated in the home, children felt their perceived level of choice would be limited where the size of play area appears to be quite crucial, as shown in the comments below:

"*Less space*" (Nine year old girl playing with her kitten in the lounge when the play space is reduced)

"Because half of the room would be gone and I would not have many places for choice" (Eight year old girl playing with her cat in her bedroom when the play space is reduced)

The actual physical space appears to be important, where any reduction in the play space results in children perceiving less choice. For some children, it was other objects that could not be moved within the play space that would limit their perceived level of choice:

"*Down because by the pipes there's a shed and some trees*" (Ten year old girl making dens in the field when the play space is reduced)

"*There's five things in my playroom and I have to go in the middle of all by the side*" (Six year old girl doing a jigsaw in her bedroom when the play space is reduced)

The comments show how aspects of the physical environment which are not moveable such as trees or objects where children are not allowed near, which limits choice in their chosen play. Another factor is the combination of people and the play space where the play might disturb other people if the space was too small.

"*My brothers very big and he has the whole playroom to himself so I need to go in the little area*" (Six year old girl playing with her jigsaws in her bedroom when play space is reduced)

"*My dad would have most the space I would have for building*" (Nine year old boy playing on the trampoline in the front garden when play space is reduced)

"*I usually use all the landing it is a long landing and if I have only half it is close to my brother and sister's bedroom*" (Seven year old girl playing with her Teddy in the bedroom when play space is reduced)

The comments show how other people (parents or siblings) control the play space where children have to play in certain areas of the room or in another room completely. In other

instances, it is the person controlling the play activity, or where the activity can take place in a specific space.

At home, the manipulation of structural affordances resulted in the reduction of choice with the space being too small limiting the play activity. This could relate to the play space itself or a combination of the play space and activity or the people present and the activity. There were again more references to how it affected the child themselves by the use of 'I' in the comments.

7.3.6 Manipulation of Structural Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the School Playground

When the structural affordances were manipulated in the school playground the reduction in choice was due to the play space being limited. This was down to the play space being altered. The space was important for the play to take place, as shown in the comments below:

> "*Because you would only have half the space and it wouldn't be as good and if it was your favourite you couldn't go on it*" (Eight year old boy playing on the climbing frame during lunchtime when play space is reduced)
> "*Because the space is smaller to play in*" (Ten year old girl playing football on the grass when play space is reduced)
> "*I only have half the space so it would be squishy*" (Eight year old girl skipping on the concrete playground when play space is reduced)

Children make clear reference to there being sufficient space to play in order for activities to take place, e.g. playing football on the grass. For some children the reduction in choice was down to a combination of the activity and the play space:

> "*Normally netball court is a full court with a half-court it wouldn't have two goals*" (Eleven year old girl playing netball on the concrete when play space is reduced)
> "*Only half the space and can't run that far*" (Seven year old girl playing stuck in the mud on the grass when play space is reduced)

In order to play certain games, children clearly need a certain amount of space to play, e.g. space for running for tag or football. Children show awareness of safety issues in their play and acknowledge this will reduce play. In addition, children showed irritation of other people getting in the way or other children joining in the play they do not necessarily want, even though they are considered friends.

7.3.7 Manipulation of Structural Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the Out-of-School Club

In the out-of-school club, not only was the space too small which limited choice, but also children felt that their play was being distracted which inhibited choice when the structural affordances were manipulated. When children felt the play space became too small to play reasons were down to the space and the people in the space:

> "*Because there might be more people coming and there would not be enough room*" (Seven year old girl playing dares when the play space was changed)
> "*Well if we only have half the space and the other half is for the little ones maybe if someone hits them I'll be very worried if I hit them*"(Ten year old boy playing football on the grass when the play space was reduced)

With other children in the same play space it appears that the space becomes crowded. For one child, they were sensitive to younger children in the play space getting hurt. For some children the reduction in choice was down to the space only:

> "*Because then I would be a bit squashed*" (Seven year old boy on the playstaion® when the play space is reduced)
> "*Because you can't choose to have the whole table*"(Seven year old girl making things when the play space is reduced)

The space is important for the play activity to take place where children felt their perceived level in choice was inhibited as their play would be distracted.

> "*Oh, I don't think it would change any choice unless there were little kids over here they might interrupt and put out the sockets and stuff so possibly if there were little kids not other kids*" (Twelve year old boy playing on the playstation® at the side of the room when the play space was changed)
>
> "*Because I, you could have it far away from you and close to you but if you want to talk you would have to have it far away and can't if someone*" (Eight year old girl playing on the computer on the table when the play space was changed)
>
> "*When I'm swinging my legs go high and if my legs don't go high it would not be very high up*" (Eight year old girl playing on the swing on the grass when the play space was reduced)

Children felt the distraction related to other children being in the same play space where one child clearly felt the space was theirs and did not want to move. Other children felt the combination of other children and the activity would result in a reduction in choice. In the out-of-school club, the manipulation of structural affordances resulted in the reduction of choice with the space being too small or their play being distracted. The children's responses have more emphasis on "I"; again reflect the use of objects in their play such as the Sony Playstation®.

7.3.8 Summary of the Manipulation of Structural Affordances, Open Coding Themes and Axial Coding Sub-Categories: Across the Three Play Environments

The main open coding theme that emerged when the structural affordances were manipulated at home and in the school playground was down to the play space being too small where children's perceived choice was limited. In the out-of-school club, two open coding categories emerged where the play space was too small limiting choice and the play was being distracted inhibiting choice. In the out-of-school club, children's responses showed

perceived choice to be both limiting and inhibiting. The key points from each major open coding theme for each environment are shown in Table 13:

Table 13: Manipulation of Structural Affordances and Reasons for the Lack of Choice across the Three Play Environments

Open coding Category	Open Coding Theme	Axial Coding	Key Point
Home	Space Too Small	Limiting	Other objects get in the way Other people in the play space
School Playground	Space Too Small	Limiting	Restricts the play activity
Out-of-school club	Space Too Small	Limiting	Other people in the play space
	Distracted	Inhibiting	Safety Interferes with the play

7.3.9 Manipulation of Functional Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing at Home

When the functional affordances are manipulated in the home environment, two open coding themes that emerged were play was being distracted and there not being enough space. Children's reaction to their perceived level of choice was being inhibited or limited. When their play was being distracted, the key points identified were noise from other people, people being annoying and safety reasons if equipment was being left around. These key points are reflected in children's comments below when asked why their level of choice changed when the functional affordances were manipulated:

> *Because one, they make a lot of noise and you lose your concentration and two they could nudge you*" (Seven year old boy distracted by noise when playing on the Nintendo DS® in the lounge when other children play in the same play space)
> "*They will be distracting me when I am drawing making lost of noise*" (Eight year old girl distracted by noise when drawing in the bedroom when other children play in the same play space)

The noise other children may make clearly is a distraction and a loss of concentration on the play activity may occur as in the child playing on their DS®. The safety of both the child themselves or other children are mentioned as shown in the comments below:

> "*Because we might hit her*" (Eleven year old boy aware of safety whilst playing football in the garden when other children play in the same play space)
> "*Because the equipment would be in the way and hurt your feet*" (Seven year old boy aware of safety whilst playing on the X-Box in his bedroom when other children's equipment is left out)

Children are aware of both their own safety (avoid hurting their feet) and other children (might hit her). Children also state that it would just be annoying to have their play distracted with other people playing in the same play space:

.

> "*Because they would have, the balls would go everywhere and come up with me and be quite annoying*" (Nine year old boy annoyed whilst playing on the trampoline on the grass when other children play in the same play space)
> "*Because I think it's a bit of an intrusion because me and my dog usually like playing together and if someone else butts in as someone could it's a bit annoying because you're playing peacefully and then someone comes along and interrupts it half-way really*" (Twelve year old boy annoyed whilst playing with his dog in the garden when other children play in the same play space)

The annoyance of having other children in the play space is that their equipment may get in the way (balls go everywhere) or children's presence in the play space (distract playing with the dog). Where there was other children's play equipment being left lying around, children would have to stop what they were doing and tidy up otherwise they could trip over it.

> "*But you would move them*" (Nine year old boy distracted by moving equipment when playing with a spinning top in the lounge when other children's equipment is left out)
> "*I would have to sort the mess out*" (Twelve year old girl tidying up whilst playing on the computer in her bedroom when other children play in the same play space)

"*Because you can go round them but when they are playing you can't go round them when they are skipping*" (Seven year old girl having equipment in the way whilst playing with her teddy in the bedroom when other children play in the same play space)

In addition to the child's play being distracted when the functional affordances were manipulated, children also felt other children playing or equipment being left lying around would reduce choice as there would be less space. Some of the children's comments relates specifically to the space only, as shown in the comments below:

"Because you need a really big space" (Seven year old girl playing with her teddy in the bedroom when other children are playing in the same play space)

"*I might not have enough room*" (Six year old boy playing with his lego® in the lounge when other children's equipment is left out)

The space some children need, for their play at home, does not have room for other children. For some children, it is the combination of other people in the play space that resulted in a reduction in choice as shown below:

"Because they're all over the big area and I would have to be in the little area" (Six year old girl playing with jigsaws in her bedroom when equipment is being left out)

"*Because he's taking room up on the floor*" (Ten year old boy playing cricket in the garden when other children are playing in the same play space)

The amount of space other children may take up when they play can result in a perceived reduction in choice. With some children, it is the combination of the space and the activity that reduces choice as indicated in the comments below:

"*Because again you wouldn't have so much space and when I play I usually play on the floor on the DS*" (Eight year old girl playing with her DS in her bedroom when other children's equipment is left out)

"*I would have to have the edge and it's not that bouncy*" (Nine year old boy playing on the trampoline in the garden when other children are playing in the same play space)

When the functional affordances were manipulated at home, most responses stated that the reduction in choice was down to their play being distracted and the lack of play space. The lack of play space may be the main reason or a combination of other children and the play activity could reduce levels of perceived choice.

7.3.10 Manipulation of Functional Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the School Playground

When the functional affordances were manipulated, children's perceived choice would be inhibited in the school playground as children stated a distraction to their play. One distraction was that children felt it would be annoying:

"*Because it would be a bit annoying and I would keep getting headaches*" (Eight year old girl playing on the climbing frame when other children are playing in the same play space)

"Get in the way" (Ten year old girl playing football on the grass when other children are playing in the same play space)

The annoyance relates to the level of noise other children may make or they may get in the way. Another distraction to children's play was identified due to safety reasons where children stated where equipment being left lying around would cause them to trip and may hurt themselves or other children. These are shown in the comments below:

"*When we run we may trip*" (Seven year old girl playing stuck in the mud on the grass when other children's equipment being left out)

"Because someone might get hurt" (Eleven year old girl playing netball on the concrete when other children's equipment being left out)

"*Because I might trip over stuff*" (Eight year old girl playing with a hoop on the concrete when other children's equipment being left out)

Interestingly children only related to their own safety and how they may get hurt. Children felt that their level of choice would decrease as the equipment was in the way and that it would be up to them to remove the equipment:

> "*We can tidy up*" (Eight year old boy playing tag on the grass when other children's equipment being left out)
> "*You have, you can't walk round really slowly you have to go fast to dodge all the people and football*" (Nine year old girl walking round the edge of the grass when other children are playing in the play space)

For some children, the equipment lying around meant they would have to dodge around it whereas for others they would have to tidy it away. One child felt that their level of choice would reduce as they would feel left out if other children were playing a different game in the same play space:

> "*It would make me want to play as well as I would be left out*" (Eight year old girl skipping on the concrete when other children are playing in the same play space)

When the functional affordances were manipulated in the school playground, children felt their level of choice changed as other children were noisy, would annoy them, get in the way or for safety reasons. Children felt the equipment would get in the way would have to be moved.

7.3.11 Manipulation of Functional Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the Out-of-School Club

When the functional affordances were manipulated in the out-of-school club, children stated their perceived level of choice would be inhibited mostly by being distracted. One key point that emerged was around noise:

"*Because I can't hear the TV*" (Six year old boy watching a dvd sitting on the seat when other children are playing in the play space)
"*Because it would be a bit harder to do anything when you've got really noisy children*" (Nine year old girl drawing on the table when other children are playing in the play space)

The factor of noise interfered where children were on the computer, drawing, watching a DVD or when chatting with their friends. Another distraction was how children would get in the way of the activity, as shown in the comments below:

"*Because they could make it harder to dribble between the bean bags*" (Seven year old boy playing football on the grass when other children are playing in the play space)
"*Because I might break someone's jigsaw or art and craft*" (Six year old boy playing with cars on the mat when other children are playing in the play space)

Interesting, the level of choice for one child was how they would interfere with another child's jigsaw. Children were also aware of safety factors with regards to equipment being left out. Children were aware of how they, or other children, could hurt themselves:

"*Because I would have some choice but if you fell over you could hurt yourself*" (Eight year old girl doing art and craft on the table when other children's equipment is left out)
"*If I start swinging my legs around and bang my feet on something sharp*" (Nine year old boy playing with his DS on the sofa when other children's equipment is left out)

Children were aware of their own safety as they wanted to avoid being hurt themselves. The equipment being in the way would have to be tidied up for children to maintain their level of perceived choice:

"*Then we can't play it as there are things*" (Seven year old girl playing with a hoop and ball on the mat when other children's equipment is left out)

"*You are interrupted to put the equipment away*" (Eight year old girl drawing on the table when other children's equipment is left out)

"*I would pick it up and move it out of the way*" (Eight year old boy playing with the Wii® at the side of the room when other children's equipment is left out)

One child felt their perceived level of choice would be reduced as they would want to play with the equipment being left lying around. This is interesting as more equipment had not resulted in the child having more choice in relation to what they could play with, but less choice in their current activity:

"*It would make me want to play with the stuff* " (Eight year old girl playing on the swing when other children are playing in the play space)

In the out-of-school club, when the functional affordances were manipulated the main reasons for play being distracted was due to noise, people or equipment being in the way or having to move the equipment.

7.3.12 Summary of the Manipulation of Functional Affordances, Open Coding Themes and Axial Coding Sub-Categories: Across the Three Play Environments

When the functional affordances were manipulated, at home, two main open themes emerged where children felt their play being distracted closely followed by the play space being too small. In the school playground, one open coding emerged where children felt their play would be distracted. In the out-of-school club children stated their level of choice would change with their play being distracted. At home, the play space being too small was also a highly relevant factor. Table 14 shows the key points for each of the main open coding themes for each environment:

Table 14: Manipulation of Functional Affordances and the Reasons for Lack of Choice across the Three Play Environments

Environment	Main Open Coding Category	Axial Coding	Key Point
Home	Play is Distracted	Inhibiting	Noise Annoyance Safety Equipment in the way Tidy up equipment
	Play Space is Too Small	Limiting	Restricts the play activity Other people in the play space Equipment in the play space
School Playground	Play is Distracted	Inhibiting	Annoyance Safety Other people in the play space Tidy up equipment Equipment in the way Noise
Out-of-school club	Play is Distracted	Inhibiting	Other people in the play space Safety Tidy up equipment

7.3.13 Manipulation of Social Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing at Home

When the social affordances are manipulated the main reason children at home stated their level of choice would be controlled by other people, was where their play was taken over. One reason appears to be based on a house rule where guests have preference:

> "*They wouldn't play the games I want to play and she have more choice because she's the guest*" (Ten year old girl playing on the computer in her bedroom when an unknown group joins in with their play)
>
> "*Because sometime when people come into my house they can ask if they can go on a different game*" (Eight year boy playing on his DS® in his bedroom when an unknown child joins in with their play)

In addition to other children having more choice, another reason for the play being taken over by other people was that children would not be in control over their play, as shown below:

> "*Because I won't known them and they would probably start going on and on saying hey this is my game and they might bring their own game and I would say hey this is my x-box" -basically they would take over as they are an adult*" (Seven year old boy playing on his X-box® in the bedroom when an unknown adult joins in with their play)
>
> "*Because if they are on you can't change the game and if you're on you can*" (Eight year old girl playing on her DS® in her bedroom when an unknown child joins in with their play)
>
> "*Because if there was three people and it was a four player game it would be hard for me because it would be don't do that, don't do that, and I would be oh my gosh can you stop doing that*" (Seven year old boy playing on his X-box in his bedroom when an unknown group joins in with their play)

Children clearly are sensitive to other adults taking over their play, but they are also aware that other children may try and dictate who the play should take place (e.g. "don't do that, don't do that"). Another aspect of having their play taken over by others was a result of having less time to engage in their play:

> "*They would have to take turns, two would go on first and then two go on the other*" (Eight year old boy playing on the X-box ®in the lounge when an unknown group joins in with their play)
>
> "*Because maybe if they've never ridden a scooter they would just always, just ask "can I have a go, can I have a go" when they've already had a go so I wouldn't get all the choice*" (Eight year old girl playing on her scooter in the corridor when an unknown group joins in with their play)
>
> "*Because there is only one person now not two people so I would get enough goes*" (Ten year old girl playing on her computer in the bedroom when an unknown adult joins in with their play)

The comments above show that less time in their favourite play was around having to take turns or having children spend more time on objects such as a scooter. In addition to complying with home rules, other children taking over or having to take turns, another key point was that other people would want to change how the play would take place by wanting to do different things. As shown in the comments below, other people wanting to bring in their own ideas or ways of playing would reduce children's perceived levels of choice:

> "*Because they want to do different things*" (Twelve year old girl playing on her computer in the bedroom when an unknown child joins in with their play)
> "*Because they might want to play a different game to what I want to play*" (Eleven year old girl playing on the laptop in the lounge when an unknown child joins in with their play)

Children are clearly sensitive that their chosen play is not changed or done differently by other children. Even when children may have enough resources to share, children were reluctant to share them as this would reduce perceived choice:

> "*Because I gave them the DS*" (Eight year old boy playing on his DS® in his bedroom when an unknown group joins in with their play)
> "*Because I have so many, I have a few and the other boy, person, he might actually want a few of them so there would not be as many as there was at the beginning*" (Ten year old boy playing with his action figures in his bedroom when an unknown child joins in with their play)

The reasons provided for a change in the level of choice at home were that often visitors would have priority in the play, or the other child would want to do something different. Children felt they would have less time to play on their chosen activity if other people joined in with their play. One child was prepared to completely stop their play if other people would join in:

"*I would pack up the game*" (Eight year old girl playing with her gerbils in her bedroom when an unknown child joins in with their play when an unknown child joins in with their play)

When the social affordances are manipulated the main reason children at home stated their level of choice would be controlled where their play was taken over by others. Many of the comments indicate that perceived changes in choice are a combination of other children and the play activity.

7.3.14 Manipulation of Social Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the School Playground

The main reason for the reduction in choice in the school playground was the play being distracted. One factor is that other children are not able to play the activity as the child would like, as shown below:

"*They might not know how to play it and be slow and if they were a baddy they might not be able to catch you*" (Seven year old girl playing a chasing game on the grass when an unknown group joins in with the play)
"*Because it would be too much explaining games*" (Eight year old climbing on the climbing frame when an unknown group joins in with the play)

Children appear to only want other children to play if they already know how the play activity takes place or they have the ability to play. Children also felt their play would be distracted as other people joining in with their play would result with more arguing and shouting:

"*Because I think we've got more in and I'd imagine most people like you know bossing about shouting a lot and we'd say come on that's just a foul and stuff and I wouldn't have much*" (Twelve year old boy playing football on the concrete when an unknown group joins in with the play)

"*If I had the hoop I would not get many goes because they would be shouting*" (Eight year old girl playing with a hoop on the concrete when a known group joins in with the play)

The arguing and shouting could be within a group activity such as playing football or a solitary activity when playing with a hoop. One child felt the presence of adults in the school playground would be a distraction as they should not be there:

"*Don't know what they are talking about"* (Twelve year old girl chatting on the fixed play equipment when an unknown child joins in with the play)
"*Because they should be making dinner and not playing with us and running around and jumping about because we lie on the floor and the dinner lady lie down would get lots of mud on their uniform and it would get dirty"* (Eight year old girl playing Zombies on the grass when a known adult joins in with the play)

Children clearly had a perception of what the role the lunchtime supervisor has in the school playground. Children were also aware of other people in the play space where their play would be distracted down to safety reasons:

"*You don't know the adult you are used to the children and have to watch out when they are running*" (Eight year old girl playing Cats and Dogs on the concrete when an unknown group joins in with the play)

One child felt their play could be spoilt if another child was better at the play than themselves:

"*The game you are playing might be like really good to play might spoil it maybe*" (Seven year old boy on the climbing frame when a known group joins in with the play)

For some children, their play was distracted in the playground as they may feel left out:

"*Don't know what they are talking about"* (Twelve year old girl chatting on the fixed play equipment when an unknown child joins in with the play)
"*If they were sisters or something they might play with each other and leave me out*" (Eleven year female playing netball on the concrete playground when an unknown child joins in with the play)

In the school playground children felt their level of choice would reduce as other people joining in would not know how to play the game. Other children felt the play would be disrupted through shouting and arguing. One child felt the play would be disrupted for safety reasons. For some children, their play was distracted in the playground as they felt left out. One child felt their play was distracted by the game being spoilt.

7.3.15 Manipulation of Social Affordances, Open Coding Themes and Axial Coding Sub-Categories: When Playing in the Out-of-School Club

In the out-of-school club children felt their choice would be controlled mainly by being told what to do. Children felt they would get less time to play as they would have to take turns, as indicated in the comments below:

"*They all would want to have a turn*" (Nine year old boy playing on the computer at the side of the room when an unknown group join in)
"*They would have longer time than me on the swing*" (Eight year old girl playing on the swing when an unknown adult joins in)

In addition to having to take turns which will reduce their level of choice, other children felt they would not want to spend their time waiting to play in their chosen activity:

"*I would have to wait longer*" (Eight year old girl playing on the swing when an unknown group join in)
"*I would get bored of waiting and want to do something else"* (Eight year old girl playing on the swing when a known child joins in)

Children clearly did felt that waiting to play would reduce their level of choice. Another aspect highlighted was that other people would be better at the play than the child themselves:

> "Because I don't really know them and I think I would just leave and let them have a go" (Twelve year old boy on the Sony Playstation® by the room when an unknown group join in)
> "*Because it would be quite fun but not very, because they might be too good*" (Eight year old boy playing on the playstation on the sofa when an unknown adult joins in)

Children also felt that their play would be taken over as other people would want to do different things:

> "*They would want to watch some of theirs*" (Eight year old girl watching a DVD by the side of the room when a known adult joins in)
> "*She would want to do her thing and I want to do my*" (Seven year old girl making things on the table when an unknown child joins in"
> "*Because I might want it to spin and they might want it to just go forward*" (Six year old boy playing cars on the carpet when an unknown child joins in)
> "*He might want to play something when it is his turn*" (Nine year old boy playing with a computer on the table when an unknown child joins in)

Children were aware that other children would want to watch different DVD's or play on an object in a different way, such as a different game on the games console. Children also stated that the adult playworker may take over the play activity:

> "*They would want to watch some of theirs*" (Eight year old girl watching a DVD by the side of the room when a known adult joins in)
> "*Because they might want to watch something they want to*" (Eight year old girl watching a DVD at the side of the room when an unknown adult joins in)
> "'*Because I can't push her* (playworker) *but she* (playworker) *can push me*" (Eight year old girl playing riding a bike when a known adult joins in)

The playworker's size and larger presence is highlighted where children feel the adult wants to do what they wanted, or their larger sized makes it difficult for children to engage in the play activity with them. Children felt other children would take over the play where they would feel they would be left out:

> "*Because they've got most choice there in a group and they know each other pretty well*" (Twelve year old boy playing on the Sony Playstation® by the side of the room when a known group joins in)
> "*Because there might be another child and I might want to play with them*" (Seven year old boy playing on the playstation® on the side of the room when a known adult joins in)

In the out-of-school club children felt their level of choice would reduce as they did not know the person. Other children felt that having their play taken over, they would get less time to play. One child felt that the person would be better at the game. Other children felt they would have to do what the other person wanted to do. Other children felt they would not have much time to play in their chosen activity. Two children felt they would be left out.

7.3.16 Summary of the Manipulation of Social Affordances, Open Coding Themes and Axial Coding Sub-Categories: Across the Three Play Environments

When the social affordances are manipulated at home and the out-of-school club, the main open coding theme that emerged for both environments was due to children feeling their play was taken over by others. In the school playground, children felt their play would be distracted. The key points for the main open coding categories across each environment are shown in Table 15:

Table 15: Manipulation of Social Affordances and the Reasons for Lack of Choice across the Three Play Environments

Environment	Main Open Coding Category	Axial Coding	Key Point
Home	Takes Over Play	Controlling	Play different thing Less time Finish playing
School Playground	Play is Distracted	Inhibiting	Don't know who to play the activity Shouting and arguing Safety Left out Play is spoilt
Out-of-school club	Takes Over Play	Controlling	Don't know the person Less time to play Other people better at the play Play different thing Feel left out

It was clear that when the structural, social and functional affordances were manipulated children perceived less choice in their play. In total seven open themes were developed resulting in a reduction in choice: being told what to do; takes over play; play is distracted; lack of resources; space too small; play space specific for the play and a combination of Space/Activity/People.

7.4 Manipulation of Social Affordances and Reasons for Improved Choice

As well as having a negative effect, children's level of choice also had a positive effect when other people joined in with their play. The ANOVA analysis showed that in some circumstances the introduction of known children, known group and known adults had a positive effect on choice where children felt their play improved. The level of choice for children playing at home and in the out-of-school club increased when playing with a known child above the baseline level. This also occurred when a known group joined in with the child's play at home. The perceived level of choice was also high when a known adult played with the child at home or in the out-of-school club.

When other people join in with their play, children stated that this provides more variety where they could take on a role in a game or doing more themselves.

Table 16: Manipulation of Social Affordances and Reasons for Improved Level of Choice across the Three Play Environments

Open coding Category	Main Open Coding Category	Axial Coding	Key Point
Home	Provides Variety	Enhancing	Other children provide more variety
	Provides Support		Adults provide support
School playground	Provides Variety	Enhancing	Other children provide more variety Children provide friendship
	Tell People What to Do	Dominating	Control
Out-of-school club	Provides Variety	Enhancing	Other children provide more variety
	Tell People What To Do	Dominating	Control
	Provides Support	Enhancing	Adults provide support Children provide friendship

At home, one child felt that when a known adult joins in with their play their perceived level of choice would be enhanced as it would provide them with more support. The importance of known people joining in with their play, is that they know how the child's play goes. One child's level of choice would improve as they can tell people what to do so become more dominating in the play:

> "*Because it they're my best friends we can do lots of things together and play on the computer and do lots of other things as well*" (Seven year old girl playing on the computer in the living room when a known adult joins in)
> "*All the choice they are here to support you*" (Seven year old girl playing with her dog in the field when a known adult joins in)

In the school playground, children again stated that their level of choice would be enhanced by providing more variety, more support and have other people to play with. One child stated their level of choice would improve as they would have somebody to play with. One child's

improved choice related to telling people what to do. Two children stated their play would have more variety if other people joined in.

> "*Because, they would have, they might have some new ideas how we could do different flips and we might learn how to do more flips and we can keep showing people*" (Seven year old girl doing flips on the climbing frame when an unknown child joins in)
> "*Because she might have nobody to play with and she might want to play with me and I would say yes you can I don't have anyone to play with*" (Six year old girl playing hide and seek on the grass when an unknown child joins in)
> "*Because I could tell her what to do and I would have choice*" (Eight year old girl on the climbing frame when an unknown child joins in)

When the social affordances were manipulated in the out-of-school club, some children stated their level of choice improved. This improvement was down children dominating the play by telling other people what to do. For other children, when other people join in with the play, it provides more variety and choice was enhanced. Another reason for improved choice was that adults provided support. Children's choice was also improved as children knew how the play took place.

> "*They might know something you don't know*" (Eight year old girl playing on the computer on the table when a known adult joins in)
> "*Because I could show her new movies to watch*" (Eight year old girl watching a DVD by the side of the room when an unknown child joins in)
> "*Because it would be better because they could get the high books and I would have more choice*" (Eight year old girl playing libraries at the side of the room when an unknown adult joins in)
> "*Because they know how to play it and they will sit down with you and talk to you*" (Seven year old girl playing 'dares' on the seat when a known child joins in)

When the social affordances were manipulated, children felt their perceived level of choice was enhanced or the children had more domination in the play.

Increased levels of perceived choice with the play being enhanced by more variety or new ideas from other children indicate that the quality of the play changed positively. When playing alone, children would be habitualized (Berger and Luckmann, 1966) to the familiar surroundings. When other people are involved, there would be a change in the both the social and functional affordance of the play, which could take the child out of their habitualized state, and thus offer more choices.

7.5 Emotional Responses to Manipulation of Affordances

Hyvönen and Juujärvi's (2002) study of affordances had emotion as an affordance. Although this study did not manipulate emotional affordances for ethical reasons, when analysing the interview responses, children would often use emotive words to reflect a negative or positive change in choice. Negative words included 'boring', 'unhappy', 'nervous', 'frustrated' and 'annoyed'. Positive words included 'nice', 'fun', 'excited' and 'happy'. It is evident that changes to children's play can result in both positive and negative feelings, with the latter not necessarily stopping the child playing.

7.6 Open Code Themes, Axial Code Sub-Categories and Affordances

When each of the open coding themes and axial sub-categories were further analysed, the reasons children provided for a change in choice were not straight forward. What emerged was a change in choice reflected a combination of different affordances. In total there were seven affordance responses: a structural affordance response; a functional affordance response; a social affordance response; a structural-functional affordance response; a structural-social affordance response; a functional-social affordance response and a structural-functional-social affordance response. This is illustrated in the Table 17 below:

Table 17: Affordance Matrix

Affordance Response	Definition	Example
Structural Affordance	where the reason for change in or choice refers to the play space only	"*Yes, because I chose the grass if we fell over we would not hurt ourselves badly*" (6 year old boy playing Sonic the Hedgehog® role play game on the grass)
Functional Affordance	Response where the reason for change in choice refers to the activity undertaken only	"*Because it could fall and get smashed*" (8 year old boy playing on the Wii® in the out-of-school club when told they had less space to play)
Social Affordance	where the reason for change in choice refers to other people only	"*No choice as I would get told off if I didn't play with her*" (9 year old girl walking around the grass field when an unknown child want to join in)
Structural-Functional	Response where the reason for change in choice makes reference to both the play space and the activity undertaken	"*Yeah because the garden's smaller and there's not a lot of room as the ball will go over the hedge*" (8 year old boy playing football in the garden)
Structural-Social	Response where the reason for change in choice makes reference to both the play space and other people	*"Somebody might trip you over and you get hurt" (*7 year old boy climbing on monkey bars when asked to move to a different space)
Functional-Social	Response where the reason for change in choice makes reference to both the play type undertaken and other people	"*It's usually the people who start the game but if you want to play with them you do what they want to do*" (10 year old girl playing football on the grass in the school playground)
Structural-Functional-Social	Response where the reason for change in choice makes reference to the play space, play type undertaken and other people	"*Less room to run about and too much of a crowd of people*" (8 year old girl playing tag in the school playground when asked to play in a reduced space)

Each of the ten open coding themes (based on the play space, the play and the people within the play space) and five axial sub-categories (control, inhibit, limit, enhance and dominate) formed from the combination of the three types of affordance under study (social, structural and functional affordances).

7.6.1 Relationship between Open Choice Themes, Axial Code Sub-Categories, Affordance reaction and Reduction of Choice: Across the Three Play Environments

When comparing the most common open coding themes and axial sub-categories for each environment for baseline choice and manipulation of the structural, functional and social affordances from the interview responses, it becomes clear how complex the children's answers are, as shown in Table 18:

Table 18: Relationship Between Open Coding Themes, Axial Coding Sub-Categories and a Reduction in Choice across the Three Play Environments

Choice	Baseline Choice	Open Coding	Axial Coding	Affordance
Baseline	**Home**	Told what to do	Control	Functional-Social/Social
	School Playground	Told what to do Distracted	Control Inhibited	Functional-Social Functional-Social/Structural-Social
	Out-of-school club	Told what to do	Control	Functional-Social
Structural Manipulation	**Home**	Space too small	Limited	Structural/Structural-Social
	School Playground	Space Too Small	Limited	Structural
	Out-of-school club	Space too small Distracted	Limited Inhibited	Structural-Social/Structural Functional/Social/Structural-Social/Structural
Functional Manipulation	**Home**	Distracted	Inhibited	Functional-Social
	School Playground	Distracted	Inhibited	Functional-Social/Functional/Social
	Out-of-school club	Distracted	Inhibited	Functional/Functional-Social
	Home	Takes over play Provides Variety Provides Support Tell others	Controlled Enhanced Enhanced Dominate	Functional-Social Functional-Social/Functional Social Functional-Social
Social Manipulation	**School Playground**	Distracted Provides Support Provide Variety Tells others	Inhibited Enhanced Enhanced Dominate	Functional-Social/Social Functional-Social Functional-Social Social
	Out-of-school club	Takes over play Provides Support Provides Variety Tells others	Controlled Enhanced Enhanced Dominate	Functional-Social Functional-Social Functional-Social Functional-Social/Social

7.5.3 Summary of MAST Interview Results

At home the level of baseline choice when being told what to do was down to children's choice being controlled through a combination of functional-social and social reasons. This was mainly due to parent control. In the school playground and the out-of-school club, being told what to do was down to functional-social reasons. In the school playground this was mainly by children controlling the choice, whilst in the out-of-school play this was by the playworkers. In the school playground, children's choice was inhibited as their play was being distracted. This was due to social and structural-social reasons due to excessive noise or the play space becoming unsafe.

When the structural affordances were manipulated at home, choice became limited as the play space was deemed too small and the reasons given were structural and structural-social where objects and people get in the way. In the school playground they were structural and in the out-of-school club, structural-social and structural. When the choice was inhibited as the play was being distracted in the out-of-school club, the reasons given were down to functional, social, structural-social and structural reasons.

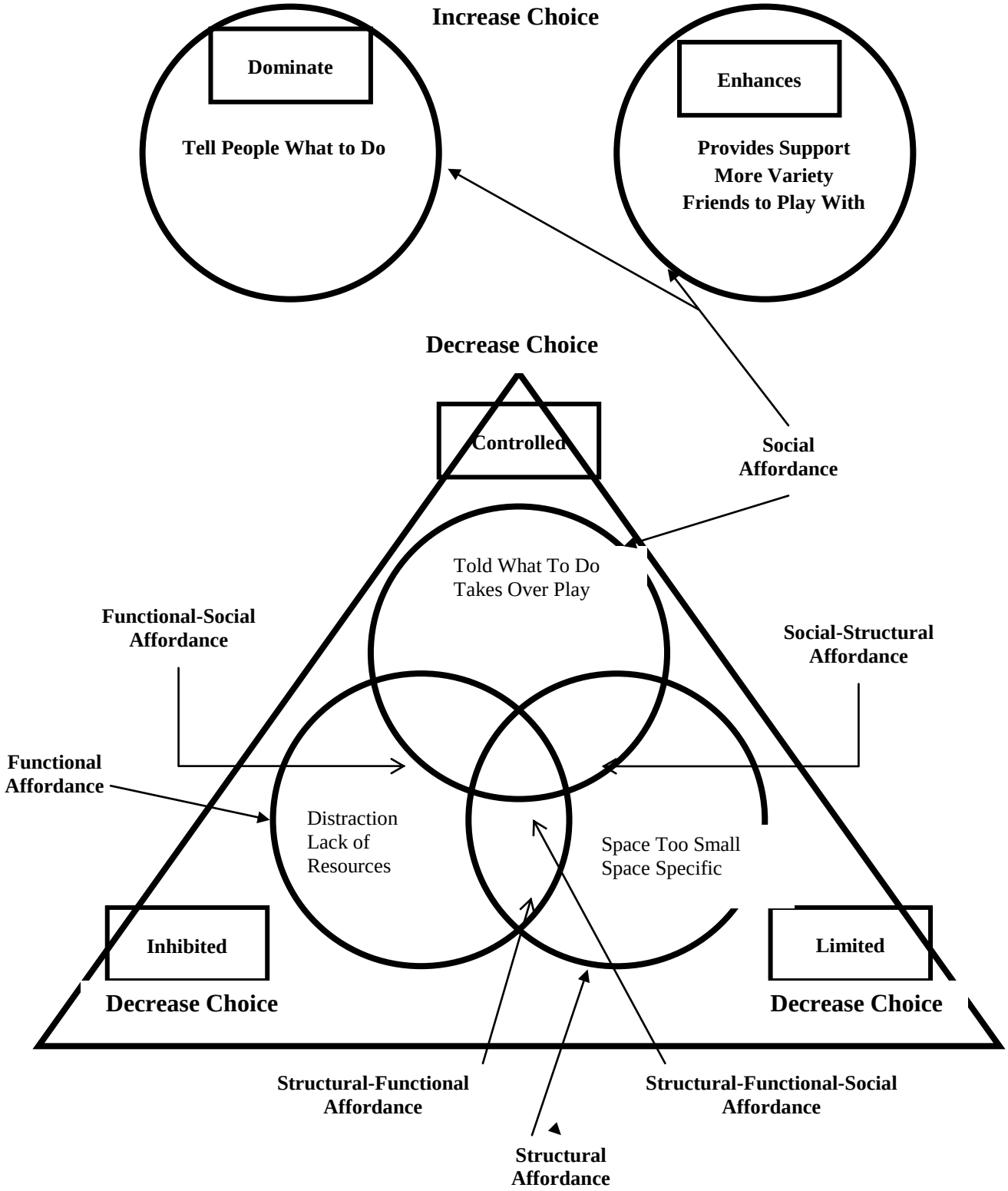
When the functional affordances were manipulated and the play was being distracted across all three environments, at home the inhibition of choice was down to functional-social reasons where other people were noisy or annoying. In the school playground reasons for a change in perceived choice was based on functional-social, functional and social reasons again due to noise and other people being annoying. Finally, in the out-of-school club play was distracted due to functional and functional-social reasons for noisy and annoying behaviour. At home, a decrease in choice was limited down to the play space being too small mainly down to a mixture of structural-functional/structural-social/functional/structural reasons.

Finally, manipulation of social affordances found both at home and in the out-of-school club, the play was being taken over and choice was being controlled for functional-social reasons, such as having to play what other people wanted to do. In the school playground, the play was being distracted and hence choice was inhibited for functional-social and social reasons down to arguing and shouting, safety factors or other children spoiling the play.

Across the three settings, an improvement in levels of choice was mostly down to functional-social and social affordances. At home, when playing with known children the level of choice was enhanced and increased as it provided more variety. When playing in the school playground, children felt their choice would increase when playing with known children as provided more variety, developed friendships and they would have more domination over the play. In the out-of-school club, playing with known adults would support their play so enhancing choice. When playing with known children, it was felt levels of choice improved as it provided more variety, children had more control and friendships would develop.

The complex relationship between the open coding, axial coding and affordances for both a reduction and increase in perceived levels of choice are shown in the Venn diagram below:

Figure 10: Venn Diagram Showing the Complex Relationship Between Open Coding Categories, Axial Coding Sub-Categories and Affordances



Children clearly were taking into account the value and attributes of the structural, social as well as the functional affordance of their play. Bereby-Meyer et al. (2004) demonstrated that children aged 8-12 years, when choosing alternatives to a product, showed both lexicographic (most important attribute to the child) and equal-weighting (examining value of all attributes) choice strategies when making decisions. In this study, it could be children's reasons for a change in levels of choice when the structural, functional and social affordances use similar evaluation processes when alternatives were presented that would change how they would play. A lexicographic response may be a result of one affordance being responsible for a decrease in perceived choice. An equal-weighting response may be a combination of two or more affordances. What is evident is that reasons for any change in choice were not based solely on the functionality of the play. This refers back to Else's (2009) view of choice in play, where sometimes having a choice between alternatives is required, however it may not necessarily be free choice.

The focus on the functional aspect of play is often where children are given a choice from a limited selection, what Reber et al. (2008) termed example choice. This often happens in out-of-school provision where children are given a range of activities to choose from rather than having complete choice on what they want to do. This also takes place in the classroom where children may be able to choose from a range of activities to meet a specific learning outcome. Choosing from an adult created range of activities does not necessarily constitute freely-chosen play. Children are able to take into account both social and structural aspects that may affect their level of choice in their play.

The manipulation of any of the affordances (structural, functional or social) could result in a change in perceived levels of choice down to a combination of any of the three affordances. For example, at home the social affordance (top circle) resulted negatively in children being told what to do or their play being taken over by others, or positively where it provided more variety and support. Although these appear to be social affordance based reasons, in fact further analysis discussed later showed that the reasons may be a combination of social, functional or structural affordances. For the most part, most changes in choice were due to social and functional affordances reasons (this is indicated by the overlapping of the social and affordance circles). This complexity existed across all three environments for baseline

choice and manipulation of the three affordances. The reasons for a change in the level of choice are based on the complexity of the task (playing) and can be based on the attributes that are important to the child (lexicographic) and/or based on all the values and attributes (equal weighting) (Bereby-Meyer et al., 2004).

7.7 MAST Experiment and Interview Discussion

Wood (2007) stated that in early years education, play activities create different affordances for learning, where affordances "are situated in how the play/learning environment is planned, the materials and resources available, and what use is made of these by children" (p8). The affordances stated by Wood (2007) are the structural, functional and social affordances manipulated in the MAST experiment and interviews. The results showed that, from a child's perspective, choice in children's play can be variable, and factors that can influence choice is the combination of the structural, functional and social affordances.

Tversky and Kahneman (1981) state choices are made within decision frames. A decision frame contains the acts and outcomes, which are perceived as negative or positive based on a neutral reference point, and contingencies with a particular choice. The choice process involves two phases, the first where acts, outcomes and contingencies are framed and the second the evaluation. Each manipulated affordance can be considered as a decision frame, and based on real life experiences; children provided an evaluation of why their choice changed.

Barker et al. (1963) carried out an observational study of the social actions of English and American school children using the concept of the behavioural stream (Barker, 1963). The behavioural stream comprises two aspects, the behavioural unit and behaviour tesserae. The behavioural unit consists of "inherent segments of the stream of behaviour" and are "changes that occur independently of the operations of the investigator" (Barker, 1963, p1). The behavioural unit has been used within self-determination theory (Deci & Ryan 1985). The behaviour tesserae are where the researcher uses the behaviour that is in accordance with their scientific aims (Barker, 1963). The behavioural unit and behavioural tesserae make up the

behaviour stream. The MAST experiment and interviews was not an observational study, but were hypothetical scenarios based on children's real life experiences. However, the manipulation of the structural, social and functional affordances changed perceived levels of choice. This, in turn, could change how children play or adapt to different scenarios, i.e. have an impact on the behavioural stream. Barker et al. (1963) identified 118 different kinds of social actions within their study. The responses within this study also had many different social actions; however these were classified into 10 open coding categories. Seven of the open coding categories reduced children's perceived choice in their play by controlling factors, limiting factors or inhibiting factors whilst three categories increased choice by enhancing or dominating the play. These different factors can also be considered as social actions.

The seven themes that reduced choice, although found across each of the three settings, differed in the level of perceived baseline choice when playing in the school playground, playing at home or the out-of-school club. Although across all three settings choice was affected by being told what to do, in the school playground children stated choice was also affected by their play being distracted. There were also differences in social actions between settings when manipulating the structural and social affordances, but not when the functional affordances were manipulated, except when playing at home where children felt the play space would become too small.

When the structural affordances were manipulated the reduction in the level of choice across each setting was fairly similar when the play was moved to a different play space. When the play space was reduced, it was the out-of-school club that had the largest reduction in choice. The interesting fact is that more children are in the school playground compared to children attending an out-of-school club, although most play recorded in the out-of-school club was inside the club room. This is probably why space becomes more of an issue in the out-of-school club due to the barriers of walls, furniture and other children playing in a more restricted space compared to an outside playground. This aspect can be considered in relation to Corsaro (1997) study of pre-school children's use of the play space. Pre-school children, according to Corsaro (1997) use highly sophisticated mechanisms in order to protect their interactive space. They do this by:

> "By protecting this space, controlling their own play, preschool children in negotiating who is in and who is out, which is one of them and which is not, children begin to grasp their developing social identities….marked more importantly during preadolescents" (Corsaro, 1997, p127).

Fjørtoft (2001) stated that the child's perception of the functional use of the landscape has an impact on children's behaviour and play. The manipulation of structural affordances and lowering of choice in relation to function was more apparent in the out-of-school club compared to the other two settings. Reasons for change in choice were more often down to structural-social reasons and the importance of protecting the play space children were using. Children's protection of the play space at home, in the school playground and the out-of-school club offered different reasons why the level of choice was reduced. This can be further explored in relation to the concept of the Temporary Autonomous Zone (Bey, 1985) and Territorialisation (Thomson, 2005).

The Temporary Autonomous Zone (TAZ) has the following characteristics: it is a spontaneous liberation of an area that is controlled by the individual/group for a limited time period; liberates an area (of land, of time, of imagination) and then dissolves itself to re-form elsewhere/ and can also be a secret communication system or a community living outside the law (Bey, 1985). The liberation of an area could be the space under a table to build a den, a sofa to play the DS®, the grass area to play football or a table to undertake some art and craft. The space needed to play is often temporary in nature and can last seconds to years, but what is important about the space is that it has ownership. Thomson (2005), using Sack's (1986) concept of Human territoriality, investigated children's use of space in the school playground. The aspect of territoriality in the playground was the:

> "Power to control the movement of others and the areas that they occupy. Moreover, those in control of an area have the power to banish occupants from a space or confine others to a space" (Thomson, 2005, p23).

The manipulation of structural affordances (changing of the play space and the reduction of the play space) affected the amount of choice in the play space but for different reasons across the three settings. At home it was the intrusion of space by other people, in the school

playground it was the nature of the space to the activity undertaken and in the out-of-school club it was a mixture of who was in the play space and activity undertaken. Although the play space is important for all three environments, at home and in the out-of-school club, the territoriality of the play space appeared to involve both the play space and people, not so in the school playground.

When the functional affordances were manipulated across the three settings the reduction in choice was practically identical where children felt it provided a distraction to their play. The distraction related to other people in the play space having an impact on their chosen play, particularly in relation to increased noise levels and the potential for more arguments. When other people left the play space, children felt any equipment left behind would be a distraction as they would have to move it, a few children felt they could use the equipment in their play. Although resources are important in children's play, both study 1 and study 2 found that the variety of games played in the school playground was just as high as at home and in the out-of-school. This is particularly interesting as often there are no or limited resources in the school playground compared to the other two settings. At home, the proximal activities of other children also had an impact on the space, something that was not considered important in the out-of-school club or the school playground. The results from the interviews found that it is not so much the activity (functional affordance) but the relationship between the activity and the people present (functional-social affordance)

Heft's (1988) functional taxonomy included nine main groups in relation to the topography of the environment. When the functional affordances were manipulated across all three settings, most children felt their level of choice would change down to their play being distracted. At home this was based on functional-social reasons (interaction of activity and people present). In the school playground it was social and functional-social reasons and in the out-of-school club it was functional and functional-social reasons. There was no indication that the play being distracted was based on a change in the structural-functional relationship. Min and Lee's (2006) observational study of children's play found children aged 11 and 12 years needed space for its functional support and less interference. In this study children as young as eight years felt that with the manipulation of functional

affordances (proximal activities and equipment being left) there was interference as they felt their play was being distracted, e.g.:

> "*Because one, they make a lot of noise and you lose your concentration and two they could nudge you*" (Seven year old boy playing on the DS® in the lounge at home when other children play in the same play space)

> "*Because it would be a bit annoying and I would keep getting headaches*" (Eight year old girl playing on the climbing frame in the school playground when other children are playing in the same play space)

> "*Because we would have to avoid them*" (Eleven year old boy playing football on the grass in the out-of-school club when other children playing in the same play space)

Kyttä's (2003) development of Heft's (1998) functional taxonomy included a social taxonomy in her study of children's mobility. It was evident with study 2 that manipulation of functional affordances, which obviously does involve other children playing their own games in the same play space, results in a complex functional-social outcome.

The MAST experiment showed a significant difference in the level of choice when comparing the perceived levels of choice for known and known people across the settings. In the school playground the level of choice decreased below the baseline level when both unknown and known people joined in with the play (child, group, adult). The perceived level of choice was also less than the baseline value when unknown people joined in with the child's play at home and in the out-of-school club. It was when known people joined in with the play at home and in the out-of-school club where an increase in choice was observed. At home, the level of choice increased when playing with a known child and known group that was above the baseline value. In the out-of-school club the level of choice when playing with a known child was above the baseline value and the level of choice when playing with a known adult was near the baseline value and was considerably higher than a known adult joining in the play in the school playground

A study of one child's behaviour in two settings (home and camp) was undertaken in America (Gump et al. 1963). Their findings found that at camp (equivalent of a summer camp where children are left day and night) the child's play was more "active, exploratory, constructed-oriented, fantasy-tinges, and physically exuberant" (p179) with more variety of adult interaction and associated with more peers of different ages and gender. In contrast the child's play at home was "more passive, more dallying, and more formally competitive" (p179). The results also found that at home the camp environment facilitated more peer contact and more variety of adult contact whereas at home there was less adult contact but more child contact. At home, the child was more submissive, however at camp the adults engaged in "more peer-like behaviour" (p187). Gump et al. (1963) found that the combination of peer and adult interaction at camp, the child showed more give and take-behaviour where there was:

> "Less dominance, aggressions, submission than at home but allowed more associates to be dominant but also submission" (p188-189).

Gump et al. (1963) speculated that the difference in behaviour between home and school was down to the difference in the adults' treatment of the child in relation to their role at camp.

Children often concede their play is regulated by adults (Eckert 2004). This was evident where children provided reasons of not having all the choice in their play at home, in the school playground and in the out-of-school club. At home it was due to parents, in the out-of-school club it was the playworkers and in the school playground it was other children. The manipulation of social affordances showed clear differences where in the school playground children felt their play would be distracted based on functional-social and social reasons for a change in choice. At home and in the out-of-school club, decrease in the level of perceived choice was the play being taken over, both based mainly on functional-social reasons.

When children are introduced into children's play at home, the level of choice does not decrease as much as in the school playground or the out-of-school club. This may relate to the research undertaken by Jeffers and Lore (1979) on pre-school children's play at home where children introduced into another child's home often is subjected to both positive and

aggressive behaviour to control the play between the pair of children. Children felt their level of choice at home would also increase as having known children or groups of children would provide more variety to their play. Clarke and Uzzell's (2002) study of adolescence use of the neighbourhood and town found young people used the town for social interaction and the neighbourhood was related to more retreat behaviours. Retreat behaviours could result in more solitary activities (playing alone on the console) even if other siblings are present, however, when known children play at the house the home has more social interaction. The home environment can provide both the social and retreat behaviours.

Retreat behaviours are more difficult in the school playground, and also in the out-of-school club, particularly with the large numbers of children present in the same play space. The high recording of football and chase games in the school playground and playing with other people on the games console indicates that the play may have a more sporting basis, what Mead (1934) termed an organised game. Mead (1934) makes a clear distinction between play and the organised game:

> "If we contrast play with the situation in an organized game, we note the essential difference that the child who plays in a game must be ready to take the attitude of everyone else involved in that game, and that these different roles must have a definite relationship to each other" (p151).

The taking of other people's attitude, more truthfully the attitude of the whole community is what Mead (1934) called the generalised other, an organisation of complex social order (Cooley1902). The reflection of the social order, or generalised other was reflected in the reasons children provided in the change in their level of perceived choice, when the affordances of their play environments were manipulated. The ability of taking other people's attitudes is important with respect to the social construction of childhood paradigm. If children are to be seriously considered as co-constructors, their views and experiences, in addition to how they react and respond to them, will aid in developing policy which children can relate with. Subsequently, if professional practice is based on children's' perceptions, this can bridge the conflict between policy and practice (Wood, 2004a; 2004b).

When children were initially asked for reasons why they did not have all the choice in their favourite play activity at home it was evident that parents were telling children when they were allowed to play at times. At home children felt their play would be distracted if unknown and known people joined in, however their level of choice decreased because they felt their play would be taken over:

> "*Because sometimes when people come into my house they can ask if they can go on a different game*" (Eight year boy playing on his Nintendo DS® in his bedroom when an unknown child joins in with their play)

Jeffers and Lore (1979) study of pre-school children's play found that when a child played at another child's house for the first time, the child's whose house they were playing displayed behaviour that was both positive and aggressive to control the activities of the pair where "the child in his own home is much more likely to resort to aggressive tactics to achieve control" (p840). As children get older, they often have to apply different strategies, often adult influenced, to placate the needs of other children. This negation may result in less choice, hence children feeling their play being taken over, and that having children involved in their play becomes a distraction. Nucci and Smetana (1996) stated that at home a reduction in choice occurs when the play goes against family or societal conventions or actions that may pose a risk to the child or others. The risk could be a risk of not upsetting guests particularly if they are unknown to the child.

At home the level of choice increased particularly when a known child, or group of children joined in with the play it provided more variety and children know how the play takes place:

> "*Because it they're my best friends we can do lots of things together and play on the computer and do lots of other things as well*" (Seven year old girl playing on the computer in the living room when a known adult joins in)

Kapasi and Gleave (2009) interview with children aged 7-14 years found when playing at home children liked friends to play with; time to play and freedom to play without structure. This was clearly reflected in the comments and increase choice found when children played with known people (both children and adults).

The study was undertaken in August during the summer and February during the end of winter time. This meant that when asked where they played at home both indoor and outdoor environments were possible. Only two children stated they played further than their gardens. This may be due to children's favourite activity being a computer or games console which is more than likely going to be played inside the house. Alternatively, this could also reflect the growing trend that children are not venturing outside their houses to play (Lacey, 2007) and that object computer/games consoles are becoming the most popular types of play at home. It may be where play involved a single person (games console) it was more likely to reduce choice and that other games that involved an input from other people may increase choice. The solitary nature of play at home, even though both siblings and parents are around, has also been recorded in other research (Giddings & Halverson, 1981).

In the school playground it was not the lunchtime supervisors (adults) telling children what to do, but mostly other children. The social complexity of the school playground has been investigated by Sluckin's (1981) ethnographic study of school playgrounds in Oxfordshire. Sluckin identified three types of child: leaders, teasers and attention seekers. Leaders were dominant and in charge of the games and as Sluckin (1981) pointed out "it is this child who can make all the suggestions, choose who can play and chuck people out if they don't behave" (p47). In the school playground, children stated that a reduction in choice was due to their play being distracted. The reduction in choice was mostly down to children not knowing how the game was played or an increase in noise (shouting). An increase in choice was mostly down to other children provided some variety to the play.

Pellegrini et al. (2004) stated children's games in the school playground have an important role in children's adjustment to social life as it provides an environment between that of free play regime of the preschools and the more structured environment of the primary school. Their study of children's playground play in the United Kingdom and United States of America found that peer interactions at recess provided opportunities for children to develop the social skills necessary to interact with peers in a positive way. The playground offers boys the chance for social dominance where children who are game leaders, those who start, organise and finish play have the environment to develop social competence (Pellegrini et al., 2002). Davies's (1982) ethnographic study found children developed three aspects of

playground culture: reciprocity (similar to Cooley's 'looking glass self'); discoverable facticity (the facticity of events at any single point of time) and plastic quality (change of 'facts' across time).

In the out-of-school club, it is the playworkers who stopped children having all the choice by being told what to do based on the interaction of the people present and activity undertaken (functional-social). This was reflected in the comment below:

> "*The adult wants to do lots of games she wants to do*" (Eight year old boy playing on the Nintendo Wii® on the side of the room when an unknown adult joins in)

The increase in out-of-school provision to support parents, particularly women, back into the workforce has resulted in children spending between 1 and 2 hours out-of-school in a childcare provision or what Valentine and McKendrick (1997) termed institutional play schemes. Smith and Barker (2000) study of out-of-school provision in England and Wales found that children's play was often restricted by "institutionally embedded conceptualisations of acceptable play" (p249), which resulted in:

> "Boys and girls challenged adult-defined play activities within the clubs in different ways and vied for control of different parts of the physical environment. Boys generally attempted to gain control of the outdoor space, wanting to play football and other physically active games. Girls struggled for control of parts of the indoor environment where they could play in private….to talk, sing and not be interrupted by boys" (Smith & Barker, 2000, p249).

An overview of breakfast clubs (Shermilt et al., 2004) found a negative view from teaching staff who felt after attending children's behaviour in school was more difficult to control in the classroom. The research team found:

> "The atmosphere of some clubs was not always calm and there was evidence of boisterous or disruptive behaviour such as running, shouting and rough play. Also, staff at some breakfast clubs may not always have had the same degree of supervisory training or have been recognized by children as having the same degree of authority as teaching staff" (Shemilt et al., 2004, p425).

However in the out-of-school club, the level of choice for playing with a known child increased to above the baseline value and playing with a known adult was only just below the baseline value. There is an adult perception of lack of control in the study by Shermilt et al. (2004), however, study 2 indicates child perception of having more choice, particularly when playing with a known child or a known adult. This is considered in relation to playwork practice in particular the eight playwork principles where Playwork Principle 2 states:

> "Play is a process that is freely chosen, personally directed and intrinsically motivated. That is, children and young people determine and control the content and intent of their play, by following their own instincts, ideas and interests, in their own way for their own reasons" (PPSG, 2005).

The second Playwork Principle reflects the definitions of play in government legislation but here it states play is a process that is freely chosen, personally directed and intrinsically motivated. Brown (2008) argues in his critique there is a need for a "careful rephrasing of the statement" (p125) as play is chosen, directed and motivated. The results from study 1 and study 2 shows that children's play is not necessarily freely-chosen, but children perceive more choice when playing with another known child or adult, and the key aspect here is when playing. Choice is not about just what is on offer, but the interaction of the child with other people (both children and adults). Adler and Adler (1994) recognised the role of out-of-school provision as a vehicle for socialisation, based on Mead's (1934) concept of the generalised other, and the need for children to experience complex social encounters. Complex social encounters involve the need to negotiate and compromise and this may be the role that playworkers do to support children's choice in their play. It was acknowledged, both at home and in the out-of-school club that children felt their choice increased as a result of their play being supported.

The reduction of choice when children play has been considered a tradeoff in order to socially interact with other people (Vygotsky, 1978; Csikszentmihalyi & Bennett, 1971), and the reduction of choice in familiar environments is a key aspect of habitulization (Berger & Luchmann, 1966). Both study 1 and study 2 showed that children's levels of choice can fluctuate, however even when choice appears to low children still consider they are playing in

the three settings of home, school playground and the out-of-school club. These results differ compared to studies undertaken in school classrooms (King, 1978). It appears that in play a child's choice is a fluctuating choice, where other children, or adults, may determine what game is being played or how the play is carried out so the child acts against their own spontaneous impulses (Vygotsky, 1978). What this may imply is that choice in children's play is, rather than be actually freely-chosen, is more like a regulatory valve where choice can be increased or decreased as fits with the child's needs within the behavioural setting (home, school playground and out-of-school club) and allow adaptation from familiar environments (habiutalization) to a change or new environments. Schwartz (2004) stated that "The more social comparison in choice selection the more affected you will be by it" (p200) and outcomes made in the decision frame maybe either negative as well as positive (Tvwersky & Kahneman, 1981). Making choices involves some kind of trade-off. The trade-off with decreasing of choice for children in their play may be compensated for an increase peer interaction, particularly the combination of the play activity and people involved (functional-social affordances).

For Piaget, play is a form of assimilation influenced by personal control or self-direction (Piaget, 1962 as cited by Henricks, 2008). At the other end of the spectrum is accommodation where children modify their actions to a change in situations. Piaget (1962) model of schemas in the operational activity stage shows play (primacy of assimilation over accommodation) leads to constructional games, whilst imitation (primacy of accommodation over assimilation) leads to reflective imitation. Between the two poles of accommodation and assimilation is adaptation. In chapter 2, it was discussed how Sutton-Smith (1975) viewed play as an opposite type of adaptation, subjective reactions to experiences. When children's play was manipulated, their level of choice changed as children had to clearly accommodate their play to different structural, functional and social affordances, often providing reasons based on subjective reactions to experiences. Children's perceived level of choice has to be adaptable, and this adaptability maybe to continue their existing play (assimilation) or to change their play to meet different challenges (accommodation). Piaget (1962) states this where "In games with rules (for example tag or football) there is a subtle equilibrium between assimilation to the ego – the principle of all play – and social life (to accommodate others in the play)" (p168). In relation to the school playground, Singer et al. (2008) state it is an

environment that helps children to make choice, develop rules for play and also resolve conflicts.

Study 1 suggested that more understanding about the factors that influence children's choice in their play would be beneficial in enabling practitioners to facilitate this choice and that a more accurate match between policy and practice, as detailed in National and International legislation. The results from Study 2 suggests that choice is not an either or option but offers flexibility in relation to perceived level of choice children have. The key aspect is that children are in control of their regulatory valve for choice, and this maybe is what happens in the out-of-school club where children are supported in how they regulate their choice. This will be considered in relation to the research question in the final chapter and a model for choice is proposed to support professional practice based on the intrinsic-extrinsic continuum (Deci & Ryan 2000).

Chapter 8: General Discussion and Conclusion

8.1 Introduction

> "Any study of choice, then, must be a study of different elements and of their importance and relations to each other" (Hill, 1898, p588).

This thesis used a mixed method approach investigating children's perception of their choice in their free play across different contexts. This approach involved two sequential studies being undertaken across children's institutionalised triangle (Rasmussen 2004) in the United Kingdom of the home, school playground and the out-of-school club. This study set out to address the research questions:

1. What do children choose to play at home, in the school playground and the out-of-school club?
2. How much choice do children perceive in their play?
3. Does children's perception of their choice differ across context?
4. Does children's perception of their choice differ in relation to social context?

8.2 Review of the Research Process

The research method map developed was based on Barbour (1999), Deci and Ryan (1985) and Miller and Kuhaneck (2008) using an ecological approach (Bronfenbrenner, 1986; 1995). The strategy was investigating children's perception of choice of the play activity, the play environment and who children were playing with through two sequential studies. The first study was quantitative in nature and asked children to record their choice around the who, what, when and where of their chosen play and who they played with. This was carried out using a self-administered questionnaire, the Play Detective Diary. The second study, based on the results of the first study, used a quantitative experiment, MAST, and qualitative interviews using a grounded theory approach (Glaser & Strauss, 1967) to identify any emerging themes. The MAST experiment manipulated the structural, functional and social affordances of children's favourite play, where children were asked to score their level of

choice using a sliding scale of no choice (0) and all the choice (10). Children were interviewed to provide reasons for any change in their play and change in level of choice.

This mixed method approach was considered within Bronfenbrenner's P-P-C-T process (1995) with a focus on the microsystem within his ecological systems (1986). The mixed-method process used for this research enabled a triangulated methodology to investigate choice through the two studies. Study 1 relied on children's own time on completing the Play Detective Diary (PDD) sheets each day they attended their out-of-school club. The PDD enabled very little input from the researcher, and hopefully minimised any potential researcher influence. Study 2 involved a closer research relationship with the child participants. Study 2 also obtained results that were based on hypothetical situations but the responses provided from children's real-life experiences. This approach was relevant as it provided some clear scope for analysing children's choice in their play where participant observations would not have been possible. As de Charms (1968) stated; "Capturing behaviour which results from free choice presents formidable difficulties" (p337). The development of the MAST experiment is a procedure that can be used for others and not just in children's informal play environments, but also in formal classroom environments.

8.3 A Reflexive Approach to the Research Process

Research needs to be reflexive. Reflexivity allows critical reflection on all aspects of the research process: role and their assumptions (Davies, 2008), methods and their application (Punch, 2002) and the relationship with the participants (Alderson & Morrow, 2004). A reflexive approach is particularly necessary when investigating a concept such as play as most people at some point of their lives have played. The reflexive aspect of this research has been the shift in my own perception of children's choice in their play. It has made me reflect on assumptions both as a researcher and a playwork practitioner.

The reliance on the commitment from the participants can not be emphasised enough. Developing a positive relationship with the gatekeepers was essential to not only gain access to the children in the out-of-school club, but it also helped develop a good relationship with the children. Trust was crucial throughout the research process. The choice of research tools

enabled children to take ownership of their Play Detective Diary, with the help of the out-of-school club supervisors to support them.

As somebody who has worked in the field of children's play and playwork since 1996 and have completed NVQ qualifications in Playwork and undertaken a Master degree researching children's free play, this study has changed my perspective of children's choice in their free play. Having delivered playwork courses at Levels 2, 3, 4, 5 and 6, freely-chosen play had always been at the forefront of the my training delivery, but not so now. Choice is still fundamentally important for me in children's play, but whether this choice is freely-chosen is not as straight-forward as I had always perceived. With a shift away from play being freely-chosen I will hopefully be enabled to develop new ideas and ways of working to develop cross-professional practice. Rather than focusing on freely-chosen play, this study has identified supporting children's play through a continuum of choice.

Woodhead and Faulkner (2000) pointed out that transcribing and analysing children's data can reflect the adult research questions rather than the child's experience. This was important to consider for both analysing the results from the Play Detective Diary and particularly when using the grounded theory (Glaser & Strauss, 1967) approach for the MAST interviews. This enabled that data to relate to the child's experience first and then to the research question. The importance of this is that the research questions were developed on the researcher's own personal experience working in play since 1996.

8.4 What Do Children Freely Choose to Play at Home, in the School Playground and the Out-of-School Club?

Both study 1 and study 2 showed that at home and in the out-of-school club, object play types were the most popular children engaged in. Object play type was defined as play that had the focus on a particular object. At home it was the games console in both Study 1 and Study 2, whereas in the out-of-school club it was football in Study 1 and the games console in Study 2. In the school playground both object play types and physical play types were popular. In Study 1 it was skipping followed by football and in Study 2 it was chase games. Children reported playing mostly on their own at home, with a friend at the out-of-school club and with

a group in the school playground. Children described their play as being mostly without adult presence across all three environments.

8.5 How Much Choice Do Children Perceive in their Play?

The perceived level of choice in Study 1 was significantly different in the out-of-school club compared to playing at home and in the school playground. In study 2, there was a significant difference in children's perception of choice across settings when the structural, functional and social affordances were manipulated. Within each setting, there was a significant difference between baseline choice and the manipulation of structural, functional and social affordances, except for when playing with a known adult. At home, perceived levels of choice differed when playing in the lounge, the bedroom and the garden. In the school playground, levels differed when playing on grass, on concrete or on fixed play equipment. In the out-of-school club there was a difference in levels of choice when playing on the floor, at a table or outside.

8.6 Does Children's Perception of their Choice Differ across Context

From the transcription of the 48 interviews undertaken, ten open categories emerged where seven related to a reduction in perceived choice and three to an increased level of perceived choice. The seven open categories for reasons why children's perceived choice was reduced was down to their play being controlled by being told what to do and play is taken over by other people, inhibited by the play being distracted or a lack of resources or being limited where the play space is too small or the play space is specific for the play activity. A final catch all category consisted of a combination of the space, the activity and the people present. The three open categories that emerged where perceived choice increased were where the play was being enhanced by being supported or having more variety and the child dominating the play by telling others what to do.

Further analysis of the open coding categories and the responses for a change in choice found that a change in choice was often not based on single affordances, but often is a combination of two or three affordances. In total, there were seven affordance combinations: structural,

functional, social, structural-functional, structural-social, functional-social and structural-functional-social.

When asked if children had all the choice at home in their chosen play, children stated that parental control was the main reason why they did not have all the choice by being told what to do. In the school playground it was other children controlling the play by telling others what to do resulting in a reduction of perceived choice. In addition, children felt their play was inhibited by the play being distracted due to excess noise and safety reasons. In the out-of-school club, a reduction in choice was down to the adult playworker controlling the play by telling people what to do. Across each environment, reasons for not perceiving all the choice in their play were mostly down to functional-social aspects.

When the structural affordances were manipulated, children stated that across all three environments the main reason for a reduction in choice was the limitation of the play space becoming too small. This was mainly down to a combination of structural and structural-social affordances where either people or objects get in the way. In the school playground, children also felt their play would be distracted. The distraction to children's play was a combination of functional, social, structural-social and structural affordances. When the functional affordances were manipulated, across all three environments children felt their play would be distracted and inhibit choice. Across each environment, the distraction of children's play was mostly down to functional-social affordances due to annoyance of others in the playspace, safety reasons and equipment being in the way. In addition, at home, children also felt the playspace became limiting with the playspace being too small when the functional affordances were manipulated, mainly down to a combination of structural-functional, structural-social, functional and structural affordances.

8.7 Does Children's Perception of their Choice Differ in Relation to Social Context?

In Study 1, there was a significant difference in perceived choice when playing alone or with other people. Study 2 found a significant difference in levels of choice between playing with

a known or unknown person across settings. There was a significant difference between playing with known and unknown child, group and adult.

When the social affordances were manipulated in the school playground, children felt their choice was being inhibited where their play was distracted down to reasons based on functional-social and social affordances (safety reasons, arguing, being left out). At home and in the out-of-school club, children felt their choice would be controlled where their play would be taken over down to reasons based around functional-social affordances (other children wanting to do other things or having less time to play). Across the three settings, an improvement in levels of choice as their play would be enhanced was mostly down to functional-social and social affordances where children felt they had more variety, someone to play with, having their play supported by adults and having more control over their play.

8.8 Changes in Choice and Affordances

Ellis's (1973) understanding of play stated the need to establish motives for and the content of play. The Play Detective Diary in study 1 indicated that the motive to play did not always originate from the child recording the play activity. The motive could come from another child, a group of children or an adult. Study 2 provided some indication of the content of play where the manipulation of affordances resulted in a change in play and choice. Manipulation of structural affordances resulted in a change in content due to structural (play space) and structural-social (combination of the play space and people present) reasons. Manipulation of both functional and social affordances resulted in a change in content due to functional-social reasons (combination of the play activity and people present). Chawla and Heft (2002) stated the relationship between the individual and the environment (play setting) occurs as a performatory activity. They stated that the performatory activity could be directed to another person or object, use of known environmental properties or uncovering new functional properties. The manipulation of affordances across the three settings showed differences in performatory activity, i.e. differences in motives and content of play.

When the structural affordances were manipulated across each of the settings there was a considerable drop in the perceived level of choice. Barbour's (1999) study of the school

playground found that the physical aspects of the playground could facilitate or constrain choice of activity and play partner. This was also found in this study but for different reasons across the settings. In the school playground the manipulation of the structural affordances and the change in choice was due to the space only (structural affordance) but at home and in the out-of-school club it was combination of structural and social affordances. In addition, in the out-of-school club, children also felt their play would be distracted based on structural-social affordances or individually by the space, activity or the person involved.

There are two clear differences in performatory activity when the structural affordances were manipulated. At home and the out-of-school club it affected the relationship between the space and other people in the space. In the school playground it was more about making use of the known environmental properties. It is very difficult for children to change the play environment in the school playground. The school playground does tend to have a concrete area (often zoned or have marking on), grass area (sometimes out of bounds in winter) and some fixed play equipment. Often there are landscaped areas but these areas are often used as a 'quiet' space. At home and in the out-of-school club changes can be made to manipulate the structural environment, such as move furniture or build dens. However, when recording their favourite play, only one child stated they like building dens, as most play was of an object play type, where children were using a computer or games console.

The manipulation of the functional affordances showed the least variation across each of the settings. Although there was a variation in reasons in relation to being functional-social or individually social or functional, all children felt their play would be distracted if other children are playing nearby or if their equipment is being left. The interesting aspect is that across the three environments there were few reasons provided for a change in play or choice due to a combination of the play space or activity, or play space and people. Although it is important for children to have a diverse use of resources (Nicholson, 1973) in order to maximise their play, the presence of other children was the most common factor. When children were asked if their level of choice would change when equipment was being left, some children stated it would increase because the children have gone, even though there would be equipment lying around. Torstenson-Ed (2007) stated:

> **"**Children remember as meaningful the meetings and actions where you can engage with feelings, thoughts, values, your own intentions, choices and actions That means to be able to have a dialogue with both persons and contents. Content has a broad definition and could be school subjects as well as all kinds of activities with animals or things, like play, horse riding or computer games" (Torstenson-Ed, 2007, p61).

The results here have clear implications in relation to provision that focus on providing a range of equipment or resources for children to choose from. Freely-choosing something in order to play is important, but it is how other children's freely-chosen play has an influence, either positive or negative, on the child's play. It again raises the point that play can not be freely-chosen for all children, there has to be some aspect of choice that needs to be negotiated at best, or lost at worst. This was more evident when the social affordances were manipulated.

8.9 Implications for Play Theory

The importance of play being freely chosen which encompassed play theory (e.g. Garvey 1977) is based on rhetoric; however the lack of specific research on choice does not necessarily support this. The results from this study does not support that play has to be freely chosen. Children still perceive an activity they are engaged in to be play even though their level of perceived choice may be low. Children's perception of choice is not just about the activity, it also needs to take into account where the play takes place, who is involved, and also the nature and character of the child. Cohen (2002) correctly points out that:

> "Play is not either cognitive or social or emotional. When children play, they often combine all these faculties" (p8).

Children's perception of choice is a combination of affordances. The perception of affordances is believed to exist along different neurological pathways (Young, 2006) as does making decisions (Cisek & Kalaska, 2010; Pesaran, Nelson and Anderson, 2008). Young (2006), based on evidence with patients with areas of damage to the brain, explained that

affordances are processed consciously within the dorsal stream of the brain whilst the object function is stored unconsciously within the ventral stream. Young (2006) stated:

> "If we are to conceive of affordances as relational properties, it would seem that different aspects of the subject-object relation are processed by different neurological pathways within the visual system" (p141).

Cisek and Kalaska (2010), using data from primate studies, argue that within the environment action selection (decision making) process and action specification (movement planning) process, both processes operate at the same time and interact with each other. This takes place within the same sensorimotor circuits that are responsible for planning and executing the associated actions in the dorsal stream. They have suggested that throughout the brain there are three areas along the dorsal stream where choice processes take place that links up with all areas of the brain. These decision areas both reflect decision-related variables and then encode the action to report the decision, involving areas such as prefrontal cortical regions, subcortical striatal-thalamic areas, hippocampus and the amygdala (Ryan & Deci 2006). With reference to Gibson (1986):

> "Processes that mediate sensorimotor interaction in the here and now, on the basis of continuous streams of sensory inputs as well as prior knowledge and experiences, are much more useful for guiding interactive behaviour" (Cisek & Kalaska, 2010, p275).

Scarantino (2002) distinguishes two classes of affordances, goal affordances and happening affordances. These two types of affordances relate to the type of activity children were involved in their choice of play. Goal affordances may relate to activities such as football or playing on the Sony Playstation®, whilst happening affordances could relate to other activities such as skipping or role play. The importance of these decision areas with the brain, combining what Gibson (1986) termed the subjective-objective divide permits the perceived information to combine with prior knowledge and combining all types of affordances relating to the behavioural response. Hence, when children were asked to explain why choice would change when the structural, functional and social affordances were manipulated, responses were a mixture of a combination of the three types of affordances, based on different experiences stored in the different areas of the brain.

The combination of the interaction of the child at play and the environment in relation to affordances relates to the animal-environment system (Chemero 2003; Stroffregen, 2003). The animal-environment system is relational and determines what can be done (Stroffregen, 2003). Stroffregen (2003) argues that behaviour requires decisions at a given time and is the role of the "psychological choice function" (p124). When children make choices in their play it is a combination of the structural (where the play takes place), functional (activity engaged in) and social (who is involved) affordances. The structural affordance, or play space, can be considered in relation to a psychological or play frame (Bateson, 1972; Goffman, 1974); Sturrock and Else, 1998). The play activity, the function of play, is advocated by Burghurt (2006) and Hughes (2001) to be a biological drive for not only human, but other animal species. The social importance of play has been well documented (Parten, 1934; Vygotski, 1978; Broadhead, 2001). This study of children's perceived level of choice in their free play needs to take into account all three domains; biological; psychological and social (Cohen, 2002).

8.10 Implications for Practice

There were differences in the level of choice across the three environments when the social affordances were manipulated when known people joined in with the child's play. Chen and French (2008) stated children's social behaviours and social relationships are shaped by personal characteristics and cultural factors. The social relationships fluctuate between autonomy and obligation in pro-social cooperative behaviour, as in Deci and Ryan (2000) motivation continuum of no choice, controlled choice and autonomy. Chen and French (2008) stated:

> "From middle childhood, peer relationships provide a major social milieu in which children negotiate with each other to adopt existing cultural standards and values and create their own peer cultures" (p607).

This social milieu include choices of play mates, settings and activities (Chen & French, 2008), and in the institutionalized triangle of home, school playground and out-of-school club also includes the presence of adults. Bronfenbrenner's (1986) mesosystem includes the culture and customs which include the rules and regulations that adults construct. These

could be informal, such as parenting, or more formal in school and out-of-school club policies.

The school playground has been recognised as an environment where children can negotiate rules (Pellegrini, 2005). Home is an environment where children are around less people and the social milieu is around the family structure and the customs and culture within in it, where the home environment is often for retreat rather than social interaction (Clarke & Uzzel, 2002). The out-of-school club however is a unique environment where in addition to the social milieu of peers, there is also the social milieu of adults, adults who are in a position to help facilitate choice which may not exist in the school playground.

In the pre-school environment, Corsaro and Eder (1990) explain that children become part of the adult culture and through a combination of negotiations with adults and the development of a peer culture, contribute to their development within adult culture. They term this as the "interpretive view structure" (Corsaro & Eder, 1990: p201). They recognised the lack of research of peer cultures and the need for more study in informal settings like the home and the playground. The three environments under study in this research were three different macrosystems (Bronfenbrenner, 1986) where at home, unless there are visitors, play is mostly solitary or with a sibling. In the school playground it is mostly group play with peers and in the out-of-school club it is with peers and playworkers. Corsaro and Eder (1990), acknowledging the work of Vygotsky (1978) stated:

> "The importance of communal activity-children's negotiating, sharing, and joint culture creating with adults and peers" (p217).

This may be a clue to the unique environment of the out-of-school club because although they are adult run and have rules and regulations, children are able to negotiate and this negotiation is based on the adaptability around choice, not just on what is available to play with, but who wants to play, where it is played and who may be in charge. The adaptability of choice allows children to have a trade-off where a reduction in the amount of choice they have when playing may compensate for by peer acceptance or being able to acquire new skills.

The results from Study 1 showed children felt they had significantly more choice in the out-of-school club compared to the home or the school environment. Study 2 found significantly more choice when playing with known people compared with playing with unknown people. The levels of choice when playing with known children both at home and in the out-of-school club was higher compared to the school playground. This was also the case when playing with a known adult. This finding suggests that a sensitive adult/carer or playworker known to the child may increase the child's perceived level of choice. Support for this proposition comes from Fisher et al.'s (2008) traditional mothers and Driscoll and Esterbrook's (2007) sensitive-engaged mothers who were sensitive to children's needs by being able to read cues and be sensitive to children's play needs and within the Playwork Principles (PPSG, 2005).

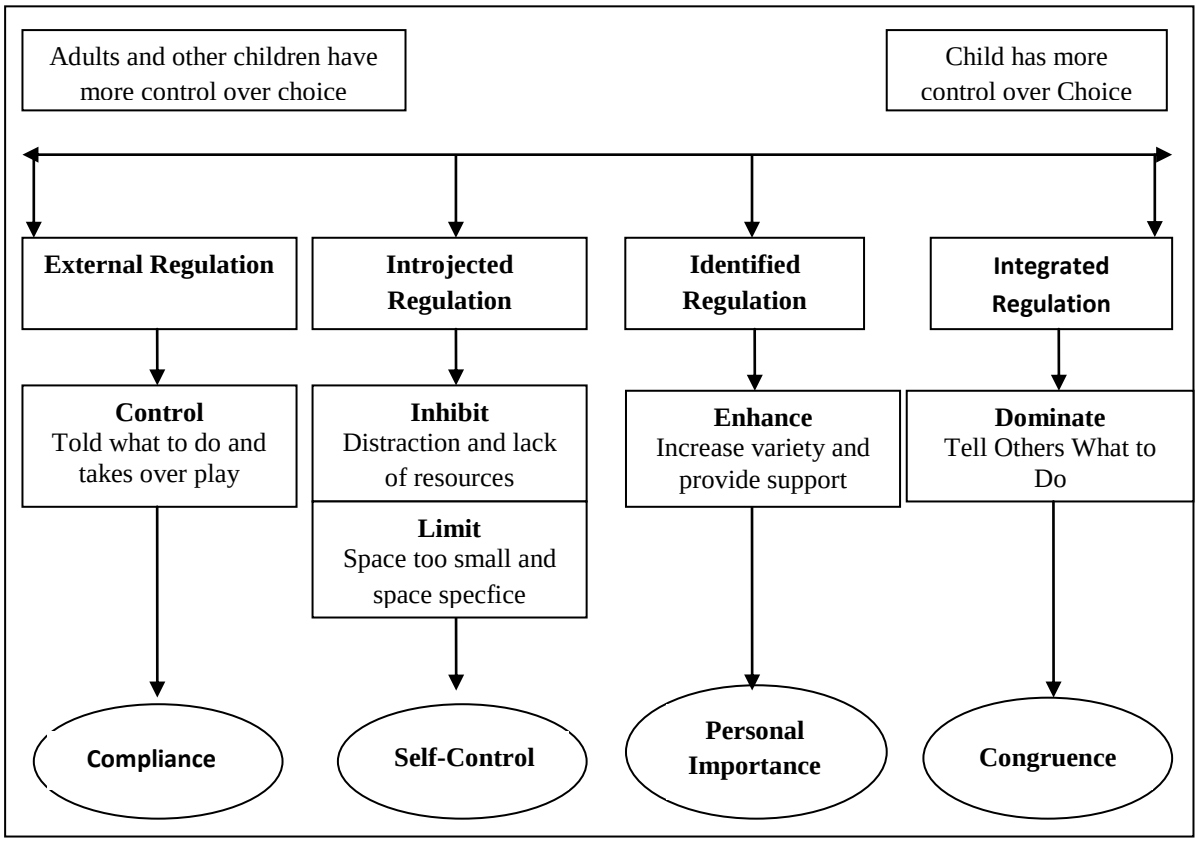
Playwork practice, under the Playwork Principles (PPSG, 2005) has a clear focus on supporting children's freely-chosen play by supporting the play process (Sturrock & Else, 1998), by responding to children's play cues. The play cues and responses take place in a particular space denoted as a play frame (Goffman, 1974; Sturrock & Else, 1998), or psychological frame (Bateson, 1972). Once a play frame has formed (i.e. a play activity has been chosen) then choices occur within the play frame, what Tversky and Khaneman (1981) refer to as a decision-frame. The decision-frame takes into account all the aspects of the play frame, which will include the structural, functional and social affordances. The adult role is to support the child's decision-frame and this is considered in relation to Deci and Ryan (2000) intrinsic motivation continuum within Self-Determination Theory.

Deci and Ryan (1985) identify three aspects of choice: no choice, controlled choice and autonomous choice. Autonomous choice is where children would have freely-chosen and intrinsically motivated play. Results from study 1 and study 2 indicate that children, unless playing on their own, rarely have freely-chosen play. In Deci and Ryan's (2000) organismic integration theory (OIT), the regulation of intentional behaviour is along a continuum. The continuum divides extrinsic motivation into four areas: external regulation (compliance); introjected regulation (self-control); identified regulation (personal importance) and integration regulation (congruence). It is this aspect of how external motivation affects children's choice where compliant children have very little choice and integration regulation

is where children perceive the most choice and may be most dominant in the play frame. The fluctuation of choice along the continuum is how children internalise the social milieu into their own behaviour, what Cooley's (1904) determined as the social order or Mead's (1934) generalized other.

Bergman's (1987) schema of play and learning is a continuum of the degree of internal/external control, degree of internal/external reality and the degree of internal/external motivation. At one end of the continuum the child has the most control, reality and motivation it is termed free play. At the other end of the continuum the child has the least control, reality and motivation and is termed work. The choice continuum model proposed in Figure 11 avoids the play-work dichotomy as children can perceive they are still playing even if their level of choice is very limited. However, if choice is completely restricted at the compliance end, children may perceive they are not playing. This is what Bergman (1987) has termed in her schema as work or work disguised as play. The choice continuum model allows children to exercise choice in their play and allowing them to combine all aspects of the environment, activity and social context into making decisions. The external regulation relates to the theme of control (told what to do and takes over play), and the introjected regulation refers to both limitation (space too small and space specific) and inhibition (lack of resources and distraction). The more choice children have in their play reflects less external social control and their play being enhanced (increase variety and provides support) which relates to identified regulation. Where children have all the choice and dominance over the play (tell others what to do), this refers to children dictating to others, integrated regulation.

Figure 11: Proposed Choice Continuum (Based on Deci & Ryan, 2000)



The choice continuum, based around the structural, functional and social affordances, allows children to make choice based on the complexity of the play based on attributes important to the child themselves or making a choice based on the best outcome for the child (Bereby-Meyer et al., 2004). Best Play (NPFA et al., 2000) states that the play environment should extend the choice and control children have over their play. For professional practice working with children, by reducing the factors that inhibit and limit play, and focus on the factors that enhance play, this would help extend choice. This could relate in schools to both the playground and the classroom. The continuum between the two extremes of choice being controlled or controlling has been explained in early years education by Wood (2007) as the difference between adult led and child led play. Wood (2007) stated the role of the adult was to use both their flexibility and expertise by integrating both adult led and child led learning through play. The choice continuum is around integration with the need for adaptable choice,

where for the professional supporting the child is around their ability to be flexibility and demonstrate their expertise in supporting children's choice in their play.

Children's choice will be influenced by the environment, activities available and the people present. Sutton-Smith (1975) viewed that play is on a continuum, where children have to adapt their play on subjective reactions to experiences. This study showed that choice in children's play is adaptable and can also be placed on a continuum. How children make their choices will also be based on their own personal knowledge and experiences and this will influence the behaviour they adopt in the play environment. This is what de Charms (1968) termed 'personal causation' which is the "initiation by an individual of behaviour intended to produce a change in his environment" (p6) and goes on to say:

> "A person may strive for personal causation in interpersonal relationships thus gaining friendships and affiliation, he may strive for personal causation in overcoming problems in the physical world thus producing inventions and gain fame for his achievement, he may strive for personal causation in influencing and manipulating other people and gain great power" (p270).

The choice continuum could support other aspects of children's health and well-being such as intrinsic motivation, learning and self-efficacy determination (Bandura, 1977) by supporting children's choice at an appropriate level as they develop resilience and adapt to social, environmental and activity changes. For some children, too much choice can be more impeding than motivating, or can result in children being dominating over others. Knowing a child's level of choice they can cope with, and for some children maybe having to reduce their level of choice, will aid their learning and development. This can be illustrated using Broadhead's (2004) social play continuum.

Broadhead's (2004) developed a social play continuum based on observational study of 3-6 year old children. Broadhead's social play continuum at the top end is based on children's combined reciprocal language and action in the cooperative domain (Broadhead, 2001; 2004). This study, although not an observational study, is with the older age range of 6-12 years and highlights how children adapt their levels of choice to the social situation they are in when playing. This links in with where from the age of 6 years, children may find themselves having to compromise as the combination of activity (functional affordance) and people in the

play space (social affordance) becomes increasingly complex. By matching a child's level of choice to their social, environmental and social situations, their learning and development is being supported in conjunction with their ability to make choices in their play and the strategies used. These choice strategies could be personal to the child (lexicographic choice) or weighing up all options (equal-weighting) (Bereby-Meyer et al., 2004).

From the interviews in study 2, the main reasons why children's choice was reduced was around compliance, as the play space could not be altered or that they were being told what to do (external regulation). Introjected regulation is where children are playing but other children or equipment are distracting the play and children have to develop self-control in order to play with others playing around them. The out-of-school club provides a rich play environment with the most varied opportunities for play, but is also the most competitive for space as often the out-of-school clubs are run from one or two rooms with up to 40 children attending. The identified regulation is where children's personal importance is key, but this has to fit in with other children, or adults, playing with them. If children are too submissive, their choice is lower down the continuum and if they are too aggressive their choice is perceived higher. Piaget's (1932) study of moral judgement in respect of a game of marbles makes reference to mutual control with children aged 7-8 years. At this age, rules are not fixed but are personal (personal causation) to the child and it is not until aged 11-12 years that rules become fixed. Allowing children to control their level of choice supports this mutual control so could be essential for children's moral development. Ryan and Deci (2006) within SDT state that a child's autonomy, hence choice, may reflect consent to external inputs or inducements.

Doval and Gough (1991) state autonomy is a basic need for the individual and when situations afford, autonomy could significantly increase "through a spectrum of choices". By identifying a spectrum, or measure, of choice where children still perceive to be playing this has major implications not only in playworkers supporting children's play as stated within their Playwork Principals (PPSG, 2005) but also teachers in the Foundation Phase where choice is paramount in self-directing learning and other professionals who work in children's play such as play therapists and social workers. This links in with Bergman's (1987) guided

play and directed play in her schema of play and learning. By identifying children's level of perceived choice, it is more likely children will perceive what they are doing is still play and this would be beneficial to not just children's informal play environments, but also both the school classroom and the play therapists room.

This area of identified regulation allows children to regulate their choice which may mean that they don't choose the play activity, but may have more of a role in choosing where the play takes place. Bruce's (1994) feature nine within her free-flow play states; "it can be initiated by a child or an adult" (p193), however they have to be sensitive to the child's needs. This sensitivity has to relate not only to what children choose to play, where to play and who with, but also where possible rewards are present as this can reduce autonomy (Ryan & Deci 2006) and hence choice. For professional practice, the aspect of identified regulation is an area where children perceive more choice as the parent or playworker is supporting externally, which increases the child's perceived internal choice and hence motivation to keep playing. This could have relevance in more formal environments such as the classroom.

It has been shown that when children perceive they have more choice, this leads to a superior developmental effect (McInnes et al., 2011), as children can set and amend target outcomes. The identified regulation aspect could be where children do not feel pressured as other people's choice is being forced on them, or that having all the choice may result in using energy to make decisions (ego depletion). The MAST experiment could be adapted to use actual photographs of children's play environments and using real life episodes that take place, (this could be done through videoing children's play and replaying it back to them) would provide a more accurate level of choice. This would be more beneficial than the hypothetical situation given to children in this study. For example, children given a photograph of their classroom would be able to give an account of the level of perceived choice from their current studying position in the class and what would happen if the structural, functional and social affordances would change, for example when the teacher is involved or not. If it was possible for children to identify where their maximum level of choice was this could not only increase their interest but their developmental potential as well.

Burghart (2006) stated that all animals (including humans) play when they are in a "relaxed field" which allows experimentation and not having fear in feeling failure. The adaptability of choice in the identified regulation would allow children to attempt different things that may come from other people, the combination of functional-social activities. Where teachers may focus on large group work with limited choice, it maybe more beneficial for children to work in small groups, even pairs, to support how they negotiate choice and try and limit the distraction, space aspects and dominance of other children so children perceive more choice and thus increase developmental potential.

The focus on adaptable choice, rather than freely-chosen, in both policy and professional practice could help to join up different professions that are involved in children and children's play. Freely-chosen play is an adult aspiration, and it may in fact provide the basis for playwork practice to support children's play. A move to adaptable choice could also be used in the school classroom, in addition to the home, out-of-school club and school playground. Bruner (1983) study of pre-school children found that when the adult gave children assurance and reassurance in the play environment children welcomed them in their play. This study found that at home and in the out-of-school club, children perceived more choice if they felt their play was being supported.

Freely-chosen play is not a reality in practice as children's levels of choice have to be adapted to the changing structural, functional and social affordances that occur in the play space. For professional practice it serves to support children's play and, as found in the out-of-school club and at home, can increase children's perception of how much choice they have. It is more realistic for children's choice to be adaptable and to support this adaptability.

Children clearly had a perception of choice that was affected by controlling or supporting factors. The interaction between children and adults will influence whether children's choice is being supported or controlled. Gurland and Grolnick (2003), using Deci and Ryan's (1985) Self-Determination Theory, found that children have a perception of adults, even those they meet briefly for the first time. Their perception was based on children's own categorical expectations as to if adults would be perceived to be controlling or supportive. An adult's

practice, whether they are perceived to be controlling or supportive, is influenced by six factors (Howard and McInnes, 2013). These factors are: health and safety; risk taking; ethical practice; boundary setting; working with parents and referral and safeguarding (Howard and McInnes, 2013). Coleyshaw, Whitmarsh, Jopling and Coleyshaw (2010) found within early years practitioners, they had a limited range of techniques to develop children's perspectives. Coleyshaw et al. (2010) found early years practitioners focused on children's choice on resources and activities (what is described in this study as the functional affordances within the environment), rather than allowing children to express their views which would also take into account the social and structural aspects of the environment.

Howard and McInnes (2013) argue that utilising a child's perspective, different play practitioners could share their understanding of each type of practice. What can link these different factors is an understanding of a child's perception of choice. Children need to choose aspects that they perceive to be appropriate risk and have a measure of their own health and safety. Children will test boundaries by choosing particular ways to play and who they want to be involved in their play. Children's choice to play will affect ethical practice as under the UNCRC (1989), Article 12 advocates children's choice. Lester and Russell (2010) highlight the tension between children's rights and professional practice:

> "Much of the debate on children's rights centres on the inherent tension in the CRC between children's right to express their views, and the principle of acting in the child's best interests. Who makes the final decision if a child expresses wishes that are not considered to be in their best interests?" (Lester & Russell, 2010, p9).

Choice, and an understanding of choice from a child's perspective, is fundamental in supporting children's rights, and in turn, can support professional play practice whether it is in the classroom, the school playground at lunchtime, out-of-school provision, the home and in therapeutic environments. The choice play continuum can support professional practice by acting as a marker for children's play and by placing the child's perception of play on the continuum, professional practice can then be reflected upon and changes to practice can be planned and implemented. This will in turn support children's development (National Children's Advisory Council (NCAC), 2009) and provide a technique to assess a perspective

of choice in their play. Children, when their level of choice is appropriately supported can maintain a child's perspective that what they are engaged in is still play.

Lester and Russell (2010) also argue that children's play is supported by the physical, social and cultural aspects of the environment that afford them play in their immediate neighbourhood. The practitioner needs to be very aware of the interaction between the structural, functional and social affordances in relation to children's perception of choice. The role of the practitioner within children's play can be perceived to be controlling or supportive depending on the social affordance children perceive from the adult. The development of the choice continuum supports in this study that children have a perception of being supported and controlled, however this thesis shows that children will still perceive play, even if the level of choice is low. Gurland and Grolnick (2003) stated that adults who work with children could improve the quality of their interactions by adopting a supportive style where:

> "The quality of child-adult interactions depends, at least in part, on the extent to which adults provide children with choice and support regarding children's own initiations, as opposed to pressuring or steering them in particular directions" (Gurland & Grolnick, 2003, p1221).

Coleyshaw et al. (2012) grounded theory study of early years practice identified the need for practitioners need to have a "growing understanding of children's perspectives, focused on choice" (p21). This focus on choice, which playworkers have within their professional practice of the Playwork Principles (PPSG, 2005) may have been one of the reasons why children perceived more choice in out-of-school provision, where playworkers are encouraged to support all aspects of the play environment, rather than just the choice of resources and activities.

Jung (2013) study of infant school children's interaction with the adult staff found that the staff's role changed in relation to age and stage of development of the child. The role's the staff adopted ranged from facilitator (supportive) to play leader (controlling) depending on how the playful interaction with the child developed. This is a similar approach adopted by playworkers, where their role as a facilitator of the play environment means they have to

adopt different roles depending on the age and numbers of children within the play environment. Trawick-Smith and Dziurgot's (2011) study of pre-school children and teacher interaction during free play found that teachers had three approaches during this period: direct guidance, indirect guidance and no interaction. Using a Vygotskian 'good-fit model', they identified the need for teachers to be both reflective and observational and to develop a range of techniques to support children in their play. The important quality of the indirect guidance was the teacher being a guide without any expectations, an approach which playworkers use within their Playwork Principles (PPSG, 2005).

It is evident this indirect approach is used across different professions. Indirect guidance, or facilitation, occurs successfully when professionals are observational and reflective (Trawick-Smith and Dziurgot, 2011) and this can be further supported by professional practice being more sensitive in how they support children's choice using the choice continuum. The choice continuum takes into account both adult-child and child-child interactions and allows observation and reflection if children's choice in their play is being inhibited or limited (controlled), enhanced (supported) or a child or children are dominating the play space.

8.11 Implications for Policy

> "There is a need then to offer children the opportunity to define themselves through collaboration in the research effort, rather than to be defined solely by adult interests, biases and agendas. This, it is contended, ought to be understood as being yet another aspect of the general movement towards the recognition of children's rights. Such an approach has the potential to lead to social policy which more accurately and compassionately reflects the concerns of children" (Grover, 2004, p83).

This thesis was not a collaborative piece of research with children; however it has provided children with a voice on their perception of choice in their play. Moss and Petrie (2001) stated children are citizens with rights, co-constructors of their knowledge and can make meanings of their lives where they live. Moss and Petrie (2001) promote one view of childhood:

> The child is social and inter-dependant strong, powerful, competent, and most of all connected to adults and other children" (p101).

The powerful connection with adults and other children, through play, could be for children to adjust their levels of choice. Being able to adapt their choice enables the child to fit in with the social norms and customs of different environments which may either act as a barrier or support their play. Kyttä (2003), quoting Miller, Shim and Holden (1998), pointed out the two-sided nature of affordances the positive and the negative. The reasons for a change in the level of choice clearly saw a negative reduction in choice when the structural and functional affordances were manipulated across settings. There was also a clear reduction in choice when playing with unknown people across settings where citing Miller et al. (1998), Kyttä, 2003 stated:

> "It is characteristic of both positive and negative affordances that they include choice. A positive affordance can be actualized or not, and a perceived danger can be avoided or faced head on. On the other hand, an environmental demand that doesn't include choice is, according to them, not an affordance" (p58).

When children played with known people at home and in the out-of-school club children felt their level of choice increased considerably. Across all three settings the change in choice were based on functional-social affordances, the interaction between the play activity and the people present within the setting. Although space to play is important, it is the functional-social aspect of the play where much choice can increase or decrease. The key is how children are able to adapt their level of choice, when they allow other people to make choices, which could include the game that is played, the rules of the game and where it may take place. This emerged out of the Play Detective Diary and the MAST experiment where at home and in the out-of-school club a reduction in choice was down to their play being taken over and in the school playground their play was being taken over or was distracted. Children must make a choice decision to continute to play even when their choice is being restricted, as Vygotsky (1978) suggested.

United Kingdom Government play policy makes clear reference to the United National Convention on the Rights of the Child (UNCRC). Children's rights under the UNCRC (1989) are grouped into the three P's: Protection, Participation and Provision (Lester & Russell, 2010). However, as both Lester and Russell (2010) and Van Gils (2007) point out,

there is often a tension between protection from an adult perspective and participation from a child's perspective. This research indicates that in their perceived choice of play, children still perceived they were playing (participation) although their level of choice could be low by the influence of other people, and from an adult perspective this often revolves around their safety (protection). Van Gills (2007), stated than when considering play, the UNCRC (1989) has to take into account articles around choice, freedom to express views and right to assembly. Van Gills (2007) stated that these factors (choice, freedom and assembly) are linked to children's self-determination. Self-determination contributes to their social life, health and the overall development of the child (Lester & Russell, 2010; Van Gills, 2007), and for children, self-determination means that:

> "Children want to explore their world themselves, they want to define their world. They don't want to be guided all the time: they want to look for their own way, their own experiences and their own development" (Van Gills, 2007, p364).

The provision aspect of the UNCRC is any environment where children play and children will reflect their feelings that children have with the environment they are playing in (Lester & Russell, 2010). Children's perception of play in this study expresses their feelings of sadness when their choice in play was reduced and happiness when their level of choice increased.

In the United Kingdom and Republic of Ireland, only England does not have a current play policy or strategy as a result of the coalition government. In the Play Policy for Wales (2002), and clearly reflected in the Play Strategy for Scotland (SG, 2013), the rationale behind the development of this policy identifies play as a behaviour which is:

> Freely Chosen - that children choose WHAT they do, themselves.
> Personally Directed - that children choose HOW they do something.
> Intrinsically Motivated - that children choose WHY they do something: that children's play is performed for no external goal or reward
> (Play Wales, 2001, p2).

There is a strong emphasis that children choose the WHAT, HOW and WHY of their play. There is an implication here that play that is not chosen, is directed by others and extrinsically

motivated is essentially not play. This research challenges this implication as the results from study 1 indicated that other children were choosing, directing and motivating play and study 2 that levels of choice decreased when the structural, functional and social affordances were manipulated. In both studies, however, children still perceived that it was play.

The Play Policy for Wales (2002) and the play strategies for both the Republic of Ireland (2004) and Scotland (2013) state:

> "The child's free choice of their own play is a critical factor in enriching their learning and contributing to their well being and development" (WAG, 2002, p4).
>
> 'Play is freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child. (NCO, 2004, p6; SG, 2013, p12).

Although the sentiments are commendable, having free choice of their own play is not possible or practical. Instead a Play Policy would be more accurate if it stated:

> "The child's ability to **adapt** their choice when they play is a critical factor in enriching their learning and contributing to their well being and development"
>
> "Play is chosen, directed and motivated behaviour"

This approach would support the statement in the Play Strategy for Scotland (2013) around children "making choices about where, how and when they play according to their age, ability and preference" (p9). The age, ability and preference will reflect the social milieu with respect to other people in the play environment, what is available and the amount of space. In Wales, play became a statutory duty to local authorities under the Children and Families (Wales) Measure (2010) (WAG, 2010). In their guidance notes for assessing sufficient play opportunities (WG, 2012), freely-chosen play is being assessed "with or without adult supervision/facilitation" (p14). The use of adaptable choice would make the process straight forward rather than remaining with rhetoric of play having to be freely-chosen.

The focus on adaptability in government policy may help in bridging the gap between different professional practice in play (Howard and McInnes, 2010). Supporting children's play is around support and variety where extrinsic factors are incorporated into the child's play repertoire, where children are able to construct different scripts of what supports or restricts their play in different environments. Factors that restrict and support children's play do not vary in broad categories, but the specific factors do and are often based on the combination of functional-social reasons.

The rewording of choice within policy allows the scope for inter-disciplinary working between different professions who work with children in their play. The scope of adaptable choice, rather than freely-chosen, can be incorporated where play is used in education (Foundation Phase/Stage), social care, play therapy, playwork and childcare.
The importance of providing play in relation to Article 31, children's right to play, also covers other articles such as Article 12, freedom of expression. The choice continuum allows children to exercise Article 12, when they play (Article 31) which are around participation. This allows children in their play to negotiate and possibly give up aspects of choice and adapt their play. This adaptability of choice could be a key element in play policy and strategy.

8.12 Conclusion

The social construction of childhood (James & Prout, 1998) and the role of children's voices in developing this new childhood paradigm when considering children's views is often tokenistic (James, 2007). Within the United Kingdom and Ireland, with the exception of England, the increase in government legislation has resulted in the publication of play policies and strategies to support children's holistic development and acknowledge their right to play. The basis of play within these policies and strategies is that it is freely-chosen by the child; however this is an adult construct and lacks any empirical research from a child perspective. The missing factor in policy construction that effect children directly and professional practice implementing policy is the lack of children's voices in policy construction (Dympna, 2005). This research has provided a voice for children in relation to reviewing current play policies and strategies.

Wood (2004b, 2007) critiqued the conflict between legislation and professional practice in early years education, where the same conflict could arise across all professional practice when interpreting play policy and strategy. This conflict in early education centres on a "collision with established ideologies about children's freedom, choice and autonomy" (Wood, 2007, p311) around adult curriculum-generated play and child play-generated play. The investigation of choice in children's play in this thesis has shown that children perceived levels of choice vary in relation to context and who is involved in their play. Children do not need to have all the choice on what, how, who, when and where they play. The focus is how children negotiate choice, how this negotiation takes place and importantly, how professional practice can support children's choices in their play. This may result in a reduction in choice with their play being controlled, restricted or inhibited or an increase in choice with their play being supported, have more variety or exercise dominance. Children have to exercise and negotiate choice in their play, and this aspect is important with respect to professional practice planning structured play or supporting free play in educational environments, or supporting children in their play environments.

The social construction of childhood revolves around participation, decision making and children being active agents in the process. Play, unless playing in a solitary game, is also a social construction that is also based around participation, decision making and children being active agents in the process. This is clearly illustrated within the Play Strategy for Scotland (2013) which states:

> "What is important is that children and young people have the freedom to choose how and when they play. From the earliest days and months play helps children learn to move, share, negotiate, take on board others' points of view and cultivate many more skills" (p15).

By providing children a voice and allowing their perceptions to be explored, this can aid in policy development, and in turn support professional practice across the professional domains.

8.13 Further Research

This thesis clearly demonstrates the complexity of choice in children's play. The use of the MAST experiment only provided responses from hypothetical situations. The research method could be developed by videoing children's play and then ask them to score their levels of choice as they watch themselves play on video, a similar approach that Pellegrini (2003) used in adolescence analysing their own rough and tumble play with respect to real fighting and play fighting. The advantage of children commenting on their actual, rather than hypothesised play, is that it provides a more authentic ecological approach to studying children's choice in their play from the child's perspective.

The participants who took part in this research all went to mainstream primary schools and none of the participants had either a physical or cognitive disability known to the researcher. This could be an area for further development in relation to disabled children and young people. Skar's (2002) study on disabled children's use of technical aids within their play found:

> "The major finding is that children with disabilities have three various types of relations in their play-situations (core category). These are grouped in three different categories: relation to technical aids, to adult assistants and to the play environment. Two types of relations included adults. Time for play requires that a parent or an assistant have to be present. To get into a playground requires the help of adults too. The third relation, the one to technical aids, is an individual one, as the technical aids were perceived differently by all the children. The technical aids were also seen as an extension of the child" (p29**).**

How much choice disabled children perceive to have using the MAST experiment could provide very interesting results as their play, as stated by Skar (2002), often rely on other people to get them into the play environment get the resources needed to play and be an active participant in the child's play cycle (Sturruck & Else, 1998).

Hyvönen and Juujärvi' (2002) developed a classification for affordances using the headings of structural, functional, social and emotional. Miller and Kuhaneck's (2008) choice model had the element of the child characteristics (Physical competence, Emotional competence and Social competence). Although this study did not address emotional affordances, as it was difficult to score choice on factors of happiness, sadness or anger, some responses from the

interviews clearly had an emotional aspect. Children used words like ‘happy’, ‘sad’, ‘angry’ or ‘annoyed’ when their perceived levels of choice changed. Further research could investigate whether a change in children’s choice would correspond to a change in their mood. This study focused on the social competence and through the play types the physical competence emerged. Further research could incorporate the emotional affordance element to children’s play.

Appendix 1: Ethical Approval For Study 1 and Study 2

P0708-1333

Swansea University

Ethics Evaluation and Application Forms

February 2008

Application for Standard Ethical Approval
PLEASE COMPLETE THE FORM USING TYPESCRIPT
(hand-written applications will not be considered)

Principal Investigator	Pete King
Date	26th February 2009
School	Childhood Studies
E-mail address	497214@swansea.ac.uk
Title of Proposed Research	
Type of Researcher (please tick)	Undergraduate student Postgraduate student Member of staff Other, please state:
Name of supervisor	

1. Briefly describe the main aims of the research you wish to undertake. Please use non-technical language wherever possible.

2. Briefly describe the overall design of the project
The Project is an exploration into how children play based on six factors: freedom; choice; spontaneity; goals; time and organise. The design is for children to undertake a play diary to record their play activities in three different environments where they play: home; school playground and an out-of-school club. Children will reflect on one play activity per day over a 10 day period (excluding Saturday and Sunday) and answer six questions in relation to the six factors of play.

3. Briefly describe the methods of data collection and analysis. Please describe all measures to be employed. If questionnaire or interviews are to be used, please provide the questionnaire / interview questions and schedule – if available.
Data collection will be through a self administered questionnaire. The researcher will initially meet with the children to explain how to complete the play diary Children are then able to take the play diary home and complete it there. The analysis will involve a quantitative analysis using SPSS to determine any relationship between the play patterns in the three different play environments based on how the children answer the six questions on each play activity recorded.

4. Location of the proposed research (i.e., Departmental labs, schools, etc)
Out-of-school club based in Llanelli.

5. Describe the participants: give the age range, gender, inclusion and exclusion criteria, and any particular characteristics pertinent to the research project.
The participants will be between 6-10 year olds who attend the out-of-school club. As the out-of-school club also can have 4 and 5 year olds, the opportunity to take part will not be discouraged, however the focus of the research is on middle-aged children. The research is open to both gender.

6. How will the participants be selected and recruited?
Any child who attends the out-of-school club are able to take part in the research.

7. What procedures (e.g., interviews, computer-based learning tasks, etc.) will be carried out on the participants?
Self administered play diary.

8. What potential risks to the participants do you foresee and how do you propose to ameliorate/deal with potential risks?
First and foremost it is a voluntary exercise so no child will be forced to take part. This will be explained to the child's parent/carer via a letter and explained to the out-of-school club staff and management, initially by letter but backed up with a face to face meeting. The researcher has a current CRB Enhanced clearance through their last post which was based in Carmarthenshire and Pembrokeshire and the researcher is known personally by the management who oversee the out-of-school club. The researcher will introduce himself to the children and explain that taking part is voluntary and that children are free to leave the research project at any time. Consent forms from parents/carers will be obtained in order for the research to be carried out. A letter to explain the research with the play diary will be made available for management, staff and parents/carers to inspect.

9. What potential risks to the interests of the researchers do you foresee and how will you ameliorate/deal with potential risks?
At no time will the researcher be left alone with a single child or group of children and that a member of the out-of-school club staff will always be visible by the researcher and visa versa.

10. How will you brief and debrief participants? *(Please attach copy of debrief information to be given to participants)*
An initial meeting with the children in the out-of-school club will be undertaken to explain the research, how they take part and how to fill in the play diary. Once children are comfortable in completing the play diary, the researcher will leave the children and visit on one of two occasions to check on progress and then at the end of the 10 days meet the children again to collect the play diaries. Results will be available to the children if requested.

11. Will informed consent be sought from participants?	Yes *(Please attach a copy of the consent form)*	Yes
	No	
If no, please explain below:		

12. If there are doubts about participants' abilities to give informed consent, what steps have you taken to ensure that they are willing to participate?
Consent can be obtained through the support of the out-of-school club staff who know the parents.

13. If participants are under 18 years of age, please describe how you will seek informed consent. If the proposed research is to be conducted in a school, please describe how you will seek general consent from the relevant authorities and attach a copy of any written consent.
Consent has been gained by the management of the out-of-school club and a letter to explain the project will be sent. Consent for children to participate will be through a letter sent home via the out-of-school club.

14. How will consent be recorded?
Parents/carers will have to sign and date a consent form sent with a letter to explain the research project.

15. Will participants be informed of the right to withdraw without penalty?	Yes	Yes
	No	
If no, please detail the reasons for this:		

16. How do you propose to ensure participants' confidentiality and anonymity?
All consent forms will be kept in rm113 in the Centre for Childhood research. All play diaries will only have the gender and age of the child and no names will be recorded.

17. Please describe the arrangements for storing data:

Data to be obtained via the play diaries and all diaries will be kept in rm 113. Data will be entered into SPSS via the computer used in rm 113.
Please explain, for each of the above, the arrangements you will make for the security of the data
No-one has access to rm 113 unless their card has been swiped by the centres administration department. No data will be stored on memory stick but kept on the university computer in rm 113.

18. Does your research require the written consent of a public or private body, e.g. school, local authority or company? If so, please attach letter of consent
Consent from the organisation CYCA that run the out-of-school clubs in Llanelli will be obtained.

19. If your proposed research is with 'vulnerable' groups (e.g., children, people with a disability etc.), please attach a copy of your Criminal Records Bureau check (if UK) or equivalent non-UK clearance.

Applicant's signature: _____ Date: _____

Supervisor's signature: _____ Date: _____
(if appropriate)

PLEASE ATTACH A COPY OF THE RESEARCH PROPOSAL TO THIS APPLICATION

Study 2:

Ysgol Gwyddor Iechyd

School of Human & Health Science
and Medical School

RESEARCH ETHICS COMMITTEE

Application
For Research
Ethics Committee Approval

N.B. All questions must be answered.

1. Title of Project: A comparison of children's free play choice in school, childcare and home environments

2. Name: Pete King

   Qualifications: M(Res), PGCE, Ad Dip Ed (Open), BSc (Hons)

   Contact Address: Gelli House, Gelli, Pembrokeshire

   Post Code: SA66 7HR

   Email: 497214@swansea.ac.uk

   Contact telephone number of Researcher: 01437 541 339

   If a student please name your course of study: PhD Childhood Studies

3. Sponsorship: (if applicable)

4. Name of Supervisor: Dr Justine Howard

5. Aims and Objectives:

Aim:
To undertake a comparative study of children's free play choice when playing at home, in the school playground and their out-of-school club.
Objectives:

What kinds of things afford children choice in their play?
What difference do children perceiving choice in their play make to behaviour?

6. Background/Justification for Study. Review of Literature (approximately 500 words with focus on key issues)

Play is a concept that means different things to different people (adults, young people and children) and is stated within government strategy as being freely-chosen, intrinsically motivated behaviour (WAG 2002). However a person's own perception of play and their perception of other people's view of play will not always be the same (Howard 2000). Play takes place anywhere and the combination of the structural, functional, social and emotional affordances (Heft 1998, Kyttä 2002, 2004, Hyvönen and Juujärvi 2005) of the environment will have an effect on children's behaviour. Although choice is often cited as an important aspect of children's play, how choice influences behaviour is unclear in relation to the different affordances of the environment. This raises two important questions: How much choice does the free play environment afford? How does choice influence behaviour? These questions raise many issues as current research has shown that children are spending more time in adult defined play spaces (Valentine and McKendrick (1997) (Blatchford. and Sumpner 1998) (Sutton et al. (2006) (Smith and Barker 2002) (Thomson 2003), in what Rassmusen (2004) has termed in Denmark as the institutional triangle of home, school and leisure facilities. In the United Kingdom, a similar institutional triangle has developed of the home, school playground and out-of-school club where a child may spend much of their day (8am to 6pm) within these three environments. A review of research on children's play in these three different environments supports the notion that children have less choice over their play particularly with an increase in adult supervision.

The importance of choice has been researched within the field of marketing (Wartella, Daniel, Scott, Jacob, and Allison 1979) and learning. For the latter this research has taken place within university (Reber et al. 2008), primary school (D'Ailly 2004) and pre-school (Fabes et al. 2003) learning environments. However research into children's choice in their free play tends to focus on choice of activity and is often undertaken in pre-school or the classroom. This raises the question how much choice do children have over their free play in these three different environments? Research within the concept of Self-Determination Theory (Deci and Ryan 1985) where choice is placed within a continuum of amotivation to intrinsic motivation (Deci and Ryan 2000) has been undertaken in relation to learning, health, sport and exercise. There has been no research directly into children's play within Self-Determination Theory; however the support of children's choice in learning, health and sport exercise has resulted in increased or sustained intrinsic behaviours. Factors that can be identified to support children's choice of play in their free play environments has implications to other areas where play is used for example learning and therapeutic play environments.

7. Research Design/Methods

(You should include information pertaining to issues of access, sample, data collection, data analysis, storage and disposal of data. Please clearly describe the population from which you are drawing your sample e.g. Child Branch, year 3, 5 students. Please note that if you intend to research on vulnerable groups, e.g. children, or intellectually disabled people, you may need a CRB check .)

Data Protection Act requires that all Staff who process or use any personal information adhere to the eight data protection principles. These are that personal data including sensitive data :

- be obtained and processed fairly and lawfully and shall not be processed unless certain conditions are met
- be obtained for a specified and lawful purpose and shall not be processed in any manner incompatible with that purpose
- be adequate, relevant and not excessive for these purposes
- be accurate and kept up-to-date
- not be kept for longer than is necessary though the retention of data for historical or statistical research can be kept indefinitely (s 33 of the Act)
- be processed in accordance with the data subject's rights

- be kept safe from unauthorised access, accidental loss or destruction
- not be transferred to a country outside the EU unless that country has equivalent levels of protection for personal data.

Between May and September 2009 ethical approval was obtained to carry out an exploratory quantitative questionnaire in children's choice of play with children from an out-of-school club. Prior to the exploratory research being undertaken the researcher met al.l children who were interested in taking part. The children were invited to record how they played in the three play environments (home, school playground and out-of-school club) using a self-administered questionnaire (Play Detective Diary). The results from this exploratory research identified some key aspects for further research in the fields of affordance (Gibson 1986) and choice. This research is a continuation of a sequential mixed method approach to look at how choice affects behaviour using a scenario-based procedure. The project design is for children aged 6-11 years to be able to score their level of choice and emotional affordance when varying the structural, functional and social affordance of the play space. All areas of affordances (structural, functional, social and emotional) have been identified from the literature. Data collection will be through children undertaking a changing play environment scenario procedure followed by at a later date observations of children in their free play.

The procedure involves children being shown three photographs of a house, their school playground and their out-of-school club. For each photograph, children will be asked their favourite way of playing in each environment and asked to rate how much choice each environment offers from a scale of 1-7 and an emotional affordance scale of from 1(sad) -7 (happy). The researcher will then change the scenarios by offering changes in structural affordance, social affordance and functional affordance to each photograph (e.g. if the play activity chosen is situated in another area, or another child enters the play space and wants to play). After each change the child will be asked to rate their level of choice and happiness/sadness). The procedure will be recorded in order to obtain qualitative analysis alongside the quantitative results for a mixed-method procedure. The researcher will explain the procedure (confirming that children can opt out at any time) with the children but will be responsible for recording all information. The analysis will involve a quantitative analysis using SPSS to determine any relationship between the changes in affordance and choice and between the three different play environments. The qualitative analysis will use a coding system using NVIVO.

Once the data has been analysed a series of observation would be undertaken in accordance with children's choice and affordance in their free play in relation to changes in behaviour. Any observed change in affordance (structural, functional or social) will be scored against any change in behaviour. The observation would involve the researcher to observe children's free play and score their level of interaction using established measures such as the Howes peer play scale or the Leuvens for involvement and well being. The data will be analysed using SPSS.

The age of the research participants is aimed at the 6-11 age range with a sample size of 30 children being required. The age range chosen is important as they are often a neglected age range particularly in children's free play (Santer et al. 2009). Access to the children will be through both parental and child consent which will be obtained through the out-of-school club. The out-of-school club will circulate parental consent prior to any research being conducted and child consent will be obtained by the researcher once they have explained the nature of the research to any children interested in taking part. All data collection will only have the gender and age of the child and no names will be recorded.

Data to be obtained via the research will be entered either on the computer in room 113 or the researcher's personal computer at home (being the two places of study). Both computers have different passwords only known to the researcher so can not be accessed by any other persons. Data will be stored for the duration of the PhD and will be deleted once the PhD has been completed.

8. Ethical Considerations (describe in detail)

(bearing in mind you are seeking ethical approval please carefully consider the possible harms to your research participants and others and how you will protect them)

How will confidentiality and anonymity be ensured?

What are the future implications of your study in terms of potential harm to other human participants?

The research will be carried out guided by the four considerations of the BPS Code of Ethics and Conduct (2006): Respect; Competence; Responsibility and Integrity.

First and foremost it is a voluntary exercise so no child will be forced to take part. This will be explained to the child's parent/carer via a letter and explained to the out-of-school club staff and management, initially by letter but backed up with a face to face meeting with the researcher if required. The researcher has a current CRB Enhanced clearance through their last post which was based in Carmarthenshire and Pembrokeshire and the researcher is known personally by the management of the out-of-school club where the research has permission to be undertaken. The researcher will introduce himself to the children and explain that taking part is voluntary and that children are free to leave the research project at any time. Consent forms from parents/carers will be obtained in order for the research to be carried out. A letter to explain the research will be made available for management, staff and parents/carers to inspect and keep.

The safety of the children will be the first main priority. At no time will the researcher be left alone with a single child or group of children and that a member of the out-of-school club staff will always be visible by the researcher and vice versa. The researcher will not be setting up any play activities for the children to partake in; however children will be recording their answers to the affordance scenarios, however any information will be treated confidentially. If any child does not want their voice recorded then the tape recorder will be switched off. Children will be informed both verbally and in writing that all information will be anonymous in relation to data collection, data analysis and any future publication. Although the results may be published, no names of children will be disclosed. All information gained will be used for the purpose of studying for a PhD.

The researcher will consider all aspects of child protection throughout the study. A copy of the organisations child protection policy will be obtained, in addition to adhering to the Pembrokeshire Safeguarding Children procedure (formally Area Child Protection Committee board). If for any reason an issue around child protection is a cause for concern, the researcher will inform both the organisation and their supervisor within the university department. This could be in relation to information gained from the children in respect with anything they disclose (internet use, playing with dangerous weapons etc) as well as any disclosure a child may say to the researcher. The researcher has had child protection training on three occasions between 2000 and 2009 and in their role of managing a play unit in England had to deal with child protection procedures.

Once children are comfortable in taking part in the research they will be asked if they are happy for the researcher to record their conversation during the scenario procedure and to be observed in their free play. Results will be available to the children if requested. It will be stressed at this meeting, and any subsequent meeting that children are free to leave the research process at any time.

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9. Consent (the submission should be specific about the following)

Will consent be given in written or verbal form?
(a copy of the consent form should be attached)

How will research participants be given information about the study?
(a copy of the information sheet, whether it is to be read out or given to the research participant, should be attached)

How will research participants be asked to take part in the study?

How much time will be allowed for research participants to consider and consult others before giving consent?

Will research participants be informed of their right to withdraw from the study at any time?

If case notes or data are to be used what safeguards will be put into place to protect confidentiality and anonymity?

Initial consent from the out-of-school club management committee has been obtained. Through the out-of-school club parental consent forms will be distributed and collected. Any parent requiring additional information or wishing to speak to the researcher can do so by providing a contact name and telephone number to the researcher via the out-of-school club. The consent forms will contain information about the study. As with the exploratory study, the researcher will meet with the children to explain the study and also obtain written consent that they wish to take part in the study. All consent forms will be kept in rm113.

The researcher has a current enhanced CRB from August 2008 whilst working on a play project in Carmarthenshire and Pembrokeshire. A copy of the CRB will be submitted with this ethical request form.

The researcher will behave in a respectful manner at all times to children, parents/carers and staff and if at any time is asked to stop carrying out the research will do so. Any issues or problems will be talked through, and if necessary through a third party with Swansea University or with the out-of-school club where the research will take place. The research project will be discussed with the researchers supervisor who will be kept up to date with all progress, both through formal supervision and informal meetings.

A separate consent form will be distributed to parents and carers prior to the observational study taking place. Children will be informed of the nature of the research and are free to not be observed or have their play interrupted at any point.

No financial or material reward is being offered for the research participants

10. The information supplied is to the best of my knowledge and belief, accurate.

I confirm I have obtained permission to undertake this study from my Supervisor and the appropriate Programme Manager/Director/Head of Department.
(please include in correspondence)

[Note that the application should be reviewed by your supervisor to resolve any methodological problems.]

I understand that I may be invited to explain my research proposal to the Committee, either in person or by telephone.

I understand that the School of Human & Health Science Research Ethics Committee gives Ethical Approval only and does not guarantee the quality or scientific validity of my study.

Signature of Investigator:

Date of Submission:

Upon completion, please forward an electronic copy by e-mail to

Please also submit a signed hard copy to the Chair of the Committee (address below).

[PLEASE SUBMIT THE ELECTRONIC COPY OF THE APPLICATION AS ONE DOCUMENT ONLY, WHICH INCLUDES ALL RELEVANT DOCUMENTATION]

G.Abbott
Secretary
Research Ethics Committee,
School of Human & Health Science
Swansea University
Singleton Park, Swansea, SA2 8PP.

Dr Aled Jones
Research Ethics Committee,
School of Human & Health Science
Swansea University
Singleton Park, Swansea, SA2 8PP.

Email:Aled.Jones@swansea.ac.uk
Chairperson
SHHSREC

The committee meets monthly (see below). Your information must arrive 2 weeks before the next meeting in order to ensure consideration. Late applications will not be considered

Appendix 2: Consent Letters for Study 1 and Study 2

Study 1: Parent Consent Form

Pete King
Centre for Child Research
Vivian Tower
University of Swansea
Swansea
Date 2nd September 2009

Dear Parent/Carer

Re: Research into children's play

I am a PhD student with the Centre for Child Research at the University of Swansea researching on how children perceive play. As part of my PhD I am interested in how children remember their play experiences and looking at six factors of their play: time; choice; spontaneity; goals; freedom and organising. I am writing to you to ask your consent if your son and/or daughter could help take part in my research.

The research will involve children recording their play at home, in the school playground and at their out-of-school club over a 10 day period (excluding Saturday and Sunday). The play diary only takes about 5 minutes a day to complete and all children will be shown how to complete it.

I have been involved in children's play for 13 years and in that time I have set up and run 5 out-of-school clubs, two holiday playschemes and an open access play project. I have the permission of the management committee of your out-of-school club to carry out research in the out-of-school club.

If you are happy for your child to complete a play diary can you please sign the consent form below and return it to the Supervisor at the out-of-school club. I stress all participation is voluntary and children are able to withdrawal from the research at any time.

If you want to discuss the research with me please leave your name and telephone contact number with the out-of-school club supervisor and I will contact you.
Thank you
Yours faithfully

Pete King
PhD student

Research Permission Slip

Please fill in the relevant information for permission please:

I give permission for my son/daughter (Inset name)_____
to participate in the research undertaken by Pete King.

I do not give permission for my son/daughter (Insert Name)_____
to participate in the research undertaken by Pete King

Name of parent/carer (Block Capitals)_____.

Signed (parent/carer) _____

Signed (child) _____

Date_____

Please can you hand this slip into the out-of-school club supervisor (not the school)

Study 1: Child Consent Form

Pete King
Centre for Child Research
Vivian Tower
University of Swansea
Swansea

Date

Dear Play Detective

Re: Research into children's play

My name is Pete and I am looking for some play detectives to help me with my study into how children play at home, in the school playground and in an out-of-school club. I am looking at six things in children's play:

Whose idea is it to play?
Who told you to play?
Who decided where you can play?
Who was in charge of playing?
Who finished the play?
Did the play finish how you wanted it to?

A play detective will need to complete play diary sheets to answer these questions by ticking or colouring in boxes. I will give you a play detective diary to fill in.

All information you write down I will use for my studies but your name or the name of your Out-of-school club will not be mentioned.

A letter has been sent to your parent/carer explaining the research I am doing. If your parent/carer is happy for you to be involved could you please sign this letter to say you want to be a play detective.

Name…….

Date……

Thank you

Pete King

Study 2: Parent Consent Form

Pete King
Centre for Child Research
Vivian Tower
University of Swansea
Swansea

Dear Parent/Carer

Re: Research into children's play

I am a PhD student at Swansea University. I am researching children's perception of play. I recently carried out part of my research in the out-of-school club where children recorded their play using a Play Detective Diary. I am writing to you to ask your consent if your son and/or daughter could again help take part in my research.

The research will involve children being interviewed about their choice of play. The interview consists of me recording children's responses about how much choice they have and how they feel about their play when given different scenarios. The different scenarios relate to the structural environment, resources and when different people may be involved in their play. I would also like to tape the interview using a cassette recorder if both the parent and the child would be willing for me to do so.

The data obtained will be used for my PhD and may subsequently be used for possible future research publications. At no point will any child's name or that of the Out-of-school club will be mentioned and all data will be anonymous and confidential.

I have been involved in children's play for 14 years and in that time I have set up and run five out-of-school clubs, two holiday playschemes and an open access play project. I have the permission from the chair of the management committee of your out-of-school club to carry out research.

If you are happy for your child to be involved in the research can you please sign the consent form below and return it to the Supervisor at the out-of-school club. I stress all participation is voluntary and children are able to withdrawal from the research at any time.

If you want to discuss the research with me please leave your name and telephone contact number with the out-of-school club supervisor and I will contact you.

Thank you

Yours faithfully

Pete King
PhD student

Research Permission Slip

Please fill in the relevant information for permission please:

I give permission for my son/daughter (Inset name) _____
to participate in the research undertaken by Pete King.

I give permission for the interview to be recorded for the PhD (please circle yes or no)

Yes No

Name of parent/carer (Block Capitals) _____.

Signed (parent/carer) _____
Date_____
Please can you hand this slip into the out-of-school club supervisor (not the school)

Study 2: Child Consent Form

Pete King
Centre for Child Research
Vivian Tower
University of Swansea
Swansea

Date: September 2009

Dear Play Detective

Re: Research into children's play

My name is Pete and I am looking for some help me with my study into how children play at home, in the school playground and in an out-of-school club. I am interested in children's choice in their free play.

If you decide to help you will need to play a simple game and then answer some questions. I would also like to record the game and questions on a tape recorder.

All information you write down in your play detective diary will be used for my studies but your name or the name of your Out-of-school club will not be mentioned, nobody will know who you are.

Thank you

Pete

Name…….

Date……

Pete King

Centre for Child Research
Vivian Tower
University of Swansea
Swansea

Date: September 2009

Dear Play Detective

Re: Research into children's play

My name is Pete and I am looking for some help me with my study into how children play at home, in the school playground and in an out-of-school club. I am interested in children's choice in their free play.

If you decide to help you will need to play a simple game and then answer some questions. I would also like to record the game and questions on a tape recorder.

All information you write down in your play detective diary will be used for my studies but your name or the name of your Out-of-school club will not be mentioned, nobody will know who you are.

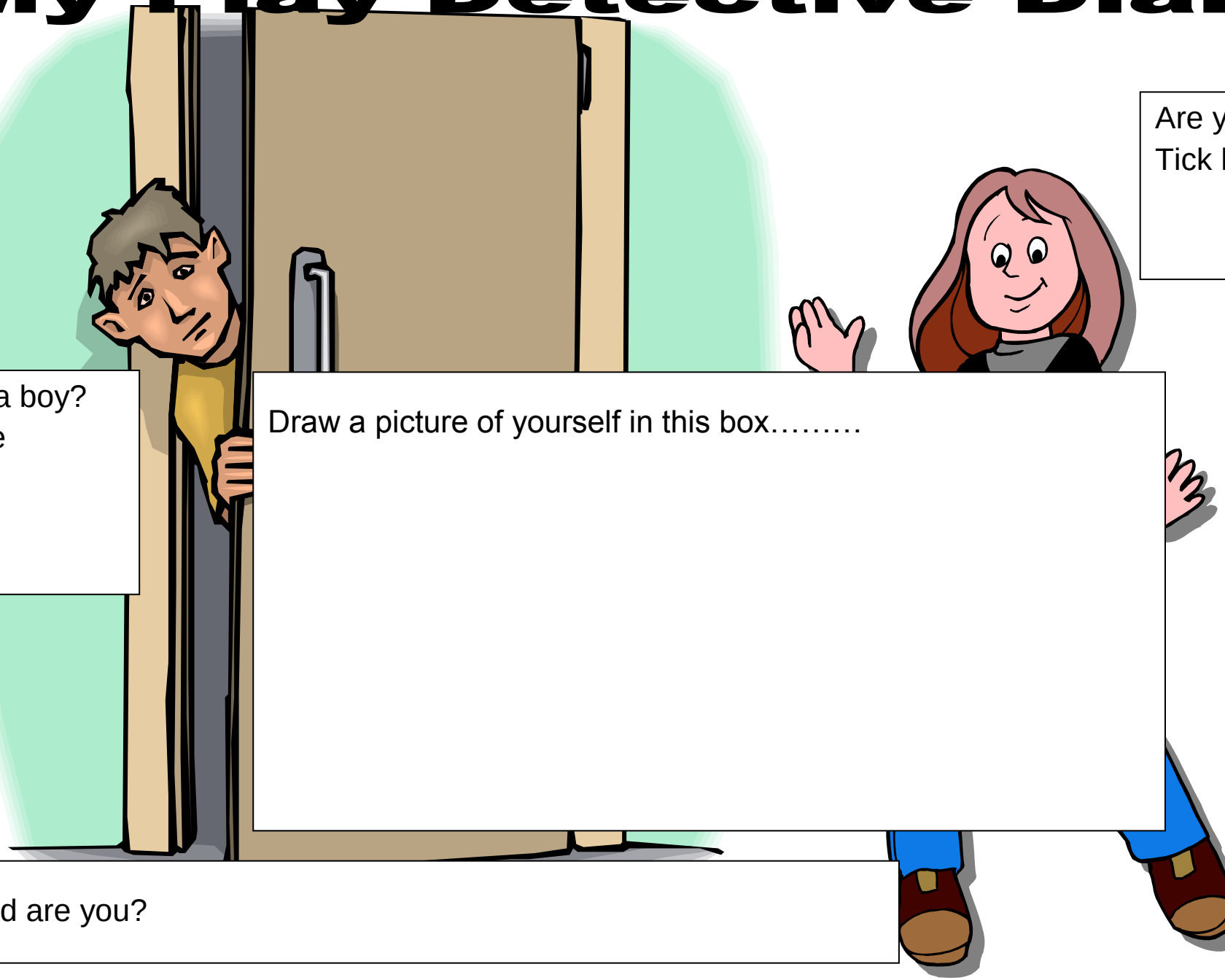
Thank you

Pete

Name…….

Date……

My Play Detective Diary



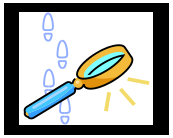
Are you girl?
Tick here

Are you a boy?
Tick here

Draw a picture of yourself in this box……

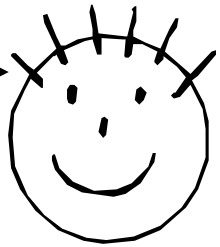
How old are you?

Hello, my name is Pete and I am a researcher. A researcher is like a detective and I am looking for some other detectives to find out about how children play at home, in the school playground and in breakfast and out-of-school clubs.



You can become a play detective by filling in a play detective diary.

This is Pete →



All you have to do is answer some simple questions and colour or place a tick in the boxes to answer the ques on the play chart.

√

Each time you go to out-of-school club can you fill out a total of three play charts per day (one for home, one for school and one for club) In total can you do up to 10 sets of three play charts. Please only record your play on a Monday, Tuesday, Wednesday, Thursday or Friday only.

Remember to write down **one** way you played at home, **one** way you played in the school playground and **one way** you played in your club at the **end of each day**. Your play at home can be one way you played at home the previous evening.

Draw a picture on the front cover of yourself and put your age and if you are a boy or girl.
Thanks for becoming a play detective.

One thing I played at my home last night was:

Home

Who did you play with? →	Own	Friend	Group

Was an adult (grown up) playing as well? →	Yes	No

Whose idea was it to play? →	My idea	Friend's idea	Group idea	Adult's idea

Who told you to play? →	Nobody	Friend did	Group did	Adult did

Who decided where it was played? →	I did	Friend did	Group did	Adult did

Who was in charge of playing? →	I was	Friend was	Group was	Adult was

Who finished the playing? →	I did	Friend did	Group did	Adult did

Did the play finish how you wanted it to? →	Yes	Kind of	Not really	No

One thing I played in the school playground today was:

School Playground

Who did you play with? →	Own	Friend	Group	
Was an adult (grown up) playing as well? →	Yes	No		
Whose idea was it to play? →	My idea	Friend's idea	Group idea	Adult's idea
Who told you to play? →	Nobody	Friend did	Group did	Adult did
Who decided where it was played? →	I did	Friend did	Group did	Adult did
Who was in charge of playing? →	I was	Friend was	Group was	Adult was
Who finished the playing? →	I did	Friend did	Group did	Adult did	Bell Rang
Did the play finish how you wanted it to? →	Yes	Kind of	Not really	No

One thing I played at my out-of-school club today was:

Club

Who did you play with?	Own	Friend	Group

Was an adult (grown up) playing as well?	Yes	No

Whose idea was it to play?	My idea	Friend's idea	Group idea	Adult's idea

Who told you to play?	Nobody	Friend did	Group did	Adult did

Who decided where it was played?	I did	Friend did	Group did	Adult did

Who was in charge of playing?	I was	Friend was	Group was	Adult was

Who finished the playing?	I did	Friend did	Group did	Adult did

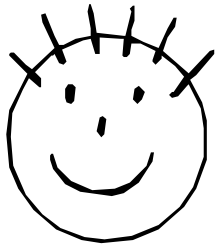
Did the play finish how you wanted it to?	Yes	Kind of	Not really	No

Now you have completed your play detective diary, can you please hand it in to your club supervisor in your out-of-school club.

I will collect the play detective diaries when I next visit your club.

for being a play detective.

Pete



Appendix 4: Stock Phrased Used for MAST Experiment

Home

Move Play To A Different Space

You're playing your (chosen play) at home in the (garden, bedroom etc). For some reason you have to move your (chosen play) to a different room (kitchen, front room or bedroom) or different part of the garden (front garden or back garden or different part of the garden). Would having to play in a different room or different part of the garden change how you would play (chosen play)? How much choice would you have now in your (chosen play) if you had to play in a (different room or different part of the garden)?

Reducing the amount of space

You're playing your (chosen play) at home in the (garden, bedroom etc). For some reason the amount of space you have to play in is reduced by half (furniture is added to the bedroom, kitchen, front room or garden furniture in the garden). Would having to play in only half the amount of space change how you would play (chosen play)? How much choice would you have now in your (chosen play) if you had to less space to play in?

Proximal Activities (other children playing their own chosen play in the same space)

You're playing your (chosen play) at home in the (garden, bedroom etc) when your (brother, sister, cousin) comes in but does not play with you in your (chosen play) but brings in with them their toys or equipment (this could be dolls, lego, board game, computer etc) and they play their own game in the same room or part of the garden you are playing in. Would your (brother, sister, cousin) playing their own thing near you change how you would play your (chosen play). How much choice would you have in your (chosen play) if your (brother, sister, cousin) were playing their game near you?

Other children leaving their equipment lying around in the play space.

You're playing your (chosen play) at home in the (garden, bedroom etc) and your (brother, sister, cousin) go but they leave their equipment lying around (this could be dolls, Lego®, board game, computer etc). Would your (brother, sister, cousin) leaving their equipment lying around change how you would play your (chosen play). How much choice would you have in your (chosen play) if your (brother, sister, cousin) left their equipment lying around?

The introduction of unknown people (children and adults) to children's chosen play

Your parents/carers have some visitors (a man and a woman) who you don't know and they have a (son, daughter) the same age as you. The (son, daughter) sees you playing (chosen play) and wants to play with you. Would playing with you in your (chosen play) change how you would play? How much choice would you have if the (boy, girl) you don't know plays with you in your (chosen play)?

Your parents/carers have some more visitors (other men and women) who you don't know and they both have (sons, daughters) the same age as you. These children you don't know also see you playing and want to play with you. Would playing with this group of (boys or girls) you don't know change how you would play? How much choice would you have if the group of (boys or girls) you don't know plays with you in your (chosen play)?

All the children leave the (chosen play) to get a drink and leave you alone. One of the children's parents who you don't know sees you play in your (chosen play) and wants to play as well. Would playing with an adult you don't know change how you would play? How

much choice would you have if the adult you don't know plays with you in your (chosen play)?

The introduction of known people (children and adults) to children's chosen play
Your parents/carers are having a party and the first guests arrive. They are people you do know (a man and a woman) and they have a (son, daughter) the same age as you who you know as well. The (son, daughter) sees you playing (chosen play) and wants to play with you. Would playing with you in your (chosen play) change how you would play? How much choice would you have if the (boy, girl) you do know plays with you in your (chosen play)?

Some more visitors arrive (other men and women) who you do know and they both have (sons, daughters) the same age as you. These children you do know also see you playing and want to play with you. Would playing with this group of (boys or girls) you do know change how you would play? How much choice would you have if the group of (boys or girls) you do know plays with you in your (chosen play)?

All the children leave the (chosen play) to get a drink and leave you alone. One of the children's parents who you do know sees you play in your (chosen play) and wants to play as well. Would playing with an adult you do know change how you would play? How much choice would you have if the adult you do know plays with you in your (chosen play)?

School Playground
Move Play to A Different Space
You're playing your (chosen play) in the school playground (child points to the photograph where they would play). For some reason you have to move your (chosen play) to a different part of the playground (for example, if the child's chosen play is on the grass they are moved to the concrete or if on some climbing equipment moved to a different piece of equipment). Would having to play in a different part of the playground change how you would play (chosen play)? How much choice would you have now in your (chosen play) if you had to play in a different part of the playground?

Reducing the amount of space
You're playing your (chosen play) in the school playground (child points to the photograph where they would play). For some reason the amount of space is reduced and you only have half amount of space to play in. Would having to play in only half the amount of space change how you would play (chosen play) in the school playground? How much choice would you have now in your (chosen play) if you had to less space to play in the school playground?

Proximal Activities (other children playing their own chosen play in the same space)
You're playing your (chosen play) in the school playground when other children arrive but they do not play with you in your (chosen play) but bring with them their own equipment (skipping ropes, hoops and balls) and they play their own games in the same space as you. Would the other children playing their games near you change how you would play your (chosen play). How much choice would you have in your (chosen play) if these other children were playing their game near you?

Other children leaving their equipment lying around in the play space

You're playing your (chosen play) in the school playground when the other children go but they leave their equipment lying around (skipping ropes, hoops and balls). Would the other children leaving their equipment lying around change how you would play your (chosen play). How much choice would you have in your (chosen play) if these children leave their equipment lying around?

The introduction of unknown people (children and adults) to children's chosen play
There is a new child (boy or girl) in your classroom who you don't know. When playing your (chosen play) in the school playground at lunchtime this new child who you don't know wants to join in and play. Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you don't know plays with you in your (chosen play)?

Another two children (boys or girls) who are new in your classroom who you don't know also see you play in your (chosen play) and want to join in. Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you don't know plays with you in your (chosen play)?

It's another day and you're playing your favourite (chosen play) in the school playground. There is a new lunchtime supervisor starting in the school and they see you playing your favourite (chosen play) and want to join in. Would your (chosen play) change if a lunchtime supervisor you don't know plays with you? How much choice would you have if this lunchtime supervisor you don't know plays with you in your (chosen play)?

The introduction of known people (children and adults) to children's chosen play
You are playing your (chosen play) in the school playground at lunchtime and a (boy or girl) who you do know but does not normally play with you wants to join in. Would your (chosen play) change if somebody you do know plays with you? How much choice would you have if this (boy or girl) you do know plays with you in your (chosen play)?

Another two children (boys or girls) who you know but does not normally play with you want to also join in your (chosen play). Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you do know plays with you in your (chosen play)?

It's another day and you're playing your favourite (chosen play) in the school playground. There is a lunchtime supervisor who you know and they see you playing your favourite (chosen play) and want to join in. Would your (chosen play) change if a lunchtime supervisor you do know play with you? How much choice would you have if this lunchtime supervisor you do know plays with you in your (chosen play)?

Out-of-school club
Move Play to A Different Space
You're playing your (chosen play) in the playground if play is outside (child points to the photograph where they would play) or in the club room if play is inside (child points to the photograph of club room where they would play). For some reason you have to move your (chosen play) to a different part of the playground (e.g. from the grass to the concrete) or different part of the club room (e.g. from the table to the floor). Would having to play in a different room or different part of the garden change how you would play (chosen play)?

How much choice would you have now in your (chosen play) if you had to play in a different room or different part of the garden?

You're playing your (chosen play) in the out-of-school club (out-of-school club or holiday playscheme) in the school playground or in the club room.. For some reason the amount of space is reduced and you only have half amount of space to play in. Would having to play in only half the amount of space change how you would play (chosen play) in the out-of-school club or holiday playscheme? How much choice would you have now in your (chosen play) if you had to less space to play in the out-of-school club or holiday playscheme?

Proximal Activities (other children playing their own chosen play in the same space)
You're playing your (chosen play) in the out-of-school club other children arrive but they do not play with you in your (chosen play) but bring with them their own equipment (skipping ropes, hoops and balls if play is outside, or it could be Lego®, board games, drawing material if inside) and they play their own games in the same space as you. Would the other children playing their games near you change how you would play your (chosen play). How much choice would you have in your (chosen play) if these other children were playing their game near you?

Other children leaving their equipment lying around in the play space
You're playing your (chosen play) in the out-of-school club and the other children go but leave their equipment lying around (skipping ropes, hoops and balls if play is outside or it could be lego, board games, drawing material if inside). Would the other children leaving their equipment lying around change how you would play your (chosen play). How much choice would you have in your (chosen play) if the other children leave their equipment lying around?

The introduction of unknown people (children and adults) to children's chosen play
There is a new child (boy or girl) in your out-of-school club who you don't know. When playing your (chosen play) in the school playground (if outside) or in the clubroom (if inside) this new child who you don't know wants to join in and play. Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you don't know plays with you in your (chosen play)?

Another two children (boys or girls) who are new to the out-of-school club who you don't know also see you play in your (chosen play) and want to join in. Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you don't know plays with you in your (chosen play)?

It's another day and you're playing your favourite (chosen play) in the out-of-school club (if outside) or in the clubroom (if inside). There is a new playworker starting in the school and they see you playing your favourite (chosen play) and want to join in. Would your (chosen play) change if a lunchtime supervisor you don't know play with you? How much choice would you have if this playworker you don't know plays with you in your (chosen play)?

The introduction of known people (children and adults) to children's chosen play
You are playing your (chosen play) in the (holiday playscheme or out-of-school club) and a (boy or girl) who you do know but does not normally play with you wants to join in. Would your (chosen play) change if somebody you do know plays with you? How much choice would you have if this (boy or girl) you do know plays with you in your (chosen play)?

Another two children (boys or girls) who you know but do not normally play with you want to also join in your (chosen play). Would your (chosen play) change if somebody you don't know plays with you? How much choice would you have if this (boy or girl) you do know plays with you in your (chosen play)?

It's another day and you're playing your favourite (chosen play) in the (holiday playscheme or out-of-school club). There is a playworker who you know and they see you playing your favourite (chosen play) and want to join in. Would your (chosen play) change if the playworker you do know plays with you? How much choice would you have if this playworker you do know plays with you in your (chosen play)?

Appendix 5: MAST affordance marking sheet

Number:	Age:	Gender:	Home

Favourite Play:	Where Played:

Baseline Choice B1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Structural Choice S1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Structural Choice S2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Functional Choice F1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Functional Choice F2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Social Choice Soc 1 (CDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 2 (GDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 3 (ADK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 4 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 5 (GK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 6 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

School Playground

Baseline Choice B1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Structural Choice S1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Structural Choice S2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Functional Choice F1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Functional Choice F2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 1 (CDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 2 (GDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 3 (ADK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 4 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 5 (GK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 6 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Out-of-school Club

Baseline Choice B1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Structural Choice S1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Structural Choice S2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Functional Choice F1	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Functional Choice F2	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 1 (CDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 2 (GDK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 3 (ADK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 4 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 5 (GK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Social Choice Soc 6 (CK)	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Glossary

Definitions and Abbreviations

Affordances:	Concept developed by Gibson (1986) on the interaction between the environment and the organism's perception of the environment
Best Play:	Best Play was the document produced by CPC, NPFA and PlayLink in response to the Secretary for State in 1998
Creative PlayType:	The child or children are making something using the material available to them
Critical-Realism:	Critical Realism was originally proposed by Roy Bhasker and considers the internal and external relations between objects and events
Dramatic Play Type:	The child or children are taking on a specific role or function or re-enacting an event or situation
Ecological System:	Bronfenbrenner's study of human development consisting of five concentric systems: microsystem; mesosystem; exosystem, macrosystem and chronosystem
Foundation Phase:	Foundation Phase is formal education for primary school-aged children aged 4-7 years in England
Functional Affordance:	In this research this is defined as the chosen play activity taking place by the child, alone or with other people, in the play environment
Grounded Theory:	Grounded Theory is the grounding of concepts in the reality of data and has its theoretical underpinnings derives from pragmatism
Institutional Triangle:	Based on Rasmussen (2004) and used in this research as the environments of home, school and out-of-school club in the United Kingdom
MAST	The Manipulation of Affordance Scenario Tasks is an experimental study developed for this research
Mixed Method Research:	The use of both qualitative and quantitative methods of data collection

NVivo:	Computer package used in qualitative analysis
Object Play Type:	The child or children's focus is on a specific object that can be manipulated and moved that is integral to play.
Out-of-school club:	Play environment where children go out-of-school of in the school holidays which are run by Playworkers
PDD:	Play Detective Diary, a self-administered questionnaire developed for this research
Physical Play Type:	The child or children are engaged in high energy play that is may include an object but the object is fixed and can not be moved
Play England:	National organisation supporting children's play in England
Play Wales:	National organisation supporting children's play in Wales
Playwork:	Playwork is the profession that facilitates and supports children's play in various play environments
Playworker:	A person whose role is to facilitate and support children's play
Playwork Principles:	The eight Playwork Principles that underpin Playwork Professional practice
Play Types:	Different ways children engage in play with 16 identified by Hughes (1996)
Play Time Project:	Project supporting lunchtime supervisors play practice in the school playground
Pragmatism:	Pragmatism allows the connection of theory and data by the movement between induction and deduction
Reflexivity:	A process of self-reference in research
Scrap Store:	A place where recycled material is bought to use as a play resource
Self-Determination Theory:	Concept developed by Deci and Ryan on motivation based on the three basic psychological needs of competence, relatedness and autonomy
SkillsActive:	SkillsActive is licensed as the Sector Skills Council for Active Leisure, Learning and Well-being

Social Affordance:	In this research social affordance are the people that are involved in the chosen play
Static Play Type:	The child or children are engaged in play where there is no or very limited movement and with limited interaction with an object
Structural Affordance:	In this research the structural affordance is the play environment children are playing in

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