

BA (Hons) Early Childhood Studies

Top Up

A case study approach: Investigating how loose part play impacts on children's creativity and the knowledge practitioners have to effectively enhance learning and development.



UNIVERSITY CENTRE DONCASTER

A JOINT DEVELOPMENT BETWEEN DONCASTER COLLEGE AND THE UNIVERSITY OF HULL



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Abstract

This research enquiry took the form of an empirical single case study conducted within the foundation stage one class of a private day care setting. The study aimed to examine the impact loose parts play has on children's imaginations and creativity as well as understanding the practitioners' role in providing and facilitating loose parts play. The study reviewed research conducted around loose part play which highlighted the importance of providing natural open-ended resources within the Early Years setting to enhance children's learning and development. This study specifically focussed on the impact loose part play has on children's creativity due to the extensive research provided on other areas of learning and development.

The study consulted practitioners' during a semi structured interview and determined that practitioners had a varying degree of knowledge and experience with regards to loose parts play. Observations and created images were also carried out on a group of three children to establish how they interacted with loose parts and how this facilitated their imagination, furthermore measures of practitioners' knowledge and understanding was also captured effectively through these research methods.

This study concluded that although loose parts play had a significant impact on children's creativity to what extent was still unclear as other factors also impacted on the way in which children's creativity and imagination was facilitated. Furthermore, practitioners' knowledge and understanding of loose parts play varied with different qualifications held, however other pedagogical issues also contributed to how they facilitated children's learning and development.

Keywords- loose part play, creativity, imagination, practitioners' role, unstructured play, open ended materials.

1.0 Introduction

The increasing use of loose parts or natural open-ended objects within Early Years settings has caused some confusion and uncertainty amongst practitioners, suggesting that the limited understanding of the significance of providing loose parts will directly impact on children's learning and development. Therefore, this dissertation seeks to critically analyse the role of the practitioner in enhancing children's creativity and imagination through the facilitation of loose parts play, it also seeks to determine whether their knowledge and understanding directly impacts on the children's ability to think analytically by conducting an empirical case study approach.

Although extensive research has shown that practitioners' have a fundamental role in facilitating children's play enhancing their knowledge and understanding (Siraj-Blatchford, 2002; National Strategies, 2009; McInnes et al. 2011; Early Years Matters, 2018), there has been no detailed investigations to suggest that the practitioners' understanding of loose parts play has a direct impact on children's ability to think critically. However, the existing body of research regarding loose parts play suggests that the structure of the environment plays a vital role in enriching children's imaginations (Nicholson, 1971; Daly and Beloglovsky, 2015; Seer, 2016; Casey and Robertson, 2016), suggesting practitioners need knowledge and experience based around the theory of loose parts to be able to facilitate learning forming the basis for this research enquiry.



Furthermore, this research examines the emerging role of loose parts play on the facilitation of children's creativity and imagination within a private day care setting. Whilst there is no legislation that governs the use of loose parts play within the Early Years, the Early Years Foundation Stage Framework, (COEL, 2017) highlights the importance of building children's creativity and imagination within the seven areas of learning. Nicholson (1971) suggests that children's interactions with loose parts enhances their ability to critically think. Conversely what the literature fails to acknowledge is the true extent to which this impacts on children's creativity. Consequently, this research paper will aim to investigate how the use of loose parts facilitates children's creative ability and critical thinking skills by conducting triangulation method of enquiry.



2.0- Literature Review

The prevalence of loose parts play (LPP) within Early Years settings is becoming increasingly more predominant, with many theorists suggesting that unstructured child-led play has a significant impact on children's creative ability and imagination (Nicholson, 1971; Daly and Beloglovsky, 2015; Leichter-Saxby and Law, 2015; Casey and Robertson, 2016; Seers 2016; Gibson et al. 2017). Nevertheless, Houser et al. (2016) suggests that the use of LPP within everyday practice is vague, prompting a case study review to determine the impact LPP has on children's creativity and the implications of practitioners' knowledge, skills and experience in facilitating children's imaginative development within the indoor environment.

2.1 The Emergence of Loose Parts Play

The theory of LPP was originally developed by Nicholson (1971) following a lack of evidence to confirm the belief that some children are born with the creative ability whilst others fail to possess such traits, this concept together with a wealth of literature regarding children's play and exploration provided the basis for the implementation of LPP. The research enquiry conducted by Nicholson (1971) suggested that:

In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and variables in it.

(Nicholson, 1971, P6)

Nicholson (1971) believed that LPP enabled all children to be creative, suggesting environments that were intense with natural open ended materials encouraged children to think in new ways, furthermore a large and growing body of research conducted within the past decade has elaborated on this concept by suggesting that loose parts (LP) provide play experiences rich in quality, allowing children to be fully engaged inspiring their creativity ability (Wyse, 2004; Mc Clintic, 2014; Daly and Beloglovsky, 2015; Houser et al. 2016; Gibson et al. 2017). Furthermore Hallett (2016) argued the importance of providing opportunities for children to explore LP suggesting that a lack of interaction limits children's knowledge of materials, properties and possibilities for use. However, the main weakness with studies conducted around LPP is that they are mainly associated with the physical and outdoor environment, although reference is made to the significance of LPP on children's creativity the true extent to which this impacts is unclear, suggesting there is a gap in literature that needs to be addressed (Houser et al. 2016). Similarly, Gibson's systematic review of LPP holds the same view suggesting that the amount of literature linking LPP to other outcomes other than physical development is extremely limited (Gibson et al. 2017).



The definition of LLP has become much more diverse over the last thirty years with many theories elaborating on the initial meaning. Although this was originally described as open-ended materials that can be manipulated in a variety of ways including transporting, constructing and arranging allowing children to develop their own play ideas (Nicholson 1971), many theories have expanded on this suggesting that LPP has no set of directions and can be used alone or with other materials (Hewes, 2006; Neill, 2013). In the same vein White (2010) suggests that unstructured play with open ended materials seeks to cultivate children's inquisitiveness, fascination and creativity allowing them to make meaning, facilitating their ability to learn. However, in contrast Houser et al. (2016) implies that the definition of LPP is too broad and the lack of clarity as to what constitutes LPP or open-ended materials may be confusing to practitioners' which might have a negative impact on children's creative ability.

2.2 The value of loose parts on children's creativity

Historically creativity has been defined as the use of arts and crafts primarily utilised to express feelings and thoughts, however much of the current literature has transposed from this view, suggesting that creativity evolves through critical thinking, problem solving and flexibility, implying these skills are imperative in adult life and need careful nurturing through a range of rich experiences (Asbury and Rich, 2008; Oncu, 2015; Beloglovsky and Daly, 2015; Harford, 2016; Hallett, 2016; White, 2017). Furthermore Brown (2003) highlights the importance of having a flexible environment to facilitate children's thinking skills. In the same vein the Qualifications and Curriculum Authorities (2004) review of creativity highlights the importance of providing children with relevant skills, allowing them to experiment and explore their environment through play, although LPP was not specifically mentioned in this review the ethos remains the same. Furthermore, the Early Years Foundation Stage Framework (EYFS) (DFE, 2017) has endorsed creativity as one of the seven areas of learning, governing practitioners to provide children with a range of media and materials (LP), allowing them to explore, implement and create their own ideas.

In the same vein the Characteristics of Effective Learning (CoEL) (DFE, 2012; DFE, 2017) focuses on the different ways in which children learn by exploring objects, making predictions and choosing ways to do things, all of which impacts on their ability to critically reflect.

Characteristics of Effective Learning
<p>Playing and exploring – engagement</p> <p>Finding out and exploring Playing with what they know Being willing to 'have a go'</p>
<p>Active learning – motivation</p> <p>Being involved and concentrating Keeping trying Enjoying achieving what they set out to do</p>
<p>Creating and thinking critically – thinking</p> <p>Having their own ideas Making links Choosing ways to do things</p>

Recent theorists also suggested that all children are born with creative abilities despite numerous assumptions that this is for the gifted few (Bruce, 2011; Fumoto et al. 2012; Runco et al. 2012). Theorists also emphasise the importance of the practitioners' role in facilitating this, suggesting careful nurture and support is required to develop creative thinking, allowing them to see things in new ways, learning from past experiences and relating them to new ones (Nicholson, 1971; Siraj-Blatchford, 2007; Hallett, 2016). In summary these studies outline the need for practitioners to have knowledge and understanding of creativity and LPP to ensure children are guided in reaching their full potential, however research fails to acknowledge the direct impact on children when practitioners are unknowledgeable, although this is elaborated on within the next section, there is still a gap in literature that needs to be filled.

Bruner's theory of cognitive development (1961) highlights the importance of symbolic thinking, suggesting that this develops through children's interaction with their environment, allowing them to represent their ideas and experiences in play. Similarly, Hirsh-Pasek and Golinkoff (2003) argued



that the ability to think symbolically is a crucial component to children's learning and development, allowing children to think beyond the actual object. However, Linn (2008) was critical of these conclusions suggesting that play is imitative rather than creative as children re-enact what they have seen or heard in the media and their community rather than having new ideas, these claims have been strongly contested by several studies that suggesting children adapt characters and storylines in more imaginative and creative ways (Bromley, 2004; Marsh, 2006; Wohlwend, 2009). However more recent attention has focussed on the idea that divergent thinking skills are a vital start to children's creative development, allowing them to use a thought



process to create ideas and find solutions before meeting their end goal, suggesting unstructured materials in children's environments play an important part in children's divergent thinking skills (Fumoto et al. 2012; Runco et al. 2012; Oncu, 2015; Daly and Beloglovsky, 2015; Ring, 2016). Although extensive research has been carried out on children's critical thinking skills, clarity still needs to be given as to whether children merely imitate play or use these ideas to elaborate and expand thinking in new and more

meaningful ways. Nevertheless, all theories acknowledge the impact of LPP on children's critical thinking skills and several other authors emphasise the importance of open ended materials, allowing children to create their own representations and develop their imagination and abstract thought (Maxwell et al. 2008; Ashby and Rich, 2008; Daly and Beloglovsky, 2015). Together these studies suggest that critical thinking skills are a vital component to adult life, although reports have failed to identify the extent to which LPP impacts on children, it is clear that without access to LPP children have limited opportunities to facilitate their learning and development. A study by Linn (2008) highlighted the importance of open ended resources suggesting that these were 10% toy and 90% child, supporting the significance of incorporating LPP into the Early Years sector.

2.3 Unstructured play

A wealth of literature regarding children's learning and development devotes particular attention to unstructured play. House (2000) states that child-led play should be a central role within the Early Years sector. Similarly, the United Nations Conventions on the Rights of the Child (UNCRC, 1989) article 31 highlights the child's right to play, accessing a range of artistic activities. This view is supported by Casey and Robertson (2016) who suggest that children learn best when they are able to play freely highlighting the importance of providing child-led play. Although current literature regarding unstructured play is not directly linked to LP the principles and underpinning values of LP have been developed from the importance of child-led play (Fjortoft and Sageie, 2000; Maxwell et al. 2008; Bruce, 2011). Similarly, Vygotsky (1978) suggested play as a vehicle for learning, allowing children to think in complex ways and learn about the world around them, LPP extends this concept highlighting the importance of unstructured play to enhance children's creative development.



An intervention study by Maxwell et al. (2008) discovered that children showed a distinct preference to playing in areas where LP were accessible, during their study Maxwell, Mitchell and Evans (2008) provided a range of different LP for children to explore and discovered that children's imagination and critical thinking skills increased as they investigated the endless possibilities. However, in contrast Runco's study (2012) documented that few children were able to use unstructured materials creatively, nevertheless the main limitation to this study was that the children participating (4-6-year-old) were required to explain how they would use the materials, which may have been too difficult for them, ultimately impacting on the

validity of the research findings. Furthermore, researchers still value the concept that LPP nurtures creativity (Oncu, 2015; White, 2017), suggesting further research needs to be conducted to clarify the exact extent LPP has on children's creativity.

There is a strong relationship between LP and unstructured play allowing children to choose and create their own agenda. LPP has no direct rules allowing them to build on their creativity and meet their own developmental milestones, this in turn gives children a sense of pride and achievement elevating pressure to perform in a certain way (Dansky, 1980; Drew, 2007; Daly and Beloglovsky, 2015; Houser et al. 2016). In the same vein many theorists have suggested that children prefer play which stimulates their curiosity implying that LP are like magnets as they have no specific outcome, allowing children to become absorbed in their own exploration, using their imaginations and creativity which becomes more engaging over time (Holland, 2010; Sutton, 2011; Daly and Beloglovsky, 2015; Leichter-Saxby and Law, 2015). Similarly, the previous work of other theorist suggest that children need direct experiences to be able to manipulate their environment (Vygotsky, 1967; Dewey, 1990).

Furthermore, Houser et al. (2016) suggests that recent research examines the way in which children engage and interact with unstructured materials allowing for more discovery. In the same vein Hyndman et al. (2014) conducted a qualitative evaluation of LP suggesting there was an increased level of creativity and engagement amongst children. Although the wealth of literature highlights the importance of unstructured play Houser et al. (2016) iterates the importance of providing the correct play materials, however the knowledge practitioners' need to facilitate this kind of learning is vague suggesting that practitioners' lack of knowledge may hinder children's learning and development, therefore it is imperative that more research is conducted to analyse the direct impact.

Many theorists suggest that unstructured self-directed play is an essential component to children's health and well-being signifying the importance of allowing children to build on their self-regulatory skills to promote their creativity and imagination (UNCRC, 2013; Daly and Beloglovsky, 2015; Leichter-Saxby and Law, 2015;). The Leuven Involvement Scale (Leavers, 1994) was designed to assess children's direct involvement and participation with activities suggesting that a deep level of involvement is an essential component to children's emotional well-being

allowing them to learn in a safe and secure environment (Malaguzzi, 1998; DFE, 2017).

Table 2: The Leuven Scale of Involvement

Level	Wellbeing	Signals
1	Extremely Low	Activity is simple, repetitive and passive. The child seems absent and displays no energy. They may stare into space or look around to see what others are doing
2	Low	Frequently interrupted activity. The child will be engaged in the activity for some of the time they are observed, but there will be moments of non-activity when they will stare into space, or be distracted by what is going on around
3	Moderate	Mainly continuous activity. The child is busy with the activity but at a fairly routine level and there are few signs of real involvement. They make some progress with what they are doing but don't show much energy and concentration and can be easily distracted
4	High	Continuous activity with intense moments. The child's activity has intense moments and at all times they seem involved. They are not easily distracted
5	Extremely High	Continuous activity with intense moments. The child's activity has intense moments and at all times they seem involved. They are not easily distracted

Furthermore Davy (2009) suggests that creativity allows children to interpret their feelings and thinking skills through the use of LPP ultimately impacting on their imaginative ability. Similarly, Godfrey (2017) also suggests that children who feel safe within their environment have endless possibilities to explore and have a deeper level of thinking. Although the literature regarding LPP on children's well-being is limited, the wealth of knowledge regarding unstructured play and creativity is sufficient enough to suggest that LPP enhances children's well-being and direct involvement.

2.4 Practitioners' role in facilitating loose part play

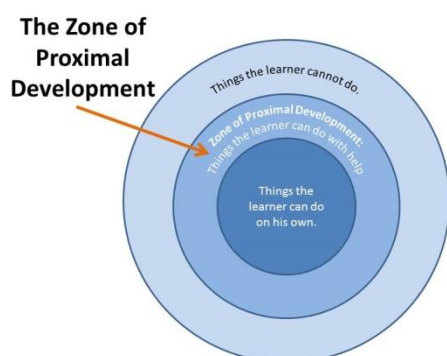
How practitioners' can best support children to facilitate this is still at the forefront of political, practical and research perspectives. Although research specifically linked to practitioners' and LPP is limited, it has become increasingly apparent that the way in which practitioners' provide opportunities for LPP has a direct impact on children's creative ability. LPP requires careful planning and support from practitioners, ensuring the environment is rich in LP, allowing children to use materials as they wish is a crucial component to facilitating learning and development (Daly and Beloglovsky, 2015; Casey and Robertson, 2017; White, 2017). Nicholson's (1971) review of LPP suggests that practitioners' must support children's critical thinking skills, enabling them to change the shape or direction of their play with little adult intervention (Holland, 2010), however the key problem with this explanation is that there is no way to dictate how children will play with LP, therefore making it difficult

for practitioners to understand and facilitate learning (Houser et al. 2016). Similarly, literature also highlights the importance of practitioners carefully watching children's play without interfering suggesting that practitioners who observe children are able to appreciate creativity without invading ideas (Bruce, 2011; Leichter- Saxby and Law, 2015; Casey and Robertson, 2016). Furthermore, practitioners' need to understand the delicate balance between helping the child and allowing the child to become an individual (DCSF, 2009). Bruner (1980) suggests that when children are thinking intensely they cannot join in conversation as they are exploring and thinking about the activity at hand, suggesting that the role of the practitioner in facilitating LPP is very complex, furthermore theorist suggest that there is a fine line between allowing creativity to emerge and overpowering children causing their imaginations to quickly become exhausted (Bruce, 2011; Seers, 2016). Nevertheless, studies have criticised the view that practitioners should not interfere in play suggesting that although play without adults can be meaningful and imaginative, it can sometimes become repetitive and unruly suggesting that children's creative play becomes "hands-on, brains off" (DFE ,2015). However, despite the conflicting thoughts of various theorist's literature agrees that practitioners must be highly skilled in knowing when to participate in children's play and when to leave children to initiate their own play, suggesting that learning should be cultivated and not imposed (Vygotsky,1978; Killiala , 2009). Furthermore, Casey and Robertson (2016) highlight the importance of adults having direct access to training and support regarding LPP. Similarly, Dockett (2011) and Fumoto et al. (2012) state that the knowledge of the workforce can affect children's imaginations and creativity suggesting that it relies heavily on the knowledge, skills and experience practitioners, already possess.



Although theorists highlight the importance of carefully facilitating children's play there is little explanation given as to how practitioners should facilitate children's creativity and critical thinking skills. However, there is a wealth of literature on the general facilitation of critical thinking skills which links closely to LPP. REPEY (Siraj-Blatchford et al. 2002) suggested that sustained shared thinking develops creative

and critical thinking by working with others to extend a narrative, solve problems and clarify ideas; nevertheless both parties must make valid contributions and share ideas to extend thinking. This concept is closely linked with Vygotsky's Zone of Proximal Development (ZPD, 1978) suggesting children need to be scaffolded by practitioners' in order to reach a higher level of thinking.



Similarly, Thompson (2017) and Godfrey (2017) argued that running commentaries and open-ended questions during children's play are essential to extend children's learning and development, highlighting these as vital skills that need to be taught before child led play can develop. Adults can suppress children's opportunities for creativity by having low expectations regarding the child's ability to achieve (Malaguzzi, 1993; Prentice, 2000). The evidence presented in this section suggests that without the knowledge, skills and understanding of LPP practitioners are at risk of hindering children's creativity. Fisher (2016) suggests that the level of involvement in an activity depends on the practitioners' facilitation suggesting that in play, adults will interact or interfere. However, with the lack of clarity as to what practitioners should be doing it is believed that further investigation needs to be conducted.

2.4a The impact of practitioners' knowledge on loose part play

As previously discussed practitioners need a foundation of knowledge and understanding to facilitate LPP, however many theorists criticise practitioners' suggesting their knowledge is inadequate. McInnes et al. (2011) conducted an investigation based around practitioners' perceptions of play and discovered that practitioners had received no training, which implied that practitioners can become confused regarding their role in facilitating play. Furthermore, the research enquiry, Researching Effective Pedagogy in the Early Years (REPEY) (Siraj- Blatchford et al. 2002) suggests that all children will need support to extend their learning at some

point. However if practitioners are inadequately trained they are not competent in facilitating children's learning, suggesting further research may be needed. Furthermore, the study by McInnes et al. (2011) also suggests that practitioners are not comfortable with unstructured play which allows children choice, this ultimately leads to adult led activities taking the child's freedom of choice and critical thinking skills away. However, Nutbrown (2012) suggested that practitioners' value the importance of play and that practitioners with a higher qualification have more of an impact on children's learning and development. Collectively these studies outline the crucial role of practitioners' in facilitating unstructured play and the importance of continued professional development to gain direct understanding of unstructured play especially with LP.

2.5 Conclusion

Literature regarding LPP is both complex and vague, suggesting that much more needs to be investigated in order for practitioners to understand their direct role. This research enquiry aims to assess the impact of practitioners' knowledge on the facilitation of LPP and determine how LPP directly impacts on children's creativity.

3.0 Findings and discussions

This study set out with the aim of assessing practitioners' knowledge and understanding of LPP and determine the impact this has on facilitating children's learning and development. Furthermore, the researcher aimed to better understand how LPP impacts on children's creative development.

3.1 Interact or interfere?

The single most striking finding to emerge from the data collected was the level of involvement children showed when allowed to participate in unstructured play. The Leuven scale of involvement (1994) indicated that children showed creativity and energy throughout their play when adults did not interfere, although adults were present in some of the specified observations the way in which they presented themselves allowed children to continue to use their creativity without feeling intimidated.

“Practitioner four sits on the floor besides Child C, she does not speak but smiles at Child C”

These findings further support the idea that LPP needs careful facilitation in order to support learning and development (Daly and Beloglovsky, 2015; Casey and Robertson, 2017; White, 2017), indicated by the way the practitioner presented herself, using open ended questions to facilitate learning when approached by the child.

Through a range of observations and created images it became increasingly apparent that children flourished from unstructured play, building their imaginations around their chosen theme and expanded on their ideas and creativity through the use of LP. This allowed children to interact with their environment through play (Brown, 2003) enabling them to become absorbed in their own exploration (Holland, 2010; Sutton, 2011; Daly and Beloglovsky, 2015).

Throughout their interactions children used symbolism to enhance their ideas with other children as the practitioner noted that one child used a cone for a party hat, whilst another used a wooden block and sticks to make a birthday cake.

The findings of this research study are consistent with those of Bruner (1961) and Hirsh-Pasek and Golinkoff (2003) confirming that symbolic thinking is a crucial component to children's learning and development. However, the findings from the current study do not support the previous research by Linn (2008) as children's storylines were much more creative than that of simple imitations, validating the theory that children need direct experiences in order to facilitate their learning (Vygotsky, 1967; Drew, 2007).

It was also apparent that children's interaction with other children promoted a deeper level of thinking. Through the exploration of LP, observations showed how Child B originally had her own agenda which was limited in terms of her thinking skills, however, with the facilitation of Child A they quickly established a theme and Child B's thinking skills became much deeper, as the children explored their environment and the LP provided created endless possibilities to facilitate their creativity (Nicholson, 1971; Godfrey, 2017). The created images also captured how children worked together to manipulate LP. However, this showed more abstract thinking with the children using a range of LP to capture a specific thought process, resulting in divergent thinking skills developed through unstructured play (Fumoto et al. 2012; Runco et al. 2012; Oncu, 2015). Nevertheless, this data must be interpreted with

caution as it was unclear whether it was the unstructured play, collaboration with peers or interactions with the LP that facilitated children's creativity, confirming the assumption that more research needs to be undertaken on this topic before the association between creativity and LPP is more clearly understood. (Houser et al. 2016; Gibson et al. 2017).

Data collected suggested that children's creativity and interaction with LPP was negatively impacted on when their play was structured or interfered with by practitioners'. Observation one highlighted the intense interactions between two children, however when practitioner two approached and began to ask open ended questions

"What are you doing"? "what else can you make"?

Her interference stopped the children's play limiting their creativity immediately. Furthermore, practitioner 1 presented LPP in a structured way with limited access to a range of open ended materials which failed to engage Child C in her own play agenda, when Child C suggested that

the wolf needed "rocks in his belly, so he couldn't eat anymore"

The practitioner failed to respond instead facilitating her own plan suggesting to the child that they build "Grandma's house", helping Child C to stack the bricks together which hindered her ability to solve problems and think of new ideas, proving that the practitioner had limited expectations of the child's ability to achieve her own potential (Malaguzzi, 1993; Prentice, 2000). Furthermore, the research discovered that when children were not fully engaged in their play, (caused by the interference of practitioners') their ability to interact with LPP became that of imitation or purpose

Child C picks up a shell and places it to her ear and says "listen I can hear the sea"

This implied that there was no increase in the child's ability to creatively think by using LPP suggesting Child C re-enacted what she had previously experienced. Interestingly, this study found that it was the interference from adults and their inability to provide open ended resources that impacted on children's ability to think creatively, rather than that of the child's own imagination. This further validates the study carried out by McInnes et al. (2011) that reported children's freedom of choice and critical thinking skills were taken away when practitioners interfered in children's

play strengthening the argument that practitioners do not value or understand the opportunities that are available with unstructured play.

3.2 The value of LPP

Data collected from Q5 of the semi-structured interview aimed to examine how practitioners facilitated LP within their environment, two of the interviewees suggested that they would place the items in various baskets.



Whilst another talked about open spaces and various objects like shelves, hooks and poles to place items on, she also suggested that

“this would not be set out as looking like anything, as I wouldn’t want to give away clues as to what the children should be doing”

However, through the analyse of the created images, it became increasingly apparent that what the practitioners’ said and how they actually facilitated LPP was contradictory with practitioners’ having an intended purpose that obstructed children’s ability to think beyond the proposed objective. This hindered the way children interacted with unstructured materials and diminished their need for more discovery contradicting the research of theorists (Houser et al. 2016). Data collected suggested that LPP should not be set out in a certain way but presented in baskets. This research confirmed that it is how this is presented by practitioners that determines the overall level of interaction and involvement children have with LP.

Although some of the observation’s highlighted that children’s interactions with LP were not as apparent, all children showed a preference for using LP in some form, validating the idea that LP are like magnets to children (Daly and Beloglovsky, 2015).

During an observation Child C pursued her own intention to find LP by pulling out a ball of string from the creative area, she then

“ran to the construction area to collect wooden discs”

Whilst the two children working together were able to *“look through the box”*

to find the LP they require. Furthermore from analysis of the created images children sought to find their own LPP by exploring the environment using a range of natural resources to facilitate their intentions, this confirmed that children do not need to have LP displayed in a certain way, or area and showed much more intense interaction if they discovered them by themselves, although this validates the previous research of Nicholson (1971) in which the environment needed to be rich with natural open-ended objects, to encourage new thinking, the research suggested that these did not need to be facilitated in a certain way. Research confirmed that allowing children to use materials as they wish had a much deeper impact on the facilitation of children’s creativity (Dempsey and Strickland, 2009; Daly and Belogovsky, 2015; Casey and Robertson, 2017; White, 2017). Furthermore, the research validated the previous study evidencing that children played in areas where loose parts were accessible, however children’s thinking skills and creativity only increased when they were involved in unstructured play allowing them to explore endless possibilities (Maxwell et al. 2008). The research presented challenges the study by Runco (2012) as children were able to engage with unstructured materials in a range of diverse ways allowing them to meet their own developmental milestones.

3.3 Qualifications and knowledge

Throughout the semi-structured interviews, it became increasingly apparent that the qualifications of practitioners had a direct impact on their knowledge and understanding of LPP. These findings seem to be consistent with other research that suggests practitioners’ need direct access to training and support regarding LPP (Casey and Robertson, 2016). When asked to share her knowledge on the topic of LPP one practitioner with a level three qualification in Early Childhood Studies responded:

“Well its natural stuff isn’t it”

Whilst both practitioners' obtaining a level five qualification were able to talk in depth about the use of natural objects and the impact on children's creativity, with one interviewee stating

"It allows children to think critically and test their ideas."

Practitioners with a level three qualification also struggled to understand the benefits LPP had on children with one respondent suggesting that

"It's natural not plastic" and would add no further comments.

Furthermore, during observations and created images, practitioners with limited awareness of LPP struggled to effectively enhance areas and facilitate learning, although practitioner two understood how to promote children's learning and development by suggesting that

"you use open ended questions"

But she was unable to put this into practice interrupting children in their play rather than facilitating it. When she was approached by a child she was able to effectively enhance their creativity and thinking skills. This surprisingly highlighted that it was the unstructured play the practitioner failed to understand, rather than the facilitation of sustained shared thinking, which is an important issue for further research.

Surprisingly, during an observation with a level five practitioner, they approached the researcher with concerns regarding their facilitation, although the semi-structured interview highlighted the wealth of knowledge the practitioner had, especially on how to facilitate learning, she responded with

"Open ended questions, give prompts, praise, and provide free and found materials."

The notion that adults must support children to change the shape of their play with little adult intervention (Nicholson, 1971) was much too ambiguous, with one Practitioner suggesting that

"it was very difficult to pose questions and thoughts without hindering the child's play and that the activity was too structured which restricted the child's ability to think more abstractly."

This was also the concern of another level five practitioner who expressed apprehension regarding the implementation of LPP stating that

“I found it quite hard to place LPP into a setting, it all sounds so good when you talk about it, however it can become very messy if it’s not facilitated right.”

This causes a certain amount of concern for the Early Years sector, although the practitioner had a wealth of knowledge regarding the concept of LPP, she was unable to place this in practice within the Early Years setting. Suggesting more hands on, practical training needs to be established to support the wealth of literature already published urging practitioners to implement LPP within their setting. Although practitioners with a higher qualification had more impact on children’s learning and development (Nutbrown, 2012) they still struggled to put this into practice.

A recurrent theme in the semi-structured interviews was a sense amongst all interviewees that qualifications did contribute to the knowledge and experience needed to effectively facilitate LPP, 1 practitioner raised her concerns by saying that

“I never learnt anything like this at level three”

Furthermore, another practitioner elaborated on this concept by suggesting that

“If you only have one practitioner knowledgeable in loose part play, it’s very difficult to keep children engaged, so you need more staff that are up to date with loose parts, so yeah I think qualifications have a massive impact”.

However, this response contradicts White (2010) suggesting that unstructured play with the use of LP does not need the facilitation of adults as the LPP they interact with will facilitate the children’s learning nevertheless.

This theme raises an important issue for further research to effectively understand how practitioners are provided with the knowledge and skills required to implement LPP. Although this research established that knowledge and understanding of effective pedagogy; scaffolding of learning, unstructured play and SST (Vygotsky, 1978; House, 2000; Siraj-Blatchford et al. 2002) are still crucial roles that have a direct impact on children’s creative ability, how LPP supports children’s learning and

development still needs to be at the forefront of practitioners' knowledge and understanding.

3.4 Creativity and Critical Thinking Skills

Data collected through observations effectively captured the children's ability to learn from their environment, experiences and activities by assessing them against the CoEL (DFE, 2012, 2017). It was increasingly apparent that children demonstrated an ability to use all nine skills required to effectively enhance their learning when their play was unstructured or carefully scaffolded by adults, allowing them to think of their own ideas, make symbolic links and choose ways of doing things. However, where structured play was presented children's creativity became limited although children were willing to have a go; they had no way of choosing how to do things, subsequently this impacted on their own ideas which became extremely limited in terms of creativity. Nevertheless, the findings of this study need further research to determine the impact practitioners' have on critical thinking skills, as children's creativity was much higher when practitioners did not interfere, expressing the importance of practitioner's understanding in nurturing children to develop more complex and divergent thinking skills (Nicholson, 1971, Runco et al. 2012).

The analysis of data highlighted that children showed a distinct preference for using symbolic thinking, although children in one observation discovered a theme of birthdays, they used symbolic representations to make a range of items associated with their theme. Whilst Child B used symbolic representations to associate her coloured blocks with that of food

“Red- strawberry”

“Blue-blueberry”

“Yellow- banana”

“Green- cucumber”

Child C used wooden disks to represent plates suggesting that children demonstrated symbolic thinking (Bruner, 1961) rather than that of divergent thinking. However these are suggested to be crucial to children's creative development (Fumoto et al. 2012; Runco et al. 2012; Oncu, 2015; Daly and Beloglovsky, 2015,

Ring, 2016), validating the research enquiry conducted in the REPEY study (Siraj-Blatchford et al. 2002) which highlighted that all children will need support at some stage to extend their learning. The evidence collated throughout this study suggests that practitioners require extensive training in all areas of pedagogy and not just that of LPP be able to adequately facilitate children's learning, development and creativity. Due to time constraints the research failed to explore the possibility that children could reach new heights of critical thinking without the facilitation of practitioners.



4.0 Conclusion

This study was designed to determine the effect LPP has on children's creative development and how practitioners' knowledge and understanding facilitates this. Although the research did not uncover any new findings it did further validate some of the existing literature. One of the most significant findings to emerge from the study was that children's creativity and imaginations was greatly enhanced when they engaged in unstructured play with LP, although much of their play was symbolic representation they were still able to think in creative ways and manipulate their environments to produce end products. Furthermore, whilst children were engaged in play with a range of LP they were able to meet developmental milestones set out within the Development Matters Framework (DFE, 2012) as well as facilitating their critical thinking skills by achieving all areas within the CoEL (DFE, 2012, 2017). It was also shown that children's interactions were much more intense with some children facilitating each other's critical thinking skills and SST by working together to build on their original thoughts and ideas. The research findings also demonstrated

how practitioners that were able to carefully nurture children's learning and development positively impacted on their ability to problem solve. However, the findings of this study suggest that unstructured play, interactions with peers and the use of LPP all impact on children's facilitation and creativity. Therefore, it would be interesting to compare experiences of individuals when one component is available, to establish the direct impact each element alone has on children's creativity, suggesting further work still needs to be conducted into the direct impact LPP has on children's imaginations. Furthermore, as the current study only examined evidence based around the impact LPP had on creativity, it would be interesting to compare this to other activities that may have equally facilitated creativity. Therefore, a natural progression of this work is to further research LPP in facilitating other areas of children's learning and development to improve the lives and experiences of all children.

The relevance of the practitioners' knowledge and experience in facilitating children's learning and development is clearly supported by the current findings. It became increasingly more evident that the level of qualifications the practitioners' obtained had a direct impact on their ability to effectively enhance children's creativity. It was clear that level three qualified staff struggled to interpret what was meant by LPP and the benefits this had to children. Furthermore, this study highlighted how some practitioners lacked knowledge regarding other pedagogical approaches, which also impacted on children's critical thinking skills especially when children were engaged in unstructured play, or during activities that needed to be carefully nurtured having detrimental impacts on the children's ability to be creative. This triggered children to display low levels of involvement by using LP for that of imitation or purpose rather than facilitating their imaginations. Conversely, whilst practitioners with a level five qualification understood the importance of LPP and how this needed to be facilitated, they found it difficult to put into practice, especially as they tried to enhance children's critical thinking skills without their own ideas. This evidence is alarming for the setting in question as it discovered that the majority of practitioners struggled to use their knowledge of unstructured play, SST and LPP to effectively enhance children's creativity. This validates the assumption that practitioners' lack of knowledge, skills and understanding of all pedagogical approaches, not just that of LPP has a negative impact on children's creativity, learning and development.

4.1 Recommendations

This research enquiry aimed to provide a series of recommendations both at national and local level that need to be addressed in order to provide high quality teaching and learning for all children.

1. Firstly, the implementation of policy promoting LPP within the setting needs to be completed with immediate effect, highlighting the importance of providing open-ended natural materials, which includes an extensive list of LP that need to be included within the environment to allow practitioners to make sure these are readily available.
2. Training in terms of effective pedagogy also needs to be conducted within the setting, highlighting the importance of unstructured play, SST and scaffolding of learning. Peer observations will also allow practitioners to observe best practice, implementing this into their own pedagogical approach.
3. It is also recommended that management within the setting need to conduct peer observations to identify areas of continued professional development for all staff members.
4. It is recommended that the level three qualifications in Early Years reflects that of theory and pedagogical approaches, allowing practitioners to have the relevant knowledge and experience needed in the ever-changing world of policy and practice.
5. Lastly further research is recommended to examine how children's accessibility to LP impacts on their creativity, as the research findings discussed needs to be further validated.

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