

Beginning Our Play Journey: A comparison of adult-led and child-initiated learning in the Primary One classroom.

Introduction

Following a recent school inspection, it was recommended, after professional dialogue with the lead inspector, that I carry out some action-based research focused on play pedagogy. Around the time of the inspection my local authority took the first steps towards developing a play strategy and rationale to be shared and implemented across the authority. This process began with staff at all levels engaging with *Education Scotland's Early Level Play Pedagogy Toolkit* and the refreshed Early Years guidance *Realising the Ambition: Being Me*. This collaborative development promoted much professional dialogue and discussion.

My aim was to carry out a piece of comparative research: Direct instruction versus a play-based approach in an area of Early Level Numeracy or Literacy. This piece of research relates to early years and play pedagogy which are two closely linked areas within education. Initially my research design idea was to directly compare the attainment of 2 groups of children – one group having only been given direct instruction from an adult and the other group only participating in play-based learning. The question was asked: How can you be certain that play is making the change? This led me to consider the quantitative and qualitative data that could be collected to allow for a meaningful comparison to be made between adult-led and child-initiated learning.

The issue I chose to focus on is particularly significant in my setting as we are at the beginning of our play journey, and it is anticipated that the data analysis and findings will support our journey as we move forward. Introducing more quality play in the classroom can be challenging on many levels. Common issues include resourcing play spaces, the reality of managing play within a diverse class, expectations of what learning in Primary 1 should 'look like' and misconceptions about the role that play serves in formal education. Additionally, the adults' role in play-based learning is often misunderstood.

Background: Policy Context & Review of Literature

Within my local authority there has been a focus on implementing more play in lower primary classrooms. There is currently a huge variation in pedagogy and a need was identified to devise an authority wide play strategy and shared vision. Some schools in the authority are just beginning their play journeys whilst others are much further on. Staff engaged with *Education Scotland's Early Level Play Pedagogy Toolkit* and *Realising the Ambition* and

from this discussion and dialogue a working group was formed that was representative of the primary schools and ELC settings across the local area. This group worked on drafting a play strategy and rationale. It is anticipated that this document will be shared with school management and staff at the beginning of the 2021-22 academic session to inform and support the journey forward.

The current national policy initiatives and frameworks centred around play pedagogy include *Education Scotland's Early Level Play Pedagogy Toolkit*, *Realising the Ambition: Being Me* and aspects of *Curriculum for Excellence*. These policies and frameworks have provided development opportunities for me as a practitioner. They have allowed me to engage in professional dialogue with colleagues both locally and nationally. The recent coronavirus restrictions have led to an increased use of on-line platforms for development work, and this has given me the opportunity to access a range of professional events and presentations, most of which I usually would not be able to attend due to location and time constraints.

Realising The Ambition: Being Me (2020) is the refreshed early years national practice guidance for Scotland. The guidance was produced in partnership between the Scottish Government and Education Scotland. The earliest years of life are crucial and the Scottish government's expansion of ELC hours reflects just how important these early years are. To close gaps there must be high quality early learning which is holistic in nature and values the importance of wellbeing. *Realising The Ambition: Being Me* focuses on how the individual child grows and develops detailing the range of interactions, experiences and spaces that settings must provide to support children as they learn and grow. The refreshed guidance looks to raise the bar in terms of expectations of quality and pedagogy.

Education Scotland's Early Level Play Pedagogy Toolkit was designed to be used alongside *Realising the Ambition: Being Me*. The toolkit aims to support practitioners working with children at Early level of the Curriculum for Excellence. The toolkit includes information and evidence to support the use of play pedagogy.

Upstart Scotland and *Play Scotland* have been at the forefront of much discussion and debate surrounding play and playful pedagogy. Upstart Scotland are leading a high-profile campaign to introduce a statutory kindergarten stage. They state that "Current Scottish policy supports a developmental approach, but the structure of our schooling system makes it difficult to deliver" (Upstart Scotland, 2021). A kindergarten stage would provide a wealth of play opportunities for under-sevens allowing the children to develop their communication and social skills before beginning more formal schooling. Play Scotland was established in 1998 and is the lead organisation for the development and promotion of play in Scotland. At the heart of Play Scotland's work is Article 31 of the United Nations Convention on the Rights of

the Child (UN, 1989). Article 31 states that children have the right to relax and play. Play Scotland strives to promote the benefits of play both within schools, local communities and wider society.

There has been much research, discussion and debate surrounding play and play-based learning. The key recurring themes and ideas in recent literature include play as a vehicle for learning and social interaction, children learning best when they are active busy learners, play bringing deeper meaning to learning and the crucial role of the adult in a play setting. Some of the more current texts I have engaged with include publications by Anna Ephgrave, Alistair Bryce-Clegg, Sue Palmer and Greg Bottrill. These scholars and practitioners have given me an insight into the real, practical world of play and have been key in supporting the development of my pedagogy and addressing my misconceptions. Evident in a range of literature, it can be said that play is complex and misunderstood. It is an emotive subject and can be defined in many ways. Definition is often linked to adults past personal experiences of play rather than basing the definition on the child's perspective. The child being the one who is engaged in play experiences in the here and now. (Howard, 2017, pp.5-7). Play is intrinsic, play is meaningful, and play is a dynamic process. Learning through play requires skilful interactions and conversations and it can be very serious business.

Research Design

As I was beginning my play journey with the pupils', I felt that it was imperative that I spent the first part of the academic year playing with the children in order to challenge my own views and perceptions of play.

"Children need you to listen, watch, to participate – you as an adult literally need to get down with the kids." (Bottrill, 2018, p.9)

This new experience opened an internal dialogue which resulted in a great deal of unanswered questions that would in turn lead to more questions, anxieties, 'wow' moments and debate. What does quality play look like in a P1 classroom? What does play feel like? Will all children know how to play? How does the quality of play affect learning? Will visitors to my class realise I am working when they see me sitting on a tiny stool drinking tea in the café? What will I learn through playing alongside the children? How can I support the children in their play? Will I know when to step in or step back?

Playing with the children provided lots of opportunities to find out about the children's interests and motivations on a deeper level than a quick chat during carpet time at the beginning or end of the school day. Children conversed freely and openly in what I believe was perceived as a less formal situation. Adults were able to model and scaffold some of the complex processes involved in play for those children who were shy, anxious or unsure (Christakis, 2016). Children learn from those they trust, and children need to know that the

adults are interested in them. Playing with the children afforded more opportunities to build meaningful, trusting relationships.

Initially the research design idea was to directly compare the attainment data of 2 groups of children – one group having only been given direct instruction from an adult and another group only participating in play-based learning. The question was asked: How can you be certain that play is making the change? Will there be other influencing factors? This led me to consider the type of data that could be collected to allow for a comparison to be made between adult-led and child-initiated learning and the tools that could be used to collect the data. The decision was made to use the Leuven Scale of Wellbeing and Involvement. The Leuven Scale is a 5-point scale that is used to measure children's emotional wellbeing and involvement. It was pioneered by Dr Ferre Laevers and his team at Leuven University in Belgium in the 1980s. Children who score highly on the Leuven Scale of Wellbeing and Involvement are generally engaged in their play, self-confident and resilient. Children who score low generally lack confidence, are unwilling to face challenges and will find it difficult to engage with opportunities in the setting. High levels of both wellbeing and involvement allow children to experience deep learning.

The research was conducted primarily through a series of observations involving 12 children who were selected at random with an equal gender balance. Each child was subject to 3 observations. There were 36 observations recorded over a 2-week period. Observations were carried out using the Leuven Scale of Engagement and Wellbeing. Pupils were observed for 2 minutes during adult-led learning and adult-initiated learning and scored using the Leuven Scale. Pupils were observed for 10-15 minutes during child-initiated learning where narrative observations were recorded, and the child was scored using the Leuven Scale.

The observations were focused on Numeracy and Mathematics with the learning activities and provocations based around the topics of Money, Fractions and Direction. Learning activities were planned using the Curriculum for Excellence Early Level experiences and outcomes as well as baseline assessment data. Provocations linked to the learning were added to the free play area of the classroom.

The 12 pupils were split into 3 groups and baseline assessments were carried out with the pupils to gauge prior knowledge. These assessments were undertaken by a PSA who worked with pairs of children. The results of the baseline assessments supported the planning of differentiated adult-led learning activities and allowed for appropriate provocations to be added during free play. Children need to feel successful in their learning and the baseline assessment allowed activities to be planned at the appropriate level for the children (Bruce, 2001). Formative assessment was used during the observation period to evaluate understanding and progress learning. At the end of the unit an assessment of learning was made using observations,

teacher professional judgement, completed learning activities and through learning conversations with individual children. The appropriate CfE Benchmarks were used to assess outcomes both during and after the planned learning.

Findings & Analysis

Data was initially analysed per group before being analysed as a whole set.

Group 1: Position & direction

Identifier	Wellbeing				Involvement			
	A-L	A-I	C-I	Value Added	A-L	A-I	C-I	Value Added
A	3	3	5	++	3	2	5	+++
B	4	4	5	+	4	4	5	+
C	3	3	4	+	2	3	4	++
D	3	4	4	+	4	4	5	+
Average	3.25	3.5	4.5		3.25	3.25	4.75	

Analysis of the data collected for this group of children showed that there were consistently high levels of involvement and wellbeing observed during the child-initiated play in comparison to the adult-led and adult-initiated learning. This group of children had a notable increase in wellbeing and involvement scores. The average score for wellbeing observed during the adult-led learning was 3.25. This score increased to 3.5 during adult-initiated learning with a further increase to 4.5 during child-initiated learning. The average score for involvement observed during the adult-led and adult-initiated learning was 3.25. This score increased to 4.75 during the observed child-initiated learning.

Pupils were formatively assessed during the unit using the *CfE Benchmark: Understands and correctly uses the language of position and direction to solve problems in movement, games and technology, for example, in front, behind, above, left, right, forwards and backwards*. For pupils B and D this outcome was evidenced in the adult-initiated tasks as well as being observed during child-initiated play and real contexts within the school. Both pupils transferred their knowledge and skills into their play. From the wellbeing and involvement scores and narrative observations it is evident that pupils A and C are deeply engaged when playing and use play to give meaning to their learning. Both pupils will further benefit from time to consolidate and embed the use of positional language through their free play activities both indoors and outdoors. These pupils want to learn, and we must find ways to teach them that are engaging, active and appropriate. (Ephgrave, 2017)

Group 2: Fractions

Identifier	Wellbeing				Involvement			
	A-L	A-I	C-I	Value Added	A-L	A-I	C-I	Value Added
E	4	4	5	+	4	5	5	+
F	3	3	4	+	4	5	5	+
G	4	4	4		4	4	5	+
H	3	3	4	+	4	4	4	
Average	3.5	3.5	4.25		4	4.5	4.75	

Although the overall increase in wellbeing and involvement scores was the lowest for this group of children, the levels of involvement were consistently high or extremely high across the 3 learning types. Analysis of the baseline assessment data revealed that the children scoring higher in the baseline assessment demonstrated a higher level of both wellbeing and involvement during the adult-led activities. They continued to demonstrate high and extremely high levels of well-being and involvement during the adult-initiated and child-initiated activities. These pupils were secure in their understanding and confidently built on their prior knowledge for the duration of the unit. This group were focused, engaged and interested in the planned learning and these skills and knowledge were observed and challenged during free play.

Throughout the unit the children were assessed using the appropriate *CfE Benchmark: Splits a whole into smaller parts and explains that 'equal parts' are the same. Uses appropriate vocabulary to describe halves. Shares out a group of items into smaller groups.* The group were secure in their knowledge of fractions, and this was evidenced during the structured activities and child-led play experiences.

Group 3: Money

Identifier	Wellbeing				Involvement			
	A-L	A-I	C-I	Value Added	A-L	A-I	C-I	Value Added
I	4	4	5	+	4	5	5	+
J	4	4	5	+	4	4	5	+
K	2	2	3	+	2	2	3	+
L	2	3	4	++	2	3	5	+++
Average	3	3.25	4.25		3	3.5	4.5	

The analysis of data for this group of children revealed the lowest average score for both levels of wellbeing and involvement during the adult-led learning. The average score increased from adult-led to adult-initiated learning with a subsequent larger increase during the observations of child-led and real context learning. The children who scored higher in the baseline

assessments demonstrated high or extremely high levels of wellbeing and involvement across the 3 observations. Pupils were assessed throughout the duration of the unit using the *CfE Benchmark: Identifies all coins to at least £1. Applies number skills and uses at least the 1p, 2p, 5p and 10p coins to pay for items costing up to at least 20p.* Pupils I and J achieved these outcomes and confidently applied their skills and knowledge within play and real-life contexts. Money can be a tricky area of learning for many children, and this is reflected in the low wellbeing and involvement scores for Pupil L. Lots of further opportunities to use money in play and real-life contexts will support confidence and progress in this area. Ephgrave (2017) states that children want to learn in their own unique way and through contexts that interest them. The high level of involvement and wellbeing observed during child-led learning for Pupil K indicates that provocations such as a class café and till or a visit to a local shop will engage pupil K and progress learning.

Further Analysis

Overall, the data shows an increase in levels of wellbeing and involvement during the adult-initiated and child-initiated learning. Following the completion of the observations there was value added to over 90% of the individual wellbeing and involvement scores recorded during the initial adult-led learning (see Appendix B). Through adult-led activities we can introduce children to new ideas and provide opportunities to develop skills and knowledge however it is evident that children must then be given the opportunity to explore their own ideas, play with different resources, investigate their environment and be creative. These experiences allow children to develop a deeper understanding of the world around them.

The desire to play is innate and from the observation data it can be said that play gives meaning to learning (See Appendix A). By deciding when it was appropriate to step in or step back, the adults working with the child could move the learning on, scaffold new learning or address any misconceptions.

The final research design did now allow for a direct comparison to be made between the attainment of the groups as every child was observed during each of the 3 learning types. What the data collected did allowed for was a comparison of the wellbeing and involvement scores observed during adult-led, adult-initiated and child-initiated learning. According to Laevers (1994), high levels of both wellbeing and involvement allow children to experience deep learning. As mentioned previously pupils generally scored high or extremely high on both the wellbeing and involvement scale when observed during child-initiated play and learning.

Wider Insights

The difference in the levels of involvement and wellbeing scores across the 3 areas were not as wide as I had anticipated. For some children there was a notable difference in wellbeing and involvement levels however for over half of the children their levels of wellbeing and involvement remained the same or increased by 1 point on the scale.

Possible reasons for this may be firstly the time of year at which the data was collected and secondly the effects of the Coronavirus pandemic on our young learners. Many pupils were now at a stage in their development where they responded well to a more formal structure during some key Literacy and Numeracy sessions.

The original timeline for data collection was affected by the Coronavirus pandemic. The lockdown in January 2021 forced a significant change in the planned date for the commencement of gathering data. The focus on return in February 2021 was on the health and wellbeing of both pupils and staff. Overall, the children had a settled almost subdued return to school. The response to being back in the classroom was positive and children were keen to share what they had learned at home. In the weeks following the return play was used as a vehicle to assess learning and as a means of rebuilding relationships and reconnecting with peers after a long period away from the classroom. Play experiences provided a safe and familiar way to express emotions and work through fears and anxieties.

The pupils involved in the research were the youngest year group in primary school and have spent a large percentage of their education away from their peers and the physical school environment. These young children are incredibly resilient however towards the end of the academic year it seemed that the effects of lockdown and the pandemic in general were beginning to become evident in some pupils. Quality play was lessening, pupils were becoming less tolerant of others and becoming increasingly unsure of themselves. As well as the desire to play lessening for some children, several pupils were also demonstrating a preference for the structure and routine of adult-led and adult-directed activities. Could it be that as the pupils' self-confidence wavered the explicit expectations that adult-lead learning presents acted as a safety net? The pupils knew exactly what was being asked of them through the use of modelling, learning objectives and success criteria. Although it can be argued that rigid routines are not developmentally appropriate for early years it seemed that at this point in the academic year the children expressed a need for the consistency, routine and purpose of more formal learning. There are many complex processes happening within play and the focus is primarily on the process rather than the product or outcome of the play experience. For some, this had become overwhelming.

Limitations

The main limitations of the research were the timeframe for data collection and the number of children involved in the research. The way children feel and present themselves can change drastically from one day to the next. A 2-week period for observations and data collection was not long enough. On reflection if assessments and observations were carried out over a longer period with a focus on a smaller number of children the data gathered would give a fuller picture of each learning type and of the pupils involved. There may be other influencing factors on a child's behaviour that should be taken into consideration and observing a smaller number of focus children over a longer period would most likely allow these factors to become more evident (Howard, 2017).

Conclusion

The data gathered shows that the children demonstrated higher levels of wellbeing and involvement during child-led play and learning indicating that play is indeed an important vehicle for learning. High involvement presents itself in many ways and was observed as an openness to new experiences, flexibility, resilience, self-confidence and genuine enjoyment. Similarly high levels of wellbeing were observed as concentration, creativity, positive body language and behaviour.

Facilitating learning through child-initiated play requires a change in mindset and pedagogy for many professionals within education settings and additionally for parents who may be unaware of the benefits and positive aspects of child-led learning. This way of learning is far removed from the traditional teaching styles that many adults experienced in their schooling. This research project can be used as a starting point to promote quality play as an effective tool for learning amongst staff, parents and the wider school community. (Bryce-Clegg, 2017)

Although with its limitations, the data gathered supports the use of play as a context for meaningful learning and this research project can be used to support the next steps of our play journey. Within the curriculum context, it is important to look carefully at the children in our own unique setting and decide what is appropriate and meaningful to them (Ephgrave, 2017). Supporting children's learning and development through play involves constant reflection on practice and an ever-evolving pedagogy.

I look forward to continuing my play journey.

Appendix A: Narrative Observation Record – June 2021

Identifier	Narrative
<p>E Child-Led</p>	<p>E was investigating the provocations in the tuff tray. E was independently sharing out objects into equals groups. E shared 6 into 3 groups of 2. Represented using glass nuggets and Numicon. Teacher: How could we check? E totalled the groups then laid the 3 number shapes on top of the 6 to check. Repeated with sharing 10 into 5 groups of 2. T: How could we half this group of pencils? E shared the pencils into 2 groups of 5. T: Is this a fair share? E: Yes. T: What does fair share mean? E laid out 4 glass nuggets. E: If a boy had all of them then a girl took 2 then that's a fair share. T: Can you half these to make a fair share? Laid out a larger amount of glass nuggets. E shared the objects 1 by 1 until there were 6 in each group – That has 6 and that has 6. Both have 6.</p>
<p>C & K Child-Led</p>	<p>C built an animal hotel using construction and small world animals. The hotel had 3 levels. Teacher: Which animals are on the top floor, the middle floor and the bottom floor? C: The tigers are on the very top. The elephant is too big for the middle. The dog is small, so he fits in the bottom. K: The rabbit can even fit under the hippo! C: All the bad ones are up here (pointing to the top). The elephant is on the ground. T: Gave the pupils instructions to follow using prepositional language and ordinal numbers. C ordered the animals correctly.</p>
<p>B & F Child-Led</p>	<p>B & F built the Titanic using construction and small world. B: The Titanic started sinking and went into the water. It was a bad idea. The ship went down very fast. There was a lifeboat on top of the boat. T gave directions to move the Titanic. B followed these carefully. F: The Titanic split in half. T: What does it mean is something splits in half? F: It broke apart into 2 bits. They were the same size, and it means it was a fair share.</p>
<p>D Child-Led</p>	<p>D set up the Playmobil farm. The farmer had an empty cart. T: Could you put something inside the cart? D filled the cart with vegetables. T: What could you add to the front of the cart? D attached a man to the front of the cart. He can pull it. D points to a small road sign - This means go right or forward.</p>
<p>A Child-Led</p>	<p>A was interested in the Beebots that were hiding under the table on charge! T: What could we use to make a path for the Beebot to follow? A made a track using masking tape for the Beebot to follow. A then went on to create a maze for the Beebot using bricks. T: What do the arrows on the Beebot mean? A: To make it move. Forward and back. And left and right. T: How can we use our hands to help us remember left and right? A made an L shape with his left thumb and index finger.</p>
<p>G & H Child-Led</p>	<p>G & H were making kites at the craft table. G asked for help to draw a kite shape. Teacher modelled folding a piece of paper in half, cutting a triangle shape and opening it up to make a kite shape. G & H followed the instructions. T: I wonder why this one is missing part of the point? G: H didn't fold it properly. T: What could H do to make sure it was folded in half? G demonstrated matching the corners. T: What does half mean? H: If she has 1 and he has 1 then that's fair. It's always the same.</p>
<p>I & L Child-Led</p>	<p>I & L were taking orders for the café. T: How much will my coffee and cake cost? L: £25. T: Oh, that's a bit expensive! Let me see what I have in my purse. I was able to identify all the coins. L identified some of the coins. T: I think the coffee is 10p. What coins could I use? I: You could just give me the 10p coin...or you could give 5 and 5. T: And if my cake was 5p how much would it cost altogether? I: So, I add together the 10 and 5? That would be 15. T: 15 bananas? I: No, 15 pence!</p>
<p>J & K Real Context</p>	<p>Teacher set up a tuckshop on the last day of term. Each treat was a different price. T: What would you like to buy? You don't have enough money to buy one of everything so you will have to decide what you would like and if you have enough money. J looked at the price of the treats - I would like popcorn. T: Points at price tag and tells J that this is the price for the popcorn. J handed over the correct coin then checked how much was left. T: What else would you like? K worked out that J had enough to buy some juice, 3 strawberries and a chocolate coin.</p>

Appendix B: Scored Observations – May/June 2021

The Leuven Scale	
1-	Extremely Low
2-	Low
3-	Moderate
4-	High
5-	Extremely High

Learning:	
•	A-L: Adult-led
•	A-I: Adult-initiated
•	C-I: Child-initiated

		Wellbeing (w)			Value Added	Involvement			Value Added
		A-L	A-I	C-L		A-L	A-I	C-I	
Identifier	A	3	3	5	++	3	2	5	+++
	B	4	4	5	+	4	4	5	+
	C	3	3	4	+	2	3	4	++
	D	3	4	4	+	4	4	5	+
	E	4	4	5	+	4	5	5	+
	F	3	3	4	+	4	5	5	+
	G	4	4	4	*	4	4	5	+
	H	3	3	4	+	4	4	4	*
	I	4	4	5	+	4	5	5	+
	J	4	4	5	+	4	4	5	+
	K	2	2	3	+	2	2	3	+
	L	2	3	4	++	2	3	5	+++
	Average	3.25	3.42	4.33		3.42	3.75	4.66	

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