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M.Ed (Research in Practice)  
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**Investigating the Introduction of Aistear into the Fourth Class Curriculum**

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*A Research Dissertation submitted to the Froebel Department of Primary and Early Childhood Education, Maynooth University, in fulfillment of the requirements for the degree of Master of Education (Research in Practice)*

*Date: 24/09/2021*

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## **Declaration**

I certify that this research, submitted for the degree of Master of Education, Maynooth University, is entirely my own work, has not been taken from the work of others and has not been submitted in any other university. The work of others, to an extent, has been cited and acknowledged within the text of my work.

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Date: 24/09/21

## Abstract

This Action Research project follows and documents the outcomes that arose before, during, and after implementing an 'Aistear' scheme of work in a Fourth Class classroom. The 'Aistear' sessions were carried out with pupils from a Fourth Class in Dublin. The study sets out to answer the following research questions;

- 1. What advantage would Aistear have on children in the Senior Cycle on their imagination and capacity for independent learning?*
- 2. Would Aistear help further the pupils' understanding of curriculum concepts and skills and thereby enhance their learning and attitudes towards their learning?*

Data was collected after each play session and reflected upon in order to make adaptations to future sessions and planning. A variety of data was collected, including pupil's brainstorm, teacher observations (recorded in a reflection diary), pupil's learning logs, and a pre-study and post-study questionnaire. Once all the data had been gathered from the play sessions, it was analysed. I drew some preliminary conclusions about the challenges and benefits of including Aistear in a Fourth Class classroom. The final chapter of this research project consists of a number of insights that I gained from carrying out this study. These insights may inform any teacher who wishes to introduce or re-introduce Aistear in their classrooms in the Primary Senior Cycle.

### **Acknowledgements**

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## **Acronyms**

**DES** The Department of Education and Skills

**NCCA** The National Council for Curriculum and Assessment

**INTO** The Irish National Teacher's Organisation

**NIPT** The National Induction Programme for Teachers

**PAR** Participatory Action Research

**CPD** Continual Professional Development

**E.S.A.I.** The Education Studies Association of Ireland

## **Chapter One: Introduction**

### **1.1 Introduction**

In this chapter, I will outline the background and the aim of the study. I will identify my research questions. These will help to focus my analysis throughout the investigation. The chapter will explore the potential contribution of the study by looking at how it could contribute to my practice, my workplace, and the broader education community.

I will also look at my values, explaining how they were identified through reflective practice. At the end of the chapter, I will outline the structure of the remaining chapters within this Action Research project.

### **1.2 Aim of the Study**

This Action Research study aims to explore the benefits of using play as a pedagogy by introducing Aistear into a Fourth Class classroom. By carrying out this research, I aim to investigate whether the introduction of Aistear into the Fourth Class curriculum will help foster children's attitudes towards independent thinking and also reduce the tendency for children to worry about making a mistake when solving problems.

### **1.3 Research Questions**

As McNiff (2002) states, Action Research inquiries begin with the question, 'How do I improve my work?' I started by reflecting on what I wanted to do to enrich my teaching practice. Having decided on the topic I wished to explore, I identified the following research questions to address and answer:

1. What advantage would Aistear have on children's imagination and capacity for independent learning in the Senior Cycle?

2. Would Aistear help further the pupils' understanding of concepts and skills from the Fourth Class curriculum?
3. Can the methodology of play enhance children's learning and attitudes towards their education in the Senior Cycle?

#### **1.4 Background of the Study**

The study was carried out over the course of three time periods: a six-week block, a four-week block, and a stand-alone brainstorm session, all with the same class grouping. The school was a single grade, a co-educational, suburban national school in Dublin, and the pupils were from a middle-class socio-economic background.

To carry out the research and investigate my theory, I worked directly with my class, a Fourth Class consisting of 26 pupils between the ages of nine and eleven. I initially divided the study into two cycles as outlined below and added a third and fourth cycle due to personal reflections throughout the study.

Cycle One focused on gathering pupil's attitudes towards their learning; Cycle Two focused on scaffolding imagination; Cycle Three and Cycle Four focused on play as a pedagogy through the introduction of Aistear sessions.

The study followed an Action Research process involving the following stages, in which I as the author:

1. Identified a topic that I wanted to research further;
2. Focused on how I could test out this topic in the context of the primary school I work in;
3. Gathered prior knowledge on the subject through research on current literature;
4. Formulated a teaching plan based on reflections of my values and practice;
5. Scaffolded the pupil's imagination through online teaching lessons;
6. Carried out a pre-play questionnaire to gather pupil's opinions;

7. Designed an initial Aistear scheme aimed at children in 4th class;
8. Collected data from Aistear sessions in a variety of ways, including samples of children's work, a reflective diary, pupil's learning logs and an additional post-play questionnaire to help plan the remaining Aistear sessions;
9. Made adjustments as to how I wanted to collect the data in Cycle 4;
10. Analysed the data to produce findings and make a claim to new knowledge.

## **1.5 Contextualisation and Potential Contribution of the Study**

### ***1.5.1 Personal Background***

I, the researcher, grew up in suburban Dublin, where I completed my primary, secondary and third-level education. I have always had a keen interest in education, specifically around enhancing the learning experience for pupils. I particularly enjoyed learning about integration and teaching methodologies. I graduated with a Bachelor of Education in December 2017. Since then, I have taught in two schools, each with a different ethos, a multi-denominational school and a Church of Ireland school. I taught a First Class (6-8year olds) in my first year of teaching and have been teaching Fourth Class since (2018-2021). I believe it is a teacher's responsibility to seek opportunities to aid their personal and professional development throughout their career, expand their knowledge, and promote lifelong learning of new ideas and practices. I wanted to carry out the M.Ed. research course to enhance my practice while learning new knowledge about teaching.

### ***1.5.2 The Rationale for My Research***

There were several reasons why I chose to investigate the benefits of introducing Aistear into a Senior Cycle class. I wanted to examine the effects of using play as a pedagogy on pupils' attitudes towards independent thinking while learning curriculum skills and concepts. Before undertaking this post-graduate study, I reflected on my career as a primary school teacher. I

considered the age groups and specific class groupings which I taught. I specifically noticed a difference between the pupil's mindsets towards their work in the varying age groups. I observed how the older the child was, the stronger their fear of getting something wrong or comparing their work to other pupils; I noted that the younger the child, the more positive their approach was when undertaking a new challenge. Currently, there is a considerable emphasis on educational achievement which can put pressure on children as they move through the Primary Cycle. Huge gaps between the pupils can be created and therefore increasing the pressure to achieve 'high marks.' I felt inspired to question this.

### ***1.5.3 Potential Contribution to my Practice***

The profession of teaching is constantly evolving. While teaching remotely due to Covid-19, I learned to adapt my teaching methods to the various online platforms. During this period of remote teaching, I began to dislike my job and felt burnt out. I felt the pupils were worn out using textbooks, although it pleased the parents as it kept their children occupied. I began valuing the parent's needs over the pupils because I mainly communicated with the parents. Through self-reflection, I realised I was not staying true to my values. I was a living contradiction. (Whitehead, 2011)

Taking part in a Masters that is action research-based enabled me to plan lessons and activities which I could lead and implement in my school, both in my classroom and with the whole school community. It allowed me to reflect and assess my current practice and see how I can improve and build on it to provide my students with the best educational environment. By carrying out this study, I hope to benefit my future practice by further developing my knowledge of how children learn and create an enjoyable and stimulating learning environment for all the pupils in my care. I hope my research helps to improve my practice by looking deeply at what I value and how I live my values while I am teaching.

#### ***1.5.4 Potential Contribution to my Workplace***

I am very fortunate to be working in a school with like-minded professionals who are open to new ideas and initiatives. The management team also continually encourages and supports staff members to develop and enhance their teaching skills professionally. I hope my findings can motivate and guide the other teachers in my school to explore learning through play and Aistear in their classrooms.

#### ***1.5.5 Potential Contribution to my Wider Workplace***

Sir Ken Robinson argued that 'education is meant to take us into the future,' but continued to explain that 'we have no idea what the future holds although we are meant to be educating pupils for it.' (Robinson, 2006) Thus, we need to ensure that the curriculum can continue to provide children with relevant and engaging experiences as we look to the third decade and beyond in the twenty-first century. (N.C.C.A, 2020)

The draft primary curriculum framework (2020) acknowledges how society has changed and continues to change.' As a result, they are developing a new curriculum framework to be implemented in Irish primary schools.

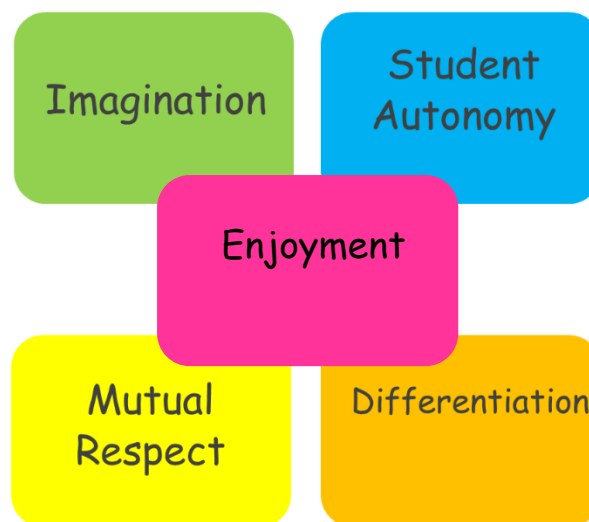
I wish to share my research findings with the wider educational community in Ireland through the education associations (Féilte, E.S.A.I. conferences, and the I.N.T.O Teachers' Journal) to encourage other professionals to further research the topic of play and Aistear in senior classrooms. By sharing my contribution with other educational professionals, I hope it could help move primary education away from rote learning and instead look at pupils' skills and knowledge for their future.

## 1.5 My Values

McNiff argues that Action Research begins with values. She describes how a self-reflective practitioner needs to know what drives your life and work to be clear about what you are doing and why you are doing it. McNiff (2002)

Identifying my values in August 2020, at the beginning of the Masters, helped shape my Action Research plan. I determined what was important to me about teaching and why I was passionate about the profession.

Through personal reflection on daily lessons, interactions with my students, and discussions with my critical friend, I was able to identify that imagination, student autonomy, mutual respect, and differentiation were the most important values to my teaching philosophy. I recognised that when I linked these four values with pupil enjoyment, the outcomes of my lessons had a more significant impact on the pupils learning.



**Figure 1: My Five Teaching Values**

I looked at how I live my values in my classroom. I recognised how adapting my teaching styles to meet the needs of each of my students through the means of integration, thematic



approaches, visuals, and kinaesthetic tasks helps to achieve my goal of the use of differentiation in my classroom.

I regard the value of mutual respect highly within my teaching philosophy. When I was in primary school, I often questioned why we were learning something, and I often got the response *'because it's on the curriculum or you have to.'* As a child, I struggled to see the value or purpose of what I was learning. My honesty was essential during the ethical considerations of the study when the pupils were giving their assent. I felt the class needed to know and understand the purpose of the study.

My third value is student autonomy; Froebel believed each child should be respected and understood as unique (Smedley & Hoskins, 2020). I think fostering individuality is crucial for children to feel comfortable expressing themselves. I believe it is essential for pupils to learn that they have the freedom to express themselves and choose how to show their responses where possible. Froebel also strongly believes in the importance of freedom with guidance.

To foster pupil's imaginations in school, I want children to be inspired to follow their interests, passions, and creative paths instead of focusing on how others do things and sticking to a format. Furthermore, I try to link all four with creating an enjoyable learning experience for the class.

### **1.7 Limitations of the Study**

During this study, I came across several inhibiting factors; there was a three-month school closure due to Coronavirus (SARS-CoV-2), resulting in a shorter time frame to complete the study within a classroom setting. Cycle 2 was carried out on the platform Zoom, but I did not feel it was possible to carry out the rest of the Action Research cycles using an online platform.

The small scale of the study, with the use of one specific age group and one class grouping, limited the final data collected. I will discuss these limitations in more detail later in the research project.

### **1.8 Structure of the Chapters**

The study is organised into five different chapters. Chapter two looks at the literature related to learning through play, explores the literature-based around Aistear in Irish primary schools and examines child development. Chapter three explains the research methods used to conduct this study and how I collected the data. Chapter four focuses on and provides an in-depth discussion of the results. Chapter five concludes the research project with reflections on the results gathered and discusses the findings that will inform practice, my claim to knowledge, and some final thoughts.

### **1.9 Conclusion**

To conclude chapter one, I am optimistic and encouraged that this Action Research study will further develop my teaching approaches, specifically my methodologies and overall teaching philosophy. I hope the study will help to encourage other teachers to introduce Aistear into their senior-cycle classrooms.

## **Chapter Two: Literature Review**

### **2.1 Introduction**

This chapter aims to explore the literature around play by looking at the success of learning through play in school. I will examine the difference between play and Aistear, and I will look at the research to consider how play can promote creativity. The chapter will include literature discussing Froebel's attitudes and beliefs towards play. The enquiry will also review the stages of child development and consider the reasons against extending play to this level (in the Senior Cycle, specifically Fourth Class).

### **2.2 The Success of Aistear and Play**

#### ***2.2.1 Definitions of Play. What is play?***

Educators and philosophers have different views on the definition of play. Montessori saw play as the 'work' of the child that leads children towards independence (Montessori, 1992). In contrast, in the book *'Early Childhood Education Becoming a Professional'* Gordon Biddle et al. (2014) stated that play is often interpreted as the opposite of work, something that is done on the weekends, during vacations, or with children. Brennan (2004) views play as a means of meaning-making and problem-solving and a way of scaffolding children's efforts to make friends, learn and identify with their community. For Froebel (1896), play is at the heart of childhood and has the power to satisfy the child and determine the kind of person the child will be. (Hoskins and Smedley, 2019) I believe play can be defined as a way of 'doing things in an enjoyable way.'

#### ***2.2.2 How Successful is Play?***

The idea that young children learn through play is widely accepted in both the education field and scientific literature. (Lehrer et al., 2014) To highlight the benefit of play, Wood and Bennett (1997) talk about how it is natural and that it allows children to be themselves. They

continue by explaining that 'children cannot fail as there are no rights and wrongs when they are playing.' This helps to provide children with the freedom to investigate and allow opportunities to learn because their 'learning will occur spontaneously, even if an adult is not present.'

It is commonly believed that humans have different learning styles. I think play provides an excellent opportunity for teachers to integrate various learning styles all at once. For that reason, incorporating a play-based pedagogy in the classroom (Walsh et al. 2006) found that it provided children with better learning experiences than the formal curriculum. (As quoted in Fallon, 2015) Further literature suggests that teachers must exhibit a variety of teaching styles in their classrooms that include aspects of direct, mediated, and non-direct instruction within the context of appropriate practice. (Bredekamp and Rosegrant, 1995 as quoted in Ranz-Smith, 2007) When a teacher appeals to a child's learning style, it makes it easier for them to understand and achieve the tasks success criteria. Wood and Bennett (1997) believe that if children find an activity fun, they are motivated, and it helps to enhance the quality of what they learn. They believe play is enjoyable; it enhances engagement and motivation. Through this practise, imitation and repetition, they continue to state that children achieve a mastery of tools, games, and materials while exercising control of their actions and interactions. This method of teaching leads children to form independence and ownership of the activity and of their learning. Furthermore, their study found that an 'accurate match' between a child and an activity can be more easily determined through play. A child tends to choose what is 'developmentally appropriate' for them helping to provide an around all development. (Wood and Bennett, 1997) Kushner (2012) identifies that children generate their learning through play.

As well as educational success literature indicates there is a benefit towards children's behaviour. The results for school behaviour point to a relationship between free choice; play

with parents; and time spent in active physical play, music/singing play, and watching others play; and children's overall behaviour or adaptation to school and a study indicated that children who spent more time watching others play had higher adaptive skills (Lehrer et al., 2014)

There is a wide range of literature about the success of play although, the focus is mainly on the ages from birth up to children in their early years (4-6years). Still, The Canadian Association for Young Children (2001) stresses that play is "essential in promoting children's healthy growth, development, and learning" and that children between 6 and 12 years need time, play partners, and appropriate materials and environments for "quality play" in "home, community, school, and recreational settings." (Kagan & Tarrant, 2010; Pianta, Cox, & Snow, 2007). As quoted in (Lehrer et al 2014)

The literature clearly provides examples of how play is successful in schools, but Ranz-Smith (2007) states that within the contexts of our schools, we still seem to be experiencing a disregard for the child's perspective and need for play, and why is that?

### **2.3 Differentiate Between Aistear and Play. – the Relationship Between Them.**

Aistear, which is translated into English as 'journey or trip, or outing', is an initiative of a government agency. This teaching method aims to help every child to grow and develop as a competent and confident learner. It is important to note that Aistear is not an extra subject, but rather it builds on and enriches the Primary School Curriculum and supports its principles. (INTO CPD course, 2021) The Aistear curriculum framework for children is aimed at children from birth to six years in Ireland (NCCA 2009, p. 6). The framework has four emerging themes: well-being, identity and belonging, communicating and exploring and thinking. The themes aim to bridge the developmental and subject domains to move towards a more integrated approach to learning. This integrated method aligns with how children

learn and develop and supports the current 'spiral' curriculum. Within Aistear, children are helped to grow and develop socially, physically, creatively, cognitively and linguistically. (French, 2013) As recommended in Aistear, play is child-led rather than teacher-led – children decide how and what to play in the play areas. This play is indirectly shaped and influenced by the resources made available by the teacher. (INTO CPD course, 2021)

Play is a methodology, and Aistear is a framework to help us in planning for play. Any subject can be taught through play. Play is not a subject area. Play is a pedagogy, a way of teaching, developing, extending and embedding curriculum objectives (INTO CPD course, 2021). Play is a context and an opportunity for the children to transfer and utilize knowledge and skills from a formal lesson into a playful experience, thus allowing for curriculum integration and linkage.

There is limited literature to back up the success specifically of Aistear in schools in the Republic of Ireland but based on research and evidence currently available from classrooms, Aistear is a guide for teachers on key elements of effective teaching and learning. Using Aistear is about working in a particular way with children and their parents. It is about 'sharing the lead in learning' with children. In this way, Aistear is not something we should do for just an hour a day and should not be confined to the hour of play. It is about teaching in a particular way throughout the day and week in the infant classroom. Aistear's purpose is to develop the child as a confident and competent learner. (I.N.T.O, 2021)

## **2.4 Play Promotes Creativity**

Obtaining good evidence about the effects of childhood play on creativity is not easy to collect due to its subjectivity. Still, the increasing research in this area suggests that some types of play do boost creativity. (Bateson and Martin, 2013)

One of the recurring themes from the available literature is that play can foster creativity and children's imagination. A previous study by Nina Lieberman (1977) found that the more playful children were, the more creative. While Kushner (2012) argues that play is child-invented and original, school has institution values that are conventional and predictable. Stuart Brown (2009) discusses how play stimulates the imagination and invigorates the soul, making life meaningful, fulfilling and worthwhile.

Creativity, we believe, can be fostered by some aspects of play, particularly playful play. (Bateson and Martin, 2013) playfulness can be defined as a state in which the child exhibits spontaneity, manifest joy and a sense of humour. (Lieberman, 1977) Playfulness can enhance children's motivation so that they remain interested in a task, rather than getting frustrated and giving up. (Bateson and Martin, 2013) If students are encouraged to think for themselves, they will become more independent and confident in their daily lives. Therefore, children should be given opportunities to identify problems, consider solutions and distance themselves from seeking absolute right or wrong answers to problems. In this way, pupils will acquire the skills set for life in the 'real world.' By promoting creativity, critical thinking, and imagination, can provide a variety of skilled independent thinkers for the Irish workforce.

Bateson and Martin (2013) found in their research for their book *'Play, Playfulness, Creativity and Innovation'* that children who had played with objects were more motivated and were less frustrated by failure. This evidence suggests that playing can improve aspects of children's problem-solving and motivation, at least in the short term. Through play and games, children can learn who they are and what they are capable of doing. Children look towards teachers and parents for encouragement and guidance, but children are becoming less able to think independently and depend on adults. This was evident during the Covid-19

lockdown this year, with many parents expressing their struggle to occupy children and keep them off screens.

It has been found that scores for creative thought have declined in recent years as measured by the Torrance test (Kim, 2011). The loss of time for playing is likely to have contributed to the observed decline in creative thought. (Bateson and Martin, 2013)

A family attitude that is in line with teachers and schools aiming to achieve, a type of learning environment in which children can explore and learn at their own pace, one which is ‘child-centred, developmentally-appropriate and even ‘fun!’ (Department of Education and Science, 1995). An environment like this encourages pupils to take risks with new and unfamiliar ideas. Providing a different type of childhood is likely to lead to another kind of adult. (Bateson and Martin, 2013)

Play was at the heart of Froebel’s educational philosophy. He saw that it made significant contributions to the development and learning in many domains – including the physical, social, emotional and intellectual. Like Piaget (1951), Froebel proposed that play gives rise to symbolic experiences which are essential in the development of imagination and creativity: it provides a forum for the development of flexible and abstract thinking, in which they can work out their relationships with other children and with their adult caregivers. (Bruce et al., 2019)

## **2.5 What are the Shortcomings and Weaknesses?**

There is a variety of evidence to back up the success of play to educate children, but it is evident that there are still weaknesses with how play is implemented in schools. These shortcomings could be the barriers preventing play from being continued up throughout the school.



Play is susceptible to criticism because teachers and other educators have to provide evidence of the learning and attainment of children, which can then be recorded and reported to parents and professionals. This causes a problem because play is notoriously difficult to evaluate due to its spontaneous and unpredictable nature. (Wood and Bennett, 1997) It is difficult to plan how and which learning objectives are achieved because sometimes children do not play in the ways the teachers intend or anticipate. This was found to be particularly evident in role play. (Wood and Bennett, 1997) Fallon (2015) also backs this up by stating that planning for play and learning was seen to be problematic because of its exploratory, open-ended nature. For this reason, teachers may be reluctant to incorporate play into their lessons in senior classes, where parents tend to focus on tests scores when evaluating their children's progress.

Instead, Wood and Bennett (1997) found that teachers often used play as a time-filler, and because of this, it lacked both purpose and challenge for children. They concluded that from the way play activities were carried out; they tended not to provide learning experiences of acceptable quality. They described the use of play as being 'limited and limiting'. While also, children's ownership of play was seen as paramount to the point where the teachers did not want to risk interfering with the children's intentions, considering child-initiation as a defining characteristic of play. (Fallon, 2015) This reluctance of getting involved in the play and failure to value purposeful play could be down to the teachers training. McMullen (1999) found that lack of proper training was one of the critical factors enabling teachers to implement play in their classrooms.

Another weakness in the play pedagogy is the use of adults or teachers in the classroom. Historically schools in Ireland struggle with the pupil-teacher ratio. Due to a lack of funding and shortage of qualified teachers, it is not always possible to have the necessary resources to carry out an entire successful play session. This issue can impact the way play benefits a child's learning during a session. Wood and Bennett (2017) found that the play sometimes

broke down where an adult was unavailable, making children frustrated and de-motivated.

As well as a lack of funding, teachers argue about the demanding curriculum. This means that children do not have time to develop long play sequences and lack the support of 'a more knowledgeable other' to assist with problem-solving or skills tutoring. (Wood and Bennett, 1997)

## **2.6 Free-play Versus Directed Play**

Many definitions of play can be found in official documents from the DES. It is thought that there are many different forms of play. The forms of play can be sorted into active, adventurous, communicative, enjoyable, involved, meaningful, sociable, interactive, symbolic, therapeutic and voluntary play. (D.E.S, 1999) Children can enjoy a variety of play both individually and with other children, helping to nurture and stimulate a child's well-being, identity, a sense of belonging, communication skills, and ability to explore. It is important that children experience a variety of types of play to support their learning and development. (D.E.S, 1999)

Guided play is adult initiated, but once started, the teacher follows the child's lead with the adult fulfilling the kind of roles envisaged. (Walsh et al., 2010) There is an acceptance that learning through play is not a given and that some support structures are needed to make learning through play more likely (Wood, 2013). In today's educational landscape, we find there is less understanding of, and indeed less trust for, the child-initiated play that spawns deeper meanings and conceptual interpretations (Ranz-Smith, 2007). Teachers are concerned about the quality of teaching and learning and creating a continuum between child-initiated and teacher-directed activities. Liz Wood and Neville Bennett (1997) found it was not the intention to control or direct play or to make it more 'work-like, but it was evident that play did not always provide the conditions for learning, particularly for the youngest children in school.

Guided play is developed because children learn best and achieve better academic outcomes through playful methods that the teacher has scaffolded. (Skolnick Weisberg et al, 2013) the adult scaffolds the learning objectives, but the play itself is characterised as child-directed. (Fallon, 2015)

In comparison to guided play, during free play, approaches are used that allow children to choose their objects and partners of play freely. It is often understood as the opposite of receiving guidance from adults. (Hjelmér, 2020) According to MacNaughton (2006), children simply play with what they find pleasurable, which is what they understand as “normal.”

## **2.7 Advocate for Play, Froebel-learning Through Play.**

Friedrich Froebel wrote poetically about the plays of childhood calling them, ‘the germinal leaves of all later life’ (Froebel, 2001c: as quoted in Brehony, 2013). He is considered an ‘apostle of play.’ Froebel articulates strong support for play as crucial in young children’s development, and he declared that ‘play is the highest stage of the child’s development at this time; for it is freely active representation of the inner . . . It produces, therefore, joy, freedom, satisfaction, repose within and without’ (Froebel, 1885: 30 as quoted in Bruce et al., 2019)

Froebel wanted to liberate children from rote learning and acknowledge and respect children’s ideas as valuable in their own right (Liebschner, 1991 as quoted in Hoskins and Smedley, 2019). The whole child was the focus, and all learning aspects were linked through first-hand experiences and play. Froebel believed children’s self-directed play was an expression of their imagination, creativity and understanding of the world around them. Symbolic activities, such as art, language, music and dance, all nourish the child’s inner life and provide a means to transform and express understanding (Bruce, 2012).

## **2.8 The Stages of Child Development**

### **2.8.1 *Cognitive Development***

Cognitive development refers to mental development, which includes intelligence and perception, recognition, recall and interpretation of information, and all forms of reasoning. (Marwaha et al., 2017).

Cognitive development in early childhood is crucial: it has been considered the most critical development period during a person's lifespan. It influences adaptation skills and predicts academic performance and educational attainment (González et al., 2018).

Natural cognitive development typically progresses in stages. The most well-known example of such stage-wise development comes from Piaget, who described four significant stages of cognitive development (Morse and Cangelosi, 2016). The four stages: The sensorimotor stage (from birth up to 18–24 months), the preoperational stage (18–24 months to age 7), the concrete operational stage (age 7–11), and the fourth stage, formal operational stage (age 11+). The transition between stages varies with each individual; depending on environmental factors, the order of these stages remains rigidly fixed. (Morse and Cangelosi, 2016).

Current research has demonstrated that play supports cognitive development, physical growth, emotional understanding, and early learning (Bundy et al., 2009; Lockhart, 2010; Samuelsson and Carlsson, 2008; Siraj-Blatchford et al., 2002; Walsh et al., 2011, as quoted in Bruce et al., 2019) For example physical play has been associated with areas of brain development (the frontal lobes), that are responsible for behavioural and cognitive control. (Hirsh-Pasek, K & Michnick Golinkoff, R. 2008)

Piaget believed that cognitive development is a continuous process, and all children, even in different environmental contexts and cultural diversity around the world, have the same

sequence of cognitive development (Hockenbury & Hockenbury, 2011). Although Piaget proposed that all children, without exception, go through the four different types of cognitive development (Bernstein et al., 2008-as quoted in Education Quarterly Reviews), recent literature demonstrated that not all adolescents approach the formal operational stage (Martin et al., 2010. Education Quarterly Reviews). Since in some societies, the educational process does not focus on critical thinking, which is essential to reach a formal operational stage (Cole, 1990. Education Quarterly Reviews), cultural influence has been considered an important aspect of cognitive development (Martin et al., 2010. Education Quarterly Reviews) emerging cognitive stages differ among societies; it is possible in one society for children to achieve the formal operational stage and in other communities, children remain in the concrete operational stage (Byrnes, 1988). (Education Quarterly Reviews)

### **2.8.2 Social Development**

Hoskins and Smedley (2019) discuss how developing social skills through play was important for providing children with free play. While Wood and Bennet (1997) state that children need to play to learn about themselves, their culture, roles and relationships. The Early Child Curriculum Framework (2009) consider how children love to play, and play often mirrors what is important in their lives. When asked about play, children talk about having fun, being with friends, choosing activities themselves, and being outdoors. (N.C.C.A, 2009) When children engage in pretend (or dramatic) play, they are actively experimenting with the social and emotional roles of life. Through cooperative play, they learn how to take turns, share responsibility, and creatively problem-solve. When children pretend to be different characters, they experience "walking in someone else's shoes," which helps teach them the important moral development skill of empathy. (Scholastic Parents, 2021) Improve relationships and your connection to others. Sharing laughter and fun can foster empathy, compassion, trust, and intimacy with others. Play does not have to be a specific activity; it

can also be a state of mind. Developing a playful nature can help you loosen up in stressful situations, break the ice with strangers, make new friends, and form new business relationships. (I.N.T.O CPD course, 2021)

Rather than having one teacher, the children can have up to (and sometimes more than) thirty peer teachers as they learn from each other through play. (I.N.T.O CPD course, 2021)

## **2.9 Reasons Put Forward Against Extending Play to This Level.**

### **2.9.1 *Curriculum Demands***

The Department of Education and Sciences (1995) explains the term "curriculum" as encompassing the content, structure and processes of teaching and learning, which the school provides in accordance with its educational objectives and values. Ireland's current primary school curriculum is based on a spiral model, building on previous years' skills and concepts in each subject taught. (NCCA, 2016)

Primary education is founded on the belief that high-quality education enables children to realise their potential as individuals and live their lives to the fullest capacity appropriate to their particular stage of development. The Irish Governments' curriculum documents contradict each other by advocating for a 'child-centred' educational environment in primary school. As pupils move through classes, teachers are encouraged to predominantly teach by a subject-based curriculum structure. (NCCA, 2016)

Research findings indicate that students' amount of time in organised learning activities critically influences their academic performance and overall development. (D.E.S, 1995)

To reduce these demands, the NCCA currently is working on redeveloping the current curriculum; they released a draft framework in 2020 which presented five broad curriculum

areas for four stages in primary schools. In the new document, they explained their aim of building on the curriculum areas of stages 1 (infants) and 2 (1<sup>st</sup> and 2<sup>nd</sup>) and continuing to provide opportunities for playful and inquiry-based teaching and learning in stages 3 and 4. (N.C.C.A, 2020)

### ***2.9.2 Resistance From Teachers***

One of the reasons learning through play stops after infant classes are due to teacher resistance. Some of the tension that arises amongst opinions and beliefs about the role of play in the classroom is found in the contrasting ideas of the traditional (didactic, teacher-initiated) and progressive (responsive, child-initiated) points of view. (Ranz-Smith, 2007)

The principles of the primary curriculum emphasise child-centred learning through project work, guided discovery activities and group teaching, but within the curricular framework, schools and teachers are responsible and have the freedom to choose their methods that are best suited to a particular subject the individual classes. Teachers exercise their professional freedom in choosing effective teaching methods (Department of Education and Science, 1995). Still, the demands of the current curriculum and the increasing amount of paperwork expected from teachers can affect how teachers decide to implement these methods, choosing how to deliver curriculum content based on their energy levels instead of their best practice. While teachers still cover the curriculum objectives efficiently, their inability to achieve the principles of the primary curriculum due to stress and burnout can go against the Education Act (1998) that states that teachers are to promote best practices in teaching methods with regard to the diverse needs of students and the development of the skills and competences of teachers; (Government of Ireland, Education Act, 1998)

A truly educational learning environment is oriented primarily to the needs of the students. It seeks to promote collaborative learning practices and ensuring that competitive impulses

remain healthy. In such a learning environment, teachers characteristically seek to uncover students' real potentials and acknowledge the manifest plurality of the human condition. To do this 'correctly,' teachers can often feel overwhelmed and stretched mentally. Learning through play uses a model to integrate the curriculum subjects and allow a variety of pupils' learning styles. Teachers often perceive that this teaching method involves more work, planning, and becoming imaginative authors of their work (Coolahan, J. et al., 2017).

The high-quality learning environments of Finnish schools are yielded by a 'less is more' rationale where the school timetable is concerned. (Sahlberg 2011, Ch.2 as cited in Coolahan, J. et al 2017) Their timetables allocate teachers' time with better refinement and judgement than in most other countries. Research in Ireland shows that practitioners' awareness, knowledge, and skills enable schools to take ownership of their professional work and grow as professional learning communities. Irish teachers' number of teaching hours per year in primary schools is higher than in secondary schools are significantly longer than the OECD (Organisation for Economic Co-operation and Development) average, at 915 hours per year at the primary level. (Coolahan, J. et al. 2017) Letting teachers have a proportional reduction in their teaching time enables increases in time for collaborative planning, reviewing and evaluating activities. This should both motivate and prevent teachers from 'burning out' while balancing the demands of the variety in workload.

### ***2.9.3 Limited Space, Time and Resources for Play***

Fallon (2015) found that class size, noise level, problems with resources, the structure of the school timetable, and the limitations of their environments, both indoors and outdoors, can stop play in the classroom. Due to this, organisation is the key to using play as a methodology. Time spent getting organized and getting children familiar with the system is time well spent. (INTO CPD course, 2021)



## **2.10 Conclusion**

To conclude this chapter, the place of play in schooling and education is still controversial. Play is sometimes viewed as sinful, whereas work, its opposite, is seen as virtuous (Brehony, 2013). However, there is a substantial amount of research to back up that teaching pupils in the senior classroom through play can provide opportunities for children to make sense of the world around them by having a freer and more flexible educational experience. Learning through play allows pupils opportunities to explore, design and create without feeling they will be wrong. This contrasts with the structured way pupils in senior classes are taught through subject-specific lessons to cover the ‘demanding’ curriculum and prepare pupils for exam-focused schooling in the second level. Comparing the role of play in the lives of young children and older adults clearly shows that play can provide a natural avenue toward improving cognitive, social, physical and emotional well-being for all ages. (D.E.S, 1999) As well as developing pupil’s creativity and imagination.

Due to school limitations, including the curriculum, classroom space, resources available, and teacher burnout Fallon, (2015) suggests that change by individual teachers will not be sustainable unless a change is integrated throughout the whole school.

### **Chapter Three: Research Methods**

#### **3.1 Introduction**

This chapter I) will give an outline as to what Action Research is, 2) discuss how it differs from other methodologies, 3) present the chosen model of Action Research used in this study, and 4) describe the various methods of data collection that I used in my research.

Finally, I will also discuss the ethical issues that arose during my research planning, preparation, and implementation of the intervention in the classroom.

#### **3.2 Purpose of the Study**

From my reflections at the beginning of the academic year, I noticed that the pupils in my class had negative perspectives of open-ended classroom tasks and activities. This was particularly evident when the pupils were given a minimum amount of teacher guidance. This behaviour and attitude became a recurrent theme in my classroom.

I observed how the pupils in the class relied on questioning the teacher throughout lessons, and children were regularly seeking reinforcement to do the activity correctly. I reflected upon how one pupil expressed that his *'learning of new knowledge restricted his imagination'* and in turn increased his awareness and fear of getting questions *'wrong.'*

I compared this behaviour with my experience of teaching a group of children in first class; most of the pupils had a 'can-do attitude' and relished the opportunity to be challenged by new tasks. When reflecting on this realisation, I considered my ontological and epistemological views.

My ontological viewpoint is that children need to learn by doing and apply their skills in real-life contexts. I believe the Irish education system is more suited to a particular type of learner and the system remains to struggle to be fully inclusive of different learning styles. I thought

about what I could do within my practice to change how the education system is used to reach every type of learner in my classroom?

In regards to my epistemological view, I have an interpretivism stance of gaining knowledge. I understand that my research questions will not provide a specific answer that can be applied to future classes; the answer will be subjective to how and where my research occurred. Nevertheless, I hope I can use the knowledge gained from this research to help guide my future practice.

As discussed in Chapter One, at the beginning of my research, I looked deeper at my practice and searched for my values in teaching. I reflected on my teaching philosophy and how I viewed my classroom in comparison to other teachers. I concluded that although I could identify what values I hold, I was not living them in my practice on a daily basis. I believe my role as an educator is to be a facilitator to the children in my classroom. Still, I identified how instead, I was regularly teaching the pupils through didactic methods.

### **3.3 What is Action Research?**

The study falls into the category of qualitative research. Qualitative research can be defined as a method that collects open-ended, emerging data that can be used to develop a theme.

Under the umbrella of qualitative research, methods include taking place in a natural setting, using interactive and humanistic approaches, emerging data rather than prefigured data, and being fundamentally informative. (Campbell, 2014) I chose Action Research as a means of collecting qualitative data.

Brydon (2003) explains that Action Research is a way to 'bring together action and reflection, theory and practice, in participation with others.' In comparison, McNiff and Whitehead (2011) define Action Research as a form of inquiry that enables practitioners in every job and walk of life to investigate and evaluate their work.

Action Research undertaken in a school setting involves searching for solutions to everyday, real problems experienced in schools or looking for ways to improve instruction and ultimately increase student achievement. (Ferrance, 2000) It is, as Ferrance explains, a reflective process that allows for questioning and discussion as part of the inquiry. It is an activity that can be carried out collaboratively by colleagues, enabling practitioners to investigate and evaluate their work. Reports from such research show how they are trying to improve their learning and influence the wisdom of others. These reports come to stand as their practical theories of practice, from which others can learn if they wish (McNiff and Whitehead 2002).

### ***3.3.1 How Does Action Research Differ from Other Methods of Research?***

Action Research is a different type of inquiry to other traditional social science models of research, which are about producing a theory that specialists may then apply to their practice. Instead, Action Research uses continuing cycles of investigation designed to reveal effective solutions to issues and problems experienced in specific situations and localised settings (Stringer, 2014). This form of research is becoming increasingly popular worldwide as a form of professional learning, especially in education, with one of its attractions being that every practitioner can do it. It is about professionals creating new ideas about improving practice and putting those ideas forward as their theories of practice (McNiff and Whitehead 2006).

### ***3.3.2 Forms of Action Research***

There are many different forms of Action Research, including; Action Science (AS), Action Learning (AL), Appreciative Inquiry (AI), Community Based Action Research (CBAR), Living Theory, and Participatory Action Research (PAR). Each form of Action Research has a different focus (Mertler et al., 2019); it is carried out in real-world circumstances and involves close and open communication with the people involved. (McNiff, Lomax, and Whitehead, 2003) Therefore, a researcher should choose the form of Action Research

depending on the setting, participants involved, or their study's aim. By doing so, the research should have a positive influence on the human participants.

I decided to use a model based on Participatory Action Research (P.A.R), which is especially appropriate for research done by practitioners using their site as the focus of their study.

P.A.R is different from other methodologies because it is done with participants (Willis et al., 2015) to generate knowledge. It involves researchers and participants working together to understand a problematic situation and change it for the better. P.A.R. focuses on social change that promotes democracy, and it is context-specific, often targeted on the needs of a particular group; it is carried out in a cycle of research, action, and reflection; and continually seeks to 'liberate' participants to have a greater awareness of their situation to take action. (Participatory Methods, 2021)

<b>Participatory Action Research</b>			
Working together as a research team to carry out a study (Pupils, class teacher, and support staff)	The leading researcher will have to take a step back.	Conducted by teachers to solve a specific problem in their practice or classroom.	Strategy is to work in a collaborative way such that each person contributes to the whole.

**Figure 2: Explanation of Participatory Action Research**

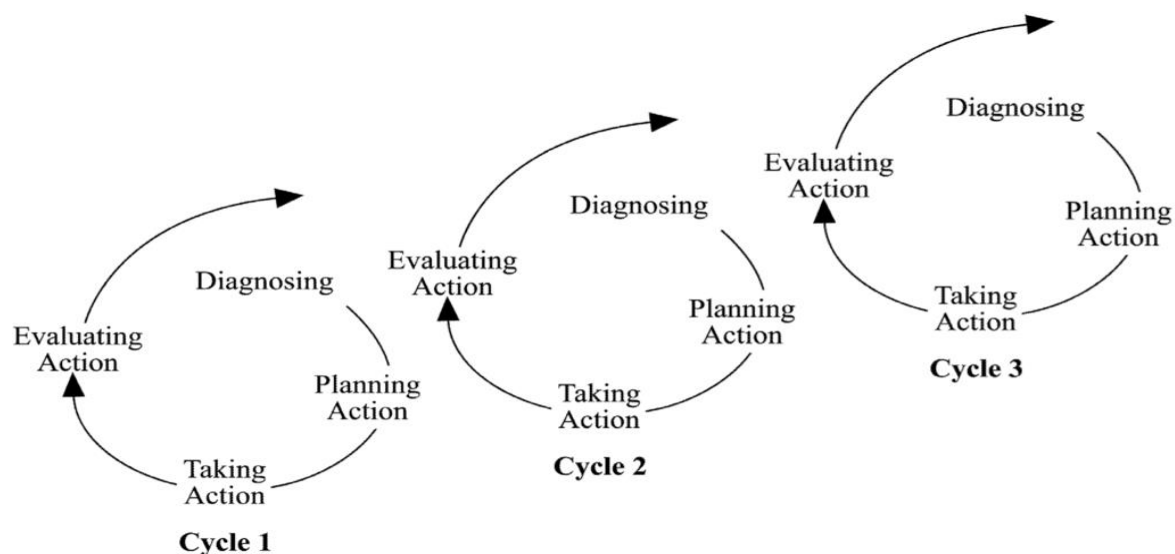
### ***3.3.3 Why I Chose Action Research***

I chose Action Research because it allows practitioners to investigate their practice as they find ways to live more fully in the direction of their educational values. (McNiff and Whitehead, 2011) P.A.R. uses a range of different methods, including both qualitative and quantitative, to collect data. I chose to use this form of Action Research to carry out my study because I believe P.A.R. aligns with my values as a teacher and a researcher; it gives the researcher and the participants a voice. The pupils can be included in understanding the purpose of the study, and they can be involved in contributing to the planning of the research

cycles. By using this method, it allowed for mutual respect between the participants and me, the researcher. I believe the pupils felt listened to as they could see their opinions and suggestions acted upon in the research cycles.

I also decided to use Action Research based on my education experience; this was my second piece of academic research; I used Action Research to carry out my first project for my undergraduate degree. Therefore, I believe I had a good grounding and understanding of carrying out an Action Research project. From my experience, I know it is a suitable method to carry out in a school setting due to its flexibility. I know that when working in a school setting, it is critical to be flexible.

The general model of Action Research is laid out clearly, meaning it is easy to follow and implement within the time constraints of the study. An Action Researcher plans their investigation timeline; this allows the researcher to make changes by introducing new cycles based on the knowledge gained from the previous cycle. This aspect was particularly important within a school setting during the current climate in a global pandemic. The figure below outlines a basic Action Research plan.



**Figure 3: Basic Action Research Plan (Coghlan, D.; Brannick, T. 2005)**

Further in the chapter, I will make a timeline of actions in accord with the model above.

### **3.4 Ethics**

Before beginning my research, I referred to the 'Master of Education (MEd): Research in Practice Student Handbook, 2020-2021. It states that 'it is imperative that the ethics and integrity of research are beyond question as the individual has a responsibility to him/herself and society.' (Wrynn, 2020)

To begin my research, I first wrote to the principal and the board of management to get their permission to carry out the study in the school and within my classroom (Appendix A). Once the consent was granted, I informed the parents and the pupils of my research. I gave an explanation and a brief outline of the timeline and the purpose of the study to the parents and the pupils (Appendix B). I felt it was essential to keep both the parents and the pupils informed at each step of the study to align with my value of mutual respect. The parents (Appendix C) and pupils (Appendix D) were given consent and assent forms to sign to partake in the inquiry. Each pupil had the right to withdrawal at any time during the study.

In line with the Maynooth University Research Integrity Policy, General Data Protection Regulations, and the New Data Protection Bill 2018 (Wrynn, 2020), the opinions, data, and assessments of pupil's work is stored privately on my laptop and is password protected. The information will be stored for a period of ten years from the date of publication. (Maynooth University Handbook, 2020; 8.5.3) Only I or the principal (on request) have access to the information stored. I informed the participants that the data collected would all be collected in a confidential manner to respect their personal views.

#### **3.4.1 SARS-coV-2**

Due to the current global pandemic from SARS-coV-2 (Covid 19), many changes have been made to how schools and classrooms are run. During the academic year (2020-2021), the

children were restricted to sitting with their pods (specific table groupings) for an entire school term and could share a minimal amount of resources during the school day. This caused difficulty for teachers who implement collaborative work regularly, limiting the amount of staff and resources available to the students.

The structure of my play sessions (including my timetable) was well thought out. I incorporated into my plan to prepare for extra hand sanitising, limiting pupil's movement around the classroom, and using and cleaning resources. The school closures from January to March 2021 altered and delayed my original research schedule. As a result, further adaption and planning went into my Action Research cycles.

The school's outdoor classroom development was an alternative to help keep the pupils and the staff safe when needed and if the weather was suitable.

### **3.4.2 *My Personal Views***

Stringer advises that while reflection on practice is an essential ingredient in any context when practitioners remain locked into their perceptions and interpretations of a situation, they fail to consider the varied world views and life experiences of the people with whom they work. (Stringer, 2014) This research study was planned based on reflections of my practice and the teaching values I hold. I firmly believe learning through a play-based pedagogy; the Aistear framework should be continued from Infants up until Sixth class. Like Froebel, I have always had a passion for play. He believed 'play was a form of expressing and exploring one's self and the world in relation to one's self at the foundation of learning.' (Bruce et al., 2019) Similarly, I regard Aistear as a way to develop and foster children's imagination and ability to think for themselves in a school setting.

During the study, it was necessary to remind myself of separating my beliefs and personal bias from the research. I understood that it was essential to carry out the play sessions and



activities as a facilitator to prevent unduly influencing the children or give any biased opinions during the study. It was imperative to separate my beliefs so I could reflect and analyse the data honestly. By getting a true reflection of the analysis, it informed and benefited my future practice.

### **3.4.3 *Participants***

As I was seeking permission and planning for this study, I did not find any sensitive issues that could arise and cause concern when working with my class.

The school where the study was based is a co-educational primary school located in a Dublin suburb. It has eight mainstream classes starting at Junior Infants up to Sixth Class. The school is owned and governed by the Church of Ireland. The school aims to enable each pupil to reach their full potential, value and respect others, and develop positive attitudes to citizenship. (D.E.S, 2009) The pupils come from mainly high socio-economic backgrounds, and the parents are strongly involved in their children's education. The pupils are encouraged to succeed to the best of their ability to continue to study up to third-level education.

The pupil's place within their families stood out as something that could have affected the study's findings. In a class of 26 children, half of the pupils are the youngest sibling in their family, with one additional pupil as an only child. I believe this could have affected how the pupils view imagination and play due to the children's maturity development.

A child's placement within their family by birth can often affect their cognitive and social development. Children with older siblings are generally exposed to more mature language, games and culture earlier than firstborn or children with siblings close to their age. Parents may form different relationships with their youngest child compared to the other children in the family. This can affect how a child develops emotionally and socially. The fact that half of the class are the youngest in their families could have been a cause for concern. I may have

needed to provide extra time to scaffold the pupils' imaginations and motivate them to play freely.

### 3.5 Classroom Intervention

#### 3.5.1 Steps Taken During Each Cycle:

<b>Cycle 1: January 2021</b>	<ul style="list-style-type: none"> <li>- Ethical permission granted.</li> <li>- Initial class discussion and brainstorm of children's thoughts about imagination and the purpose of school.</li> </ul>
<b>Cycle 2: February &amp; March 2021</b>	<ul style="list-style-type: none"> <li>- Implement imagination scaffolding activities.</li> <li>- Collect initial data from pupil's questionnaires.</li> <li>- Plot on idea generation rubric.</li> <li>- Create play-based stations based on a rubric.</li> </ul>
<b>Cycle 3: 19<sup>th</sup> - 28<sup>th</sup> April 2021</b>	<ul style="list-style-type: none"> <li>- Introduction of play sessions.</li> <li>- Three lessons a week, 1 hour per lesson.</li> <li>- Focus development of imagination and the idea of trying out without the fear of failing.</li> <li>- Each session, pupils will record in their play learning logs.</li> <li>- The teacher, on each play session, noted observations.</li> <li>- End of cycle questionnaire administered to pupils to evaluate the play sessions providing their opinions on their experience and giving suggestions towards cycle 5.</li> </ul>
<b>Cycle 4: 4<sup>th</sup> – 14<sup>th</sup> May 2021</b>	<ul style="list-style-type: none"> <li>- Children's suggestions will be recorded and reflected on.</li> <li>- Critical friend provides feedback and their reflections on play sessions.</li> <li>- The teacher reflects on play sessions and pupil's play learning logs.</li> <li>- All reflections and opinions were used to make alterations for cycle 5.</li> </ul>

**Figure 4: Outline of the Steps Taken During Each Research Cycle**

#### 3.5.2 Theme

Before I began Cycle 3, choosing an age-appropriate theme, engaging content, and a theme that allowed for planning challenging stations for Fourth Class were essential. It was vital that the theme could integrate into the Fourth Class curriculum in a variety of curricular subjects enabling freedom and flexibility to both the pupils and the teacher. I chose the theme of 'Food and the Environment' for a number of reasons. Both food and the environment are topical themes in the media around the world. The generation currently attending primary schools is exposed to extensive vocabulary and information based on climate change and sustainability due to comprehensive media coverage. After getting to know my class in the early stages of the academic year, I realised that the majority of the class had a personal

interest in the care of the environment. Reflecting on my values, I anticipated that this theme would provide opportunities for student autonomy and enjoyment through learning. I hoped the theme would give the pupils an excellent opportunity to think and explore how they can make noticeable changes to help the planet.

After gaining assent and explaining the study to the pupils in the class, one child commented how *'Aistear is for babies.'* After reflecting on the child's reaction, I knew it was necessary to link the theme with the Fourth Class curriculum and change the childish stigma around the name 'Aistear' to suit the maturity level of the pupils. In line with my teaching values, I allowed the pupils to brainstorm an alternative name. Some pupils suggested 'W.T.F?-What The Fun?,' 'T.Y.S-Teach Yourself,' 'In-Depth Learning,' and 'Learn Your Way.' Each day for the daily schedule written on the whiteboard, I chose one of the names to write up on the timetable to describe what time of the day Aistear was scheduled. I felt it was important to highlight the value of each pupil's suggestion by putting the name into practice.

### **3.5.3 Stations**

I decided to introduce five stations for the pupils to experience in each Aistear session. The pupils remained at the same station in each session (due to Covid-19 regulations) unless they used the writing station. The pupils moved to a new station at the beginning of each session. The five stations (Appendix E) included were; the Creative Station, the Water Station, the Environmentalist Station, the Socio-dramatic Station, the Sustainable Construction Station, and a permanent writing station in the classroom (further explanation of each station in figure 1, page 40).

The 'Environmentalists Station' was inspired by Froebel's idea and belief of using a garden area for children's learning. At the station, pupils were encouraged to sow seeds, tend to plants, and harvest crops, developing an awareness of the cycles of life and the changing

seasons. This illustrates Froebel's educational philosophy, which emphasises the individual at the heart of a whole loving community, and freedom tempered by responsibility (Bruce et al., 2019). When planning the stations, I referred both to the Fourth Class curriculum and with my teaching values.

Station	Purpose
<b>Creative Station (Junk art)</b>	The pupils were encouraged to use the materials at hand to create, make, and design something. Instead of sorting items into generic boxes like Infants, they had a 'recycling centre' to sort the various materials. The sections included hard plastic, soft plastic, paper, foil, and miscellaneous materials.
<b>Water Station</b>	The station included equipment to explore the water. The equipment supplied was aimed for the pupils to test the P.H. of water, investigate the quality of water and oil pollution, building dams, water conservation etc.
<b>Environmentalists Station</b>	The pupils were encouraged to use recyclable items to plant vegetables, make wildflower plant bombs, learn about soil types, harvest fruit and vegetables, and design and create miniature allotments.
<b>'The Science Laboratory' (Socio- dramatic Station)</b>	The socio-dramatic station included laboratory equipment (beakers/test tubes/microscopes/pipets/syringes). The pupils were encouraged to become scientists (with lab coats/goggles/badges) working in a laboratory and carrying out experiments (role-playing).
<b>Sustainable Construction Station (Building Blocks)</b>	The station's aim was; pupils would use large Lego blocks and regular Lego bricks to build sustainable cities, buildings, and communal public places (parks and playgrounds).
<b>Writing Table</b>	The station consisted of white and coloured paper, graph, tracing, blank data chart, blank experiment sheets, experiment results recording worksheets and miscellaneous cards, cards, colouring pens, highlighters, hole punchers, and pencils. The pupils were free to use this station at any time during any of the sessions.

**Figure 5: Explanation of the Aistear Stations**

Time	Activity
10 Minutes	<b>Pre-Play Time:</b> <ul style="list-style-type: none"> <li>Remind the children about the rules of playtime.</li> <li>Use these few minutes to talk with the children about what they will be doing and what station they will be by directing children to the play rota displayed on the wall.</li> <li>Their play learning logs, allow pupils to plan what they might do or make at their designated station.</li> <li>Model essential vocabulary is tied in with the theme/topic while facilitating a talk and discussion with the pupils about their plans.</li> <li>Set a classroom timer on the interactive whiteboard for the pupils to acknowledge playtime.</li> </ul>
20-30 Minutes	<b>Play Time:</b> <ul style="list-style-type: none"> <li>Children are now in their designated pods and can play at their stations for the duration of the play.</li> <li>The children remain in these stations for the play session duration (unless using the writing station).</li> <li>Designate a station each day that any teachers/support staff will participate in play with the children.</li> <li>Time will be used to assess and monitor the children in that group's language, social/playing skills, and knowledge based on the play theme/topic.</li> <li>The class teacher may attempt to circulate the stations and ensure that everyone is playing fairly and is involved.</li> </ul>
10 Minutes	<b>Tidy Up Time:</b> <ul style="list-style-type: none"> <li>When the classroom timer goes off, the children should stop playing.</li> <li>The children tidy up their stations quietly.</li> <li>Reward points are given to the group tidying up the quietest and for the first finished group.</li> <li>When the children have finished tidying, they must be seated at their places.</li> </ul>
10 Minutes	<b>Post Play Time:</b> <ul style="list-style-type: none"> <li>This time is used to reflect with the children on their playtime. Ask the children some key questions: what station were you in? What did you make? Who were you playing with? Was everyone playing nicely? Talk about how we could improve playtime for the next session. What do we need to improve on?</li> <li>At the end of the discussion, the children will fill in their play learning logs, reflecting on their playtime and evaluating their play.</li> </ul>

**Figure 6: Breakdown of Aistear Sessions**

### 3.6 Instruments of Data Collection

#### 3.6.1 Reflections and Observations on Whole-class Brainstorm Session.

The children were asked open-ended questions as part of a pre-study brainstorm session. I asked the pupils to give their opinions based on the purpose of school and the educational

tasks or content they learn in school. (Appendix F) The children discussed the two following questions in groups of three and four;

1. Why do we go to school?
2. What should we learn in school?

Their answers were recorded on A3 pages to represent their opinions in a means suitable to their learning style. The pupils had the choice to write, draw and orally explain their views to the two questions.

### ***3.6.2 Pupils Administered Questionnaires***

After reflecting on the observations recorded in my diary entries about the remote learning activities, I identified that my assessment methods were mainly teacher-led discussions or tasks. I did not have an objective way to test the pupil's newly acquired attitudes to their creative learning. To combat this factor, I designed a pre-Aistear-session questionnaire and a post-Aistear session questionnaire. Before administrating the play sessions in Cycle 3 (Aistear intervention), I used the pre-play questionnaire to gain an insight into the children's attitudes and abilities towards the reintroduction of play and their opinions on 'free thinking' and the role of imagination in their education. (Appendix: G).

Each questionnaire was completed through Google forms. I prepared a pre-study questionnaire composed of eight questions. The questions were completed before the commencement of the first five play sessions. After five play sessions, the children then completed another questionnaire. That questionnaire contained ten questions (Appendix: H). The two questionnaires were designed to compare the children's attitudes towards using play in a Fourth Class classroom to encourage pupils to think freely, independently and promote their use of imagination without the fear of giving a wrong answer or an incorrect conclusion. I used a combination of both closed-and open-ended questions within the questionnaires.

After completing five play sessions, the pupils were given the second questionnaire on Google forms to provide their opinions and suggestions before Cycle 4 was implemented. Both surveys were anonymous. I reviewed the responses in combination with my reflections before making changes to the stations and the organisation of the remaining five sessions.

The principal reason I used a variety of open-ended and close-ended questions was to have two different results outcomes. Open-ended questions help discover the responses that individuals give spontaneously and may happen from suggesting responses to individuals. Close-ended questions help get clear and direct answers (Urša et al., 2003), which I felt was necessary for a subjective study. The post-lesson questionnaires also allowed the children to evaluate the play sessions, express their opinions and thoughts, and indicate whether child-led play helped them better understand key concepts on the Fourth Class curriculum.

### **3.6.3 *Schemes of Work***

From my personal teaching experience, I recognise a clear link between the quality of learning achieved by pupils and the quality of my planning and preparation. The National Induction Programme for Teachers (NIPT, 2013) advises that the information from a plan should be a practical record of the teacher's decisions about the learning and their teaching. I aim to promote quality learning and teaching for all pupils in my class in my daily practice. Therefore, I wanted to include my schemes of work for Aistear within the collection of data for analysis (Appendix I). This allowed reflecting on questions relating to planning for future stages of the children's learning.

After identifying my aim of quality planning and preparation for the project, I looked at the curriculum strands and strand units to incorporate them into my thematic plan for the Aistear sessions. When writing the schemes of work, I focused on the learning objectives I wanted the children to achieve, what exact data I wanted to collect, and how I wanted to manage it.

Cycle 3 (Play Scheme: Food and the Environment) is presented in my appendices (Appendix I) to easily show how the Aistear sessions were structured and what parts of the Fourth Class curriculum were included.

#### **3.6.4 *Reflective Journal***

As Action Research consists mainly of the researchers' work, I thought keeping a reflective journal would be vital in recording observations, retaining copies of samples of children's work, and reflecting on each play session's outcomes. I analysed my practice during the study, and possible solutions were developed and noted in my reflective diary.

I acknowledge that personal experience is a valuable course of insight and understanding, but including a rich vein of research and professional practice literature also offers guidance and insights into these experiences. (Willis and Edwards, 2014) I teased out possible solutions by researching further literature on Aistear and play-based learning.

The reflections in my diary also helped guide my questions for the pupils at each Aistear station, and it also helped to plan reflective headings for the pupils own learning logs. The reflections were critical for addressing my values in my daily teaching and making changes for future Aistear sessions in this study.

I took my journal entries to analyse those pertinent to my study and surveyed them through my current knowledge, skills, and insight lens. (Willis and Edwards, 2014) I planned to evaluate and sort the data collected into two groups: the lesson's enabling (supportive factors for the implementation of play) and inhibiting factors (challenges implementing play as a learning strategy). I used these factors to find emerging themes to help document my teaching progress, reflect on how I was living my values, and develop the pupil's learning during the series of play sessions.



### **3.6.5 *Play Learning Logs***

Each pupil in the class was given a copybook for their learning log. There were five minutes designated at the beginning and end of each play session for the class to use their copies to plan, reflect and make suggestions for the station they were working at. The pupils also had an opportunity to share their reflections and plans with the rest of the class after the five minutes.

### **3.7 Conclusion**

In conclusion, Chapter Three provided a thorough explanation of what Action Research is and the different forms it can take. The chapter outlined the methods I took to carry out my intervention and to collect my data.

## **Chapter Four: Research Findings**

### **4.1 Introduction**

In this chapter, I shall give an account of the main findings of the research and provide an interpretation and a discussion of them.

As previously noted, the data was collected in the following instruments: teacher observations, a reflective teacher diary, pupil learning logs, and a pre-play session and post-play session questionnaire. Various themes emerged throughout the data collected that support existing research findings concerning the benefits of play-based learning in schools from its current position (from infant classrooms) into a Fourth Class classroom.

### **4.2 Description, Interpretation, and Discussion of Results**

I collected the data for the study over three time periods: a stand-alone brainstorm session, a six-week block, and a four-week block, all with the same class.

As previously stated, I used the Participatory Action Research (P.A.R) methodology in this study. The use of P.A.R allows ordinary people to play an active and influential part in decisions that affect their lives. By using P.A.R, I was able to listen and observe the pupils and their voices also helped shape the outcome of the study.<sup>3</sup>

I used a basic Action Research model that worked in a cyclical motion. It was based on the research of Coghlan and Brannick (2005). To construct my research model, I planned primary targets based on the data collected from the pre-study brainstorm (Cycle 1). After assessing the data gathered at that stage, I designed primary targets for Cycle 2 of the study (scaffolding the pupil's imaginations). I then used the information collected from that cycle to form Cycle 3 of the investigation. I made changes to my targets based on reflections and data

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<sup>3</sup> [www.participatorymethods.org](http://www.participatorymethods.org), n.d.

collected from the previous cycle. Based on these findings, I planned an additional cycle and added a Cycle 4, consisting of the remaining five play sessions.

#### ***4.2.1 Cycle One: Pre-study Brainstorms (Findings From Teacher Reflections)***

Cycle one included a pre-study brainstorm with the whole class. I used my reflective diary to tease and analyse the pupil's responses. The purpose of the brainstorm was to gather information on the pupils' understanding of the purpose of attending primary school and gain insight into what they think they should be taught during their eight-year cycle. I looked for this information to form my research questions.

A lecture discussion inspired the two questions used for the brainstorming activity. The lecture was held by David Gibson (Maynooth University, Lecturer in Philosophy of Education and Philosophy) at the start of the M.Ed. Course. During the class, I reflected on my own opinions of primary school and my educational journey.

I decided to replicate a similar discussion with my class because I observed how they had a noticeable fear of getting things wrong compared to a First Class I taught previously. Before carrying out the brainstorming activity, I came up with the hypothesis; that as pupils mature, they focus towards what they will achieve in their future after leaving education. It led me to think, does what and how we teach children link with what pupils need in their future? To further investigate, I asked the pupils two questions: why do we go to school? Furthermore, what should we learn in school? (Appendix F)

The answers to the two questions resulted in a fascinating contrast, 43% of the children said that getting a job was why we go to school whereas, when asked what they should learn in school, the replies mainly consisted of practical skills such as baking, languages, social skills, sport or art. This statistic is a crucial finding and insight. It's paradoxical. It seems contradictory.

To resolve this seeming contradiction, I referred to the aims and principles of the Irish Primary School Curriculum. (1999) It states that their ‘overall vision is to enable children to meet the demands of life, with self-confidence and assurance, both now and in the future.’ (Government of Ireland, 1999) This vision seems to fit the pupil's ideas of learning practical and social skills in school, in contrast to the pupil’s responses to the first question (‘what is the purpose of school’). Their responses sounded adult-like, which raised the question, what influenced the children’s opinions? Was it stemming from their parents or society?

I used this data to link to what I wanted to research and formed two research questions. The first question considered what I could do to change the children's attitude towards their learning. I also wanted to investigate what basic skills they needed to learn to become independent and help them eventually get a job.

I believed it was essential to move away from didactic teaching to achieve these goals. The research suggests that the methodologies change to more didactic methods in the senior classroom because teachers prepare pupils for exam-focused schooling in the second level. Ken Robinson (2006) discusses how he believes education is meant to take us into the future, but we have no idea what the future holds even though we are told to be educating pupils for it. His opinion backs up both the pupil’s belief that we are supposed to teach pupils to get a job when they leave school, and it backs the view of some teachers that believe we need to prepare pupils for secondary school. So it raises the question of how far into the future are teachers supposed to plan for?

#### ***4.2.2 Cycle Two: Scaffolding the Pupil’s Imagination During Remote Learning (Findings From Reflective Diary)***

Several inhibiting factors were encountered before I could implement Cycle 3 of the study. At the beginning of the research, the main inhibiting factor was the school closure due to

Covid-19; because of this, I was teaching the class through the online platform 'Zoom.' A variety of approaches were taken to adapt and change the planned cycle of activities and thus to create an updated version of Cycle 2 of the study. I altered the plan to introduce remote learning activities to help scaffold individual pupils' creativity and ability to think freely. I started by giving pupils a 'Space Grid' (Appendix J) for a lesson every Friday, for three weeks. The grid was divided into activities from different curriculum subjects. The activity aimed to give pupils the freedom to choose what interested them but provided them with a place to start. After the three weeks, I introduced 'Creative Hour' (Appendix K), which allowed the pupils to research what interested them and represent their learning in a method that suited their learning style. At the end of the six weeks, the class were given a Google forms questionnaire to reflect on the activities (Appendix G).

Literature suggests that when children find something enjoyable, it enhances their engagement and motivation when they are learning. I, therefore, included the question 'how can I make the learning more fun in the pre-play questionnaire. One-third of the pupils surveyed suggested that doing something *'fun'* or *'active'* would make learning in school more accessible. This data helped to back up my original hypothesis (Aistear would enhance the pupil's learning and attitudes), which enabled my research question.

Most pupils suggested *'more games, more movement breaks, increase the amount of pair work.'* One pupil specified how it would be good to turn lessons into a game-like format, and another recommended learning through examples like baking to help understand maths. In contrast, one pupil Interestingly stated: *'I think I do not need fun because it is a distraction to my work.'* I felt it was crucial to take the time to reflect on this comment and continue to separate my beliefs and personal bias about play-based learning. I contemplated if their opinion was due to their maturity level affected by their birth position in their family.

Although looking at the data from another questionnaire, the class was asked to decide between two activities (space grid and Creative Hour). 17 out of the 18 surveyed said that they preferred Creative Hour to the choice grid activity. The majority of the pupils expressed that they like the freedom of Creative Hour because it allows them to pursue their interests. One pupil answered with;

*"I prefer doing 'Creative Hour' then space grid because I think you can be more creative and you can do things based on your interests."*

Having restricted methodologies to scaffold the pupils' imaginations and not teaching the pupils in a classroom made it difficult to assess correctly the pupils' learning and their development of thinking imaginatively. However, the survey revealed that the majority of the children favourably preferred Creative Hour. I felt confident that the pupils were ready to participate in the next stage of the study. This data proved that the pupils could work more freely, but it was vital that tasks would be challenging and age-appropriate to cater to each learning style.

#### ***4.2.3 Cycle Three: Aistear Sessions (Findings From Pupil's Learning Logs)***

The pupils each had a learning log where they made plans at the beginning of every session and used them to record their reflections at the end of the session. The learning logs were explicitly used to make developments and adjustments before I implemented the study's Cycle 3 and Cycle 4. I gave the pupils headings on the board to review the session, which helped focus their thoughts and helped me get a more accurate form of data from their responses. After the first five sessions, I reviewed the learning logs (Appendix: L) to assess what changes needed to be made to the remaining five sessions. Many of the pupils expressed their frustration with managing the station's resources and how this stunted their investigations. In particular, one child described advice for the class;

*'I did mix some together but I didn't really enjoy it because we didn't have enough things to use.' 'my advice is to plan what you are going to do so when you get over take a look at all of the things and then take what your going to use because it wasn't like that when we used everything, and now I feel bad'*

It was compelling to read this child's reflection. They were beginning to discover tools necessary to conduct a scientific experiment and were empathetic towards peers, showing learning of both academic and social skills developing during the Aistear session.

Although in my reflective diary, I noted that it was hard to get all the pupils to carry out the scientific skills and understand the taught concepts. I observed how a lack of structure affected how and what the children investigated during their free playtime. To solve this problem, I looked at the pupils learning logs to see if they were also aware of their lack of understanding of critical concepts and skills. I discovered that some children expressed that they did not feel like they were learning anything, and one child stated:

*'I do enjoy 'Aister' alot, but I dont think I'm learning anything from it and I think I would learn stuff more by doing a lesson.'*

From the children's reflections, I aimed to alter my monthly scheme of work to introduce teacher-led lessons between Aistear sessions to scaffold the pupils with more structure and designated steps to follow when exploring each station.

I also changed the stations by altering what materials were available and limiting the amounts per session. I added specific investigations on the learning walls and writing-table (worksheets, graphs, and charts to record detailed experiments) to inspire the pupils to begin exploring if needed.

Changes				
Theme based lessons between sessions	Increased experiments on the learning walls	Provided each station with a tablet	Change of materials in the 'Science Lab'	Limited materials for each group each session

**Figure 7: Changes Made to the Aistear Sessions**

After making these changes, I observed how the children were achieving some of the planned curriculum objectives. The pupils were also beginning to identify the links between the Fourth Class curriculum content and the Aistear stations in their learning logs. One of the pupils reflected upon the materials at the environmentalist station and how they helped them learn, *'that it is a lot easier than I thought to plant something.'*

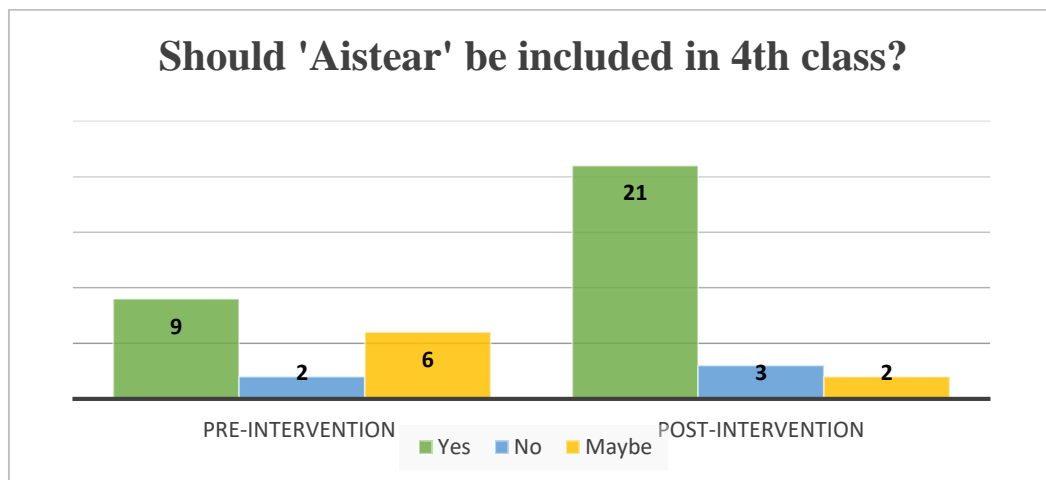
#### ***4.2.4 Cycle Four: The Final Five Sessions (Findings From Questionnaire Responses)***

During each session, I moved between stations with a planned target to observe the pupils. After each lesson, I recorded my observations and reflections about how the children responded to various materials. I used the findings from the two teacher-designed questionnaires to obtain further insight into my thoughts and observations. The questionnaire was devised to record the class's understanding of what they were learning through play and gather insight into the pupils' attitudes towards the method of learning through play.

Only twenty-one pupils from the class answered the pre-lesson questionnaire, and I believe this was due to remote learning. The questionnaires were responded to on a device at home during the school closure in February 2021. All of the 26 pupils in the class completed the second part of the questionnaire. This questionnaire was conducted on an electronic device in school (May 2021) (Appendix M).



The second questionnaire was designed to assess the pupil's learning after the first series of Aistear sessions.



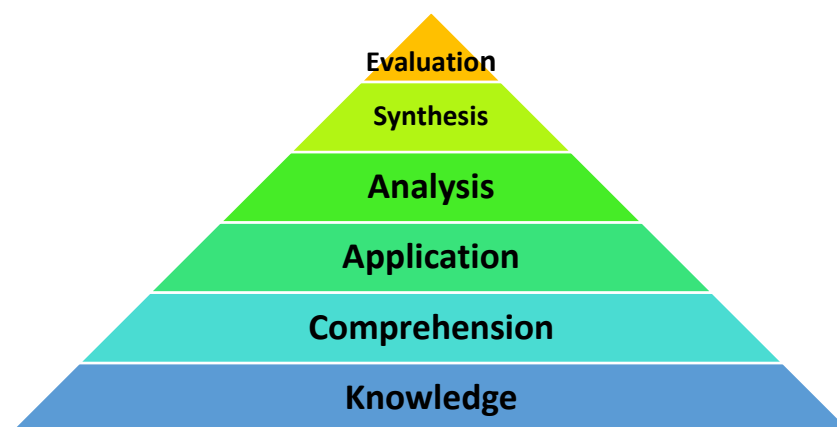
**Figure 8: Fourth Class Pupil's Response to: 'Should Aistear be Included in 4<sup>th</sup> class?'**

At this point (Cycle 3) of the study, 45% of the class said they would like to include Aistear in the Fourth Class curriculum. The data collected from the second questionnaire showed a considerable increase in the children's interest in Aistear; 82% of the class said they thought Aistear should be on the Fourth Class curriculum. There are a number of reasons for the substantial increase including but not limited to: greater number of survey participants as a result of being back in the classroom, group-think amongst students, a greater understanding of Aistear and its benefits and less direct parental influence when completing the questionnaire.

I used Bloom's Taxonomy to analyse findings collected from the questionnaires. I organised this set of data into different cognitive domains (Appendix: M).

Bloom's Taxonomy is a way to classify instructional activities as they progress in cognitive difficulty. The lower levels require less sophisticated thinking skills; as one moves from the lowest levels up the hierarchy, the activities require more sophisticated thinking skills

Once I organised the data into a level, I used the descriptor to identify the children's thinking processes. (Pappas, E et al., 2012)



**Figure 9: Pyramid Displaying the Cognitive Domain Levels (Pappas, E et al., 2012)**

<b>Cognitive Domain</b>	<b>Descriptors</b>
Knowledge	describe, identify, recognize and record.
Comprehension	discuss, explain and summarise.
Application	change, choose, apply and assess.
Analysis	analyse, classify, research and compare.
Synthesis	create, design, integrate and construct.
Evaluation	assess, choose, evaluate, prioritize, predict and justify.

**Figure 10: Explanation of Cognitive Domains and their Descriptors (Pappas, E et al., 2012)**

Piaget's theory of cognitive development promotes discovery learning as a teaching and learning method – the idea that children learn best through doing and actively exploring. Within the classroom, learning should be student-centred, and it should be accomplished through active discovery. Within this theory, the role of the teacher is to facilitate learning rather than direct teaching. Therefore, the teacher's job is to encourage the children to focus on the overall learning process rather than the end product. The use of active methods that require discovery should be developed and implemented (McLeod, S. 2009). I believe there is no reason why Aistear could not be implemented within the Fourth Class curriculum. After

the series of Aistear sessions, I could see a change in the pupil's attitudes towards their learning, and one child expressed the view that they;

*'enjoy aister because you can do whatever you want and you can learn what you want to learn with your given materials.'*

And another pupil stated that they liked the lessons;

*'because it teaches me to be creative unlike just randomly playing.'*

By re-introducing Aistear into my classroom, I observed a noticeable difference in how the pupils were motivated to participate in activities. They had a new desire to use the materials presented to them and, in turn, were exploring the curriculum content in a method that suited their particular learning style and needs.

Aistear is currently widely used in infant classrooms in Irish schools, but it is unknown how many schools use play as a pedagogy past infant classes. I connected with another mainstream primary school teacher to discuss the success of Aistear. The teacher teaches in another school in Dublin. Emma (\*pseudonym given) implemented Aistear into her second class classroom. She described her positive and successful experiences of using Aistear with her class. Emma used the Aistear framework to teach continually throughout the school year. She explained how the pupils were *'highly motivated,'* during the Aistear sessions. Emma felt this was because the topics were relatable to the pupils, and therefore it impacted their enthusiasm towards play-based learning. To gain this insight, she sent a questionnaire to their parents to better understand the pupil's lives outside school.

Emma highlighted that she understood other teachers could feel restricted by the curriculum, but she described confidence in this method once she realised;

*'teaching in this way worked when you know you're covering the curriculum.'*

She discovered this when she took a step back, became less prescriptive and involved the pupils in the planning process.

### **4.3 Challenges Implementing Play as a Learning Strategy**

I aimed to use the Aistear framework as the intervention in this study. Once the framework was implemented, a number of inhibiting factors arose from the findings. (Appendix: N) I will tease out these findings below.

#### ***4.3.1 Financial Limitations***

To keep pupils engaged at their level of skill, it was essential to supply a wide range of materials for the pupils to use and investigate. I observed the outcomes between basic materials and more obscure resources that enhanced pupils' work and learning. One pupil suggested improving the stations by adding:

*'...more materials to the stations and make the station more exiting by adding more cool stuff like some sort of machine like the microscope.'*

The Aistear curriculum framework suggests the use of 'Open-ended materials such as junk, recyclables, and boxes allow for great scope in children's play,' to reduce the cost as well as providing 'children with endless opportunities to use their imaginations.' (N.C.C.A, 2009) However, I felt that in the Senior Cycle; this was not enough. The pupil's needed thematic artefacts to provide strong engagement and a deeper level of learning.

Instead, they used materials from school initiatives. These materials enabled the Aistear sessions to become more advanced. The class participated in the 'Incredible Edibles' program, which provided the class with gardening materials (soil, seeds, pots); these resources were essential in developing the Environmentalist's Station. I think if Aistear is to be implemented

throughout the school year or even at particular times of the year in the Senior Cycle, it could be costly, which could be an issue, especially to schools with limited budgets.

#### ***4.3.2 Pupils Understanding of the Purpose of Play in School***

During a whole-class reflection discussion at the end of an 'Aistear' session, many pupils admitted they could not see the links between the Fourth Class curriculum while participating in play-based learning. The pupils expressed that it was an opportunity to '*miss school*' or get '*break from learning*.' I interpreted the children's comments as they were implying that the activities were fun, so that was why they could not be learning.

I decided to question the pupils further on this topic. Another child responded when asked the question; what did they learn at the water station? By simply replying '*nothing*.' I then questioned a pupil whether they thought that 'Aistear' should be included in 4<sup>th</sup> class; they answered:

*'No because I think I do not learn much from it and I am just playing and having fun.'*

From these oral reflections by the pupils, I aimed to balance the pre-teaching lessons between Aistear to provide more structure, designated steps, and direction for the pupils for future Aistear sessions.

After making the necessary changes, I could see the quality of play had increased with pupils focused on testing out their hypothesis based on investigations from previously taught targeted lessons. One pupil even linked their learning to real-life, stating that:

*'a farmer has a really hard job because it is quite hard to plant even just one crop let alone a whole field which is what farmers have to do.'*

The pupils were also displaying a more comprehensive range of play within one lesson.

Pupils began engaging in physical play, pretend play, and developing their creative and language play.

Due to the large gap between Senior Infants and Fourth Class, I felt it was necessary and beneficial to scaffold the learning between the Aistear sessions. This finding is practically significant for my future practice.

#### ***4.3.3 Adequate Lesson Structure and Understanding of Play-Children Going off Task***

During the ten sessions, I observed how the majority of the children were able to play, but I noticed how some pupils required extra support from an adult to benefit from their playing.

Before the intervention, I was aware that participation takes time and that 'children benefit from a consistent experience of the process of consultation and participation, to fully understand both what is expected of them and the outcomes.' (The National Quality Framework for Early Childhood Education, 2007) The class had not engaged in an 'Aistear' session for three years. As previously mentioned, over half of the class are the youngest in their family. This was noticeable in how the pupils interacted with the materials and each other in the first three sessions. I felt this impacted the pupil's maturity levels. I observed how they are more aware of facts about the world due to greater access to different forms of media for example television, social media, or the internet than the average nine and ten-year-olds in Ireland. As a result, I noticed how it took the majority of the pupils longer to relax, let go and behave at a level appropriate to their maturity. One pupil expressed their lack of focus.

*'I didn't really learn anything at the science lab because I was kind of just messing around.'*

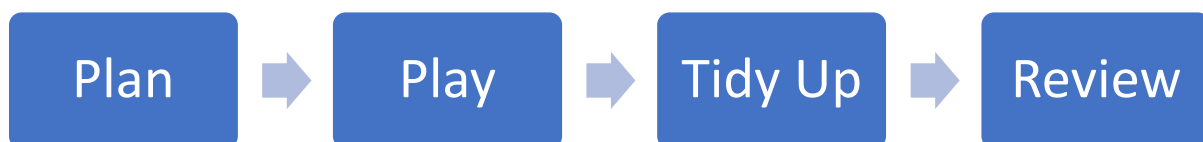
This statement helped guide the S.E.T teacher and me while interacting with the pupils; we focused on using thematic language, modelling our creations, and playing at different stations to encourage the pupils to enjoy playing.

#### **4.3.4 Curriculum Time Pressure**

Suggested time allocations are intended to assist teachers and schools in their work with the curriculum. (N.C.C.A, 2020) However, teachers can still feel pressured to spend adequate time covering the core subject areas (maths, English and Gaeilge).

I struggled to balance the time between subject based lessons and play sessions, even though I was aware of the curriculum content being covered within the Aistear sessions. I felt the pupils were challenged by knowing when to stop playing and start cleaning, putting pressure on the regular teaching timetable. As a play facilitator, I did not want to intervene in the amount of mess the pupils were producing, this itself was part of the targeted learning for the class, but I had to step in to reduce waste and monitor the time. With these interventions, pupils began to understand the repercussions of their lack of time management and awareness of the outcomes of their work, explaining, '*I learnt that the bigger mess= bigger work.*'

To counteract time spent on clean-up and the limited time in Fourth Class, I established a basic routine to enable a more efficient playtime.



**Figure 11: The Basic Routine Used During the Aistear Sessions**

As the playtime developed, certain routines became second nature to the children. Some pupils began their plan and prepared their table by moving pencil cases and folders before being told. One pupil learned the purpose of managing their own time, realising that '*its helpful to clean up a little earlier.*'

The infant day is noticeably shorter, the current curriculum prescribes one hour of discretionary time per week in comparison classes in the Senior Cycle have two hours a week of discretionary time. (N.C.C.A, 2016) However, staff working in the Senior Cycle still feel strained by subject based lessons to complete each curriculum objective.

In the draft of the redeveloped curriculum(N.C.C.A, 2020), Infants classes up to second class are allocated five-six hours of flexible time each month while the Senior Cycle are given seven hours. By delineating time every month, the curriculum allows the schools and the teachers greater flexibility in deciding how best to utilise time in working towards the learning outcomes in the different curriculum areas in their classroom. (N.C.C.A, 2020) This change in time allocation should allow teachers to focus on the needs of the pupils in their care and give increased opportunities for thematic and collaborative learning.

#### **4.4 Supportive Factors for the Implementation of Play**

As well as producing a number of challenges for the inclusion of Aistear in the Fourth Class curriculum a variety of supportive factors were identified. I will discuss these factors below.  
(Appendix: O)

##### ***4.4.1 Collaborative Learning***

I observed how rather than the children having one teacher, through Aistear, they had up to 25 peer teachers as they learned from each other through play. (I.N.T.O CPD course, 2021)  
The Aistear framework (N.C.C.A. 2009) supports this observation by outlining how learning and development can be supported through peer interactions. The five stations provided



pupils with an opportunity to play in different social dynamics during play: solitary play, spectator play, parallel play, associative and partnership play, and cooperative play (N.C.C.A, 2009). This allowed the pupils to mix in a collaborative way that suited their learning needs compared to previous project structured groups that the class previously engaged in. Some pupils struggled before when another student did not contribute the same amount of work as them. By using a play-based approach to teaching and learning helped to promote inclusion. One pupil identified that *'we do a lot of teamwork ( and teamwork is fun! 😊).'*

The pupils were able to work in a variety of group sizing allow the pupils to take on the role and amount of participation that suited their learning needs. This meant that each child had something to provide them with the feeling that they belonged. (INTO CPD course, 2021)

One factor that caused a disadvantage was that pupils were *'stuck in pods'* due to Covid-19 restrictions. Although, I noticed how there were still opportunities for discussions between pupils outside of their pods once they had a chance to mix in school (yard time and class discussions in the hall) or after school.

#### ***4.4.2 Pupil Engagement***

The type of learning environment in which children can explore and learn at their own pace: is 'child-centred, developmentally appropriate, and maybe even 'fun.' (Kemple et al., 2000).

This description helped to assess my observations of the pupil's level of engagement during each Aistear session. I evaluated the pupil's attitudes towards their learning through teacher observations and questioning. I felt it was necessary to listen to conversations between the pupils and question them during the sessions to get an honest reflection of their opinions.

Engagement with children and listening to pupils' voices are acknowledged in the literature as an opportunity to empower students to participate meaningfully and collaboratively in

improving their school experience. (Fielding 2004: Rudduck and McIntyre, 2007; Robinson and Taylor, 2007 as quoted in I.N.T.O CPD course, 2021)

From reading various literature, I learned that children have to construct learning for themselves, focusing on the reasoning process rather than the end products. This requires time for children to engage in their explorations. (I.N.T.O CPD course, 2021)

A fourth class pupil acknowledged that they *'learned that you can do anything you put your mind to.'*

#### ***4.4.3 Use of Concrete Materials and Visual Aids to Support the Pupil's Understanding of Science, Maths, English, Art, etc.***

The adult teaching the class is responsible for providing rich learning environments where children can explore, touch, manipulate, and experiment with different materials (Smith et al., 2016). Providing this time on the school timetable allows them to gain new knowledge and purpose of what they are learning. At the 'Science Lab,' the class used real microscopes, beakers and thermometers to test materials. I observed that using real microscopes instead of a toy or a homemade microscope enhanced the children's learning. They had a greater understanding of DNA cells, and because they were able to experience looking at their hairs and materials underneath the microscope, it gave purpose to what they were learning.

#### ***4.4.4 Children's Ability and Understanding of Scientific Skills and Concepts***

I noticed how the pupils became more articulate at explaining what they were doing as they participated in more play sessions. The children used the taught vocabulary freely in their conversations with other pupils, which guaranteed they understood the definitions of new vocabulary and used them in sentences.

The pupils had a science fair once they completed the ten-play sessions. They designed and wrote up science experiments or investigations based on their interests. Their work was displayed in the hall, and they presented it to the rest of the class.

The pupils explored a wide variety of scientific concepts, but I noticed that they mainly built on the scientific content and skills that they explored at the ‘Science Lab.’ Through this task, I was able to assess the pupil’s understanding of the scientific process covered during the play sessions.

The pupils were able to correctly use the scientific method, which was displayed in the ‘Science Lab’ (socio-dramatic area), to carry out their investigations. While presenting their projects, I identified a wide range of vocabulary introduced in various Aistear sessions. This observation helps to support my claim that using open-ended learning experiences provides the pupils with the opportunity to use the knowledge that they are learning in real-life situations.

#### ***4.4.5 Fostering Creativity and Imagination***

Children develop competency and understand that creative activity involves enjoyment, effort, risk-taking, critical thinking, and reflection. Unlocking and promoting children's creative potential impacts positively on their motivation, self-esteem, and overall development. (N.C.C.A, 2020)

The Creative Station enabled the children to explore materials and construct a variety of creations. I observed highly engaged pupils at this station, and they expressed how they loved the freedom to make their designs instead of following a teacher’s instructions. One child described their positive emotion, saying, *‘I really enjoyed it because we got to go wild with our imagination.’* I believe this station gave them the freedom to explore their personalities, and it also helped get to know the pupils better, creating a stronger teacher-pupil relationship.

#### **4.5 Have the Research Questions Been Answered?**

Now that I have collected the data and analysed it, it is essential to refer back to my research questions and see if they have been answered? At the beginning of the study, I listed the following research questions:

1. What advantage would Aistear have on children's imagination and capacity for independent learning in the Senior Cycle?
2. Would Aistear help further the pupils' understanding of concepts and skills from the Fourth Class curriculum?
3. Can the methodology of play enhance children's learning and attitudes towards their education in the Senior Cycle?

I believe I have collected an extensive amount of data to support and answer my research questions.

After the ten sessions, I experienced a reduction in the number of pupils seeking reassurance before beginning a task and instead, I experienced pupils proudly explaining their discoveries and investigations. Instead, I witnessed the pupils becoming more confident to approach their learning independently from the teacher. I could see a change in the children's overall mindset. The pupils seemed less anxious and could identify what they learned even if they made a mistake.

I also observed how using Aistear benefited the pupils understanding of a variety of the curriculum skills; applying and problem-solving, communicating and expressing, understanding and recalling. I firmly believe the children's attitudes towards their learning changed by introducing a play-based pedagogy in my classroom. I observed how the children enthusiastically explored the materials and learning walls at each station. I did not hear any moaning or negative comments when I informed the pupils that it was time for Aistear. The pupils began to show an understanding of what they were learning and could apply the skills

they learned in real life. One child expressed positively, '*we can actually do the thing we are learning about.*'

#### **4.6 Conclusion**

In light of the outcomes and ideas learned from this Action Research project, I believe I now have a valuable list of actions for implementing parallel sessions that use play as a pedagogy not only in 4<sup>th</sup> class but with other class groupings.

## **Chapter Five: Summary and Conclusion**

### **5.1 Introduction**

This chapter will conclude the study by addressing the findings from the previous chapter. I will review the study's limitations further and explain how they affected the findings.

I will examine how the findings will inform my future practice, discuss my claim to knowledge and personal and professional development. I will finish the chapter by addressing my evolving teaching identity and values.

### **5.2 Limitations of the Study**

Several inhibiting factors occurred before and during the study, affecting an accurate outcome while investigating my research questions.

The main limitation of this study was carrying out research during a global pandemic. The timescale and organisation of the project were both affected by Covid-19. I was under time pressure to revise the third class curriculum as well as cover the fourth curriculum. I also had the constraints of creating a safe school environment by providing table groups socially distanced (pods) from each other and daily cleaning of the classroom and its resources. Due to school closures, the academic year consisted of a mixture of teaching through online platforms and in the school building. These changes to the school year meant that I had to readjust my plan, and I could not examine everything I planned to research. I would have liked to investigate the benefits of the pupils working with children from a mixture of table groupings, increasing possibilities for collaborative learning, if Covid-19 were not an issue. I would also have liked to carry out another four-week scheme as initially planned, using a different theme for the five stations. By implementing a second scheme, I hoped to investigate further the pupil's learning and how a different theme worked in a senior classroom.

### **5.3 Findings That will Inform my Personal and Professional Development**

#### **5.3.1 *Claim to Knowledge***

From my current position, I now know that using Aistear in the Senior Cycle is possible and beneficial towards children's learning. I observed how the pupils were developing an awareness of the links at each Aistear station to the Fourth Class curriculum concepts and skills. Through the pedagogy of Play, the pupils began to see for themselves how the curriculum skills and concepts they were learning could be applied for life skills. I recognised a change in the children's attitudes towards their learning. The class seemed more relaxed and enthusiastic towards educational activities and tasks. The pupils became less worried about making a mistake and began to understand that the process is just as important as a result.

#### **5.3.2 *Personal Development***

By participating in self-reflection during the study, I learned a lot about myself and my evolving teacher identity and values. At the beginning of the study, I identified five essential values: student autonomy, imagination, mutual respect, differentiation, and linked together with enjoyment. After becoming more aware of myself and what I valued in the classroom, I recognised that I found it difficult to let go of my role as a teacher. I identified how I felt I needed to control the learning environment instead of focusing on being a facilitator for learning (in line with my values).

To overcome this and maintain reasonable research practice throughout the study, I adhered to the Maynooth Handbook Code of Ethics guidelines (Wrynn, 2020) in which it states that 'research integrity is the basis upon which research communication and collaboration depends.' With this in mind, I kept a critical and open-minded approach while conducting my research and when analysing the data. During the study, I needed to take a step back to

become the researcher and prevent my personal views from impacting the outcomes of the pupils' work and their personal opinions while filling out questionnaires.

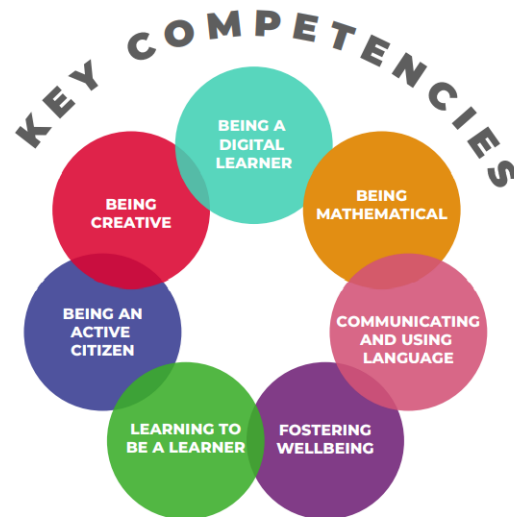
The value of mutual respect between the student and the teacher at times hindered this. I continued to remind myself while practicing my values. I also had to remember what Brydon (2003) stated 'for action research to be credible, the research must remain objective and value-free.'

### ***5.3.3 Professional Development***

A number of the findings have shaped my practice for the future. I aim to apply the knowledge I learned by continuing to plan Aistear schemes that effectively teach skills, concepts, and objectives from the curriculum by selecting the strands and strand units for play-based learning. I believe strongly that Aistear is beneficial for children's learning experiences throughout both the Junior and Senior Primary Cycle. I observed how it helps pupils make connections, work collaboratively, and allow them a chance to show what they learned in a way that they enjoy.

There has been an extended new focus on introducing early childhood education regarding the provision, curriculum, and quality into primary schools. The primary curriculum and its pedagogy are undergoing a reform process, with an initial emphasis on literacy and numeracy. Sustained efforts are also being made to reform the Junior Cycle (secondary school) curriculum. (Coolahan, J. et al. 2017). A new draft curriculum framework was published in 2020, and there is a view to incorporate early childhood practice into the newly designed curriculum. (Coolahan, J. et al. 2017). The proposed curriculum includes eight key competencies to follow in your practice.





**Figure 12: The Eight Key Competencies (N.C.C.A, 2020)**

These eight competencies aim to achieve relevance across the curriculum by providing continuity and connectivity in children's learning as they move through Primary School Cycle. (N.C.C.A, 2020)

I believe the implementation of Aistear would accommodate opportunities to integrate curriculum content and skills, allowing for connections between the twelve curriculum subjects. These key competencies can guide the teacher to provide the opportunities to integrate between curriculum subjects at every class level.

Next year I will be teaching second class; I plan to continue to use 'Aistear' in my classroom. I would like to explore how a second class group of pupils respond to the re-introduction of Aistear after just a one year gap since they last participated in Aistear sessions. I wish to examine if less time would be needed to scaffold the children and their imaginations to re-introduce a play pedagogy and, therefore, reduce one of the inhibiting factors found, the curriculum time pressure.

#### **5.4 Final Thoughts-Future Practice**

Having carried out this research project, I continue to believe that the use of play as a pedagogy and the 'Aistear' framework is beneficial to every age level at primary school. I

maintain the opinion that play provides pupils with the opportunity to promote a positive attitude towards independent learning and developing their imagination. I also believe it benefits a child's development and understanding of the curriculum skills and concepts at every age level.

The use of learning through play helps provide opportunities to have a more unrestrained educational experience in which children are allowed to explore, design, and create without feeling they will be wrong. The curriculum in the senior end of the school can be taught very rigidly and can be structured to focus on the right and wrong answers. Using the 'Aistear' framework, I found the children were more relaxed and enthusiastic about their school work. It encouraged them to continue learning at home by applying their hypothesis or skills to their activities.

The main positive finding I got from the study was that the children could investigate, explore problems and solve them without pressure or fear of failure. By carrying out this approach, the children were developing real-life skills and were able to apply them in a response that suited their learning style. The connection between the pupil's understanding of the purpose to go to school and their idea of what they should be taught in school grew stronger. The pupils could see the purpose of what they were learning and could link the skills and concepts to real-life activities that they can use in the future.

After undertaking this study, I feel that I have learned an extensive amount of knowledge about how children learn and how to develop and foster children's creativity and imagination. I continue to value creativity and fun, engaging lessons that help to inspire my pupils to love learning while also achieving the learning objectives set by the curriculum. I see my values being lived out in my everyday practice when I become the facilitator and allow the pupils to explore their learning.

## **5.5 Conclusion**

In conclusion, I found this piece of research to be beneficial for my professional and personal development. Through the reflective process, I established my values and teaching identity, which will help enhance my future practice and enjoyment of the teaching profession.

I think using Action Research as the method to carry out my study was a positive and realistic way to explore my research aims while also helping to develop my teaching philosophy and techniques. I would highly consider using this method for further research in the future due to the benefit of evolving my practice.

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## **Appendices**

### **Appendix A: Letter to the board of management.**

Dear [REDACTED] and the Board of Management

As you already aware this year I am taking part in a Masters of Education programme at Maynooth University. As part of my degree I am doing a research project. The focus of my research is based on play and the methodology of Aistear in schools in order to enhance pupils learning in the senior classrooms. The framework uses four interconnected themes to describe children's learning and development: Wellbeing, Identity and Belonging, Communicating, and Exploring and Thinking. I will look at this by reintroducing play into the classroom and to see if incorporating learning through play into the Fourth Class curriculum leads to enhancing the learning of the pupils by developing the pupils 'free thinking' while also covering the Fourth Class curriculum

In order to do this, I intend to carry out research in the classroom by creating integrated lessons using play to teach the 4th Class curriculum over a specific period of time.

The data will be collected using observations, student grades, a daily teacher journal and pupils test scores. The children will be asked their opinions through discussing how they feel about various teaching methods in school both before and after the study.

The child's name and the name of the school will not be included in the thesis that I will write at the end of the research. The Children will be allowed withdraw from the research process at any stage.

All information will be confidential and information will be destroyed in a stated timeframe in accordance with the University guidelines. The correct guidelines will be complied with when carrying out this research. The research will not be carried out until approval is granted by the Froebel Department of Primary and Early Childhood Education.

I would like to ask you to give permission for me to carry out this project in [REDACTED] before I ask the parents and pupils.

If you have any queries on any part of this research project, feel free to contact me by email at ROSE.HALPINDUFFY.2021@MUMAIL.IE

Yours sincerely,

Rose Halpin Duffy

## **Appendix B: Copy of Information letter for parents**



**Maynooth University Froebel Department of  
Primary and Early Childhood Education**

**Roinn Froebel Don Bhun- agus Luath- Oideachas  
Ollscoil Mhá Nuad.**

### **Information Sheet**

#### **Parents and Guardians**

##### **Who is this information sheet for?**

This information sheet is for parents and guardians.

##### **What is this Action Research Project about?**

Teachers Master of Education in the Froebel Department of Primary and Early Childhood, Maynooth University are required to conduct an action research project, examining an area of their own practice as a student teacher. This project will involve an analysis of the teacher's own practice. Data will be generated using observation, reflective notes and questionnaires. The teacher is then required to produce a thesis documenting this action research project.

##### **What are the research questions?**

- What is the role of play in education and why is it important?
- Why does play stop in formal education after the age of 7?
- Does play aid the learning of pupils in Fourth Class?

##### **What sorts of methods will be used?**

- Observation, reflective Journal, Questionnaires, pupil's work, testing scores and pupil's opinions.

##### **Who else will be involved?**

The study will be carried out by me Rose Halpin Duffy as part of the Master of Education course in the Froebel Department of Primary and Early Childhood Education. The thesis will be submitted for assessment to the module leader Dr Bernadette Wrynn and will be examined by the Department staff. The external examiners will also access the final thesis.

##### **What are you being asked to do?**

You are being asked for your consent to permit me to undertake this study with my class. In all cases the data that is collected will be treated with the utmost confidentiality and the analysis will be reported anonymously. The data captured will only be used for the purpose of the research as part of the Master of Education in the Froebel Department, Maynooth University and will be destroyed in accordance with University guidelines.

**Contact details:**

**Student:** Rose Halpin Duffy      **E:** ROSE.HALPINDUFFY.2021@MUMAIL.IE



**Maynooth University Froebel Department of  
Primary and Early Childhood Education  
Roinn Froebel Don Bhun- agus Luath- Oideachas  
Ollscoil Mhá Nuad.**

Dear Parent(s)/Guardian(s),

This year I am taking part in a Masters of Education programme at Maynooth University. As part of my degree I am doing a research project. The focus of my research is based on play and the methodology of Aistear in schools in order to enhance pupils learning in the senior classrooms. The framework uses four interconnected themes to describe children's learning and development: Wellbeing, Identity and Belonging, Communicating, and Exploring and Thinking. The class will participate in group activities based around the themes 'The Environment' and 'The Romans.' The class will have an opportunity to participate in group activities like junk art, socio-dramatic play involving roles from real life, use of free materials (playdough/lego/building blocks), STEM activities all based on the learning objectives from the 4<sup>th</sup> Class curriculum. I will look at this by reintroducing play into the classroom to see if incorporating learning through play in the Fourth Class curriculum leads to enhancing the learning of the pupils, their imaginations by developing the pupils 'free thinking' and most importantly their 'have a go' attitude without a fear of getting a wrong answer.

The data will be collected using observations, students work, student's opinions through talk and discussion as well as a questionnaire, a daily teacher journal and pupils test scores. The children will be asked their opinions through discussing how they feel about various teaching methods in school both before and after the study.

The child's name and the name of the school will not be included in the thesis that I will write at the end of the research and your child will be allowed withdraw from the research process at any stage if they wish.

All the information will be confidential and information will be destroyed in a stated timeframe in accordance with the University guidelines. The correct guidelines will be complied with when carrying out this research. The research will not be carried out until approval is granted by the Froebel Department of Primary and Early Childhood Education.

I would like to invite you and your child to give permission for him/her to take part in this project.

If you have any queries on any part of this research project, feel free to contact me by email on my university email address; ROSE.HALPINDUFFY.2021@MUMAIL.IE

Yours sincerely,

Rose Halpin Duffy

## Appendix C: Copy of consent form for parents



**Maynooth University Froebel Department of  
Primary and Early Childhood Education**

### PARENTAL CONSENT FORM

I have read the information provided in the attached letter and all of my questions have been answered. I voluntarily agree to the participation of my child in this study. I am aware that I will receive a copy of this consent form for my information.

Parent / Guardian Signature\_\_\_\_\_

Parent / Guardian Signature\_\_\_\_\_

Date: \_\_\_\_\_

Name of Child \_\_\_\_\_

Child's signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix D: Copy of assent letter for pupils**



**Child's name** \_\_\_\_\_

I am trying to find out if doing Aistear in 4<sup>th</sup> Class would benefit teaching your learning of the different subjects in school. I would like to watch you and listen to you when you are in school and to write down some notes about you.

Would you be ok with that? Pick a box

☐ Yes☐ No

I have asked your Mum or Dad or Guardian to talk to you about this.

If you have any questions I would be happy to answer them. If you are happy with that could you sign the form that I have sent home?

If you change your mind after we start, that's ok too.

**Child's assent to participate**

**My parent/guardian has read the information sheet with me and I agree to take part in this research.**

**Name of child (in block capitals):**

\_\_\_\_\_



**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Appendix E: Photos of each station



Figure 1: The socio-dramatic play area





**Figure 2: The permanent writing station.**



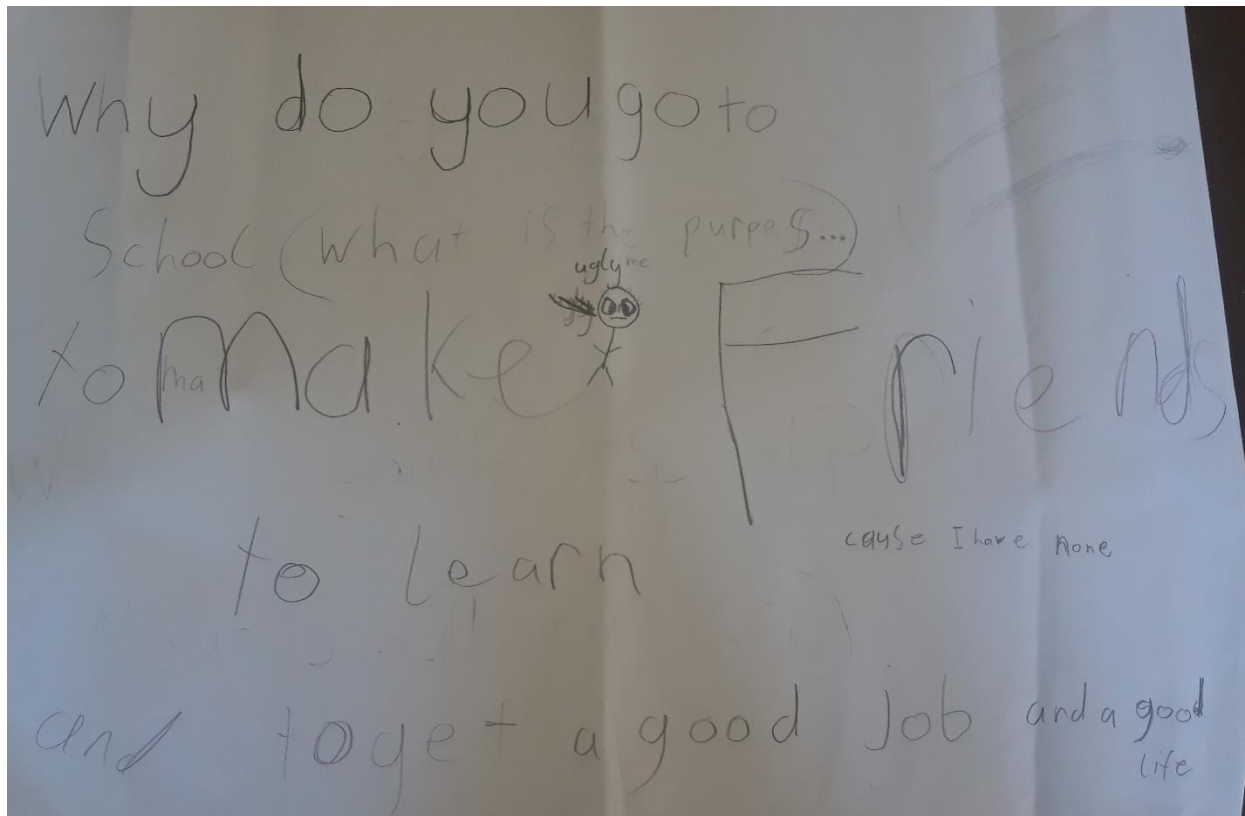
**Figure 4: Materials at the sustainable construction station.**



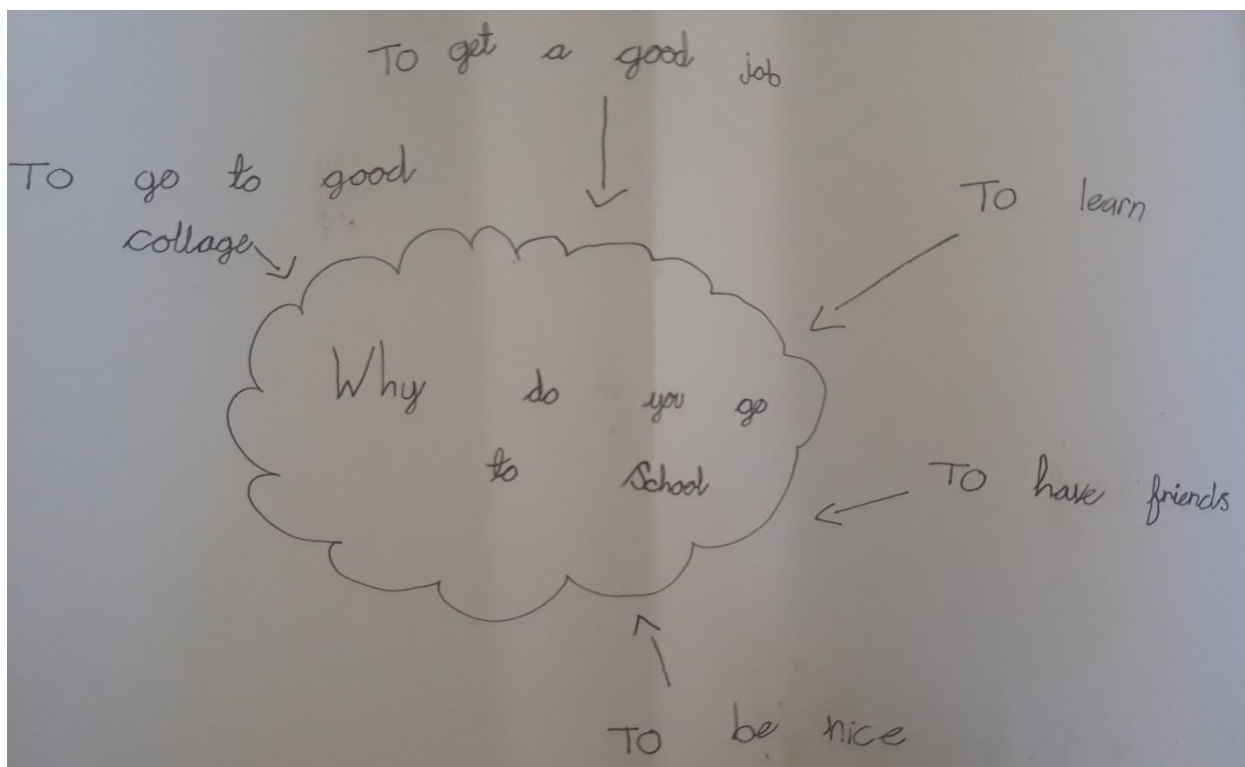


**Figure 3: The sensory station (the environmentalists station).**

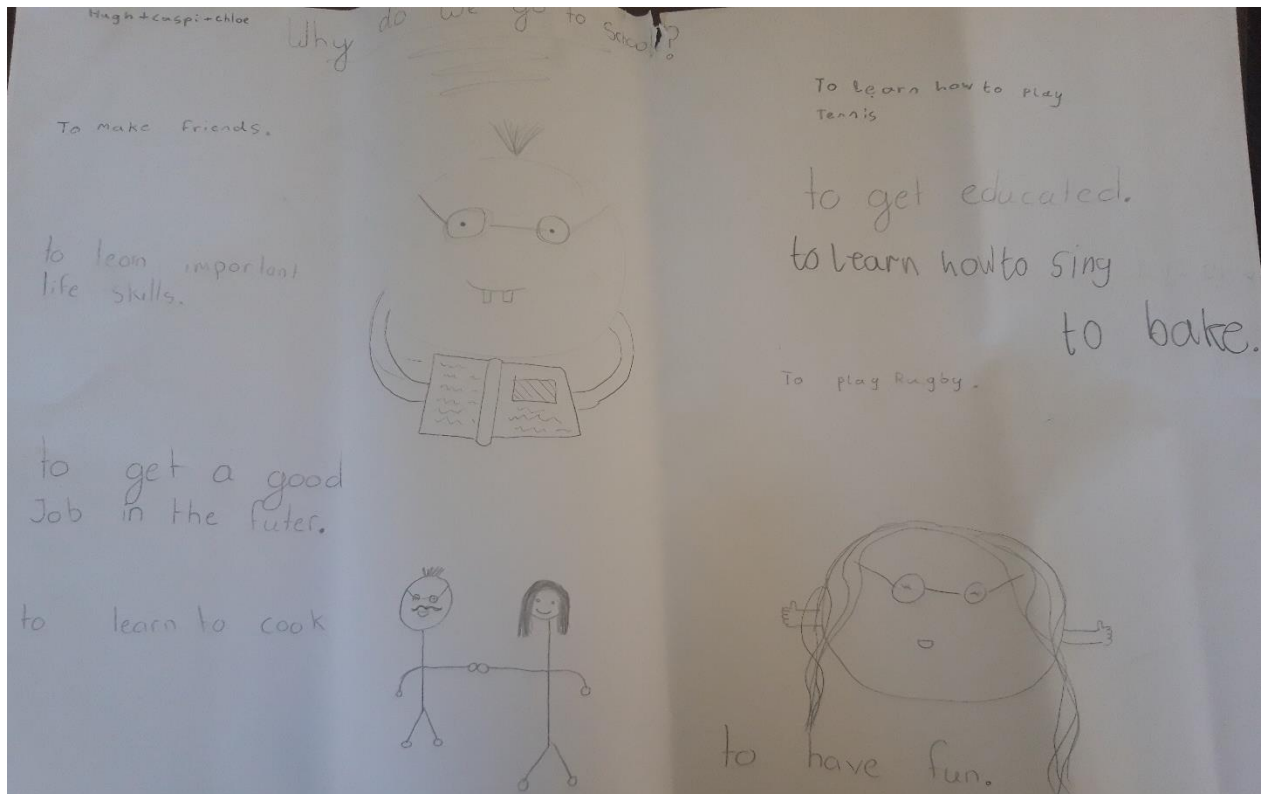
**Appendix H: Pupil's pre-study brainstorms.**



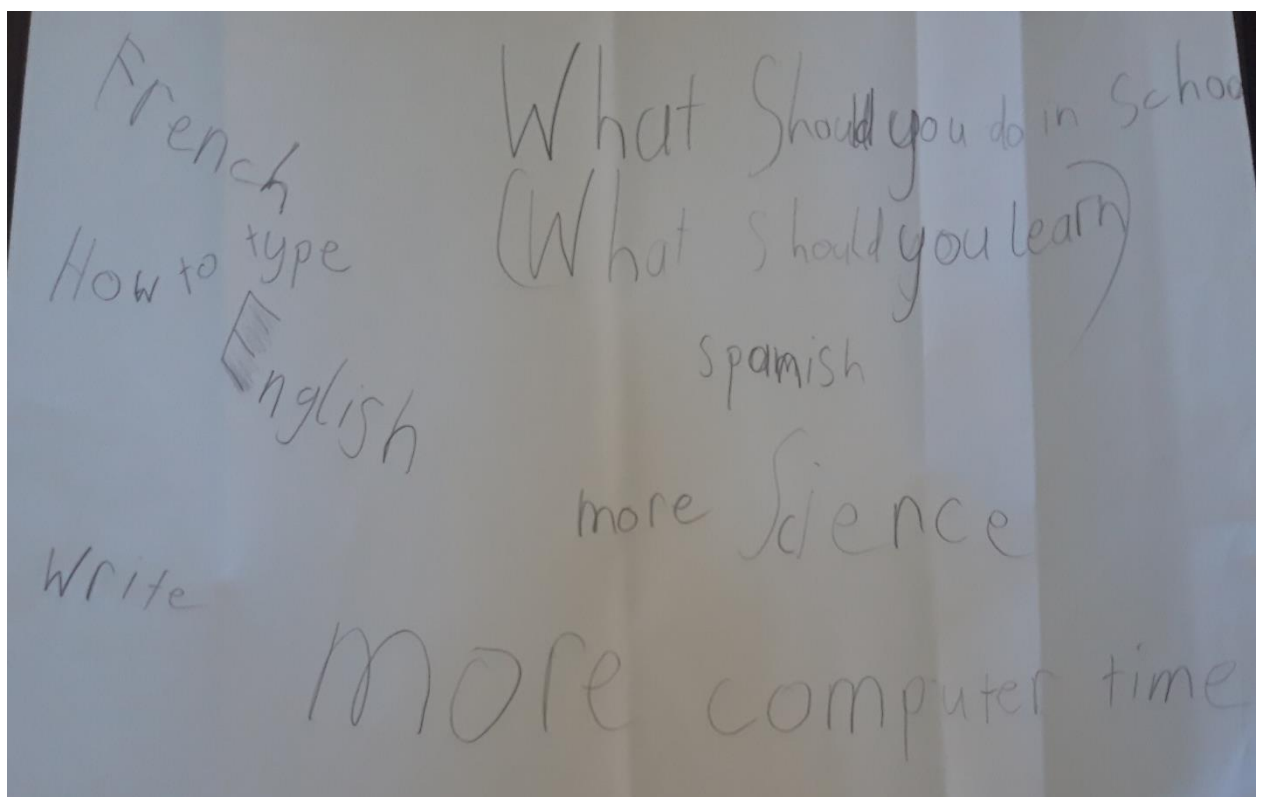
**Figure 1: Group One 'Why do you go to school?' brainstorm.**



**Figure 2: Group Two 'Why do you go to school?' brainstorm.**



**Figure 3: Group Three ‘Why do you go to school?’ brainstorm.**



**Figure 4: Group One ‘What should you learn in school?’ brainstorm.**

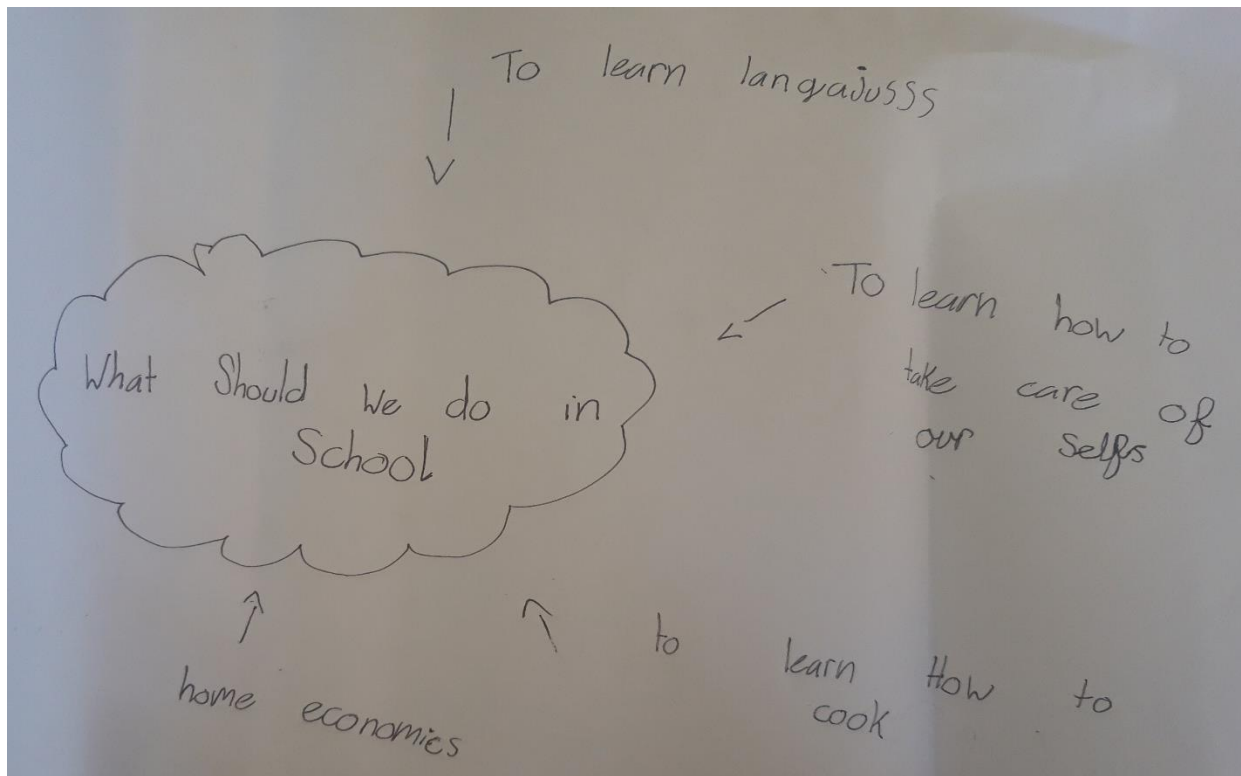


Figure 5: Group Two 'What should you learn in school?' brainstorms.

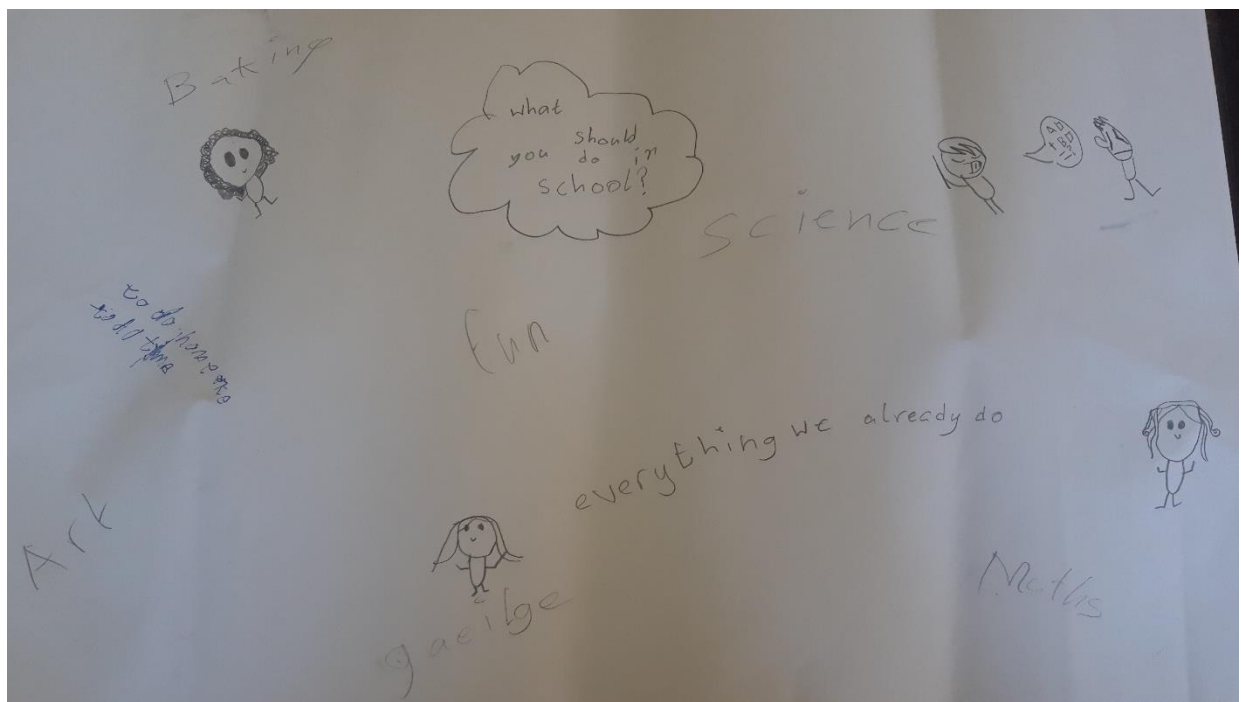


Figure 6: Group Three 'What should you learn in school?' brainstorm.

## **Appendix G: Sample pre-questionnaire**

*\*Completed using Google forms, the questionnaire was completed during home school learning on pupil's devices.*

### **4th Class Questionnaire ☺**

4th Class I would like to ask you a few questions about school and imagination. The questionnaire is anonymous so please answer honestly and with as much detail as you can. Thank you, Ms. Halpin Duffy

#### **Questions**

1. What do you think the purpose of school is? (why do you go/need to go to school?)
2. What does the word 'imagination' mean to you? (Explain with a full sentence)
3. Is it important to get the right answer? Why?
4. Do you prefer working by yourself or with other pupils? Why?
5. Do you prefer doing 'Creative Hour' or a choice based activity like the space grid? Please explain your answer
6. What would make it easier for you to learn in school?
7. What things would make lessons in school more fun and easier for you? Why?
8. Do you think you should have time to play in 4th Class?

## **Appendix H: Sample post-questionnaire**

\*Completed using Google forms, pupils answered this questionnaire during school hours on individual tablets.

### **Aistear Part 1**

#### **Questions**

1. What would you rename 'Aistear' for 4th class?
2. Do you enjoy Aistear? Please explain your answer.
3. What have you learned from working at the Environmentalists station?
4. What have you learned from working at the water station?
5. What have you learned from working at the science lab?
6. What have you learned from working at the construction station?
7. What have you learned from working at the creative station?
8. Do you have a favourite station? Please explain your answer.
9. Do you think Aistear should be included in 4th Class? Please explain your answer.
10. What suggestions do you have for future Aistear lessons?



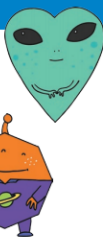
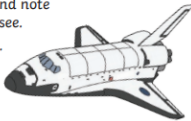






**Appendix I: Scheme of work**

<b>Class:</b> Fourth Class		<b>Dates:</b> April (4 weeks)	
<b>Play theme:</b> Food/Environment		<b>Timeframe &amp; dates:</b> 60mins x 3days over 4weeks	
<b>Theme specific vocabulary:</b> English <ul style="list-style-type: none"><li>Ingredients, procedure, equipment, food miles, production, packaging, fair trade, wage, environmentalist, pollution, drought, famine, beaker, test tube, tweezers, circuit, electricity, experiment, hypothesis, investigation, prediction, conclusion etc.</li></ul>		Maths <ul style="list-style-type: none"><li>Time/Data (socio-dramatic play)</li><li>Area (construction/junk art)</li><li>Length/Area (construction)</li><li>Spatial awareness (construction)</li><li>3D shapes (junk art)</li><li>Operations-fractions/Decimals (Socio-dramatic/sensory station)</li><li>Measurements (weight/capacity) sensory station/water station</li></ul>	
<b>Gaeilge:</b> <ul style="list-style-type: none"><li><b>Bia/Sa Ghairdin:</b> uisce, blathanna, gaidin, nádur, glasraí, torthaí, srl.</li></ul> <b>Abairtí a bheadh úsáideach sa seomra ranga:</b> <ul style="list-style-type: none"><li>Tabhair cabhair dó/di</li><li>Glan suas</li><li>i mbeirteanna</li><li>ag obair le chéile</li><li>Cé tusa? Is mise..</li><li>Tabhair dom an..</li><li>An maith leat a bheith ag súgradh le ...? Is maith liom a bheith ag súgradh le...</li><li>Grúpa gorm/ glas/ buí....</li></ul>			
<b>Play area</b>	<b>Key resources</b>	<b>Integration</b>	<b>Teacher Reflection</b>
<b>Creative station:</b> ‘Recycling Centre’  Junk Art Environmental Art	Masking tape, cardboard boxes, plastic bottles and containers, egg boxes, butter tubs, cardboard, yoghurt pots, string, a variety of materials from the garden e.g. leaves, twigs, pebbles, tinfoil, ribbons, miscellaneous items etc.	<b>Maths:</b> length/area <b>English:</b> orally explaining procedures <b>Art:</b> Constructions <b>Science</b> Investigating Materials <b>Gaeilge</b> neamhfhoirmiúil	*reflections recorded in reflective diary
<b>Sensory Station:</b> ‘The Environmentalists’  - Flower bombs (clay)	Clay, seeds, lino to cover tables, soil, photos for the school and local environment, aprons, gardening gloves,	<b>Maths:</b> capacity <b>English:</b> <b>Art:</b> Constructions <b>Science:</b> Investigating Materials	

<ul style="list-style-type: none"> <li>- Environmental scientist</li> <li>- Environmentalists – incorporate into green school</li> <li>- Gardeners</li> <li>- Harvesting</li> </ul>	Seeds, pots, troughs, shovel, watering cans, soil samples (compost/bought soil/soil from school grounds)	<b>Gaeilge</b> neamhfhoirmiúil <b>School Initiative:</b> Green Schools	
<b>Building/Construction</b> ‘Sustainable Builders’	Graph paper  Lego Large Lego set Base boards	<b>Maths:</b> area/length/special awareness <b>Gaeilge</b> neamhfhoirmiúil <b>Art:</b> Constructions <b>SESE:</b> environmental awareness and care	
<b>STEM Station</b> ‘Water Station’	Large plastic containers, beakers, measuring jugs (variety of sizes-50ml up to 2litres), funnels, plastic tubes, spoons, sand, oil, food dye, washing up liquid etc.	<b>Drama:</b> Using their imaginations <b>English:</b> Oral language/procedures <b>Gaeilge</b> neamhfhoirmiúil <b>Science:</b> <b>Maths:</b> capacity/time	
<b>Socio-dramatic play</b> ‘Science Lab’	Science equipment: tubes, pipets, thermometers, lab coats, beakers, crocodile clips, batteries, magnets, light bulbs, motors, badges, goggles, graph paper, white boards/markers etc.	<b>Maths:</b> measurements (ml, l, cm, m etc.)/ fractions/decimals <b>Drama:</b> Using their imaginations <b>English:</b> ‘How to Win a Nobel Prize’ by Barry Marshall will be used as a stimulus <b>SESE:</b> Environmental Awareness and Care <b>Gaeilge</b> neamhfhoirmiúil	
<b>Permanent writing table</b> for whole class	Different types of paper/card, sellotape, markers, crayons, pencils, stamps, stickers, graph paper, tracing paper etc.	<b>English:</b> Procedural writing, creative writing, handwriting <b>Art:</b> Drawing (sketching) <b>Maths:</b> use of graphs	



## Appendix J: Space grid

Numeracy	Out and About!	Literacy
<ul style="list-style-type: none"><li>• Draw a space scene using only 2D shapes.</li><li>• Create some space-themed word problems.</li><li>• Work out the distance of each planet from the sun in miles, kilometres, and metres.</li></ul> 	<ul style="list-style-type: none"><li>• Build and launch a rocket. What did you do?</li><li>• Visit your local library. Find some non-fiction books about space.</li><li>• Observe the night sky and note any constellations you see.</li><li>• Research constellations.</li></ul> 	<ul style="list-style-type: none"><li>• Write a space adventure themed poem or story.</li><li>• Write a poem/story about an alien visiting Earth.</li><li>• Write an acrostic poem for a planet.</li><li>• Write a newspaper report on the Moon landing.</li><li>• Read a novel with a space theme.</li><li>• Make a word search with tricky space words.</li></ul> 
Working with Others	<h2>Homework Choice Grid</h2> <h3>Space</h3>	
<ul style="list-style-type: none"><li>• Create a space-themed board or card game, and teach friends or family members how to play.</li><li>• Work with a friend or family member to design an alien. Draw and label any unique features.</li><li>• Create a mnemonic to help friends or family members remember the order of the planets.</li><li>• Make up a space quiz! You need to know the answers!</li></ul> 	<ul style="list-style-type: none"><li>• Create a painting or drawing of a space scene using your choice of materials.</li><li>• Ask your friends and family to help you create a list with as many song titles that have space-themed words in them (i.e. star, rocket, planet, moon).</li><li>• Write a space rap or song.</li></ul> 	
Let's Get Technical!	Health and Wellbeing	Social Studies
<ul style="list-style-type: none"><li>• Find out and write down ten amazing facts about space travel.</li><li>• Make a rocket with a parachute to aid re-entry.</li><li>• Create a space mobile to hang in the classroom.</li></ul> 	<ul style="list-style-type: none"><li>• Find and make a space-themed recipe.</li><li>• What ten things would you take with you on a trip to outer space? Write a list and give a reason for each object.</li><li>• Complete a labelled diagram showing the effects that space has on an astronaut's body.</li><li>• Astronauts need to be healthy. Create a workout and share.</li></ul> 	<ul style="list-style-type: none"><li>• Write a fact file on Neil Armstrong or another famous astronaut.</li><li>• Create a timeline of space travel and exploration events.</li><li>• What countries have put astronauts into space? Mark them on a map.</li></ul> 

**Appendix K: ‘Creative Hour’ information sheet given to the pupils**

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## Creative Hour

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*“Every child is an artist; the problem is staying an artist when you grow up.” – Pablo Picasso*

A Creative Hour is simply an hour where you explore ideas from your most creative mind-set.

This one concept alone could lead to your greatest breakthroughs in work and life, and help you operate at a higher level.

### **Make Space for Your Creative Ability**

- To keep it simple, think of a Creative Hour as a time where you explore
- ideas and test your creative abilities. The result of a Creative Hour can be anything from new ideas, to new ways of thinking, to breakthroughs in your brilliance.
- The big idea behind Creative Hours is that we can use some hours during our week to invest in our creative self.

### **Creative Exploration**

When you make space for your own creative abilities, magic happens!

You’ll get better at creative exploration and skills.

You’ll connect dots.

You’ll get flashes of insight. Inspiration will strike like lightning!

The Creative Hour Mindset

- What makes a Creative Hour so special is your mindset.
- It’s undisturbed time where you step back from the hustle and
- bustle. You give yourself time and space to think and explore.
- To get in the right mindset, you first calm your mind. If you truly
- made space for this hour, then embrace this hour. Give yourself the
- freedom to explore and tap your creative power.
- Don’t focus on “being creative” or stressing yourself out with coming
- up with bright ideas. It’s like finger-painting. It’s messy and fun and,
- it’s silly. Some of your ideas will be silly, and, if they are, then you’re
- doing it right!

### **How to Get Started with Creative Hours**

- To keep this very simple and very practical, find one hour in your week
- (Fridays), where you can truly decompress and unwind.
- In this hour, pick one thing in your life that you think about a lot. This
- will keep it relevant, and you'll instantly be engaged in the process.

#### **Ask yourself a few simple starter questions:**

1. What would good look like for XYZ? (Paint a vivid picture in your mind, bring it to life, add action to the scene)
2. What would Michael D Higgins or Messi or Pusheen or Batman do about XYZ? (plug in your favourite hero)
3. What would be the opposite of what I've been doing for XYZ that just might work?

#### **From there, you can explore some bigger and bolder questions:**

1. What do I want my life to be about?
2. How can I use more of my strengths in more of my life?
3. How can I help people in ways that are uniquely me and inspire me?
4. What's one way I can start showing up differently that would change my life?
5. What are my greatest hopes, dreams, and aspirations on my backburner that I can make front and centre?

*If you really get stuck, then remember this advice from Dr.Seuss:  
"Think left and think right and think low and think high.  
Oh, the thinks you can think up if only you try!"*

**Appendix L: Enabling factors found from learning logs**

<b>Date</b>	<b>Pupils learning log extract</b>	<b>Enabling factor</b>	<b>Theme emerging</b>
23/04/21	‘I think me and Emily are going to make a plant plate.’	The children worked cooperatively and supportively in pairs or small groups. Full stops required after a full sentence.	Collaborative learning
24/04/21	‘Will and I are going to make a WW1 trench.’	The children worked collaboratively as they discussed their plans for the station.	
22/04/21	‘I want to try to make a bridge and put things (like books) on it to see if it’s strong so maybe they could make a real life plastic bridge in the future.’	Stations were relative to the pupils’ age(s)? group/skill set.	Pupils engagement
11/05/21	‘ I lit a lightbulb using wires and circuits, and then I found a screwdriver and wanted to take things apart but then I found a small piece of wood and then some nails so I put 4 nails into the wood and then it looked like a table so I put plastacine so the nails weren’t really pointy and also put it underneath the wood to help the nails stay and now I have a table thing, And I’m gonna try to make more at home!!’	<p>The range of resources and media helped to motivate the pupils during their work.</p> <p>The use of thematic displays in each area helped to catch the pupil’s attention and motivate the pupils.</p>	Use of concrete materials and visual aids helping to aid the pupil’s understanding of science, maths, English, art etc.
29/04/21	<p>‘I learned not to put that much seeds in’</p> <p>*some seeds began to sprout after a week and pupils could see how restrictive it was for them to develop due to over crowding</p>	Pupils could see the progress of their learning.	Children’s ability and understanding of scientific skills and concepts
22/04/21:	‘I really enjoyed it because we got to go wild with our imagination and im really exited to try the other stations.’	Enabling pupils to use their imagination.	Fostering creativity and imagination

**Appendix L: Inhibiting factors from pupil's learning logs.**

<b>Date</b>	<b>Pupils learning log extracts</b>	<b>Inhibiting factor</b>	<b>Theme emerging</b>
04/05/21	<div>‘I didn’t like it because we didn’t have too much to use.’</div> <div>‘I did mix some together but I didn’t really enjoy it because we didn’t have enough things to use.’</div>	Limited materials.	Financial limitations
29/04/21	‘I did not dicovar anything but I was very fun.’	Not seeing the links between the taught content and the materials at stations.	Pupils understanding of the purpose of play in school
22/04/21	‘[REDACTED] and I are going to make a WW1 trench’	Not enough scaffolding between sessions/pupil interest in Aistear theme.	Not enough structure in the lesson-children going off task
22/04/21	‘I learned that salt sinks to the bottom and is hard to stir.’	Covering the curriculum.  This is quite a basic discovery for 4 <sup>th</sup> Class	Curriculum time

**Appendix M: Pre-Intervention Questionnaire: 23/04/21***\*Questionnaires were anonymous*

<b>Cognitive Domain</b>	<b>At this level the pupil can...</b>	<b>Questionnaire question</b>	<b>Children's response and explanations</b>
<b>Foundational Knowledge</b>	Understand and remember information and ideas	“What do you think the purpose of school is? (why do you go/need to go to school?)”	“I think we go to school to get an education so we can get a job when we are older and it's important because school teaches us how to be independent.”
<b>Application</b>	Use skills, thinks critically and creatively	“What does the word ‘imagination’ mean to you? (Explain with a full sentence)”	“I think the word imagination means to explore something on your own and to use your own mind to find new things out.”
<b>Integration</b>	Connect ideas (people, aspects of life, information)	“What things would make lessons in school more fun and easier for you? Why?”	“Learning through examples more, i.e using baking to help us understand the maths.”
<b>Human Dimension</b>	Learn about oneself or others	“What would make it easier for you to learn in school?”	“Maybe more group activities in the classroom.”
<b>Caring</b>	Develop new feelings, interests and values	“What things would make lessons in school more fun and easier for you?”	“Something that would make lessons more fun and easier would be if we did more work outside and used sticks, stones and stuff that you would find outside to help us because then we would be getting fresh air while doing our work.”
<b>Learning to learn</b>	Inquire about a subject and self-direct their learning	“Do you prefer doing 'Creative Hour' or a choice based activity like the space grid?”	“I prefer doing ‘Creative Hour’ than space grid because I think you can be more creative and you can do things based on your interests.”

**Appendix M: Questionnaire After Five Play Sessions: 04/05/21***\*Questionnaires were anonymous*

<b>Cognitive Domain</b>	<b>At this level the pupil can...</b>	<b>Questionnaire question</b>	<b>Children's response and explanations</b>
<b>Foundational Knowledge</b>	Understand and remember information and ideas	"What have you learned from working at the water station?"	"I have learned that wasting water is a lot worse than in thought"
<b>Application</b>	Use skills, thinks critically and creatively	"What have you learned from working at the Environmentalists station?"	"That if you put the seed to far down it doesn't grow and u don't have to water it everyday because there can be to much water in the soil and if u keep putting more in the seed will drowned."
<b>Integration</b>	Connect ideas (people, aspects of life, information)	"What have you learned from working at the construction station?"	I have learned that in order to build a good stable house or building you need a good strong plan and idea
<b>Human Dimension</b>	Learn about oneself or others	"What suggestions do you have for future Aistear lessons?"	"For future aistear lessons I think we should make diffrent stations."
<b>Caring</b>	Develop new feelings, interests and values	"Do you have a favourite station?"	"My favourite station was probably the creative station. I like the creative station because I just got to create and do what I like ( art and improvisation )"
<b>Learning to learn</b>	Inquire about a subject and self-direct their learning	"Do you think Aistear should be included in 4th Class?"	"I think some of the Aistear stations should stay and some should go because not all of them you learn from some of them is just messing about"

**Appendix N: Thematic coding of diary entries - inhibiting factors**

<b>Date</b>	<b>Teacher diary extract</b>	<b>Inhibiting factor</b>	<b>Theme emerging</b>
22/04/21	“Pupils know about waste but not applying to using materials. I find this very frustrating.”	Too much choice and variety of resources.	Waste
26/04/21	“I have to really be careful with how often I introduce new resources. The excitement around the microscope has already been reduced and not every group has used it yet!”	Keeping the pupils engaged is costly	Financial limitations
22/04/21	“After today’s Aistear session I felt slightly disheartened by the pupil’s actions. I felt they just created a mess. Maybe they’re not learning anything. Have I given too much freedom?”	Not seeing the links between curriculum subjects and the methodology used	An unbalance between curriculum subjects and teaching methods  (Pupils understanding of the purpose of play in school)
05/02/21	“The problem I find with tasks that allow freedom some pupils just put in the bare minimum and don’t challenge themselves to their full ability.”	Not enough teacher preparation and planning	Adequate lesson structure
28/05/21	“After reading through the pupil’s responses to the Google forms questionnaire I was frustrated that I couldn’t continue with Aistear, introducing my pre planned scheme on the Romans. May is a crazy month but I wonder is implementing the standardised testing actually worth all this time? The children could be gaining a lot more from using this time to learn new things.”	Not enough time to implement two Aistear schemes	Curriculum time pressure



**Appendix O: Thematic coding of diary entries-enabling factors**

<b>Date</b>	<b>teacher diary extract</b>	<b>Enabling factor</b>	<b>Theme emerging</b>
28/04/21	<p>“It was great to have a lesson without worry about how pupils would react or behave when placed in groups. I could really see a huge benefit of allowing the children to move between group sizing’s in the session. I was delighted to see how Jack and Sam interacted with their peers. No children were pressured to work with someone they didn’t have something in common with.”</p> <p><i>* pseudonyms used</i></p>	The children worked collaboratively as they discussed their plans	Collaborative learning: children’s ability to form and work in their own groups/pairs
		The children worked cooperatively and supportively in mixed sized groups helping each other with their investigations	
05/05/21	<p>“Last week I felt like I wasted a lot of time printing and laminating for the learning walls but today I listened in to the pupil’s conversations. I could hear them using the words that were modelled and placed around the room correctly.”</p>	The chosen theme was relative to the pupil’s age group	Pupil engagement
03/02/21	<p>“On a zoom call the pupils chose their favourite affirmations. The most popular affirmation was ‘I am creative.’ The pupils said they chose this because it allows them to ‘let loose and release tension’ and ‘goes along with your imagination which allows you to play.’”</p>	The pupils want freedom and time to explore their imaginations	Imagination
20/04/21	<p>“The fascination around the placement of a real microscope in the classroom immediately grabbed the pupil’s attention and created an excitement before starting the sessions.”</p>	The use of scientific resources helped to catch the pupil’s attention and motivate the pupils.	Use of Concrete Materials and Visual Aids to Support the Pupil's Understanding of Science, Maths, English, Art, etc.

## Appendix P: Declaration by the Researcher

**Maynooth University Froebel Department of  
Primary and Early Childhood Education**



### **Declaration by Researcher**

This declaration must be signed by the applicant(s)

I acknowledge(s) and agree that:

- a) It is my sole responsibility and obligation to comply with all Irish and EU legislation relevant to this project.
- b) I will comply with Irish and EU legislation relevant to this project.
- c) That the research will be conducted in accordance with the Maynooth University Research Ethics Policy.
- d) That the research will be conducted in accordance with the Maynooth University Research Integrity Policy.
- e) That the research will not commence until ethical approval has been granted by the Research and Ethics committee in the Froebel Department of Primary and Early Childhood Education.

Signature of Student: Rose Halpin Duffy

Date: 16/11/20