**Addendum A:**

**The purpose of the questions bellow is to broaden my understanding of how you as a teacher implement construction play regarding young children:**

**Semi-structured Interview:**

**School code: S5**

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| 1. **What do you understand under the concept construction play?**   It is a broad topic  There is different type of constructing  Constructing outside the box |
| 1. **Where does construction play usually take place? Indoors or outside?**   Prefer to do it outside – There is more freedom outside.  When constructing indoors it is on the carpet in the classroom. |
| 1. **How often do the children in your class engage in construction play indoors?**   Daily – The constructing indoors is more guided. |
| 1. **How often do the children engage in construction play outdoors?**   Daily – But it is more free construction. |
| 1. **Which materials do you frequently use for construction play?**   Big and middle size LEGO  Big and small wooden blocks |
| 1. **How do the available construction materials for the indoor and outdoor constructions differ?**   They use the same materials for indoors and outdoors.  They also make use of natural elements when constructing outside. |
| 1. **What requirements do you value as important in a construction play environment? Please motivate your answer.**   Safety  Constructions should be kept for the next day  Freedom to build what they want  Individual and group constructions  Construct with natural elements  A variety of materials |
| 1. **How much time do you think the children should play with construction materials during a normal school day?**   As much as possible  One hour in the mornings and one hour in the afternoons |
| 1. **What do you think are the benefits or advantages of construction play?**   Mathematical benefits  Shapes  Spatial awareness  Emotional benefits  Creativity  Language development |
| 1. **In your opinion what are the disadvantages of construction play?**   Only want to play with construction materials.  Loud in the classroom.  All the materials have to be cleaned – That leads to the construction toys mainly being plastic. |
| 1. **How do you think you can address the disadvantages of construction play?**   Clear class rules  Help the children understand  Rotate the children |
| 1. **Do you use construction play to enhance problem solving skills in young children? Please explain.**   Yes – They use the 6 bricks method.  They use construction play and LEGO for adding and subtracting. |
| 1. **Do both the boys and girls equally make use of the construction materials? If not, how do they differ in play?**   Yes – With this group at the moment.  With previous groups the boys tend to play more with the construction materials towards the end of the year. |
| 1. **How do you think construction play benefits a child’s problem-solving abilities?**   Helps the children to understand the problem visually.  The children are busy leaning hands-on. |
| 1. **When your class is engaged in construction play, do they make use of any toys or materials and if so, what are those and how do they do this?**   Yes – Wild animals  Farm animals  Toy cars  Dinosaurs and jungle toys  Lids, toilet roles and boxes |
| 1. **Percentagewise how much time do the children prefer to play with construction materials compared to other toys?**   60 – 70 % |
| 1. **What type of constructions do the children build when they engage in construction play? Do you have evidence of any constructions?**   At the moment more towers – The children are building up  Enclosures with wooden blocks  Houses  LEGO gardens  Roads |
| 1. **Does it sometimes happen that these constructions are being built over the course of a few days? If so, please provide an example.**   Not at the moment with COVID – A week or two weeks before COVID. |
| 1. **Do the children engage in group construction play activities or do they prefer to build their own constructions?**   As the year goes on more group play – Now it is more parallel play. |

**Thank you very much for your willingness to share your time, knowledge, and expertise with me.**

**Is there anything else you would like to share?**

It brings out different personalities with the children.

They learn from each other.

**Addendum B:**

**Structured Narratives:**

**School code: S5**

**Please write a 150-word story about your own experiences with construction play as a child:**

**A few things to keep in mind when writing your narrative:**

* What is your earliest memory of construction play?
* Did you have your own construction toys (blocks, big or small LEGO) growing up and what were they?
* Did you enjoy construction play as a child? (Please explain why or why not)
* What constructions did you build as a child?
* Did you combine construction play with fantasy play? (Please explain why or why not)
* When building constructions would you make use of open-ended materials? When you were young or in your learning environment now (Please provide examples)
* If you have a photograph of yourself engaging in construction play, please will you provide a copy of the image?

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**Addendum C:**

**Observation checklist of learning environment:**

**School code:S5**

**Scale: 1 – None**

**2 – Partial**

**3 – Almost fully**

**4 – Fully**

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| **Checklist:** | **Scale:** | **Comments:** |
| 1. Does the school’s learning environment for 4 – 5-year-olds have a dedicated construction play area? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2**X | **3** | **4** | | On the carpet or by their desks when they do 6 bricks |
| 1. Where does the construction play take place? (Indoors or outside?) | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** | | Both indoors and outside |
| 1. What materials does the construction play area have?   (Tick the various options)   * Wooden blocks * Large LEGO blocks * Small LEGO blocks * Boxes * Open-ended materials * Other | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** |  |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3** | **4**X |  |  |  |  |  | | --- | --- | --- | --- | | **1** | **2**X | **3** | **4** |  |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** |  |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** | | Name the open-ended materials:  Farm and wild animals  Dinosaurs  Jungle toys  Boxes  Lids  Toilet roles |
| 1. Where are the construction materials stored? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** | | In the classroom – Some on display and others in containers |
| 1. How accessible is the materials to the children? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** | | The children can easily access the materials |
| 1. Do the children know where everything is? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3**X | **4** | | Yes, they do |
| 1. Do boys and girls take part in construction play? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3** | **4**X | | Yes, both genders participate |
| 1. How often do the children get the opportunity to play with the construction materials? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3** | **4**X | | Daily – In the mornings and afternoon |
| 1. How does the teacher promote construction play? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2** | **3** | **4**X | | Yes – The teacher is actively involved with all the children during construction play. |
| 1. What stage of construction play are the observed group of children engaging in? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2**X | **3** | **4** | | Stage 1: Carry, move, hold, pile, knock down X The children did a lot of piling  Stage 2: Vertically and horizontally X Towering the blocks  Stage 3: Enclosures appear X Small enclosures  **Stage 4:** Bridging begins No bridging  **Stage 5:** Patters begin No patters  **Stage 6:** Begins with dramatic play No dramatic play  **Stage 7:** Symbolise real life structures No real-life structures |
| 1. Does the stage of construction play cohere with the age of the children? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2**X | **3** | **4** | | No – the children seem to only want to pile the blocks on top of each other. |
| 1. Does problem-solving occur during construction play? | |  |  |  |  | | --- | --- | --- | --- | | **1** | **2**X | **3** | **4** | | 1. Understand:   It seems that they do understand the problem stated.   1. Plan:   No planning really took place – Only piled the blocks.   1. Carry out/ act:   The children only carried and piled the blocks.   1. Check:   No construction were checked. |
| 1. Additional observation |  | All the children wanted to play with the toy animals.  Some children started building with the big LEGO.  The children did not want to play with the boxes or the other open-ended material. |

**Addendum D:**

**Play observation of children with construction and play resources:**

**School code: S5**

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| **Date and time:** | **Situation:** | **Participants:** | **Action Observed:** | **Reflection:** |
| 01/03/2021 | **Is construction play taking place indoors or outside:**  Outside on the playground | **Number of children, girls and boys taking part in construction play:**  5 – Children  3 – Boys  2 – Girls  **Teacher interaction towards children:**  The teacher is not involved during my observation session.  **Teacher’s general attitude towards this form of play:**  In general, the teacher is very involved and is prone construction play.  The children regularly use the 6 bricks method. | **Type of construction play:**   * **Box play** * X **Block play** * X **Big LEGO play** * **Small LEGO play** * X **Open-ended material play**   **Materials and resources used:**  Wooden blocks  Big LEGO  Toy animals | The children only seem to want to play with the toy animals and the big LEGO.  One boy does not want to play at all – He does not show any interest.  Later on, three children started using the wooden blocks to build a house. |

**Addendum E:**

**Polva’s problem-solving techniques:**

**School code: S5**

**Do the children make use of Polya’s problem-solving techniques when engaging in construction play activities:**

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| **Understand:**  One girl understood they had to build a house to help keep the dog dry from all the rain.  Two boys are not engaging with the other children and do not seem to want to help them build. | **Plan:**  Three children are using the wooden blocks to build a house for the dog.  The dog did not fit into the first house, so they started a new house. |
| **Carry out/ Act:**  Three children are working together to build a house out of wooden blocks.  The building stage of the children does not cohere with their age. There is more piling than building happening. | **Check:**  The children check the construction by putting the dog in the house and piling blocks on top of him. |

**Addendum F:**

**Teacher’s personal information:**

**School code: S5**

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| **Teacher’s age:** | 31 years |
| **Teacher’s years of teaching experience:** | 7 years |
| **Teacher’s home language:** | English |
| **Teacher’s qualifications and training:** | Sport science degree  Postgraduate in foundation phase teaching |
| **Schools language of teaching and learning:** | English |