Institute of Education Department of Learning and Leadership

From building blocks to programming: Investigating how best to integrate computational thinking into early years settings

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Background

Computational thinking (CT);

- Is a metacognitive thought process,
- Formulates solutions in a way that "can be represented as computational steps and algorithms" (Aho, 2012, p.832),
- · Automates these solutions through algorithms,
- Generalizes this thought process to a wide
 variety of problems (Barr et al., 2011).



Recently, equipping young children with CT skills as early as possible has been highlighted by several scholars (Pila et al., 2019; Wang et al., 2020).

Computational Thinking: Empower our kid's future



This study aims to

- Examine the different ways that teachers lay solid foundations for CT in the early years
- Uncover the materials and activities that tend to run in the classroom background to promote CT skills of children without being noticed as part of a daily routine.

Methods

To collect data

· Semi-structured interviews with teachers



Observations



 Written field-notes, children's reflective statements during the activities, video records and photographs of the examples of children's games will be used.





References

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