



**SARAECE**  
proudly presents

# Knowledge Building Workshop

*Building your own unplugged coding kit and exploring the benefits thereof*

## About The Workshop

The workshop, titled *Building your own unplugged coding kit and exploring the benefits thereof*, includes an attendance certificate, an addendum describing the workshop, a copy of the presentation and free classroom resources. These materials are designed to support attendees in enhancing the integration of coding and robotics in their classrooms.

## Meet Our Speaker




**Dr Kayla Willemse**

*Lecturer at the University of Pretoria*

Dr Kayla Willemse is a lecturer in the Department of Early Childhood Education at the University of Pretoria. Dr Willemse's research interests lie in coding and robotics education. Dr Willemse advocates for the use of playful learning and the integration of early childhood concepts to prepare future teachers for success in a digitally-driven environment. Her passion for technology education extends to digital design and enhancing students' learning experiences through educational technology.

### REGISTRATION

[contact.saraece@gmail.com](mailto:contact.saraece@gmail.com) 

**BOOK YOUR SEAT NOW**



**Friday, 15 November 2024**  
14h00-17h00 (3 hours)



**Online**

*Attendance link will be sent as soon as we receive your registration*

**R250 ENTRY FEE**

**LUCKY DRAW**



**RESOURCE TO USE**

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# Workshop Overview

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This workshop, *Building Your Own Unplugged Coding Kit and Exploring the Benefits Thereof*, is designed to equip interested stakeholders with the skills and resources to integrate unplugged coding activities into their classrooms. Participants will learn how to create their own coding kits, understand the principles of unplugged coding and explore how these activities can support the development of foundational skills. The workshop provides practical tools, resources and collaborative opportunities to enhance the learning experience for young learners.

## Key Learning Outcomes

- Understand the fundamental concepts of unplugged coding and its educational benefits.
- Have the skills to create own unplugged coding kit using accessible, everyday materials.
- Be able to design and implement engaging coding activities that enhance problem-solving and logical thinking in young learners.
- Gain access to a network of resources and support for continued growth in coding education.

## Curriculum Integration and Concept Development

- Learn how to select and incorporate unplugged coding activities into the existing curriculum to support broader educational goals.
- Understand the ways in which coding concepts, such as sequencing, loops, and conditionals, can be aligned with foundational subjects.
- Explore the role of coding in developing essential skills such as problem-solving, logical thinking and creativity, which are integral to early childhood education.

## Lesson Planning and Reflective Practice

- Develop strategies for planning lessons that integrate unplugged coding activities, ensuring that each activity connects with curriculum goals and promotes holistic learning.
- Practical examples and templates will be provided, allowing participants to customise coding lessons to suit various classroom settings and age groups.
- Engage in reflective practices to evaluate the effectiveness of unplugged coding activities in teaching foundational skills. Consider what worked well, what could be improved and how these activities can be adapted for different learning needs.
- Encourage ongoing assessment and refinement of teaching practices, with a focus on ensuring that coding activities support developmental milestones in early childhood education.

## Professional Growth and Collaborative Learning

- Connect with other educators to share resources, tools and strategies for integrating coding into early childhood classrooms. Build a network of support to continue exploring innovative ways to teach coding concepts.
- Learn how participation in this workshop, along with the completion of practical activities, contributes towards demonstrating a commitment to professional development and enhancing your educator profile.
- Participate in collaborative discussions to exchange best practices and challenges when implementing unplugged coding activities. Gain new perspectives and ideas from peers that can be applied in your own teaching context.
- Build a community of educators who are passionate about integrating coding and technology, providing ongoing support for professional growth and development.

## Integrating Coding Concepts into Early Learning

- Understand how unplugged coding activities can be woven into everyday classroom activities, encouraging children to learn through play while developing crucial problem-solving skills.
- Explore ways to introduce children to coding vocabulary and concepts, making them more comfortable with technology and digital literacy from an early age.
- Create activities that foster a love of coding and encourage children to think creatively and analytically. Promote a culture of exploration where learners feel comfortable experimenting, making mistakes and learning from them.
- Develop coding games, puzzles, and storytelling exercises that make learning fun and engaging, while building computational thinking skills.

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# Themes & Programme

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## 1. Introduction (15 minutes)

- **Overview of the Workshop:** Goals, agenda and importance of unplugged coding.
- **Understanding Coding in Early Childhood Education:** Definition, key concepts and why it is crucial for early childhood development.

## 2. Understanding Unplugged Coding (45 minutes)

- **What is Unplugged Coding?:** Definition and benefits of unplugged coding.
- **Computational Thinking:** Exploration of key concepts such as sequencing, pattern recognition, problem-solving and algorithmic thinking.
- **Interactive Discussion:** Examples of how unplugged activities can help introduce coding concepts without the need for computers.

## 3. Building Your Own Unplugged Coding Kit (100 minutes)

- **Hands-On Activity:**
  - *Step-by-step guide on creating coding tools and activities using everyday materials.*
  - *Participants will assemble kits that can be immediately implemented in their classrooms.*
  - *Everyday items (e.g., coloured cards, beads, strings, dice) that can be used for coding activities.*
- **Customisation Tips:**
  - *Adapting kits for different age groups and skill levels.*
  - *Suggestions for including cross-curricular elements (mathematics, language and life skills).*
- **Engaging Learners:**
  - Techniques to make coding concepts accessible and enjoyable for young learners.
  - Fostering a hands-on, play-based learning environment to encourage exploration and discovery.

## 4. Q&A and Discussions (10 minutes)

- Open floor for questions, sharing experiences and discussing challenges and solutions.

## 5. Conclusion and Takeaways (10 minutes)

- **Recap of Key Points:** Review of essential concepts and strategies covered during the workshop.
- **Resources for Further Learning:** Handouts, templates, and links to online resources to continue exploring unplugged coding techniques.
- **Closing Remarks:** Final thoughts and encouragement to apply new strategies, with information on receiving attendance certificates.