



SANDBOX RESEARCH COMPENDIUM 2021



EMERGING INSIGHTS FROM THE SANDBOX SCHOOLS PROJECT

The Sandbox Schools Project is a multi-year research project that seeks to explore what 'education for a fast-changing world' could look like in South African public schools

Executive Summary



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There is growing evidence and acknowledgement that education systems around the world need to evolve to better equip young learners with relevant skills and competencies for a fast-changing world to enable them to succeed in an uncertain and complex future. The NECT's innovation unit, known as the Edhub, works to better understand and contribute to the local evidence base on this topic. The Sandbox Schools Project is the Research and Development (R&D) mechanism within the Edhub where primary research is conducted in 11 local schools in order to prototype, iterate and learn from approaches to developing skills and competencies in South African learners.

In 2021, as the Sandbox Schools Project commenced its second year of research, the COVID-19 pandemic continued to accentuate the volatility of the fast-changing world and foregrounded the urgent need for education systems to better prepare teachers and learners for this reality. The impact of the COVID-19 pandemic on the education system also highlighted the importance of the ability of all components of the education ecosystem to work collaboratively together in support of a shared vision.

This research compendium is a collection of learnings emerging from the Sandbox Schools Project in 2021. Despite the disruptions and challenges experienced due to the COVID-19 pandemic, the Edhub team implemented and conducted research on several interventions in the Sandbox Schools. The key findings and lessons from the research are highlighted below, with more detailed articles on each intervention accompanying this summary.

Key Insights from the Sandbox Schools Project Interventions 2021



COMPETENCY-BASED LEARNING PROGRAMME (CLP)

Timeframe: Jan 2020 to date

A competency-infused structured learning programme in Grade 1 Home Language, consisting of daily lesson plans, classroom resources, quarterly training, light-touch coaching and ongoing support.

Key insights:

- o The CLP programme is well-designed and delivered
- o Teachers' pedagogical content knowledge (related to literacy) has improved
- o Teachers need time and practice to master the literacy methodologies and to grasp an understanding of the competencies





MINDFUL CLASSROOM

Timeframe: Sep – Nov 2021

A daily mindfulness-based routine at the Grade 5 level designed to equip teachers with 5-10 minutes of mindfulness activities and practices they can do in the classroom.

Key insights:

- o Teachers observed benefits of facilitating mindfulness in the classroom
- o There is a need to increase the teacher training duration
- o Challenging to implement mindfulness in large classrooms



ROBOTICS AND CODING (R&C)

Timeframe: Aug – Nov 2021

A series of teacher training workshops, provision of lesson plans of the curriculum-prescribed practical tasks, teacher support throughout the implementation process and the provision of R&C kits which learners used in Natural Science and Technology group projects.

Key insights:

- o Inadequate digital literacy a bottleneck to effective teacher training
- o Teachers struggled to grasp the fundamental content concepts
- o WhatsApp is the most effective channel for providing teacher support
- o Learners expressed positive sentiments towards the R&C group project and perceived positive educational impact



SCHOOL CULTURE FOR A FAST-CHANGING WORLD

Timeframe: March 2020 to date

Series of participatory workshops with school leaders to co-create an environment conducive to learning in a fast-changing world.

Key insights:

- o Technology and digitisation are essential tools in creating future-fit schools
- o Strengthening school-community partnerships is essential for successful teaching and learning in rural primary schools
- o A neuroleader is the future-fit leader
- o Focusing on social-emotional learning for school leaders, teachers and students, is key to the effective management of schools during a global pandemic





INITIAL TEACHER EDUCATION FOR A FAST-CHANGING WORLD

Timeframe: Jan 2020 to date

Sandbox-aligned studies conducted by postgraduate students at the University of Johannesburg (UJ) focused on teacher preparation for the fast-changing world.

Key insights:

- o Learning to design competency infused lessons should intentionally invoke deliberate practice
- o Pre-service teacher education must be geared towards the development of adaptive expertise because of the complex and evolving nature of teaching
- o Designing play activities that challenge student teachers to think innovatively and enhances their creativity
- o Creating a context conducive to creative learning through a scratch coding club helps pre-service teachers to develop transversal skills

