

Coding & Robotics Pilot Report – Dalubuhle Junior Secondary School (August–November 2025)

Prepared by:

Siyabulela Dumke, Chairperson – ICR Foundation

Date:

December 2025

1. Background

Between August and November 2025, the ICR Foundation implemented a three-month Coding & Robotics pilot programme at Dalubuhle Junior Secondary School, New Payne location, Mthatha. This initiative was undertaken in alignment with guidance from the OR Tambo Inland District Office. Dalubuhle JSS was selected as part of the 2025 piloting phase in preparation for the official Foundation Phase rollout scheduled for 2026. The pilot targeted Grade 3 learners and was delivered during the school's Wednesday and Friday instructional periods.

2. Purpose of the Pilot

- To introduce learners to foundational programming concepts through Scratch.
- To assess the feasibility of delivering Coding & Robotics within rural ICT infrastructure constraints.
- To generate insights that will inform district planning for the 2026 rollout.

3. Activities Delivered

- Structured weekly Scratch programming sessions with Grade 3 learners.
- Practical demonstrations utilizing existing computer laboratory resources.
- Guided coding exercises aligned with Curriculum and Assessment Policy Statement (CAPS) concepts.
- Adapted instructional pacing to suit Foundation Phase learners.

4. Key Achievements

- Learners demonstrated high levels of enthusiasm and adaptability to visual programming.
- Successful completion of introductory Scratch-based Animations, Games, and Interactive Stories.
- Strengthening of digital literacy skills, including mouse control, navigation, and problem-solving.
- Project documentation has been made publicly accessible:

Website: [click here](#)

Facebook: [click here](#)

5. Challenges Identified

- Technical limitations: slow and outdated devices impeded instructional pace.
- Time constraints: limited weekly periods restricted depth of coverage.
- Educator readiness: teachers had no prior experience in computer skills instruction, necessitating targeted support.

6. Recommendations for District Support

A. Educator Capacity Building (Critical)

- Provision of introductory digital literacy training.
- Structured workshops on Scratch and Coding & Robotics pedagogy.
- Mentorship and in-class facilitation support.

B. Resource Strengthening

- Upgrading of computer laboratory infrastructure.
- Allocation of dedicated weekly instructional periods.
- Access to Department of Basic Education (DBE)-aligned teaching materials.

C. Continued Collaboration

- The ICR Foundation remains available to provide teacher support, piloting assistance, and facilitation services.

7. Conclusion

The August–September 2025 pilot at Dalubuhle Junior Secondary School demonstrated clear learner readiness and affirmed the educational value of early exposure to Coding & Robotics. With strengthened educator capacity and moderate resource enhancements, the school will be well positioned to participate effectively in the 2026 Foundation Phase rollout.