June Quarterly Report

To help our youth of today succeed in tomorrow's world



CoRE Learning Foundation

JUNE 2023





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0623 CoRE Operations

CoRE Schools - Expansion and Explorers (CEP)

Gamifying Earth Science (GES)

CoRE Promotional Events



Key Successes



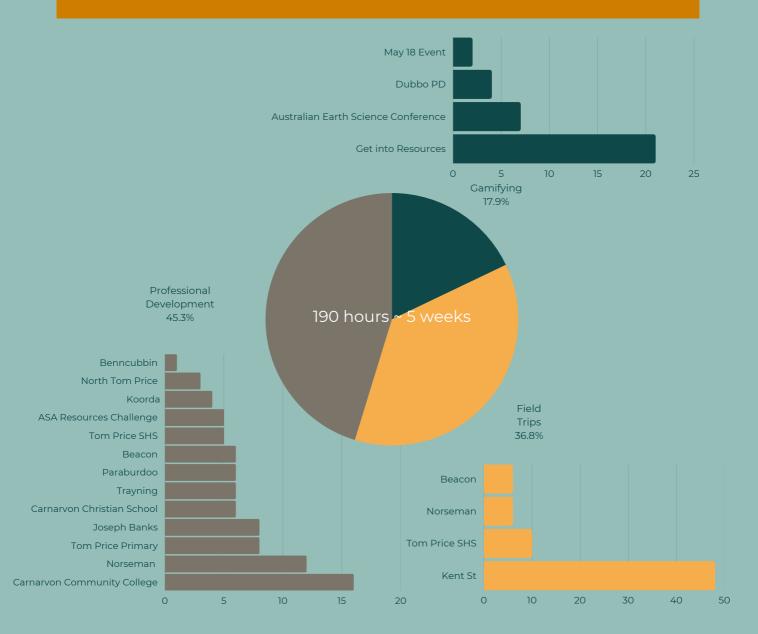


Presented Gamifying Earth Science Manuscript at the 26th World Mining Congress - Brisbane

First government sponsorship with the Gascoyne Development Commission and WA Department of Jobs, Tourism, Science and Innovation



0623 CoRE Operations

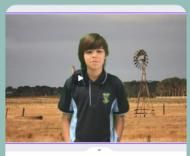


CoRE prides itself in supporting and empowering educators to empower their students. CoRE's critical deliverables for CoRE Schools and Explorers are professional development, team teaching, mentoring and coaching. CoRE's Gamifying Earth Science Initiative is unique and engages students in their learning world. Students who engage in gamified curriculum acquire STEM enterprising skills while learning science curriculum and, most importantly, connect their learning to potential future careers. (These figures represent direct contact hours, and do not include planning or travel time.)



Celebrating CoRE Learning

Through the CoRE Learning Model, diverse learning tasks aim to include as many students on a learning journey with different capabilities, interests and talents. The objective is to engage these divergent learning differences for students to acquire STEM skills and relevant scientific understanding. In CoRE, a STEAM Framework is used to deliver STEM Learning, utilising the student's immediate environmental and industrial contexts.





Merredin Primary students using iMovie to deliver their persuasuve presentation on the preservation of the Mallee Fowl in the Wheatbelt.



Paraburdoo Year 5
students conducting
their investigation for
their Pilbara Survivor
PBL, analysing
different animal
adaptation
techniques.
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A town hall presentation for Year 7/8 students from ACC - Darling Downs. Communication learning is key in CoRE.



Koorda Primary
School students
using playdoh and
lasagna sheets to
conduct their
investigation on the
1979 Cadoux
Earthquake.



Beacon Primary students explored Datjoin Rock for their field trip. So much energy and learning culminating in a field trip report.



Working with two new CoRE educators from Tom Price Primary. After one term, both Alicia and Jorgi are writing their own PBLs with some CoRE support.



CoRE Events



- The Kent Street Ningaloo Eclipse Field Trip to Exmouth. An extraordinary experience for students and educators #therealclassroom
- Submission of the Red Chris (British Columbia, Canada) Game proposal to Newcrest.
- Shape Your Future ATSE (Australian Technology Science Engineering)
 Presentation about the importance of the CoRE Learning Model and its connection to the future workforce.
- **Western Australian Mining Club** CoRE Alumni Award to James Fox.
- CoRE's May 18 Event 'A CoRE Investment Future-proofing the Workforce,' including
 an educator Gamifying Earth Science
 Workshop.
- The Nambung 'Pinnacles and Lake Thetis' Field trip for CoRE Board Members.
- AusIMM Thought Series Future Workforce
 Panel.
- Australian Government Diversity in STEM
 Review for Primary and Secondary
 Education.
- The 26th World Mining Congress, Gamifying Earth Science Manuscript presentation in Brisbane.
- CoRE's first Workplace Learning Placement with CoRE Alumni - Gitali Gitali
- Aussie of the Month Mullaloo Beach PS



"Working alongside you (Jett) and the entire team at CoRE has been an absolute pleasure. I thoroughly enjoyed the collaborative and supportive environment you fostered, which allowed me to grow personally and professionally. The experience I gained was truly invaluable, and I am sincerely grateful for the knowledge and skills I acquired under your guidance."

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Celebrating Industry Partnerships

Presentation of the Gamifying Earth Science Manuscript at the World Mining Congress. A 15-month collaboration with sponsor members - Jo Heyes from BHP and Jill Terry and Simon Troeth from Newcrest Mining.

IGO Graduate Day with Norseman DHS at Lake Gilmore for their 'Norseman to Mars' PBL. A field trip to a salt lake is studied by NASA to correlate microbial life with potential life on Mars.

Ramelius Resources sponsorship for the inaugural Wheatbelt CoRE Resources Challenge to be held on October 24, 2023.

CoRE Learning Foundation Strategy Day at CoRE's Celestial Sponsor - Chevron, new building in Elizabeth Quay.

Consolidation of the JTSI and Gascoyne Development sponsorship for Gascoyne schools and the Western Australian Hydrogen Strategy.













A digital learning tool improving Earth Science education and connecting it to resource industry careers.

"This is the kind of learning I wish I had in school, and I hope for Benefit my kids to learn this way."

Educator at the Australian Earth Science Convention

2023 Gamifying Earth Science Educator **Evidence**

Why Games in the Classroom? Games are a solution to

- To engage students in Earth Sciences, to have a variety of content delivery,
- · to connect the learning to real life for the students.

TESTIMONIAL

"The students found it fun, and the other teacher's found it to be a great idea!"

Emily Graney

Tenison Wood College, South Australia

behaviour management!

- The disconnect between the students and the content they were learning lowered my behavioural issues, and it helped fill the time at the end of the lesson.
- Disruptions
- · Apathy towards their learning
- negative communication between students.

AT A GLANCE

BENEFITS

• It helped explain the Year 8 Earth Sciences curriculum, it helped connect the content with what students were doing, it helped students find ways to positively collaborate.

"Love the Data and Let the Data Tell the Story' - CoRE is very appreciative of the feedback that educators provide. It provides the team with direction and new objectives to satisfy improved learning outcomes.



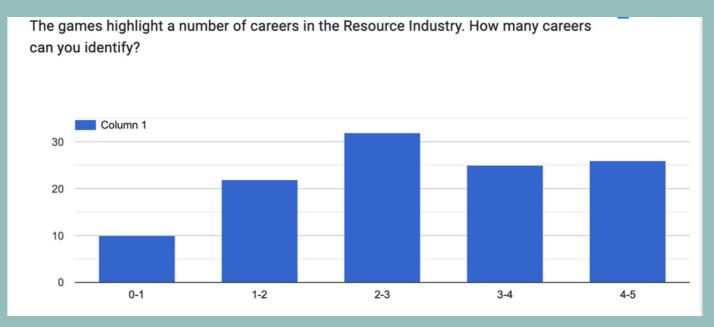
A digital learning tool improving Earth Science education and connecting it to resource industry careers.



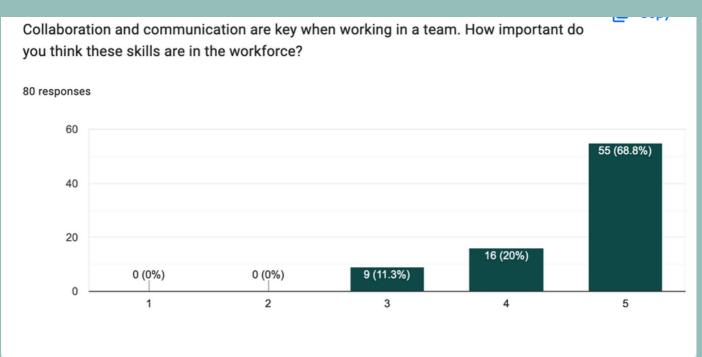
Students from two Resources and Geoscience based workshops completed a survey based on their Gamifying Earth Science experience. Eighty students submitted their results based on the STEM skills they learned whilst playing the games. Two interpretations stand out:

- 1. They use the word STEM as the acronym to identify what the letters represent. This indicates that students need help understanding the difference between the subjects and STEM skills. This observation clarifies the problem that CoRE has been trying to resolve. i.e. STEM Vs STEM Learning.
- 2. The games were designed with STEM skills, and the students recognised them, identifying the critical skills of problem-solving and communication as the most crucial future workforce skills necessary.





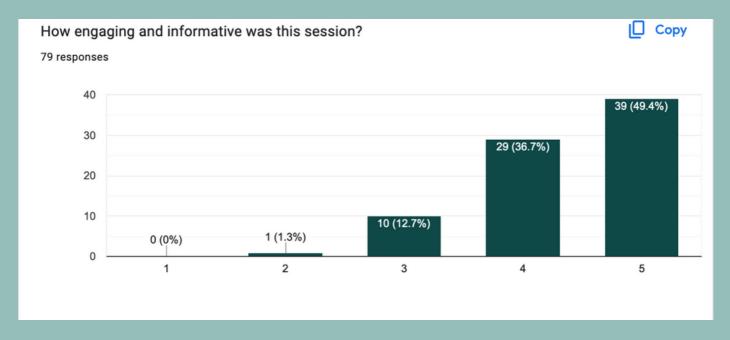
For the Year 10 students, the distribution is weighted to the right indicating that the games have connected learning to future careers in the resources industry. This satisfies one of the two criteria needed when the games were initially designed. While playing the games, most students readily identified the careers through their game's learning experience.



Students understand the importance of these two STEM Skills and can correlate them from their games learning experience with resource industry careers. The games amplify these STEM skills, therefore reinforcing their importance, especially when the CoRE instructors elaborate on the connections when delivering the games. The delivery scenario used during these sessions would also account for this correlation.

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Students enjoy the games, and they learn as indicated by the previous three figures. The games are a new genre; CoRE needs to work at educating educators with novel new resources to demonstrate how the games can be used to deliver the curriculum.



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