

ECD Heroes Challenge

Using gamified learning to motivate and upskill preschool teachers in South Africa



INNOVATION EDGE

invest early



ECD Heroes Challenge.

Studies show that children who regularly attend a high-quality preschool programme perform better at school than their peers. The benefits are particularly pronounced for children from low-income communities.¹ **Defining features of high-quality programmes include having the appropriate learning resources, a good curriculum and effective school management. At the top of the list of 'must-haves' is a cohort of skilled and engaging teachers.**²

With this in mind, the first ECD Heroes Challenge (2017) set out to explore a novel approach to training and supporting the professional development of preschool teachers in low-resourced settings. An existing digital platform, with built-in game mechanics, was adapted to spark applied learning throughout an 8-week competition. Teachers in playgroups and preschool centres across the country signed up for a chance to improve their skill-set by completing a series of themed tasks, while competing for a range of exciting prizes and public recognition.

This case study takes a look at some of what worked, what didn't and how we might do things differently next time round.

Why the name ECD Heroes Challenge?

Preschool services in low-income South African communities are commonly referred to as ECD (Early Childhood Development) Centres and often simply as ECDs.

Who Was Involved.

The Funder & Strategist



The Tech & Implementation Partner with Anthony Selley as Project Manager



The PR Agency



Our Connections on the Ground





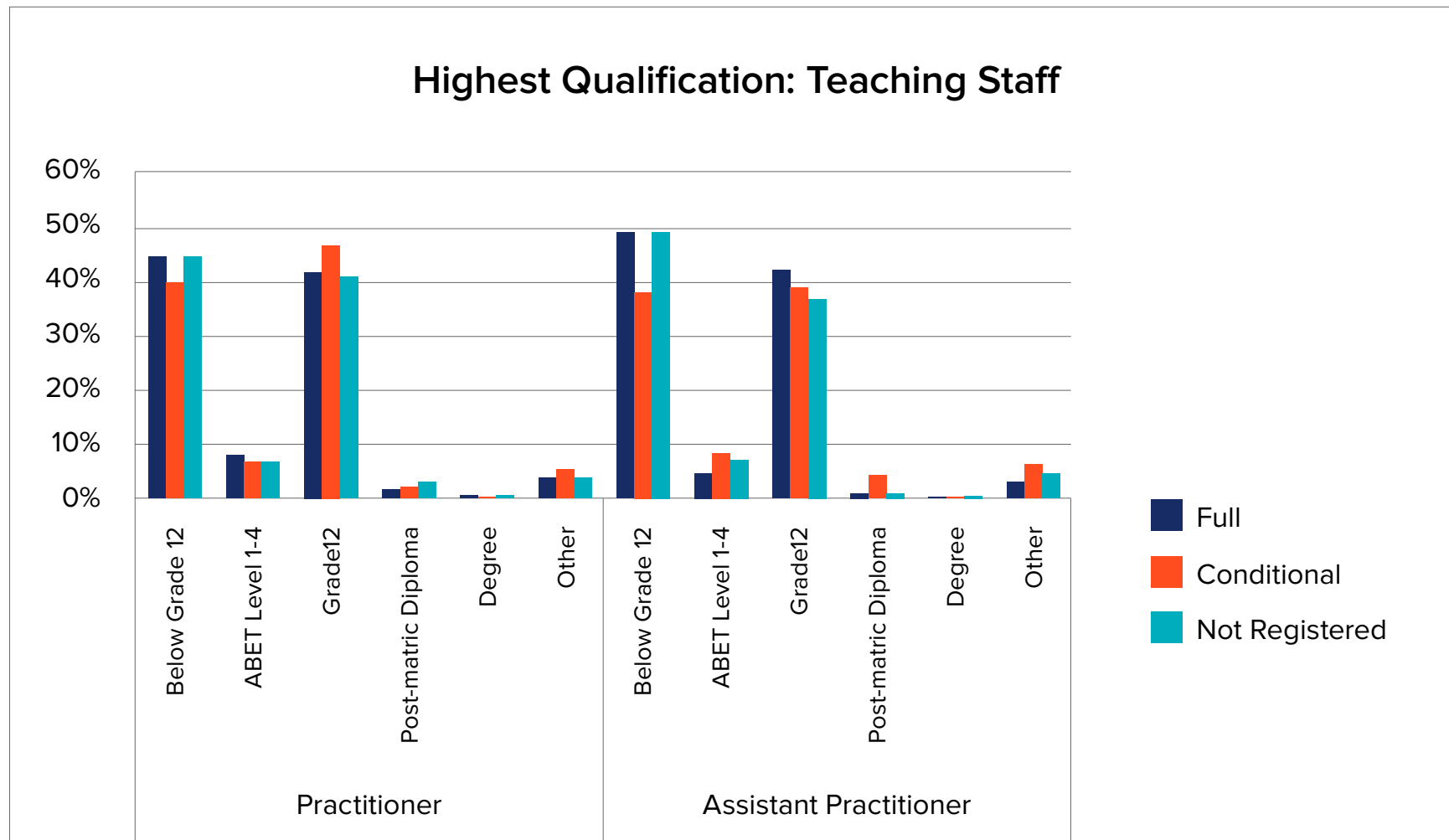
The Dilemma.

Preschool teachers to children in their care are like civil engineers to the buildings they design. They both have the weighty responsibility and unique opportunity to craft a foundation sturdy enough to support everything that comes after. However, unlike engineering, there is limited access to quality training and opportunities for ongoing professional development and mentorship are rare, particularly for teachers in impoverished communities.

Low barriers to entry into the profession may be a good thing for job creation, but have potential negative consequences for both teacher and child. Two such consequences for teachers are the underrated public opinion of the profession and the low levels of remuneration. Most preschool teachers, regardless of qualification, earned less than R2500 (173 USD) per month in 2014.

A 2014 report³ found that more than 40% of teachers and assistant teachers in ECD centres have below a Grade 12 level of education and less than 10% have an early childhood development qualification.





Source of image above: 2014 ECD Audit Report.

Note: The key on the right hand side refers to the registration status of the ECD centre with the Department of Social Development

The Big Idea.

The idea was inspired by a digital gamified platform developed by the Allan Gray Orbis Foundation. They have been using the platform to motivate and equip high school students, through fun and competitive applied learning, to become future entrepreneurs. True to our fondness for pivoting platforms for new purposes, we worked with the Allan Gray Orbis Foundation to adapt their product for preschool teachers.

To create a sense of urgency and to drive uptake, we designed an 8-week challenge-based competition. Preschool teachers would be able to practice applied learning through participating in 40 themed tasks/challenges, accessible from any smart device (phone, tablet or desktop), and incentivised with weekly cash prizes. The completed tasks were to be peer reviewed, with moderation, and would earn points towards live leaderboards. We also wanted to build a national PR campaign around the competition to shift public perception of the importance of preschool teaching and to celebrate the work of exceptional teachers.

We wanted to invest in an unconventional approach to helping upskill preschool teachers in low-income areas.



Our Approach.

For a campaign of this nature to be both relevant and effective, it makes sense to bring on board the right partners right from the start.

With this in mind, we partnered with five NGOs, which support daycare centres and preschools in various parts of the country, to co-create content that went into the weekly challenges/tasks. **Each of the 8 weeks focused on 1 theme relevant to quality learning and to the issues faced by teachers and their students. Each theme (each week) had 5 different tasks/challenges and an assessment rubric to help guide responses; so participants were able to complete a maximum of 40 challenges in total over the 8 weeks.**

The 8 weekly themes covered

- literacy and language
- play-based learning
- parent engagement
- observational assessment
- numeracy
- professional practice
- child protection
- inclusivity



Example of an

ECD Heroes Challenge Task.

Word For Word

Learning new words and getting opportunities to use those new words is very important.

The Challenge

Research tells us that the greater the number of words children hear before they are 3 years old, the better they do in school. By sharing stories often, children will learn new words and build their understanding of the world. Story cards are a great way to do this.

- Make at least 3 story cards that can be used to share a story.
- Use simple pictures.
- Use the cards to start an interesting discussion with your children.
- Make sure to ask lots of descriptive (“What do you see in the background of this picture?”) and open-ended questions (“Why do you think the person in this picture looks happy?”)

If you’d like to learn more about story cards, or even use some of their free resources, then visit Nal’ibali website www.nalibali.org and look at their story cards www.nalibali.org/story-library/story-cards

Assessment Rubric

1. Photograph taken of at least 3 story cards **(20)**
2. Story cards have simple pictures that are easy to see and age appropriate for young children **(30)**
3. A paragraph providing 3 quotes of things children said as they discussed the story cards together **(50)**

The partner NGOs played a vital role in encouraging participation from teachers in their networks and onboarding our first group of users. Some did this in a face-to-face workshop environment and others put out word about the ECD Heroes Challenge and encouraged sign up via email. Some of the NGOs also assisted in moderating the responses to tasks.

Finally, we enlisted the support of a PR company with a national footprint to run two campaigns:

- 1. Pre-competition to help recruit teachers and build excitement**
- 2. Post-competition to drive public awareness and celebrate the winners**

Each weekly challenge had a R1,000 (70 USD) prize attached (that was shared between 1st, 2nd and 3rd place), and the three overall winners each received a Samsung Galaxy Tab, with R10,000, R5,000 and R3,000* in cash for first, second and third place respectively. The top three winners also received public relations support for their ECD centres, valued at R25,000 (1740 USD) each.

* 694 USD, 347 USD and 208 USD



 **5**
achievements

 **71**
words learned

 **3**
hours spent

Literacy & Language

241
points

9/9
lessons

19
words

play

What We Learned.

We've clustered our learnings into 3 categories - motivation, ability and impact.

Motivation

Joining The Challenge

The 5 partner NGOs had the target of onboarding a total of 500 teachers and 538 signed up. The 3 NGOs who hosted **face to face onboarding sessions with teachers had a much higher rate (80%) of sign up** success than those who didn't. The teachers who had the opportunity to ask questions and understand the competition practicalities were more motivated to act on signing up. This is consistent with our experience with other mobile applications across our portfolio, **highlighting the importance of designing onboarding processes that allow for engagement.**

“Wow it has really been an amazing journey. Coming this far was the toughest and most exciting experience of my life. This challenge gave me that adrenalin of writing that final matric exam. I thoroughly enjoyed myself. Thank you to all the ECD HEROES who made it fun to compete against. Thank you INNOVATION EDGE.”

ECD Practitioner

Staying Engaged

Of the 538 teachers who signed up, 259 of them stayed engaged throughout the competition. Fifty of these users completed 80-100% of the challenges and another 50 completed 20-40% of the challenges on a weekly basis. The teachers with lower qualification levels were more motivated to participate and showed higher levels of engagement than their more qualified peers throughout. Regardless of qualification, the vast majority of active participants said that their primary motivation for continuous engagement was that they found the challenges useful. Other sources of motivation included the fun derived from this approach to learning and the recognition of their work. Only a few teachers cited prizes as being a major motivational factor.

A Sense Of Belonging

Rather than sparking competition against each other, teachers felt encouraged by the ECD Heroes Challenge to improve on an individual level, while **feeling that they were part of a vibrant and connected community**. The dedicated Facebook group for the Challenge provided an ideal platform for sharing existing knowledge, new learnings and celebrating wins. They also valued being regarded as experts.

Teachers were highly motivated by feeling connected to educators just like them across the country.



Creating Useful Content

The challenges that saw the highest levels of engagement were those that needed teachers to take a **hands-on approach to developing materials that would be used in the classroom**. Even though these often required more of a time investment, they were seen as more valuable than the passive learning challenges.

“I really enjoyed participating in the daily challenges. Thanks again to the creators of this game, it inspired us a lot. We are looking forward to seeing new interesting challenges again next year. Thumbs up!”

ECD Practitioner



Driving Motivation Next Time Round

While we know that in-person onboarding sessions increase the likelihood of sign up by allowing for engagement, we're keen to **explore virtual onboarding methods**. A video that takes into account frequently asked questions, shared in a WhatsApp group chat, may yield positive results. While the competition will remain open to all preschool teachers in low-income communities, we'll take a more purposeful approach to **onboarding teachers who have lower qualification levels**.

When it comes to content, the more practical tasks had more engagement than theoretical ones. With this in mind, we'll **aim to increase the number of hands-on tasks** that result in useful teaching tools and materials. And finally, because the sense of belonging was such an important motivating factor, it's key to experiment with different approaches to **boosting belonging**. In addition to encouraging engagement on the dedicated Facebook group, we will test other **social media tactics**. These might include providing each participant with a social media toolkit including frames for their Facebook profile pic. These will identify them as being part of a vibrant community of heroic preschool teachers.









Ability

Using The Tech

85% of the teachers used an Android mobile device to access the challenges and to participate, **10% made use of a tablet** and the remaining **5% used desktop computers**.

We made it clear from the beginning that using the platform to participate would cost roughly R20 (USD 1.50) worth of mobile data over 8 weeks. One of the benefits of pivoting an existing platform is that we knew what the costs would be.

From the outset we assumed that the cost of data would be prohibitive and interestingly, it wasn't mentioned by participants as a major concern. **However, concerns about data being expensive may have deterred others from signing up in the first place - this requires further investigation.** The active participants saw the opportunity cost of not participating as higher than the actual cost of the mobile data used.

Operating System	Sessions	%Sessions
1. Android	1,191	 80.36%
2. Windows	139	 9.38%
3. iOS	68	 4.59%
4. (not set)	62	 4.18%

Device Category	Sessions
	1,482 % of Total: 100.00% (1,482)
1. Mobile	1,261 (85.09%)
2. Desktop	142 (9.58%)
3. Tablet	79 (5.33%)

Time and Effort

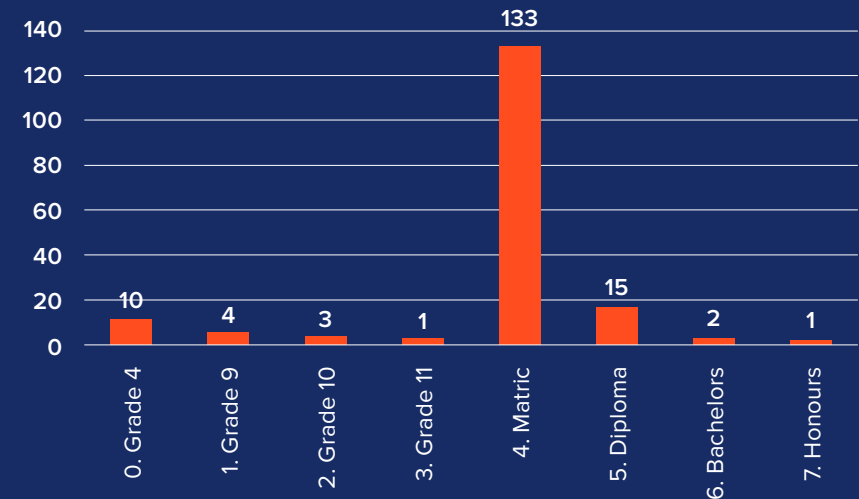
Half the teachers who signed up stopped participating after the first week. The biggest reason given for this was their **teaching workload** - they already had a lot on their plates.

Performance

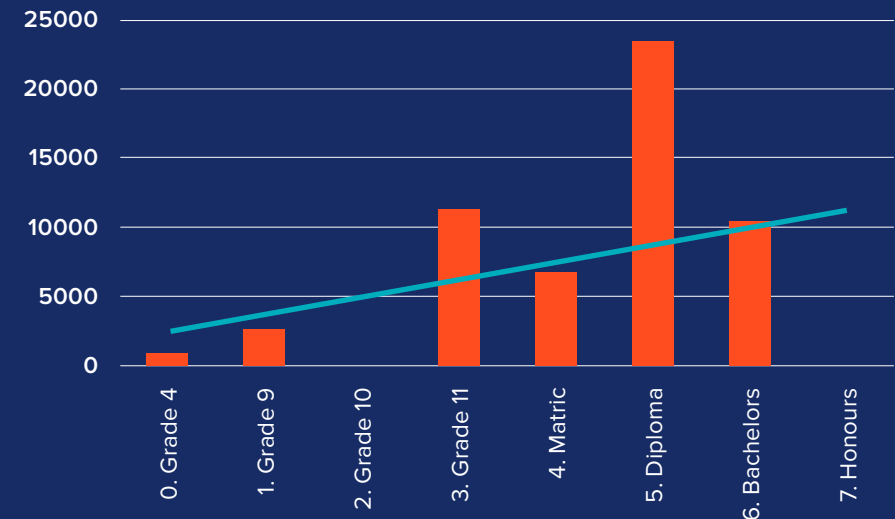
The performance figures are drawn from the challenge stats and onboarding data*. Of the teachers whose qualification level was known, the **15 with a Diploma level qualification scored on average the highest number of challenge points each.**

*In the bid to expedite and maximise the number of teachers who were onboarded, many of the data fields were not captured on the system due to haste. We are building a much richer user profile and info gathering mechanism in the next version of the tech.

Distribution of Teacher Education Levels



Average of Total Points per Teacher vs Education (NDF Level)



“We should take the fact that there are over 400 ECD Heroes in the country as motivation to do even better in our centres. Next year we will definitively be planning more literacy-enhancing activities with the children like listening to them, asking them questions, reading more stories, acting out rhymes and sparking that emergent literacy by getting them to think deeply about their environment and surroundings. For us this is a piece of cake.”

ECD Practitioner

Enhancing Ability Next Time Round

Potential concerns around the **cost of mobile data** needed for participation should be addressed during onboarding activities, as this may increase both sign up and continued engagement. **Partnering with a company, which delivers affordable wifi to low-income communities** is also worth exploring for the onboarding sessions.

The teachers who had signed up and dropped out of the Challenge after the first week cited their **heavy workload** as the reason. One of the things we'll be looking at is how we might encourage the completion of tasks as part of routine lesson preparation.

We adopted the 8 week, 5 tasks a week approach from the original Allan Gray entrepreneurship challenge. Next time round we would also like to **explore having fewer compulsory challenges with optional tasks for bonus points.**





Impact

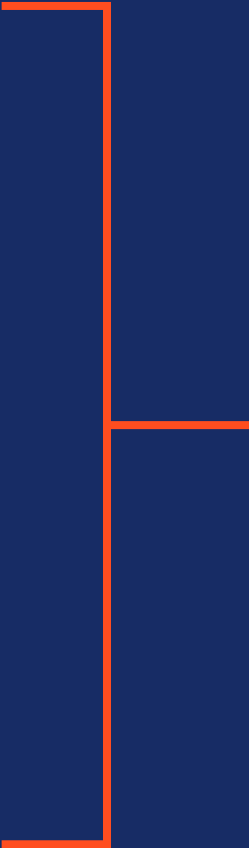
The first ECD Heroes Challenge ran from 3 October to 3 December 2017

538 preschool teachers from 7 Provinces signed up

Half of those teachers actively participated

Most of the engagement came from a group of 50 highly motivated teachers

A total of 3380 Challenges were completed over 8 weeks



The overriding sentiment from teachers was that the challenges were fun to do and helped them improve their knowledge. They also emphasised how much they valued the appreciation of their work.

Perceived Value

95% of the participants said that they found most of the challenge to be relevant and useful.

All 5 NGO partners expressed an interest in being involved again.

Using Pr To Shift Perspective

The 3 month PR campaign (Oct to Nov 2017) had the overall reach* of over 9 million people in South Africa. This was achieved through 22 pieces of coverage across online and broadcast media.

While it is difficult to gauge a shift in public perspective from just one campaign, it was clear that the PR exposure encouraged a shift in the participants' sense of pride in their work.

*overall reach refers to the total number of different people or households exposed, at least once, to the campaign during a given period

**“The teachers loved the
Challenge! This is a great
way to get new practices
into the profession.”**

Sarah McGuigan from Ntataise

8 Ways We'll Be Expanding Impact Next Time Round

1. Building improved data collection mechanisms before and during the Challenge for a more thorough impact analysis
2. Embedding some sort of assessment to determine the nature of behaviour change from week 1 - 8
3. Designing effective feedback loops to deal more swiftly with issues related to user retention
4. Increasing the number of partner organisations with at least 1 per province
5. Growing the number of Challenge participants to 1000 teachers
6. Improving the retention rate with at least 40 % of participants completing 40% or more core challenges
7. Maintaining momentum and driving brand loyalty by launching the following competition at the same time of year as the former
8. Exploring new ways of showcasing and sharing the best practice emerging from the Challenges





Final Thoughts and Next Steps.

We set out with the assumption that pivoting an existing digital gaming platform for a new audience would work - and it did.

The feedback from the first ECD Heroes Challenge suggests that the teachers who engaged with the competition enjoyed it and found value in the content and process. The PR campaign and associated recognition of, and appreciation for, their work energized teachers and created a powerful sense of community. Many now feel part of a national movement towards quality preschool teaching practices. It is highly encouraging that all of the NGO partner organisations would like to be involved in the next round.

Drawing on what we've learned during the pilot, the next ECD Heroes Challenge (2019) will refine the challenge platform and content; experiment with new gamification techniques; and expand the number of teachers reached - particularly those with lower qualification levels. It will test different engagement strategies and methods of

incentivisation. Also up for exploration is the way we engage with media to encourage them to shift the narrative around preschool teachers not just for the challenge period, but beyond.

We look forward to sharing the next set of lessons with you.

The Innovation Edge Team

References

¹Duncan, G. J., & Magnuson, K. (2013). Investing in preschool programs. *Journal of Economic Perspectives*, 27(2), 109-32.

²Janeli Kotzé, 2015. "The readiness of the South African education system for a pre-Grade R year," Working Papers 15/2015, Stellenbosch University, Department of Economics.

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