

MODULAR PD ENABLES PATHWAYS FOR GENERALIST TEACHERS TO ‘LEARN AS THEY TEACH’ SCIENCE INVESTIGATION, WITH DR EGG ADVENTURES LABORATORY DIGITAL RESOURCES

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THEME:

Teacher education and professional learning in STEM

BACKGROUND AND AIMS

With an ever-increasing demand for quality STEM learning in the 21st century, teachers in Australia face certain challenges that make professional development in this field difficult to achieve and maintain. According to the authors of the ‘Challenges in Stem Learning in Australian Schools – Literature and Policy Review’, there is a need for efficiency in STEM training for generalist teachers in primary schools, with few primary teachers having a strong background or tertiary qualification in STEM subjects (Timms et al. 2018, p. 18). During 2 years of COVID teaching conditions, many students have fallen behind in essential STEM skills.

To remedy this ongoing problem, we are studying the implementation of a Modular Professional Development (‘modular PD’) program to equip current primary teachers with STEM training. This enables pathways for generalist teachers to ‘learn as they teach’ in the classroom.

Our current product, the ***Dr Egg Adventures Laboratory***, has been co-designed with leading STEM educator and MQ School of Education Senior Lecturer Dr Anne Forbes and has been trialed with participating teachers in 6 NSW schools during 2020-21 to determine its effectiveness as a training tool for teacher’s STEM skills.

METHODOLOGY

In this study, we aimed to validate our product by testing one of the new *Dr Egg Adventure’s Laboratory* Digital Teaching Resources for its effectiveness in increasing in-service teachers’ efficacy in teaching STEM education concepts.

The research is being achieved through online pre- and post-implementation surveys.

RESULTS AND CONCLUSIONS

At this stage, the data collected is a small sample (11 respondents). However qualitative and quantitative feedback has been received from pre and post-questionnaires from teachers at four primary schools. This presentation will summarise the findings to date.

REFERENCES

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