



The effect of two interventions on high ability underachievers

School Based Research Project 2017 Interim Report Inaburra School

Project overview

This project examines the effects of using bibliotherapy and differentiation techniques to support the learning needs of students identified as high ability underachievers at Inaburra School. It addresses the question: *Would bibliotherapy and/or differentiation techniques be sufficient to reverse underachievement in high ability students?*

Bibliotherapy is the technique that systematically matches reading materials to the needs of each learner. It has been proven to help with student achievement and development (Johnson, Wan, Templeton, Graham, & Sattler, 2000, cited in Cook, Earles-Vollrath, & Ganz, 2006). With regards to differentiation techniques, a number of models have been developed to assist educators to meet the needs of gifted students. For this project, the Maker Model (Maker, 1982) was selected to differentiate the curriculum.

This project will be the first in Australia that studies the use of the Achievement-Orientation Model (AOM) (Siegle & McCoach, 2005) and bibliotherapy with high ability underachievers. The AOM explains why high ability students underachieve. According to this model, high achieving students find school useful (goal valuation), the environment supportive (environmental perceptions), and perceive themselves to have ability to perform academic tasks (self-efficacy). Fostering these factors leads to motivated students who self-regulate and are engaged in their learning (Siegle & McCoach, 2005). The importance of these factors to successful learning is also well supported by Hattie's (2009) meta-synthesis.

It is anticipated that this project will provide guidance for further work with similar students. This may be by embedding the interventions into the school curriculum for use with other identified high ability underachievers. The results may also inform other schools who experience similar challenges.

The research team

The research project is led by Lye Chan Long, Director of Research and Enrichment, and Adrienne Erwin, ICT Learning Leader. The team is supported by critical friends Professor Del Siegle (University of Connecticut), Assistant Professor Jennifer Richotte (University of Northern Colorado), and Ruth Phillips (University of Wollongong).



(From the left: Lye Chan Long, Adrienne Erwin, Del Siegle)

Project design

The project was designed to look for indicators of improvement in motivation and achievement scores of identified high ability underachievers after a 10-week intervention program. The research team chose to work with a number of Year 9 and Year 7 students who were identified as high ability underachievers.

Students would be exposed to both interventions — bibliotherapy and differentiation — and asked to choose one for use in their class activities, lessons and tasks. In addition, the research team would show them how to blog about their feelings and results as a way to gather data and information for the project. Data about students' motivation and attitudes to school and learning would be collected through a pre and post survey.

Progress to date

In line with the project design, in Term 1 of 2016, fourteen Year 9 students were allocated time to learn about bibliotherapy and the Maker Model. Students then chose the one intervention they preferred to use. Following in-house training focusing on how to blog, students wrote to express what they felt and had learned over the term. They met in a group with a project member for 10-20 minutes every fortnight during their elective lessons, to provide an account of their progress or difficulties.

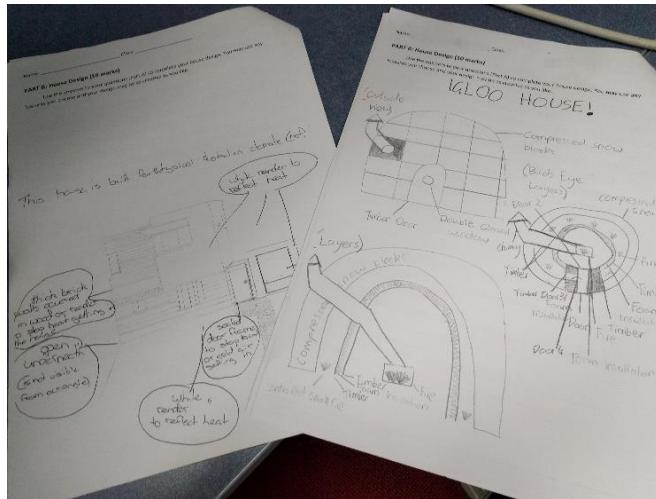
In Term 3 of 2016, fifteen Year 7 students participated in the second phase of the project completing the same process. As some Year 9 students had found it difficult to use the interventions early on, project members decided to visit Year 7 students in their lessons, helping them to apply the interventions more effectively.

Preliminary results indicated that the interventions appeared more effective for Year 7 students. The research team speculated that this may be because students



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appeared more enthusiastic and happy to be challenged, or because they were provided with more targeted support.



While the research team would like to compare the effect of bibliotherapy and differentiation techniques, students appeared to find that the two interventions overlapped. This was especially so for Year 7 students.

In general, the research experience has been positive for the school. Some teachers are interested in learning about the process, others are interested in the outcomes achieved so far by the students, and some have commented on the progress made by the students two terms after the interventions ceased to be recorded.

Results of the project to date have been shared at the *Australian Association for the Education of the Gifted and Talented Conference* in October, 2016, and the *Australian Association for Research in Education Conference* in Melbourne in November, 2016. On one of these occasions, the research team had a chance to meet and discuss the interim findings with Professor Del Siegle who encouraged the team to publish the results.

In December of 2016, two members of the research team visited seven schools in the US and Canada to learn how these schools support their high ability underachievers. These included Robinson Center in Seattle, a school on the University of Washington campus for accelerated students, and the Bridges Academy, a college preparatory school for gifted students who also have learning differences such as AD/HD, executive functioning challenges, and anxiety. Findings from these site visits are being synthesised to share with the wider school staff.

There have been some challenges, mostly to do with time to run the project, and time for the research team to meet. This has mainly been due to the complexity of combining the research process with the busyness of the school environment.

Where to next

In 2017 the interventions will be repeated together with a new cohort of students. Year 9 students were selected at the end of 2016 to begin participation in Term 1 of 2017, and Year 7 students will begin in Term 3. With data combined from the two years of interventions, the research team hopes to have a sample size large enough to enable rigorous quantitative data analysis to be undertaken. These results will further strengthen the discussion of the project's research findings.

The research team plans to invite Ruth Phillips, a critical friend, to teach a professional learning strand for teachers on motivating underachievers in the first half of 2017. This will include five one-hour sessions after school and a one-day intensive course.

The research team will submit abstracts to present at a number of other conferences to share the project's findings, including the *World Gifted Conference* to be held in July, 2017 at UNSW.

References

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