ROBOPOCALYSPE: Maker Learning in Drama

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Introduction

The aim of this action research was to make **classroom experiences more engaging** for students and to implement a school wide priority of Design Thinking into Middle Years Curriculum (Grades 5-8). The project was an investigation on whether **Maker Learning** was an effective platform for learners to become problem solvers, more **engaged** and challenged through creative and robust learning that will ultimately enhance their skills of drama. All activities were thoughtfully selected to reflect the Maker Movement Manifesto that describes Makers as having "mindsets organised around nine key ideas: make, share, give, learn, tool up, play, participate, support and change". (Sheridan, 2014, p. 495).

The Research Question

How can Maker Learning enhance Grade 7 boys' engagement in the Drama classroom?

Research Context

Brisbane Grammar School is a large metropolitan independent day and boarding school in Australia, educating 1500 boys in Grades 5 to 12. The School maintains a strong tradition of academic, cultural and sporting excellence. Brisbane Grammar School is proud of its successful innovation in all aspects of teaching and learning.

Participants

The research was conducted with a Grade 7 Drama classroom (11 & 12 years old) studying the subject on a semester rotation. In total 24 boys participated.

The Research Action

Participants engaged in a variety of Maker Learning activities that explored characters, situations, events and issues that were set in the fictional dramatic context of a post-apocalyptic world called the Robopocalypse. Participants were introduced to the Robopocalypse through a Process Drama that provoked the students to build belief as they were enrolled as apocalypse survivors. The intervention was staged during the initiation phase of a Drama unit. Participants engaged in a variety of Maker activities, including:

- *Fort Building* - participants designed shelters out of recycled materials
- *Stop Animation* – participants created storyboards and used Lego to build robots. They also used a Movie Maker app on their iDevices to create short films
- *Object Theatre* - participants used recycled objects to build robots for a performance. Instead of objects specifically designed for puppetry, object theatre deliberately uses everyday objects, to transform into other things, requiring the skill of the performer and the imagination of the builder for its success.

Data Collection and Analysis

A range of qualitative and quantitative data were collected using:

- **Student surveys** - online pre-survey and reflective questionnaires that unpack their Maker experience and level of engagement (anonymous/individual submission)
- **Small focus groups and interviews** - filmed and guided by key questions
- **Student reflective booklet** - used as evidence of student engagement
- **Classroom observations** - kept as reflective video logs
- **Footage** and **photographs** - captured participants' level of engagement

> *"By using student voices, I was able to ensure the authenticity of my research and provide further triangulation of the evidence. The footage provide an insight into the students' **metacognitive strategies**, collaborative journey and individual decision-making process to solve problems"* *Tanya Neilsen*

Key Findings and Discussion

Video Footage and Observations

There was a transformation in the way students identified themselves as inventers and creative thinkers. They were learning not only through **'doing'**, but also through creating. Students were placed in role as news reporters as they questioned each other about the Maker Learning experience. They recorded their interviews on iPads.

> *"**I loved** building the fort. The activities helped me improve my team work skills and confidence".* Participant 17

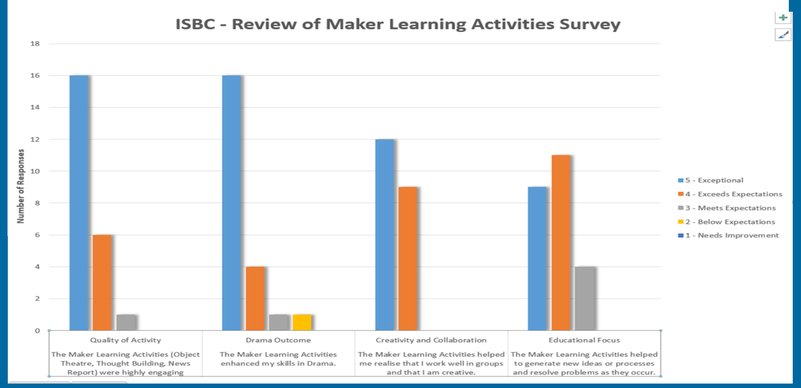
> *"The **Robopocalypse** idea was really good because we got to **invent** our own robots, make animation, with Legos like we were architects, which is very **cool**"* *Participant 24*

> *"Doing the building activities you were constantly **problem solving**. We weren't given instructions on how to build, just safety precautions. Miss Neilsen told us to be as **creative and inventive** as we want. The point was there was no wrong way to do this"* *Participant 2*

> *"The hardest bit was designing and building things. It wasn't like Lego where you were given instructions, but it was **super rewarding** to see the end result of our survival forts and robots"* *Participant 18*

Student Surveys

The data revealed that students found the Maker Learning activities "**exceptional**", particularly the quality of the activities and the benefits towards Drama outcomes. The use of **new** and **old technology** also challenged their creative and collaborative skills.



Conclusions

The **Maker Learning** mindset in a Grade 7 Drama classroom **engaged** students in collaborative and autonomous practice that not only nurtured their design thinking skills, but also **enhanced** their dramatic skills. Overall, the results exceeded expectations; participants really **enjoyed** all of the activities and discovered that Maker Learning became intertwined in developing their skills in Drama. Furthermore, the data showed the **Maker mindset** was a key attribute to developing confidence and divergent thinking skills through tinkering and inventing. *Participant 6* summed up the project best when he said ...

> *"It helped me understand that sometimes bad ideas can be good. At first I didn't understand how building robots would help me perform better on stage, but the weird thing was it really did. The activities were **relevant** and **fun**...making the robots helped us create a more believable performance as apocalypse survivors. It was easier to pretend to be a character because we invented a backstory. Doing problem solving activities in a group helps you generate ideas and learn new ideas too"*

Key Readings

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Further Information

For the digital portfolio and full research information, go to http:// tneilsenibsc.edublogs.org/
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