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Summer of Space(s): Centring young people in creating a narrative about space travel

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Abstract

In 2019 the Science Museum (London) ran a Summer of Space for the 50th anniversary of the Apollo Moon Landings. I initiated and ran a free workshop that centred young people and their experiences, asking each young person to respond to a scenario and creating a page of a zine (a community created magazine). All the pages were collated over the period of the workshop(s), along with some data about the individuals who participated. This paper explores how centring the narrative on the young people; helping them see themselves having scientific skills relevant to space science shaped their responses on the zine pages. Moreover, this talk will discuss how the activity was generated, including development of scenarios celebrating a diverse range of skills, selection of fictional characters that represent a plural selection of genders, races, ethnicities, and sexualities, and provision for different languages, and how these choices depart from the constructions within the Science Museum itself.

1. Activity Set Up

2019 marks 50 years since the Apollo 11 landing on the moon, with many (inter)national organisations running special sessions and celebratory events (see, for e.g. [1]). At the Science Museum, London, a programme of 'Summer of Space' [2] included the opportunity to lead workshop activities aligning with their aims of highlighting space science, space careers, and providing fun, engaging activities for visiting families within the Museum space. This paper focuses on the 'Moon Tales' activity, which gave participants the chance to make a page in a zine. The prompts that scaffolded the activity were designed to elicit responses from visitors that explored scientific skills for problem solving in a situation of being on the way to the moon, or living on the moon.

1.1 Aims of the activity

The primary aim of the activity was to facilitate students seeing creative problem-solving skills as important scientific skills. Subsidiary aims included introducing new fictional characters representing a variety of skill sets, ages, races, genders and sexualities in the context of science; and ensuring that participants had a enjoyable experience in the Science Museum while thinking about space.

1.2 Highlighting Science Skills

Recent work by Archer et al. builds on Bourdieu's work on types of capital [3] and suggests that his categories are limited by only recognizing cultural forms of capital, and that understanding 'science capital' (popularized as the ability to see science as being 'for me') as a form of capital that individuals has is key for change in scientific fields and who works in them [4]. The workshop was developed to highlight some of the traits of science capital – including science related attitudes, family science skills, and talking about science in day-to-day life [5]. Some scholars, including Yosso, argue that using Bourdieu's ideas of capital exclude communities of colour in education, and their work additionally highlights six other forms of capital that we valued in our workshop. These include aspirational capital, linguistic capital, familial capital, social capital, navigational capital, and resistant capital [6].

1.3 Zine and Zine-making practice

Zine making is a resistive, feminist, practice that challenges the idea of making of formal institutionally sanctioned publications, and instead transfers the ownership of the material to the creators [7]. Hoffmann and Stake argue that zine-making draws on participatory learning, validation of personal experience, and the development of critical thinking skills, three key tenants of feminist pedagogy [8]. Thus, this method was determined to support the aims of the activity (ownership of science capital skills, participation and fun), as well as giving visitors to engage in critical thinking skills in a scientific context.

2. Methods

This activity was designed using the Science Capital Teaching Approach [9], and using the 'People Like Me' framework [10] to ensure that the prompts created allowed as many visitors to draw on as many different scientific skills as possible in creating their narratives. In analysis of the zine pages, queer feminist informed mixed methods approaches are used to understand the information presented. These include qualitative and quantitative content analysis [11], visual analysis [12], particularly drawing on content from the 'Draw a Scientist' test [13] to understand if and how the narrative framing and use of the zine format may have shaped the responses of visitors in creating their depictions.

3. Summary

As the 'Summer of Space' season is yet to happen (it sits between the abstract submission deadline and the conference) the analysis has yet to be completed. The analysis will address three key points:

- Language use, and descriptive terminology associated with scientific skills when used in a creative and imaginative setting.
- Imagery, colours, and narrative arcs associated with science and moon-based projects; and understanding if approaching the content in a science setting, but from a creative point of view, encourages different representations
- Choices made to answer specific propts over others within all possible options for their work.

This presentation will be a space to discuss the findings of this workshop, and will make efforts to think about how similar strategies could be used to destabilise and subvert narrative construction by young people during in other science events that centre on historic events that are exclusive in their representation of white, western, men as the only group with in the celebration of the event.

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References

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[2]https://blog.sciencemuseum.org.uk/spend-your-summer-holiday-in-space/

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