

Topic in a Box - The co-creation of digital resources for disadvantaged primary school pupils.

**Authors:** Dr Damien Homer and Dr Tamara Thiele

## Topic in a Box

This project is based on a Widening Participation (WP) project called 'Topic in a Box' which aimed to increase primary school students' interest in different subjects and to expose them to Higher Education (HE) by providing them with digital learning tools, lessons, and innovative resources.

Primary school students were chosen for the project for three main reasons. Firstly, primary school children are of an age where they are not already limiting their academic interests, and many have not yet decided what they want to do in the future (Robinson & Fielding, 2007). Consequently, there is greater potential to increase interest in subjects, which is often an incentive to continue learning about the subject at a higher level (Chambers et al, 2018). Secondly, this project sought to address the widening gap between privileged and disadvantaged students by targeting primary schools in areas of high disadvantage as there is evidence to suggest that the learning of primary school students, but especially those from low SES backgrounds, has been particularly affected by the pandemic (Blainey et al, 2020). Thirdly, WP research and evidence is limited when it comes to primary school children and is considered particularly necessary (Gorad, et al, 2006).

A key deliverable of the project was for university students to create digital 'boxes', which contained teaching material, these were in four different subjects, namely: History, French, Sustainability and Film. The specific boxes students worked on depended on their area of expertise/the department they were in, and all students were supported by academics from the corresponding departments as well as professional staff members involved in WP, to develop the material and to implement the project. Thus, the project was designed to be student-led, and this study focuses on the experiences of the young people rather than staff, although it should be acknowledged that academic and professional staff met regularly with students and played a crucial role in guiding them to develop these resources.

There are arguments made for ensuring that students are formally recognised, or compensated for their time, when taking part in co-creation activities (Ruskin & Bilous, 2021). The student co-creators involved in this project were all paid for their involvement in developing the resources. Similarly to other co-creation projects, where students are seen as equal partners (Bovill, 2014), the

students developing these resources were treated as joint constructors of knowledge, and were duly remunerated for their time and efforts.

Co-creation practices can be, and are often selective, with the same engaged or privileged students taking part (Bovill, 2020). This current project sought to involve students from different backgrounds in an active effort to promote greater inclusivity, awareness of WP practices and to recognise the significance of students' intersectional and experiential differences. Students had to register their interest to take part, and those with the most relevant experience, but also from diverse backgrounds were chosen to take part.

## Participants

There were of nine students (out of a possible eleven) who were interviewed as part in the Topic in a Box initiative in 2020/21. The participants were all from the University of Warwick and volunteered to take part in the study after they had completed creating the learning materials.

The semi-structured interviews were conducted during the summer of 2021, and due to on-going Covid-19 pandemic, were conducted online via the digital platform Microsoft Teams. The interviews were later transcribed and analysed; also participant names have been pseudonymised in order to uphold anonymity. The participants who took part in this study were from a range of different disciplines within the University, and all had taken part in university education, which was in some way blended, or online (Burki, 2020).

## Findings/Discussion

The process of co-creation within WP/Outreach is relatively unexplored (Steinhaus et al, 2018). This report will seek to demonstrate how students feel about creating materials for school pupils, and may help to demonstrate the benefits for others who work in this space.

There were three overarching themes which were: 'Working together'; 'Giving back'; and 'Pedagogical considerations'. These themes will be discussed and reflected upon, in conjunction with relevant literature from the field.

### **Working together**

The students created the boxes, with the support of staff, both parties contributed, with shared responsibilities (Cho et al, 2020). The students undertook the project at a time of great uncertainty and change but were guided by staff who had experience in working with primary aged young people.

The start of the co-creation process began with staff and students meeting together to establish working practices which enabled them to plan, prepare and organise how they would work together. In many respects this process was supported by social learning (Hoppitt & Laland, 2013), where the process of interaction facilitated the creation of the learning materials:

(Staff member) introduced the whole idea and premise of it, and we just started to kind of understand exactly what we needed. (Navneet)

We had to go to a kind of a training day where we were taught the stuff that we would then be teaching the kids to make sure we knew what we were talking about and that was good....and then from there on we kind of we were put into groups. We gradually started meeting in those groups and were given some guidance as to how to direct the lessons for the kids. (Ellen)

The work on developing the initiative began before the lockdown began, so for some participants there was a crossover period where they met face to face, before them moving to digital communications:

I think we got to have like one meeting and then Covid hit and all of that. And then since then we've been online, which has been really good skill because organizing yourself online and meetings online is quite difficult. (Simi)

Others found the process of working and meeting online 'tricky' (Hannah), whilst others found they 'missed that personal connection' (Sabrina). Conversely, other students found the move online helpful because they were not 'restricted by physical location, we could be anywhere in the world at any time and have a quick meeting' (Polina).

### **Pedagogical considerations**

It has been recognised that there is a need to support pupils from a primary school age if we are to address the systemic barriers to HE later in life (Taylor, 2008; Watt, 2016). This intervention sought to provide co-created lesson plans, schemes of work and supportive learning materials for school pupils in Key Stage Two (usually between 8 to 11 years of age). These materials were developed between staff and students, working 'collaboratively with one another to create components of curricula and/or pedagogical approaches' (Bovill et al, 2016: 6-7). The student co-creators spent time thinking about how they may best produce the materials, linking to primary level curriculum:

I mean, we actually looked at the school curriculum and then tried to pair up some of the things in the box with what they would already be learning, but we tried to ensure that it didn't seem just like another normal boring lesson because we didn't think

children would engage as much with it if it was like that. We tried to make it really fun and engaging. (Ellie)

**Puzzle 5**  
What does a plant need to grow?

This puzzle needs you to choose the correct options to reveal the answer.  
Keyword: The Sun

Figure 1. Sustainability Box

**Media Timeline**

Start of the day ...

Example:  
I watched a vlog, on YouTube in the car on my way to school. I saw two adverts for a new video game.

AIM: Create a timeline of four different medias you have used today.

PROMPT:  
- What did you watch?  
- How did you watch it? (Device)  
- Where did you watch it? (Apps, and location)

Now...

Figure 2. Film Studies Box

The students, working with staff, spent many months on crafting and developing resources which they felt were engaging, but also being mindful that as with many WP and outreach practitioners, they were not teachers or academics themselves (O'Brien, 2013). The students who developed the materials wanted to 'stretch and challenge' the school pupils, with their own experiences in education often shaping their views, and moving away from the often deficit approach which can be taken when designing for disadvantaged school pupils:

I very much believe that they know a lot more than probably people give them credit for....we were hoping that the course would also be challenging for them as well. So, like, not just kind of spoon-feeding them these concepts, but encouraging them to also reach and stretch themselves a bit more as well. (Simi)

To move WP and outreach work from a position of generalised information and guidance about university, to a more specific subject space is something that is considered by other authors (Rainford, 2021), but by making the content student generated, it can add an authenticity to the lived experience of those who are currently studying (Austin & Hatt, 2007). Arguments have been made that initiatives with school pupils at this age should seek to develop their curiosity in different subjects, so that university can be seen as a place that ‘people like them’ can go to (Bowes et al, 2015).

### **Giving back**

Many young people who get involved in WP and outreach programmes, or become ambassadors or mentors are often those who want to ‘make a difference’ (McLaughlin, 2010) and this process has continued during the pandemic (Padma, 2021) as the pivot to online activities was developed by institutions across the UK (Office for Students, 2020).

The young people who developed resources for this intervention had a variety of motivations for taking part, but most notably a desire to ‘give back’ to others. Ellie described it was a way of feeling like she was ‘helping like the next generation’, whilst others saw it as a way of highlighting the range of subjects that young people could study, in many respects they were advocates for their subjects:

I think that's also another reason why I really wanted to do this, 'cause I was very aware that like especially people, especially in the black community, creative subjects and stuff like that are not, like you're not going to be encouraged into those positions. (Simi)

The desire to ‘pass on’ to others the opportunities that have been afforded to the participants who designed the boxes was also a constant theme; this can help school pupils to see that HE is in their reach (Gale et al, 2010). The desire to inspire primary school pupils from disadvantaged areas to imagine and believe that HE can be a viable future option for them (Thomas, et al, 2012) was stated repeatedly by the participants:

You're not going to have as much knowledge about how university works as someone who has family members who have been to university and also in some communities, you might not even think that university is an attainable thing for you to do so I think it's great for universities to show that anyone can come. (Ellen)

### Conclusion

This project has demonstrated that there are gains to be made from involving university students in the co-creation of learning resources for primary school pupils. It is mutually beneficial situation as the students gain experience, skills and a sense of 'giving back', whilst the school pupils are able to benefit from lessons which are topical and created with them specifically in mind.

Although the Covid-19 pandemic has doubtlessly focused minds to online, blended or digital approaches these types of approaches to support disadvantaged students and widen access have been explored in other circumstances (Osborne, 2003) for example, those who live in rural communities. Furthermore, there should also be acknowledgement of the 'digital divide' which can exclude certain communities from these processes (Holmes & Burgess, 2021), although it would be rare for school in the UK to have this problem, this is not the case in other countries

The stark underrepresentation of certain groups in HE with the UK continues to be a focus of universities across the country (OfS, 2019). WP and outreach work, where the possibilities of future education and career options are articulated to young people, are vital if the sector is to close the access gaps that exist. These student co-created lessons sought open the possibilities beyond compulsory education and demonstrate that there is a place to study a variety of different subjects. University can be seen as a 'place for them'.

## References

- Austin, M., & Hatt, S. (2005). The messengers are the message: A study of the effects of employing HE student ambassadors to work with school students', *Widening Participation and Lifelong Learning*, 7(1), 22–29.
- Bowes, L., Thomas, L., Peck, L., and Nathwani, T. (2013) *International Research on the Effectiveness of Widening Participation*, Report to OFFA and HEFCE
- Bovill, C. (2014). An investigation of co-created curricula within higher education in the UK, Ireland and the USA. *Innovations in Education and Teaching International*, 51(1), 15–25.
- Bovill, C. (2020). Co-Creation in Learning and Teaching: The Case for a Whole-Class Approach in Higher Education', *Higher Education: The International Journal of Higher Education Research*, 79(6), pp. 1023–1037.
- Burki, T.K. (2020). COVID-19: consequences for higher education, *The Lancet Oncology*, 21(6), 758, [Online] Available at: <https://doi.org/10.1016/> [Accessed 23rd September 2021].
- Chambers, N., Kashefpakdel, E.T., Rehill, J., Percy, C. (2018) *Drawing the future: exploring the career aspirations of primary school children from around the world*, London: Education and Employers.
- Cho, S. et al. (2020). A Three-Party Case Study: Exploring the Value of Student Work in Co-Creation in Teaching and Learning, *Teaching & Learning Inquiry*, 8(2), 200–220
- Gale, T., Hattam, R., Parker, S., Comber, B., Bills, D. and Tranter, D. (2010). *Interventions early in school as a means to improve higher education outcomes for disadvantaged (particularly low SES) students*, Report commissioned by the Department of Education, Employment & Workplace Relations, Canberra, ACT: Commonwealth of Australia.
- Gorad, S., Smith E., et al. (2006). *Review of widening participation research: addressing the barriers to participation in higher education*, UCL Institute of Education Digital Resources, Available at: <https://dera.ioe.ac.uk/6204/1/barriers.pdf> [Accessed on 13th September 2021].
- Hoppitt, W., & Laland, K. N. (2013). *Social learning: an introduction to mechanisms, methods, and models*. Princeton: Princeton University Press.
- McLaughlin C. (2010). Mentoring: what is it? How do we do it and how do we get more of it?. *Health services research*, 45(3), 871–884. <https://doi.org/10.1111/j.1475-6773.2010.01090.x>
- O'Brien. M. (2013). Repositioning the subject discipline for an 'academic-enhancement' model of widening participation: A philosophical sketch. *Active Learning in Higher Education*, 14(3), 241–250.
- Office for Students (OfS). (2020). *Supporting disadvantaged students through higher education outreach*, [Online], Available at: <https://www.officeforstudents.org.uk/media/624ae140-b26a-405c-8717-501ffce38d2e/coronavirus-briefing-note-outreach.pdf> [Accessed 7th September 2021].
- Osborne, M. (2003). Policy and practice in widening participation: a six country comparative study of access as flexibility, *International Journal of Lifelong Education*, 22(1), 43-58, DOI: 10.1080/02601370304826
- Padma, T.V. (2021). How Covid Changed Schools Outreach, *Nature*, 594, 289-291. doi: <https://doi.org/10.1038/d41586-021-01517-7>

Rainford, J. (2021). Are we still “raising aspirations”? The complex relationship between aspiration and widening participation practices in English higher education institutions, *Educational Review*, DOI: 10.1080/00131911.2021.1923461

Ruskin, J., & Bilous, R.H. (2021). Engaging stakeholders in work-integrated learning – A sustainable model for curriculum co-creation. In Ferns, S.J., Rowe, A.D., Zegwaard, K.E. (Eds) *Advances in Research, Theory and Practice in Work-Integrated Learning - Enhancing Employability for a Sustainable Future*, Abingdon: Routledge.

Robinson, C., & Fielding, M. (2007). *Children and their Primary Schools: pupils’ voices (Primary Review Research Survey 5/3)*, Cambridge: University of Cambridge Faculty of Education.

Steinhaus, L., Schields, M., Schrammel, M., & Feichtinger, J. (2018). *Guidebook on engagement and co-creation methodologies*, [Online]. Available at: [https://bloom-bioeconomy.eu/wp-content/uploads/2018/11/D3-3\\_Guidebook-on-engagement-and-co-creation-methods\\_final.pdf](https://bloom-bioeconomy.eu/wp-content/uploads/2018/11/D3-3_Guidebook-on-engagement-and-co-creation-methods_final.pdf) [Accessed on 20th September 2021].

Taylor, Y. (2008). Good students, bad pupils: constructions of “aspiration”, “disadvantage” and social class in undergraduate-led widening participation work, *Educational Review*, 60(2), 155-168, DOI: 10.1080/00131910801934029

Thomas, L., Bland, D. and Duckworth, V. (2012). Teachers as advocates for widening participation’, *Widening Participation & Lifelong Learning*, 14(2), 40–58. doi: 10.5456/WPLL.14.2.40.

Watt, L. (2016). Engaging hard to reach families: learning from five ‘outstanding’ schools, *Education* 3-13, 44(1), 32-43, DOI: 10.1080/03004279.2015.1122321