Emerging findings on D&T educational research survey

Matt McLain, Liverpool John Moores University, Dr Alison Hardy, Nottingham Trent University

The D&T Association launched a research steering group in May 2021, comprised of D&T teachers and academics with an interest in D&T research. The group was tasked to 'connect teachers involved with, or interested in, D&T research' and 'actively supporting members to engaging in practitioner enquiry'. Our first action was to launch an online survey to inform how we proceed with these aims. We had over 300 responses, which have provided rich data for analysis and to guide us in future action. This article outlines initial findings in advance of a more comprehensive report. The group also have ethical approval to present research papers in conferences and peer reviewed journals.

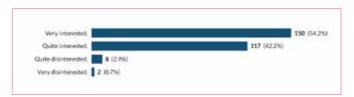


Figure 1: How interested are you in D&T educational research?

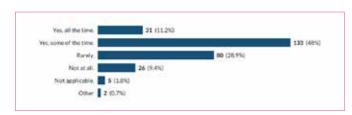


Figure 2: Do you currently use any D&T educational research to inform your practice?

Who responded?

Over half (55.2%) of the responses were from those with curriculum/subject leadership roles, closely followed (35.1%) by classroom teachers (including unqualified and early career teachers). The remaining responses included senior leaders (11.2%), teacher educators (10.1%), educational consultants (4.2%), researchers (3.2%), student teachers (2.2%) and technicians (2.2%). Over 80% of responses were from teachers who qualified between 1991 and 2020, with almost half of those (37.3%) being between 1996 and 2005. Interestingly, this was the period when D&T's profile and strength in the curriculum was at its height, in terms of GCSE entries. We also know that the D&T workforce has more teachers approaching the end of their careers than for other subjects, which might explain this result. Whilst most respondents were based (89.6%) or trained (89.9%) in England, there was representation from the rest of the UK, Europe, America, Asia, Africa and Australasia.

Were they interested in educational research?

An overwhelming majority of respondents (91.7%) are interested in educational research and 96.4% were interested in research specifically related to D&T (Figure 1). This reflects the recent focus on evidence-based teaching from Ofsted and the DfE. Encouragingly, more than half (58.2%) of respondents say that they use research at least some of the time (Figure 2); and 143 respondents listed areas of research interest. However, the number in the UK publishing peer reviewed research (considered to be the 'gold standard') into D&T is decreasing. So part of the rationale for this survey was to find out what research is going on 'below the radar' – i.e. by teachers undertaking Masters or Doctoral research, which isn't in the public domain – and to look for opportunities to build a sustainable D&T practitioner research community.



Do they feel confident about doing research?

Two thirds (67.5%) of respondents indicated they are at least 'quite confident' to undertake research. However, fewer than a third (31.4%) have conducted, presented or published educational research – about two thirds of these were D&T focused. Less than 1 in 10 (9.4%) are currently research active (Figure 3). A few of these were Masters or Doctoral students, and academics; alongside a number who identified their subject knowledge and curriculum development as research. This begs the question – do we all define 'doing research' in the same way?



Figure 3: Are you currently undertaking/writing educational research?

Did they know where to find D&T education research?

Fewer than half (42.8%) knew about the D&T Association's own research journal, *Design and Technology Education:* an *International Journal* (https://ojs.lboro.ac.uk/DATE). Of those who knew about it, just over half (53.4%) said they use it at least once a year. However, we wonder if some interpreted this question as relating to D&T Practice (i.e. this magazine), which needs further exploration.

What support did people want?

The survey asked about what the Association could do to support research. There was strong support for all options: online research seminars, ResearchMeet events, research networking events, writing retreats, mentoring, a web portal, and guidance on classroom research. More than half indicated they would either 'probably' or definitely' use support. The most popular option was for a web portal with links to D&T research (93.5%) – this is already under development at www.data.org.uk/for-education/research. Over three quarters (75.8%) supported the idea of ResearchMeet events, which are opportunities for D&T educators to present their research. Mentoring for research (61.4%) and writing retreats/ workshops (43.7%) were also popular, the latter showing that just under half indicated that they were potentially interested in writing about and sharing research.

What research topics were people interested in?

Perhaps unsurprisingly, themes relating to pedagogy and curriculum were mentioned most often. There were indications of the influence of cognitive sciences as promoted by the DfE and the inspection focus for Ofsted on curriculum design. Much of the research used by Ofsted and DfE does not specifically relate to D&T, suggesting this is an area for the D&T community to investigate. Interestingly, recent findings from the University of Birmingham (EEF, 2021) suggest that applied research (i.e. in the classroom) does not support the findings from some key experimental cognitive sciences studies. This suggests the need for caution and criticality and further classroom-based research. Other significant areas of interest included creativity and design.

What's next?

We held our first ResearchMeet online in October 2021 where Professor Kay Stables (Goldsmiths University of London) and Bill Nicholl (University of Cambridge) talked about the importance of and approaches to research in D&T, where to find and how to use it; Dr Brendan Anglim (Ampleforth College) reflected on his EdD research and Daniela Schillaci-Rowland (Presdales School) described her first steps into educational research. More events are planned, and we will be looking for teachers and academics to share their research.

Writing retreats and mentoring for developing D&T researchers could also be a powerful way to encourage more teachers to publish their research in the research journal. Alison, who is also a member of the research steering group, has a particular interest in fostering good writing habits and skills in D&T teachers, and has also recently delivered an online workshop with this in mind (next one in January 2022).

All of this is encouraging for the future of D&T research. We aim to publish a report for the D&T Association trustees and members in 2022, alongside peer reviewed research articles and conference presentations. In the meantime, 'watch this space' (D&T Practice and www.data.or.uk) for future updates and events on D&T research. And do contact us if you have done, or are doing, D&T research and are interested in sharing it with the D&T community.

References

 D&TA (2021). Research: practice informed by high quality research is essential for the future of the subject [webpage]. https://www. data.org.uk/for-education/research/ [accessed 01/11/2021] • EEF (2021). Cognitive science approaches in the classroom: report summarising the evidence for cognitive science approaches in school settings [report]. Retrieved from https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/cognitive-science-approaches-in-the-classroom [accessed 01/11/2021]

DST PRACTICE

DST PRACTICE