

ITT engagement with teacher education and development from an Association perspective

Lightning Talk Short Paper

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Abstract

With teacher recruitment and retention at a critical juncture, the need to support and train new and aspiring teachers is more crucial than ever, particularly in design and technology. The Design & Technology Association, founded in 1989, exists to support and develop the subject in all its associated areas and has a rich history working with universities and other training providers to support new D&T teachers. A representative will share what the organisation is currently doing to support this area in several ways, and more importantly, welcome suggestions regarding their potential further involvement, development and collaboration.

Keywords: subject association, collaboration, D&T Association, support, lobbying, training, ITT, PGITT.

1. THE SUBJECT ASSOCIATION

The Design & Technology Association (sometimes referred to as *D&T Association*, *D&T Assoc*, *D&TA*, and its earlier abbreviated name, *DATA*) continues to play a pivotal role in design and technology education. It exists to promote, support, and develop the subject, ensuring its sustained existence and growth. Although a relatively small team, its impact is considerable, and the charity is supported and guided by important stakeholders, including a board of experienced trustees from a varied, yet subject-related, background. The Association also runs a subject-expert group(s), and other external specialist opinion and fact-finding groups. As a membership organisation with tens of thousands of members, they regularly seek the opinion of teachers and other professionals linked to D&T to ensure they are speaking on behalf of the D&T community and providing feedback on developments and advancements within the subject. The following paper acts as a (non-definitive) summary of the work the D&T Association carries out or supports that is appropriate to teacher educators of design and technology.

2. CHALLENGES

D&T teacher educators have been fully aware of the various challenges in D&T education for some time. In 2022, a paper instigated by the D&T Association, '*A spotlight on Design and Technology Study in England*', evidenced many of these challenges. The research, the first comprehensive independent study to examine trends in the subject over the last decade, revealed some stark findings. This was followed by '*A Blueprint for Renewal Design and Technology Education*', a report by organisations including the Design Council and the Design & Technology Association. Around 20% of schools in England and Wales do not teach the subject. The number of pupils taking design and technology (D&T) at GCSE level has fallen by 68% in the last decade. Entries for students at A level have also declined over the same period. The analysis found that GCSE students attending free schools and sponsored academies are less likely to pursue D&T, while at A level, students in independent schools are most likely to enter the subject.

In 2009, more than 15,000 secondary teachers practicing in England were trained to teach D&T. The figure is now around 6,300, and it is expected to dip below 4,500 over the next four years, according to the report.

The report also uncovers significant local and regional variation in D&T take-up, with entries in local authorities ranging from nearly 40% of pupils taking D&T at GCSE in Herefordshire to just 4% of pupils taking the subject at GCSE in Middlesbrough.

An increase in non-specialists, a reduction in subject-specific contact time in some teacher training courses, (particularly some primary PGCE courses, which have been reduced to several hours) have added to the complex and challenging landscape.

3. SUPPORT

The following provides information and an explanation of some of the support and work that the D&T Association is currently providing, as well as recent initiatives aimed at addressing challenges surrounding the subject, particularly in relation to D&T teacher education and initial teacher training.

3.1. Membership

Membership of the D&T Association serves two purposes. The funding resulting from this enables the organisation to achieve its charitable aims. It is important to note that the role of the D&T Association is not to make a profit (it needs to turn over a positive balance sheet to survive) and that their interest lies purely with the longevity and development of the subject (and associated impact thereafter) and not financial gain. Secondly, and arguably more importantly, is the collective voice that a large membership body brings. The D&T Association represents the D&T community when liaising with stakeholders, including the Department for Education (DfE), Office for Standards in Education, Children's Services and Skills (Ofsted), Awarding Organisations, and others. The larger the membership base, the more accurate the representation of the D&T community that the association has.

There are several membership categories to accommodate the varying interests and needs of members. Regarding teacher education, there are reduced-cost options available for trainees (currently £28 per annum) and Early Career Teachers (ECTs) at £65 per annum, in addition to consultant membership, university membership, and other benefits. The association currently has over 120 trainee members. Member benefits vary slightly but tend to include broadly similar aspects, such as regular news and updates via a range of media, key resources and materials, a self-review framework, and discounts on resources and CPD. A key offering for many teachers, especially those who may be lone teachers, is the regular news feeds and updates through magazines, email newsletters and more.

3.2. Continuing Professional Development

The D&T Association has long shared opportunities for professional development and continues to consider this a vital element of its offering and aims as an association. This was traditionally a one-day in-person training session at an external venue, focusing on a single curriculum area or teaching focus. This has now developed into a range of formats as society's consumption habits of media and self-learning change. On-demand training is now available through a learning management system (LMS) at elearning.designtechnology.org.uk, alongside scheduled live online courses, bite-sized online training sessions of varying durations, bespoke INSET (In-Service Education and Training) opportunities, three-day courses for non-specialists, and more. All of which are available to anyone associated with D&T education.

During the COVID-19 pandemic, the D&T Association began hosting online webinars as a means of collaboration and social interaction. These have continued with various focuses, including SEND (Special Educational Needs and Disabilities), trainee D&T teachers, departmental tours, subject-specific elements (e.g., Computer-Aided Design, Programming/Control), Artificial Intelligence, and more. These tend to be free to attend for both members and non-members.

3.3. Lobbying and collaboration

An increasingly important role of the association is lobbying. Whilst companies that make a profit from D&T will inevitably come and go, the D&T Association is the only specific organisation actively working to support and develop the subject, ensuring its sustained existence and growth. Active lobbying has taken and continues to take various forms, prompting many activities, and has a growing positive relationship with parties such as the Department for Education, Ofsted, qualification providers, associated professional bodies, and more. The D&T Association continue to play a vital role in guiding positive conversations and supporting the shaping of the curricula.

3.3.1. Evidence Select Committee

In the last few years, the D&T Association have been invited to attend, submit evidence, and discuss education issues with the Houses of Commons and Lords. In 2023, extensive lobbying work following the release of the D&T Association's vision paper '*Reimagining D&T*' and later appearance before the Commons Education Select Committee helped to support the reinstatement and subsequent increase(s) in bursary for those eligible for, and wishing to train to teach design and technology.

3.4. Research

In comparison to other subjects on the school curriculum, D&T is a relatively new subject, and the research based around it is limited. It is vital that we act based on clear, researched evidence, rather than anecdotal evidence, and the D&T Association supports this in several ways. Research activated by the D&T Association includes '*A spotlight on Design and Technology Study in England*' and a current 18-month independent research project based around the impact of contextualised learning in Design & Technology led by Nottingham Trent University.

The D&T Association have supported the *DATE* journal (*Design and Technology Education: An International Journal*). Since its inception in 1997, the journal has been published three times annually, serving as a vital resource for members of the D&T Association, offering a wide range of research that reflects the evolving landscape of design and technology education. These are now available through the Liverpool John Moores University Open Access Data Repository. Earlier iterations of the journal have been active since 1970.

3.5. Curriculum guidance and support materials

Alongside supporting and guiding any curriculum developments, the D&T Association has continued to produce and share guidance and support materials to aid quality D&T teaching and learning. Vital materials, such as the *Annotated Programme of Study*, *Opportunities for Developing D&T in the Early Years Framework*, and the *D&T Progression Framework*, serve as supporting materials for teachers and educators, providing a basis for quality D&T. These materials are developed in conjunction with research and the support of subject experts.

Inspired by Industry is the latest set of free resources developed and funded by the D&T Association. The aim of these resources is to help schools contextualise learning in D&T at Key Stage 3 by linking with design-related industry and learning from the organisations, including how they work through a design thinking process. Subsequent aims are to develop agency in students, allowing them to be in charge of the direction of their learning and decide what to do next to solve open-ended, yet scaffolded contexts. This also prepares them for the NEA (Non-Examined Assessment) if their studies in D&T continue to GCSE. Another aim is to highlight the opportunities and various careers and sectors linked to studying D&T by watching and listening to multiple designers, engineers and creatives working at the 20+ companies who have collaborated.

The D&T Association has produced materials for the Oak National Academy since its inception during the COVID pandemic. Now in its second iteration, the D&T Association has developed the D&T curriculum and produced hundreds of lessons for D&T, Cooking, and Nutrition, with the assistance and support of external organisations, including the British Nutrition Foundation, and external consultants. These continue to act as not only learning materials suitable for the classroom but also as a lesser-intended CPD for teachers, who have the opportunity to watch the videos, download and edit the learning materials to develop their practice and understanding. These materials are primarily based on Association materials, *Projects on a Page* and *Inspired by Industry*.

3.6. Direct supporting of ITT

The D&T Association has made direct contact with every teacher training provider in England (over 300) to introduce the Association and what it can offer both providers and trainees. This database will be revisited and contacted at intervals to provide support, training, and to listen to what the subject association can achieve further to support the work of teacher educators and trainees. Several providers have invited the Association to provide a talk in September / October, directly to trainees, explaining their offers and support opportunities.

Since 2022, the D&T Association has successfully run a SCITT course in partnership with different providers. Different models of delivery have been implemented, drawing on existing work and producing bespoke courses tailored to the requirements of the provider. These tend to be a mixture of in-person, E-Learning and self-study.

Health and Safety training and accreditation has also been provided as part of the package, ensuring new teachers will be work-ready when they enter the classroom in the following academic year.

3.7. Health and Safety

Over 6,500 Health and Safety (H&S) accreditations are processed each year by the D&T Association. There are approximately 80 Registered Design and Technology Health and Safety Consultants (RDTHSCs) providing training and accreditation nationwide. They operate under a professional code of practice established by the D&T Association and are accredited based on a comprehensive and nationally acknowledged H&S scheme. This is produced to work alongside *BS 4163:2021+A1:2022 Health and safety for design and technology in educational and similar establishments – Code of practice*. Members of the RDTHSC team are members of the working group that writes the document, and it is available for sale as a hard copy on the D&T Association website. Health & Safety training and accreditation can be arranged directly through RDTHSCs or by contacting the D&T Association who can link training providers as a way of reducing costs.

In addition to a vast amount of training, documentation, and publications are available for schools and providers, such as *Make it Safe* for primary settings and *Risk Assessment in Secondary Schools & Colleges: Health & Safety Guidance for Design and Technology Teaching Environments*. These documents, along with the well-established training, continue to provide reassurance, training, and accreditation to ensure the safety and good practice in the practical elements of design and technology education.

3.8. Additional opportunities and activities

Whilst there is a planned and ongoing menu of development and support, occasionally opportunities and incidents present themselves. One such recent event took place on 5th August 2024, at the Bristol Beacon. An event quickly arranged by *Design Truth* to support a large-scale redundancy of Dyson workers. The recruitment event invited employers from across the UK with vacancies to share their positions with former Dyson employees. The D&T Association were also invited to highlight design and technology teaching as a viable career path. Successful conversations were held with a handful of employees, some of whom are now training to be in the D&T classroom in the very near future.

4. NEXT STEPS

Possibly the most significant challenge facing design and technology remains the recruitment and retention of teachers. Targets for design and technology have been cut year on year, with the change in Post Graduate Initial Teacher Training (PGITT) recruitment targets down 38% for 2025/26 from 2024/25 figures. Analysis by the National Foundation for Educational Research (NFER) shows a near 12 per cent rise in secondary teaching, marking an increase in all but two subjects (English and classics). D&T is up by 3% but is still 6th worst and a stark contrast to other STEM subjects with computing and physics seeing an increase of 47%, chemistry 25% and mathematics 15%.

The D&T Association, in recommendations submitted to the Education Select Committee acknowledged that whilst the bursary is helpful, it is a short-term and limited fix. The government estimates that nearly 25% of trainees who completed courses in the 2022-23 academic year were not teaching in state schools within 16 months, and a third of new teachers leave the profession within five years. Retention is key, and a larger investment and support covering a range of areas was outlined and is required. The D&T Association will continue to work with business and industry, the government, teachers, teacher trainers and other stakeholders to lead the change.

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