



CASE STUDY: The Rumford Club 70th Anniversary Legacy – Adopt a School

Who are the Rumford Club?

There is no doubt that the small group of senior managers who came together to discuss the many issues facing the 1947 building services engineering sector post-war would have been proud of the amazing legacy celebrated by current members on the 70th Anniversary of the Rumford Club. They surely would have given their whole-hearted support to the anniversary initiatives, just as the current members have, and the present issues of professional skills shortages that prompted the members' choice of initiative would certainly have resonated with them.

The Rumford Club is a small organisation which is open to professional individuals who are closely involved in the building services engineering sector and draws its members from many areas such as contracting, consulting, building management, manufacturing and academia. Members of the Rumford Club meet six times a year to listen to prominent guest speakers from across the sector followed by a lively question and answer debate. A number of debates had enthusiastically discussed solutions to the on-going skill shortages and it was in response to the need 'to do something' which prompted the Rumford Club to look to 'adopt a school' through Class of Your Own.

What problem is the legacy seeking to address?

Recent industry reports tell us yet again that the construction and built environment sector is in the grips of a skills shortage which is limiting activity and is now at its worst recorded level and it is expected to worsen over the coming years and decades, this together with the recruitment of new talent failing to keep up with the rate of retirement were the prime drivers of the Legacy.

The sector requires a supply of new skills able to solve the 'problems we don't yet know are problems', a workforce with the skills that will enable the sector to do things better with less negative impact on the world. A fundamental shift in the way the sector does things is required and these skills are very different to current traditional built environment skills, so the workforce has to significantly change, evolve and adapt.

The revolution in new technologies is much needed in what some are now calling the 'industrialised built environment' as the increasing convergence of manufacturing and the built environment takes place. It's about how we need to do more with less, vastly increasing the dimension of the existing design communities to keep pace with infrastructure needs of the UK and beyond.

What is so unique about the Design, Engineer, Construct!® qualifications and why are they so important?

There is little understanding of built environment professions and consequently insufficient young people aspire or consider a career in this important sector of the British and global economy. This important and unique partnership of education and industry has grasped the opportunity to inspire and educate.

These excellent qualifications awarded by Training Qualifications UK (TQUK) are recognised (in England) through the Recognised Qualifications Framework (RQF) with similar recognition in Wales, Scotland and Northern Ireland.

- *Level 1 Certificate in Design, Engineer, Construct!® The Digital Built Environment.*
- *Level 2 Certificate in Design, Engineer, Construct!® The Digital Built Environment.*
- *Level 3 Certificate in Design, Engineer, Construct!® The Digital Built Environment.*
- *Level 3 Diploma in Design, Engineer, Construct!® The Digital Built Environment.*

Referred to for the remainder of this Case Study as Design, Engineer, Construct!® or simply DEC!®.

In England and Wales these qualifications at Level 2 equate to GCSEs and at Level 3 equate to A Levels. Students studying the DEC!® qualifications in the Sixth Form study both the Certificate and Diploma at Level 3 equating to 2 A Levels. The sector needs a 21st Century curriculum and delivery system for a 21st Century industry sector struggling to take the leap into new technology and new industry practices.

These qualifications are supported and recognised by all the professional bodies across construction and the built environment and provide excellent pathways to construction and built environment degrees and careers. Students following this pathway have a much better all-round understanding of the professional pathways available to them in the sector, resulting in a 'home grown' supply of work ready, knowledgeable young professional talent.

These project-based qualifications offer teachers and their students the opportunity to develop a range of valuable skills and knowledge which are fundamental to the successful engagement in the technical and professional aspects of the sector. Students study through an online workbook and undertake a sustainable building project through workshops with guaranteed face to face engagement with industry professionals.

Adopting a Design, Engineer, Construct!® School

The 'Adopt a School' scheme harnesses the collective influence of industry and academia to provide a unique opportunity to come together and achieve maximum impact for minimum cost. The scheme enables employers/employees, irrespective of size, to become directly involved with a suitable school of their choice by supporting the school to deliver Design, Engineer, Construct!®.

Up to this point, the adopters had been commercial organisations with training budgets; this was quite different to a group of 100 or so volunteers with a relatively meagre financial reserve! However, members felt it was a fitting way to commemorate the 70th anniversary of the Rumford Club and consider the diverse membership expertise an asset that outweighs the challenge of limited funds.

Consequently, the Club members voted to donate £4,000 from the Club's reserves and members contributed a further £8,000 from individual and company donations and invited Broadway Malyan, an architectural practice, to be a funding partner. A charity was set up to deliver the Rumford 70th legacy, known as R70L, and in September 2017 Norbury Manor Business and Enterprise College for girls aged 11-16 and a mixed entry sixth form was adopted by the Rumford Club and the first 13 students began their journey towards the DEC!® qualifications.

Why Norbury Manor Business and Enterprise College for Girls?

Norbury Manor College is a community college offering a broad curriculum drawing strength from its diversity and cultural richness. The college chose to offer the Design, Engineer, Construct!® suite of qualifications to its students and similar to many other schools around the country was seeking an 'adopter' to support them with the delivery.

R70L was inspired by Norbury Manor's enthusiasm and vision and was delighted to 'Adopt' them. A better gender and ethnicity balance is needed in the sector to inspire a cultural change that will encourage the progress of professionals into leadership roles.

R70L wants to provide visible positive support to the teachers and students enabling them to raise their own career aspirations. R70L mission for this initiative is that by providing this active support we will become an exemplar that inspires others and is a fitting legacy for the sector.



How the Rumford Legacy supports the delivery of Design, Engineer, Construct!®

The curriculum and project-led learning approach was new to the school and the brave Head of Design and Technology committed herself to a steep learning curve, knowing that for the first two years she would be only one step ahead of the students (if she was lucky!) R70L also entered a steep learning curve and in doing so developed a number of strategies to address the challenges that the charity, the school, club members, students and staff faced. One of those strategies was for all trustees of R70L to be personal mentors to the Design and Technology teacher so that she would always have access to help.

Another strategy was to look for ways to update the IT equipment which was struggling to cope with the demands of Revit and BIM software and which was an integral part of the delivery process for the curriculum. R70L made an appeal to members and 50% of the IT equipment was replaced with state of the art machines as a result of member donations and an IT company supplying at cost in recognition of the worthy cause. Outdated IT equipment is a real challenge for many DEC!® students and R70L is looking at ways to set up a chain-help system whereby companies can donate their IT equipment to a DEC!® course when they upgrade and in turn the school can donate their equipment to a school in a developing country. Apart from the obvious benefit to the school, it also forges stronger links between industry and education and between the same generation in different world economies.

The variety of professionals within the Rumford Club has meant that the diverse DEC!® has been actively supported with volunteers presenting to the students on issues such as building regulations, ventilation, data analysis, presentation and communication methods and Display Energy Certificates all of which is in addition to the land surveying and architectural expertise introduced by the architectural funding partner. Similarly, the large number of organisations linked to the Rumford members has provided opportunities for site visits and placements. This will become an increasingly important resource as the number of students increases, which could be as many as 60 students.

The generous support and funding by R70L supporters has been key to a successful first year. One beautiful summer's evening on the terrace of the National Liberal Club the students awarded over 50 certificates of appreciation to individuals and organisations who are making the legacy possible. Their support ranges from financial contributions, provision of placements, student presentations, site visits, administrative assistance, financial advice and, of course, the hours and hours spent setting up and administering the legacy.

These certificates were very important because it was a visual illustration of how multiple small acts of kindness make a big difference and it was a wonderful example of collaboration between the generations, between disciplines, between organisations and more importantly between like-minded, supportive individuals who were prepared to do far more than debate the concerns of the sector. Person to person networks based on shared values are so powerful and uplifting.

What next?

The first year was about funding the school to enable delivery of the DEC!@ course. Having achieved that R70L is now turning its attention to ensuring the sustainability of student support and providing opportunities to enrich and complement the curriculum. We will do this through collaboration of many contributing a little, because the school and students have very limited financial resources. For that reason, R70L will continue to seek strategies to upgrade IT equipment, to pay for transport to site visits and places of interest and to produce marketing materials to spread the word and increase the collaboration network. Collaboration is about win-win relationships and even the donation of personalised site helmets and high-vis vests for the students will be advertising for a company whilst at the same time being a professional gift each student will cherish.

Conclusion

The students supported through the legacy have been compared to Rumford Club acorns and it will be the privilege of all their supporters to see these acorns flourish into the oak trees of the future. Having been nurtured and grown in an environment of wide collaboration, members are hopeful that the Rumford 70th Legacy students will not only address the sector's professional skills shortage but also provide talented young professionals who will embrace and fully understand the power of inclusivity and collaboration.



The impact on learners and teachers is so significant. The Head of Design and Technology at Norbury Manor said:

"It has been a mountainous journey this academic year, we have been so fortunate and grateful for the unrelenting help and support from The Rumford Club & Broadway Malyan, without whom this year would have been near on impossible. This is such a unique course that has fallen into the education system at the most opportune moment, as we are all aware that there is a massive shortfall of skills-based personnel in the built environment in the UK. The students have benefitted from the specialised input with regards to subject knowledge from our adopters and the well-organised trips and work experience. The students are grateful for the new IT equipment and have already created some incredible REVIT drawings for the ongoing Community Project. We cannot thank our adopters enough for all that has been done and provided for us. I would urge all schools who choose to deliver DEC! to forge a good relationship with their adopters as it accelerates the students' engagement and learning curve dramatically".

One student summed up the feelings of the students when she said:

"We are eternally thankful for the opportunities the Rumford Club has left for us."

The current Rumford Club members and supporters of R70L are building the most amazing and fitting legacy to the founders of the Rumford Club in 1947.