Technology Advisory Group

Technology to support outcomes

The Organisation

The Royal National College for the Blind (RNC) is a leading specialist provider of further education and employment training for people with a visual impairment, preparing students for university, employment and independent adult lives. For many of our students their visual impairment will be their primary disability, while for others it will be one of a number of symptoms of an underlying condition. Some students have additional needs, such as a hearing impairment, autism or Asperger's.

Visual impairment is a low incidence disability and the degree and type of condition experienced by our students varies enormously. Our mission focuses on education, employment and empowerment and our students develop the skills, confidence and independence they need to realise their potential. We are big enough to provide opportunities, resources and support, but small enough to offer an individual learning experience tailored to the needs of each student.

The Challenge

Currently 70% of visually impaired people of working age are unemployed. We want to improve students' chances for employment by ensuring they are familiar with a wide range of technology and that they develop IT skills which are fit for purpose in employment and in general life.

Fewer students are entering RNC with good, broad based IT skills, and very few have any idea of what they want to do in the future. We have seen an increase in the number of students who have never used PC based technology. We believe that our

students need to be exposed to as many forms of technology as their sighted peers. Employers are still using PC based technologies, but employees are expected to be able to respond on the move.

Visual awareness is another barrier for our students. Blind students are taught to type, save and print, but are not given any guidance on visual presentation, which is essential in employment and society more generally. Students must not only present themselves well but all documents they produce should be visually pleasing.

The solution

IT Skills and Development is a compulsory element of all students' timetables. We have recently moved away from accredited programmes, such as the ITQ, and have developed a suite of three programmes:
- Programme A – Developing IT skills to ensure an independent working medium
- Programme B – Developing IT skills to ensure independence in main programme area
- Programme C – Developing IT skills to ensure independence in future employment, education and life.

These programmes enable students to develop skills in using their chosen assistive technology solution; in using Microsoft Office applications to produce well-presented documents, and in the use of their own technology. Once students have a robust working medium and can transfer these skills to other areas, they will be given the opportunity to undertake accredited IT qualifications.

All 2nd and 3rd year students were timetabled for Project Management; some were initially anxious about it as they were being challenged to do things they had never done before such as setting up small businesses and enterprises.

Tech Novice Café is a work based learning initiative. All students are given the opportunity to apply for posts as trainers, and then to run weekly sessions with members of the Hereford community, many of whom are visually impaired. The clients come with ideas of what they want to learn, and our student trainers devise a programme and support them to develop skills in using various technologies, including iPads and iPhones with voiceover, laptops with NVDA, JAWS, Supernova or Guide and android tablets.

Peer support is central to everything we do at RNC; students are in an environment where they have the opportunity to exchange ideas and knowledge with other visually impaired people. They are a valued resource for each other, encouraged to

share experiences, technology likes and dislikes, support students new to technology and give advice on different apps.

The outcome

The RNC IT curriculum is still in its infancy. We are seeing improvements in the standard of presentation of students' work, and an increased willingness to use alternative applications to Word, but work is still needed to ensure that this is consistent in all areas of their curriculum and when on work placement.

Project Management students, having initially been concerned about the work, were soon setting up small businesses and using their IT skills to promote and report on their enterprises. It was a good opportunity for us and them to see that they were embedding their IT skills in other areas.

Tech Novice Café has been of great value to both clients and students. The students being able to realise their potential and see what they can do has been inspirational. Many clients have gone out and bought their own technology and are now being trained in its use.

Peer support mostly goes unnoticed; students just know who to ask and how to support each other. We started offering classes for students to attend where others would support, but now the support is often incidental. It can be a quick answer or it might be many hours showing a student how to use a new piece of technology they have just bought.

The impact

We are seeing students progressing from no working medium on arrival to being able to touch type within 4 weeks, and then progress to using other applications. For those who come with some skills it has been about ensuring that we fill gaps in their knowledge and develop their visual awareness and proofreading skills.

More students have been able to tackle work placements where they are required to use a computer, but there is still a difficulty in ensuring that what they are being asked to do is possible, and that employers have an understanding of visual impairment.

This is what our student technologists say:

Tech Novice Café
'Being able to help other students and people who are members of the Tech Novice Café is very beneficial to me as it is a great sense of achievement when you are able to teach someone a new skill and pass on the knowledge that you have worked so hard to gain. I am helping someone at the minute find their way round a new kindle fire tablet device. I see this as a great opportunity as it has given me confidence to teach more people about what assistive tech is out there. It is also great experience of what a job may hold in the future. The level of appreciation I receive sometimes for helping people with basic technical skills is still a little bit overwhelming to me, but I try not to let this bother me as I always strive to be better. It's just a lovely feeling when you can see someone putting the skills to work that you have worked so hard teaching them.'

'This is a project that my college have organised which helps visually impaired members of the public to use either assistive technology or mainstream products which have built-in accessibility features. This then in effect helps the clients to stay on top with the latest technology, and lets them take advantages of modern technology just like all the sighted community.

It benefits me as a trainer, as like mentioned above, you get the great feeling of teaching someone something they'll use in their daily life, and you might've just made their life that little bit easier.'

'The work I do with Tech Novice Café is very similar to peer support, only instead of fellow students, I'm dealing with members of the public, primarily older people who have either lost touch with technology or are getting into it for the first time. The support is provided one-to-one, which I find is helpful for both me as a trainer and the client I work with. The client has a visual impairment, and is learning to use touchscreen devices (he uses an Android phone with Synaptic software installed). I have shown him the iPad and iPhone, and we even had a discussion about the Mac as well. I very much enjoy these sessions, as I believe that the client is getting everything they need in their own time and at their own pace, and some days I can have some really interesting tech discussions with clients too.'

Supporting Peers in using technology

'I'm always happy to support my peers when it comes to using new technology. With many gadgets available out there, it's important that their users share their experience and make sure no one misses out on it if they're capable of using them. At some point I was one of these people that wasn't sure how to use a piece of technology and had to ask for help. Therefore I believe I should help people out too. I also like when I manage to teach people how to use something, as then you get that great feeling that you've managed to teach someone something they'll use for their daily life. I help people to learn how to use VoiceOver, recommend them apps or show them how to use a Mac.'

'When helping my peers with technology, I ask them what they need first before giving advice or guidance. If a student is looking to purchase a new device (be it a laptop, tablet, phone or other gadget), I will ask them general questions like what they will be primarily using it for, or how often they intend to use it, followed by more specific questions and advice tailored to their needs. I would then encourage that student to do further research as well, just in case I'd overlooked a small detail in my own research and assessment of their situation.

If a student is having technical difficulties with their devices and asks me to help them, I would first ask if they had the device with them, or if not, I would take them through the steps necessary to troubleshoot and ultimately solve the problem they are having.

From personal experience, both advising students and troubleshooting problems have been successful for me.'

Conclusion and Future plans

- We are refining our IT offer to ensure that we keep up to date with technology and the industries where our students are likely to find employment.
- We are expanding our work based learning, in partnership with our local eye clinic

We are expanding peer support to set up a help desk/email for students to respond to queries relating to mobile technologies and apps.

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