



## Technology Advisory Group

# Beaumont College: Technology to support independent living

### The Organisation

Beaumont College is run by Scope, and was founded in 1977. The main campus is on the northern edge of Lancaster. Beaumont offers residential and non-residential programmes for young people with Cerebral Palsy and other disabilities and learning difficulties, between the ages of 19-25. In recent years, the college has attracted an increasing number of students with complex needs as well as students on the autistic spectrum.

Beaumont College is currently operating three satellite provisions, one in Carlisle, one in Barrow in Furness and another in Blackpool. Beaumont has a large technology team (9 people) consisting of mainstream technology specialists, Management information Service, staff, helpdesk staff and assistive and learning technologists.

### The Challenge

Beaumont College caters for students who have a range of complex physical disabilities, who often require significant adaptations to their living environment. We wanted students to be able to control their own environment with a greater degree of independence.

## The solution

We decided to put Environmental Control Systems (ECS) in the college residences. Through a commercial partnership with BT called 'Connect to Control', which concluded in April 2014, one third of the college's residential accommodation has been equipped with ECS. We also installed systems for 4 former students living in a nearby house.

We met with students individually to find out what they wanted to control - equipment such as the TV or video, or aspects of the room such as windows or blinds. We then looked at how this could be done, based on their existing access devices. Most students already using an AAC device used this as their ECS controller, whilst the project funding secured speech generating devices for others. If voice output was not required, the controller had to meet their access needs and their preferences – these included an accessible tablet PC and simple IR devices.



The student and key support staff were trained and supported to use the equipment as independently as possible. Use of the ECS system linked to the learning programme for each learner's aims and expected outcomes. Each student had a named assistive technologist who liaised with the rest of the staff team and oversaw all technology options.

Regular reviews ensured the systems remained fit for purpose; that students were happy with their operation and that additional elements were included as required. In parallel to the 'age and disability' systems from RSL Steeper we investigated the use

of mainstream, 'internet of things' and home automation equipment. The challenge was to ensure that it was accessible to students with physical disabilities.

This was achieved through the use of the Grid 2 and a 'software bridge'; the resulting prototype used a z-wave / Ethernet interface to allow any device with a web browser to control system elements such as lights, appliances etc. as well as allowing any Grid 2 based device to control the system. Therapy Box developed our prototype system which is now available as the Smart Hub product.

## **The outcome**

28 student rooms and one community house were equipped with ECS, students were given a controller device and staff and students were trained and supported in their use.

Once installed, students enjoyed using the systems which increased their levels of independence and dignity, and enabled them to control and influence their own environment.

## **The impact**

Embedding ECS into the extended curriculum has resulted in a richer life skills programme and increased levels of independence. Students enjoy using the technology, which if it was installed in future accommodation could considerably reduce their support costs over a lifetime.

The project funding has resulted in a significant capital investment in technology that is now fixed in the building. This investment will have a positive impact on current and future students; most of the equipment has a long design life and if properly serviced will last for some time.

Many support staff are now familiar with the equipment, and as a result new students will be better supported in its use.

All controller equipment (such as AAC devices, accessible tablets etc.) has been signed over to the students it was issued to.

## **Conclusion and Future plans**

The provision of ECS is now embedded into our practice. The equipment will be further customised according to the needs and wishes of our learners

We intend to make use of more equipment from the mainstream, home automation or internet of things markets rather than use disability badged equipment. This

technology is improving and becoming more easily available as it is made for the domestic market, so it is cheaper (and getting cheaper all the time) and generally of a higher quality. There are options for environmental controls available as apps on mobile devices, along with a range of hardware (such as lights and plugs).

A commercial version of this is now available; the Smart Hub produced by Therapy Box.

Rohan Slaughter  
Beaumont College  
October 2015