Oakwood Court College: Web cam avatars enhancing communication for learners with learning disabilities

Summary

Oakwood Court College have helped to enhance the education and lives of their learners through the use of innovative practices and technology. The College has successfully used web cams with avatars to breakdown the communication barriers between tutors, parents and learners who have autism.

About Oakwood Court College

Oakwood Court College is a specialist residential educational College, which provides care and support for its learners, who have a range of learning needs.

The College provides support for its 35 learners, all with different types of disabilities and needs, these include Asperger’s Syndrome, autism, Down’s syndrome, Williams Syndrome and other types of learning difficulties.

At Oakwood Court College every learner matters and their future independence and success is at the forefront of all that we do. It is a friendly place to live, work and learn offering a great variety of academic and vocationally focused programmes. Learners have a wide range of, interests, backgrounds, abilities and ambitions.

The college is committed to providing each learner with the skills they need to become self-reliant in leading purposeful and fulfilling lives. This means ensuring that people with learning difficulties have the opportunity to gain knowledge and experiences that in many cases leads to employment at the conclusion of their College programme.

The college has campus-wide wireless networking and remote access to both the MIS and email, and laptops and digital cameras for staff use. There is an interactive whiteboard in most classrooms and the College provides Web cams, screen magnifiers, digital photo frame key-rings along side accessible computer software like Vubar, Dspeech, MindMap, Art Rage, Picassa, Photo Elements to aid the learners.
The challenge

Oakwood Court College wanted to improve the communication and interaction of its learners through the use of technology.

The biggest challenge for Oakwood was to try and find a way of enabling some of their learners with very specific learning needs to talk and communicate with staff and their families. There are two learners we would like to focus on. One is Brynmor who has autism, and found it difficult to speak without using a keyboard and verbal prompting from staff. And another past learner called Celeste, diagnosed with selective mutism, who chose not to speak. The primary aim was to investigate whether technology could help improve the way learners communicate and interact with staff, parents and friends.

Another important factor was to build an inclusive learning environment that was suitable for all learners.

The activity

K.C. Kelly-Marwick ILT Coordinator was faced with the challenge of providing accessible and inclusive learning for all her learners, who all have different learning needs. She evaluated each learner and trialled the use of web cams within her sessions with the learners.

During the trial period K.C. found that some learners did not like seeing themselves on-screen and did not want to use them in the classroom.

As a result K.C. tried using video avatars, (which can be selected once the web cam has been enabled) this then provides the learner with a series of avatars that they can choose from. The avatars are colourful projections that appear on-screen superimposed and transposed onto the learners face. They move in time with the learners’ movements, so appear as a virtual layar. Some of the more popular avatars included an alien, bunny rabbit, moon and robot.
Brynmor, a learner at Oakwood Court College using a web cam avatar object

K.C. has also introduced lunch time and evening internet and computer sessions, which are free sessions designed to enhance numeracy and communication skills. The aim of these sessions is to encourage learners to send emails to family members and use the Web cams and Skype. They only have fifteen minutes during the lunch period to do this, so they must keep track of their time. This means that they have to use numeracy skills to check the time they arrived and how much time they have left.

The evening sessions are designed to be fun sessions, so that the learners can utilise all the technology in the same way as learners from a comprehensive school would be able to at home. This means that the learner can have access to the internet, using websites like Facebook and YouTube.

The outcomes

The most incredible outcome of the use of the web cams and avatars was that Oakwood Court College learner Celeste, who in spite of her mutism was able to speak for the very first time by using this technology.
The enclosed video of her talking using the avatar of a sunshine demonstrates that by providing a calm and friendly environment for her, she was able to start communicating and interacting at the College, which was a major breakthrough.

K.C. says “seeing Celeste speak was both a shock and a very humbling experience; to see a mute learner able to speak through using the Web Cam avatars was a very special moment.”

K.C. adds “Now Celeste is able to communicate with her family through the internet by using the Web cams with the avatars, so her parents can check her progress directly.”
Brynmor has difficulty communicating and responding to instructions due to the effects of autism. He has been able to use the web cam avatars to communicate with staff and his family. His progress has been excellent considering that before the introduction of the web cam avatars, he was only able to say ‘yes’ or ‘no’.

The learners also have access to a whole range of software and equipment to aid their learning, these include:

- Skype and emails
- Interactive digital whiteboard
- Art Rage
- Audio units for news boards
- Magnifiers for computer screens
- Vubar to aid reading
- Dspeak
- Photostory

**The impact**

Learners are better able to communicate with staff and each other.

The educational environment is very rich, complementing technology with excellent working practices to find new ways for their learners to learn.

The benefits for a learner like Brynmor are potentially life-changing because he will be able to take the technology that he has learned at the College with him in the future. With support he will be able to use the Web cams to communicate with his family. From a carers point of view they will also be able to use the technology to help Brynmor and communicate better with him.
For Celeste this type of technology will undoubtedly help her to overcome her inability to speak outside the comfort of her home. This has the potential for her to be able to communicate outside the places of comfort in the real world. Considering that it is extremely rare for people with a selective mute disability to speak at all when facing an unfamiliar environment like a College – this has been a real breakthrough.

K.C responds “We would love to see all specialist Colleges adopting the same technology, we feel that this has not only had a real educational benefit, but will be of great value to their lives after College”

There are different varieties of Logitech web cams available, but the price is very reasonable and some come with the avatar software included in the package.

The ultimate aim is to enrich the learners’ life and education by providing them with the tools to be expressive, so they can learn within an environment that is interactive. This is a crucial element to engaging with the learners, so they can explore the world around them. Staff can communicate better with learners through using Web cams and the learners can also communicate with family and each other through Skype.

All these tools are relatively inexpensive, but have greatly enhanced the education for the learners. Further research is planned to capture the effects of this innovation and further understand how this can be developed to aid learner learning.

**Useful links**

- Oakwood Court College
- Logitech web cameras
- Artrage
- Photostory
- Dspeak
- Skype

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