CASE STUDY:

Arbour Vale SEN School

Specialist Sports College

How ActivAll helps promote coordination, motivation and problem-solving for students with Autistic Spectrum Disorder (ASD).

A pair of ActivAll's were installed at Arbour Vale Specialist Sports College in Slough, Berkshire in the summer of 2013. Since then staff and students have been using the twin interactive wall panels to create challenges, games and exercise routines for their students.

Arbour Vale School caters to children aged 4 - 18 with special educational needs (SEN). A key benefit sought with any new educational technology is that it must encourage students to be independent and motivated learners. Additional aims include the development of physical skills required to perform actions with more consistent control and accuracy, social skills in turn taking and teamwork, and concentration and listening skills.

In the following case study, Karen Erikson, Director of Specialism at Arbour Vale, describes the first group evaluation in which the ActivAll has been used to achieve these outcomes.

Problem Solving

"The program also allowed the students to independently try different ways to turn off the lights in the quickest way," added Karen. "Many of the students developed a methodical approach of starting either from the top or the bottom. The program's structure and presentation allowed for this repetitive, methodical approach, which is often a preferred learning mode for pupils with ASD."

Enabling Progression

"The ActivAll has enabled personalised progression in key areas within the PE curriculum as well as allowing pupils to successfully work independent of adult input," concluded Karen. "The hand-eye co-ordination skills can be moved into sports-based activities, such as dribbling in basketball or catching with a softball mitt using the non-dominant hand."

> "Furthermore, the ActivAll offers other game programs to continue the progression, such as **ClusterShot** where the pupils can focus on increasing their reaction speeds alongside hand/foot-eye co-ordination."

Key Disability Benefits

Educational:

- Builds confidence and independent engagement in learning
- Enables and stimulates personal progression
- Improves problem solving and stimulates mental focus
- Encourages methodical learning approach preferred for ASD
- Helps social skills, sharing, team-work / collaboration
- Accessible to most ability groups

Physical:

- Stimulates physical exertion and engages those less motivated
- Improves balance, hand / foot-eye coordination
- Aids consistent control and accuracy
- Develops coordination in non-dominant hand (for ASD pupils)
- Aids accuracy in sports-related skills such as dribbling / throwing / sending

The Teaching Activity – ClearOut

"The teaching activity specifically used the ActivAll **ClearOut** program, which involves the students turning off coloured lights with the aim of scoring the highest number of points in a given time period," said Karen. "To be successful, pupils need good hand/feet/eye co-ordination, the motivation to achieve (either for themselves or a team) and problem-solving abilities in order to find the quickest way to extinguish the lights."

The Students

Initially, this activity was introduced to two groups of secondary school-aged pupils with ASD (Autistic Spectrum Disorder). "As many of them have one very dominant hand, the ActivAll provides an opportunity for them to develop the co-ordination in their non-dominant side," PE teacher Claire Whitlock explained. "It also provides a consistent structure and presentation of stimulus, which is beneficial for this group of pupils."

Improving Co-ordination

"When first using the walls, pupils turned the lights off using one hand, most often their dominant hand," said Karen. "However, with encouragement, and some modelling, pupils progressed onto using both hands, but still turning off one light at a time. This helped to improve their co-ordination in the non-dominant hand. Pupils were then encouraged to move further on by turning off two lights at a time requiring a high level of hand-eye co-ordination. Several of the pupils successfully mastered this skill, which was great to see."

Independent Learning and Motivation

"Several of the pupils showed immediate engagement with the activity without any adult input," noted Karen. "For those who were initially less motivated, once they had participated jointly with an adult their independence gradually increased to a point where occasional reminders from an adult were all that was needed to maintain focus. In addition to this, some pupils who regularly opted out of activities within a PE setting began to choose to engage in this activity without any adult guidance."