

## **FE6: AN INVESTIGATION INTO THE INTRODUCTION AND POTENTIAL OF AN INTERACTIVE VOTING SYSTEM TO PROMOTE LEARNING AND ACHIEVEMENT WITHIN A FURTHER EDUCATION (FE) COLLEGE**

### **A CHILD CARE AND EDUCATION TUTOR'S EXPERIENCE**

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#### **Aim**

To evaluate whether a classroom interactive voting system would improve Childcare students' confidence and attitude to learning.

#### **Background – FE college, tutor and classroom content**

Bishop Auckland College serves a large area of South West Durham. The School of Care and Child Education was established in 1991 and now offers an extensive range of programmes from Entry Level to Foundation Degrees. I am Course Co-ordinator for the CACHE Level 2 Certificate in Child Care and Education (Full-Time)

#### **Why might using a voting system help these students?**

The introduction of the classroom voting system was initially planned as a study/learning aid for CACHE Level 2 Certificate in Child Care and Education students. The voting system used teaching and presentation software with a group response system accessed using an interactive whiteboard, providing an interactive student response system in conjunction with feedback devices.

##### *a) Confidence to contribute answers in class*

My reasoning for using the voting system was guided by the fact that to achieve the final qualification, students must successfully undertake a Multiple Choice Question test. This prospect has traditionally been intimidating to both 16-19 year olds as well as many mature students who are returning to learning and lack confidence in their own ability to succeed in academic pursuits. These misgivings may prevent students achieving their full potential. It is envisaged that the voting system will encourage more positive attitudes in students by gradually building confidence in their ability to answer questions in class. For learners with limited success in academic situations, interaction through the voting system may provide a maximum challenge with a minimal risk of non-achievement.

##### *b) Improve participation in learning experiences*

Students vote on answers to multi-choice questions; I hope that students will devise Q/A Tests based on the course content. While compiling the questions, each of which will have 3 incorrect answers in addition to the correct one, students will be engaged in the process of revising and reinforcing prior learning. Students will construct their own learning through discussion as they engage in research, in small mixed ability peer groups, to compile the questions. Peer mentoring may be promoted and evident as their research is undertaken to compile questions and answers

*c) Accessing different learning styles*

The colourful whiteboard-focused activity may be a very effective teaching aid particularly for students who are kinaesthetic and visual learners.

*d) Assessment opportunities*

The instant feedback facility may be an efficient tool for assessment for both tutor and student. Progress could be tracked and strengths and weakness can be identified.

*e) Develop Interactive Whiteboard confidence*

As well as the general benefits of this student-centred activity, at Bishop Auckland College the voting system has been accessed using the same Interactive Whiteboards which are used to deliver the curriculum in many local Primary Schools in which my students have placements. Using the voting system may encourage students to explore the programmes within the whiteboard package to develop skills, familiarity and confidence with the technology which can then be transferred to their professional practice in schools and keep them abreast of current trends in Education.

## **Introducing the research**

The interactive voting system was introduced to 2 groups of students:

- A group of 22 CACHE Level 2 Child Care and Education (Full-Time) students, aged 16 – 19 years
- A group of 16 CACHE Level 2 Child Care and Education (Accelerated) student, aged 19+ years

All students were nearing completion of the course and about to take the final Multiple Choice Question test.

A range of methods to reinforce student learning and prepare students for the test (e.g. previous test papers, quizzes compiled by students etc) had already been explored and exhausted. The introduction of the voting system was discussed with all students to assess whether students would be stimulated and motivated by their introduction and maintain a positive attitude towards the Multiple Choice Test. It was believed that the introduction of the feedback devices would raise self-confidence and allay fears centred around the end test for all students, particularly the students aged 19+ years who are apprehensive of tests as they are returning to learning and lack self-confidence.

## **Findings from an initial pilot study into the voting system**

At the time of preparing for and undertaking the research, difficulties were experienced in accessing and installing the appropriate software. When this situation was rectified, the time which remained before the end test took place was too short to enable students to compile a set of questions. The pilot was less ambitious and limited to the tutor compiling a set of questions to enable initial research to take place involving a group of 19+ years students. However this limited pilot study provided useful findings.

## **Positive aspects of the voting system:**

- A great deal of reinforcement of prior learning took place during the feedback to questions. Many students contributed to the discussion which gave them the opportunity to clarify and extend learning and understanding. This contrasted with the classroom situation in which individuals are asked questions and others in the

class are observers and are not so involved with an individual's responses. In the interactive session, students seem to be active participants, and more involved in the session.

- The impact of the colourful display on the whiteboard appeared to focus whole class attention and create a group atmosphere that would not be apparent in class discussion of test questions not using the interactive whiteboard. The level of interest and involvement of students was similar to that experienced in student presentations; there seemed to be a feeling of shared involvement in, and responsibility for the session.
- Confidence and self-esteem were raised in all students as they were extremely proud of their ability to interact effectively with the ICT. They showed a more positive attitude to further use of ICT for multiple choice questioning; this was noticeably different to the apprehensive responses to paper-based mock tests and past papers which students have displayed in the past. This sense of achievement and improved self-confidence with ICT seemed to be linked to an improved attitude to testing.
- The students were keen to learn more about the Interactive Whiteboard in the college setting so they could apply their learning and development to practice in their educational placements – i.e. using it with their own learners.

### **Limitations of the voting system**

- Lower-achieving students stated that it would have been beneficial if scores had not been so easily accessible to all students (although all students were supportive to peers and all students seemed motivated to improve or maintain their performance). I have since discovered that there is a facility to avoid all scores being made public.
- One of the barriers discovered was the length of time which was initially needed to register all students to identified feedback devices. However, once students have been registered these delays should not occur in future.

### **Reflections**

During a follow-up group discussion, the students enthusiastically endorsed the voting system. The feedback was extremely positive with all students expressing their interest in developing further skills with the voting system. Many of these Childcare students also stated that they could envisage wider applications for the Interactive Whiteboard in a range of placement settings with young children, particularly as a stimulatory and motivational aid to learning and understanding as children make progress towards undertaking SATs. In this respect, it could be claimed that the experience improves their learning about learning, particularly as they are able to transfer their experiences into other settings.

The interactive voting system was introduced at a point during the course when other methods of preparation for the end test had been exhausted but motivation had to be maintained. The reaction from both groups of students was similar – they were enthusiastic and eager to begin. To stimulate the Full-Time, 16 – 19 years students further, it was suggested that the activity could be developed into a quiz with prizes for all. This was greeted with enthusiasm and comments such as “...just like on ‘Who wants to be a millionaire?’” which immediately retained student interest.

The visual impact of the whiteboard which displays their progress and achievements seems helpful in celebrating learners' achievements and with positive consequences for motivation.

The social interaction between students is very important. As they research answers to questions, there is collaborative learning evident. There is focused discussion as peers construct an understanding of the demands of the question. In many ways this collaboration mirrors what happens in other successful lessons where ICT is not used, but the voting system did enable students to focus on the test situation, and extend the positive approach into this otherwise daunting area of final assessment.

### **The Next Steps**

Hopefully, next term we will be able to fully explore the potential of learners compiling their own questions with the voting system and taking greater ownership of their assessment process to help them learn, rather than them viewing assessment as an external and intimidating measure of their learning.

It is envisaged that in future, students will be registered by tutors prior to the sessions which means that students will immediately be able to access the programme and therefore not lose their momentum. Students will also be given the opportunity to explore the hardware and software of the voting system outside of teacher-led sessions to develop personal skills with both the software and the Interactive Whiteboard.