Somerset College: Using iPads to enhance sport in the curriculum

Summary

Mark Parkhouse, Sports Teacher has successfully introduced iPads into his teaching and learning at Somerset College. The iPads have not only extended the students’ creativity, but provided a platform that has been very useful for assessment purposes. Sports students now have a device that is all encompassing and enables them to utilise video and other media to create engaging content.

About Somerset College

For more than 150 years Somerset College has provided the highest standards of education and training using industry-standard facilities and resources. All of its courses are designed to meet employers’ needs, and to provide skills and knowledge relevant to work and employment.

The College provides further and higher education courses, as well as a variety of part-time courses for adult learners. Qualifications offered include NVQ, BTEC First Diploma, BTEC National Diploma, GCSE and Foundation Degree. The College is part of The University of Plymouth Colleges network.

It believes it leads the way in developing innovative teaching and learning practices for its students and staff. Its facilities are continually improving and recently it points to Genesis, Hot House, the Somerset Centre for Enterprise and the Francesco’s Graduate Hair Academy as examples of its enterprising and exciting approach to education and training.

The challenge

One of the main challenges for the sports department has been to deploy the iPads and embed them into the teaching and learning framework. Particularly as the use of iPads in the classroom is a significantly different way of teaching and learning compared to other more traditional methods of teaching.

Another challenge has been to create working groups using a limited supply of iPads, as initially in the project inception the college only invested in four iPads. So Mark had to think carefully about how he segregated the classroom into groups between thirty students.

Data storage has been a big challenge due to the iPads having a limited capacity to store media. Mark was initially finding that because the students were recording in full HD that the available space was being used quite quickly. This had a knock on effect of filling their own
internal systems, once the data on the iPads had been transferred. So there was an issue around how they would provide adequate space considering that much of the data was or assessments.

There was an additional problem of staff training and best practice use because staff all had different levels of knowledge on how to use the technology, with different expectations.

**The activity**

Whilst attending a sports conference in Birmingham Mark witnessed an iPad demonstration of how the technology could be used in the classroom. It was here that Mark found the inspiration to advise the college to purchase iPad mini devices to trial with his sport students.

Following on from the successful trial period Mark rolled out the devices and allowed the students to use them to capture video and media for assessment purposes. Students capture 30-60 seconds of each sporting activity, or exercise session and then compile a video into iMovie on the iPad devices. The students then place all the materials and videos into folders, so that they can access them easily at any time. The students must only record up to two minutes per video, as otherwise the device becomes filled to capacity.

Mark pre-loaded the iPads with a set of apps that he wanted the students to use as well as the apps he would utilise for teaching and learning, these included:

- **Visual Anatomy** - This app breaks down all the internal systems of the body, such as the rib cage for example. It can be linked to an interactive whiteboard.

- **Anatomy Quiz** – This app provides quizzes on different areas of the body, covering muscles, organs and skeleton. A great revision tool to get students to focus on physiology and anatomy.

- **The Human Body** - This app breaks down all the bodily systems, primarily used for the muscular and skeletal systems. It provides detailed descriptions and there is a zoom function for different areas.

- **Burst Mode** – This app captures fifty frames per second of video and used to track the motion of any sporting technique, such as a serve in tennis, or a golf swing.
Technique can be analysed in fine detail.

- **Tennis Coaching Plus** – This app is used to record students playing tennis and has a selection of videos demonstrating a selection of exemplar videos, played by a tennis professional. The exemplar videos can be superimposed with the student videos and synced at the same points. Very useful for analysis of technique. Videos can also be annotated.

- **Coaches Eye** - This is the coaching eye app that they use more generally for sports coaching activity. The app uses the internal iPad camera to film the activity. Activities can be edited and annotated to highlight any technical flaws during the activity. Various types of on-screen visual analysis can be added to show direction or demonstrate tactical errors.
  
  - Motion can also be paused, which is great for analysing key technical issues, such as:
  
  - Stance
  - Foot placement
  - Body position
  - Exaggerated movement
  - Hand/eye coordination

- **iMovie** – This is an app is a basic video production and capture tool, which is used to produce video presentations and can be annotated.

“I felt that students were already very familiar with these devices and familiar with the technology, so it was great to see how they started to use them.” – Mark Parkhouse, Sports Teacher.
What became apparent quite quickly was that the iPad soon replaced the flip cameras to capture video content and the students were able to investigate and use a variety of different applications to aid their learning and understanding of many areas of their course, such as:

- Physiology
- Anatomy
- Motion detection
- Statistical analysis
- Performance indication
- Health and fitness information
- Tactical analysis

The anatomy and physiology apps have been used by students so that they can see the muscles, ligaments and skeletal aspects of the human body in great detail. With the anatomy quiz the students can test their knowledge, learn about the different names and consolidate their learning.

An example screen shot from the Visual Anatomy app

In terms of using the iPads during training sessions, the students are tasked with using the devices to record their own sessions and then annotate and create a final video presentation for assessment purposes.

Mark also uses the iPad to analyse the sporting technique of his students, using Coaches Eye. This app allows Mark to track motion and enable him to see exactly what his students are doing in terms of serving, kicking a football or hitting a shot in tennis as examples. He can then show his students where they are going wrong and even overlay a professional player over the top of a video to demonstrate the correct technique.

Mark additionally organised staff training and development sessions for other staff that were unfamiliar with the technology and to provide staff with the knowledge of how to use the
apps within their lessons. Staff were then allowed to take the devices home to practice using them.

The outcomes

Students are now able to not only analyse their own technique in detail, but also produce quality video presentations for their assessment. Using iMovie, students have additionally learned how to create videos and annotate them with their own voice.

Mark can now use the technology to record his students and show them where they are going wrong, so they can see exactly the kind of mistakes that they are making.

“You can tell them until they are blue in the face that they are doing something, but until they see themselves doing it in a real action, they don’t believe it.” – Mark Parkhouse, Sports Teacher

An example screen shot from one of the videos produced by the students using the iPad

In fact the iPad itself is a real money saver over time, considering how expensive professional motion capture equipment costs. This box of digital tricks is enabling students and staff to explore new methods of teaching/learning.

“It’s like having a computer in their hands” – Mark Parkhouse, Sports Teacher

It is also saving a significant amount of time as Mark does not need to attend individual assessment sessions and activities and record these separately. With the iPad he can brief his students to produce the coursework using one device. The advantage is that the students are learning so many other additional skills, such as:

- Presenting content
- Analysing performance
- Organisation
- Group work
- Video capture and production
It is also saving considerable time, whereas before if the students recorded any video content they would then have to use a computer to upload the video and edit it. Now they have one light-weight device that they can use anywhere in the campus.

Mark has also found that students who might struggle with English as a first language are not as inhibited by their written skills.

**The impact**

Although this project is at an early stage of development, the students have already embraced using the new technology. The iPad has aided the students in terms of producing a better and more professional presentation, as opposed to them standing at the front of the class and speaking. Students can also save their work easily and use social media to promote what they have done.

“The idea is that students can put together a more ‘digital’ portfolio of their work using innovative technology.” – Mark Parkhouse, Sports Teacher

Students are already very familiar with smart tablet devices as many of them have already been using them at school, so this technology is one that is fast becoming an industry standard. It is also potentially a technology that is being used in the workplace more and more.

“It’s important for students to learn the skills needed for the future workplace, where this kind of technology will exist.” – Mark Parkhouse, Sports Teacher

Mark has seen a significant improvement in the quality of the work being produced by the students and his own teaching has benefitted greatly from using the iPads.

**Useful links**

- [Jisc RSC South West website](http://www.jiscrsc.ac.uk/case-studies)
- [Somerset College website](http://www.jiscrsc.ac.uk/case-studies)
- [Coaches Eye app](http://www.jiscrsc.ac.uk/case-studies)
- [Visual Anatomy app](http://www.jiscrsc.ac.uk/case-studies)
- [Anatomy Quiz Pro app](http://www.jiscrsc.ac.uk/case-studies)
- [DK The Human Body app](http://www.jiscrsc.ac.uk/case-studies)
- [Burst Mode app](http://www.jiscrsc.ac.uk/case-studies)
- [Tennis Coaching Plus app](http://www.jiscrsc.ac.uk/case-studies)
- [iMovie app](http://www.jiscrsc.ac.uk/case-studies)

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