

# Using Camtasia to Create Video Tutorials

## Students as Academic Partners Project Report

**Dr Joanne Kuzma and Nicholas Williams**

University of Worcester

(j.kuzma@worc.ac.uk and wiln1\_06@uni.worc.ac.uk)

**Keywords:** Online tutorials, screen capture software, Camtasia.

### **Abstract**

The aim of this project was to create a series of online video tutorials for a Level 4 module (COMP1342 – Creative Computing). For various reasons, students may miss a seminar or prefer a different learning style than that which is presented during a specific Computing session. Thus, some students may benefit from having a series of online tutorials that offer similar information presented in a specific seminar. Web links to the videos can be posted to Blackboard where students may view the online tutorials at their convenience.

The project was led by a Computing tutor who supervised a Computing student responsible for creating six weeks of online video-based tutorials for the COMP1342 module. The tutorials were created with Camtasia, a software product which records both the computer screen activity and audio from the speaker. This can be especially valuable for creating tutorials of computer-based lessons.

Results of the first four weeks where the content was available showed that an average of 21% of students watched the video tutorials. Several students expressed the appreciation of having tutorials that they could watch at their convenience, especially if they did not fully understand the lesson presented in the regular class seminar.

### **Introduction**

Students have a variety of learning styles, and it is important to have an inclusive methodology in order to meet the needs of students in a variety of environments. Bolliger and Supanakorn (2011) explain several different styles:

1. Visual learners who prefer maps, graphs, diagrams and pictures.
2. Aural learners who like to explain ideas and discuss topics with others.

3. Learners with a reading/writing preference who like texts and manuals.
4. Kinaesthetic learners who prefer a hands-on approach.

The authors state that some students enjoy a combination of activities incorporating various styles. This project could benefit students with visual and kinaesthetic styles, as the video tutorials are visual, and also involve hands-on activity where the student follows the video instructions. Olapiriyakul and Scher (2006) conducted a case study where they investigated student learning styles and found differences among students. Those who engage in online learning (e.g. Blackboard), often appear to be more visual learners usually preferring visual presentations. This could correlate to the students in this project who do use online learning resources. A product such as Camtasia videos would be beneficial for students with visual learning styles.

Due to personal circumstances or illnesses, students may miss an important seminar. In this case, they could be placed at a disadvantage by missing topics presented in class. Smith and Turner-Smith (2007) indicate that there are often times in classroom demonstrations where the demonstrated actions are often too quick or too difficult to follow. In either situation, students would benefit by having access to online tutorials that could be replayed at their convenience.

There are a variety of software tools that lecturers can use to augment the learning experience of students and provide for alternative learning styles. Staff at California State University implemented Camtasia screen recording technology into courses in 2005. Originally, students had to refer to assignment briefs over and over, and often did not comprehend the instructions. With the use of Camtasia to record instructions, students could refer to the video at their convenience, and had better comprehension of the materials (Selvester, Mulholland and Wong, 2006). A 2013 study of the use of Camtasia videos was conducted at Valencia College in Florida on undergraduate physiology classes. The researchers found that introduction of video-lectures improved class average on essays by 6%, the class median by 8% and appeared to have the most positive influence on lower-performing students (Miler, 2014).

Camtasia is an inexpensive screen recording software package that allows users to create a variety of video and audio recording files that can be uploaded to websites or Learning Management Systems. These recordings can be used to demonstrate lessons, tape reviews of computer lab assignments, record PowerPoint lectures and other software tutorials (Smith and Turner-Smith, 2007). According to Cox, (2004), the use of Camtasia can be faster and

cheaper than when attempting to use traditional video recording and editing methods. This type of technology is perfect for students who have missed a classroom session, or had difficulty in following a specific classroom presentation, as the videos can be replayed over and over again.

## **The Project**

The aim of this project was to create a series of video tutorials for a Computing module, and to have a student gain experience in using a software product for their future career. There were several benefits that were identified:

1. Students in the COMP1342 module will be able to have step-by-step screen recording training sessions of how to use the Edge Animate software. Having a visual screen recording (and audio) will help them visualize how to use the software. In addition, if they miss class, they will be able to play the videos at their convenience.
2. The student in this SAP programme would gain and develop employability skills. Firstly, they would gain real-world experience in the industry-standard screen capture software. The student would gain knowledge of both Camtasia and Adobe Edge Animate. These are software products that are often used in industry, so the student gains employability technical skills. The student would also gain soft-skills with regards to team-work and also time-management by working with a lecturer. They would have the opportunity to give input into module materials (from a student point of view).

## **The Design**

After the Student as Academic Partners proposal for this project was approved, a meeting was conducted with the supervisor and Level 5 student to determine the proposed schedule that could be accomplished within the 100-hour time-limit. Various lessons were reviewed, and a potential schedule of 7 weeks of screen capture would be done to create videos that taught students how to use Adobe Edge Animate. The student would begin to create the tutorials at the beginning of February 2014. The first two weeks of tutorials had to be completed before the week of 9<sup>th</sup> March 2014, as that was when the 7 weeks of the topic was due to start in the COMP1342 module. The planning was that all of the 7 weeks of tutorials would be completed before 1<sup>st</sup> April 2014.

The next phase of the project was a short analysis of which software to use to create the screen capture videos. We decided to review three major screen capture software solutions:

1. Adobe Captivate 7
2. Camtasia (Techsmith)
3. Camstudio (Techsmith)

We performed an analysis of the three software products. Although Camstudio would have been free, its functionality was poor. Both Captivate and Camtasia are very similar products, although Captivate is quite a bit more expensive. However, both products did offer a 30-day free trial. Because we decided that all tutorials needed to be completed between the beginning of February and beginning of March, it was possible to use the 30-day free trial for either of these products. The student had some limited prior experience with Camtasia, and therefore we decided to use Camtasia for this project.

**Table 1: Software comparison**

	Adobe Captivate (Abode, 2014)	Camtasia (Techsmith, 2014)	Camstudio (Camstudio, 2014)
Price	£849	£220	free
Trial	30-days	30-days	NA
Screen capture	Yes	Yes	yes
Record live video	Yes	Yes	yes
Quizzes	No	Yes	no
Powerpoint integration	Yes	Yes	no
Video editing	Yes	Yes	Yes
Full interactivity	Extensive	Good	poor

### Implementation

Tutorial development started at the beginning of February and concluded at the beginning of April 2014. The team discovered several unanticipated problems. First, we had not considered where to actually host the video files, so we had to consider several options. One option was to upload the video files to a YouTube account. However, since these tutorial videos were University property, we did not feel YouTube would be a valid place to host the files. Another hosting option was to upload the files to the Worcester Business School student server. However, this server has a bandwidth limitation that could cause problems

with large video files. Therefore, it was decided to host the files on the STAFFWEB server because there would be no bandwidth issues, and the server was owned by the University.

The second development issue was designing the 'look and feel' of the video production. We decided a menu-based approach would work best for students. A menu of each weekly video would be placed on Blackboard. The student would then be able to click on the appropriate weekly link. Appendix 1 shows the layout of the link to each video within Blackboard. Appendix 2 shows a screen shot of a Camtasia lesson, along with a Web Link.

With the funds available, the student was able to complete the tutorials in the one month for which we had originally budgeted. We did not anticipate the amount of video editing that would need to be done for each of the tutorials, so it was not possible to complete all tutorials as originally planned. Although the student had some prior basic experience with Camtasia, there was a steep learning curve at the beginning with some of the extra features and functions that we wanted to implement in order to give the videos a more functional and professional look and feel. For example, Camtasia has the ability to do 'sketch motion' callouts (see Appendix 3). These allow the developer to emphasize specific areas that the students should visually concentrate on in the tutorial. Learning some of these extra Camtasia functions took much time at the beginning of the project. Also, since the student was studying for a degree full-time, they were not able to devote more than 10-20 hours per week on the project. Another issue concerned the 30-day free trial of Camtasia, which meant that we were constrained by the time limit of the free version.

## Results

In Blackboard, the report 'All user activities in Content area' was run to determine how many users were viewing the videos weekly. Table 1 shows the results of the first four weeks where students could view the video content. There were 60 students on the module, and the average weekly viewing was 21% (with a low of 13% and a high of 33%). Thus, a significant number of students did find the videos a benefit and continued to watch them weekly.

**Table 1: Weekly Video Views**

Week	Number of student users in Blackboard	Percentage of student using video
2-March	8	13%
09-March	20	33%

16-March	14	23%
23-March	9	15%

Informal discussions also took place in the weekly seminars to determine student views on the videos. Approximately 15% of students had not purchased the textbook. Informal discussions revealed that many students indicated financial issues as they could not afford supplemental materials, and students suggested they would borrow texts from the library or their friends. These students found the videos were helpful as they could keep up with the content. Informal discussions with students also indicated that they liked being able to view tutorials as a supplement to the book.

The results of the module feedback indicated that students were pleased with the tutorials. Table 2 shows the end-of-module results for three questions that deal with the learning environment, including IT, Blackboard, tutorials, etc. The overall results for the three questions indicate that students had over a 90% satisfaction in these areas. Although the questions did not specifically relate only to the tutorials, the level of satisfaction seems to reveal a positive outlook by the students. There was also one written student comment which was directly related to the video tutorials: 'The tutorials, blackboard and teaching was good'.

**Table 2: Module results for IT facilities questions**

Module evaluation question	Strongly agree	Agree
Blackboard (or module website or other virtual learning environment) was helpful to my learning	50%	50%
I have been able to access the learning resources (library, IT and specialist resources) when needed	53.3%	46.7%
The learning resources (e.g. library and IT resources, and specialist facilities) were satisfactory for my needs	38.5%	46.2%

Although no measurable surveys were given on the actual statistics of student use, through the informal discussions and positive results on the module survey, it appeared that students were pleased with the inclusion of video tutorials. If this this type of project were to be repeated, the researcher would expand the project to include measurable quantitative and

qualitative statistical analysis on some of the results, and perhaps conduct debriefing or focus groups with the students.

During debriefing, the SAP student mentioned that they found this project extremely valuable from both an academic as well as an employability viewpoint. Academically, they were able to acquire skills in both Camtasia and Adobe Edge Animate. Both of these products are used frequently in industry, so they were able to gain software product knowledge. Second, this project helped the student gain employment. At the end of this project, the student was interviewed for a year-long Computing placement. During the interview, they were able to present the project videos as part of their project portfolio, and they were offered a placement position.

The one concern with this project was that due to the 30-day trial period for Camtasia, the student needed to get the work done quickly and therefore did not have time to really learn all the functionality to create a 'bells-and-whistles' video production. Because of the short nature of the project, the Worcester Business School (WBS) would not purchase a full license for something that a student would only use for a short amount of time. However, because of the success of this project, and other tutors requesting the software for other projects, during the middle of the project, the WBS decided to purchase two copies of the Camtasia license and installed it on the two extra WBS laptops. These laptops are available for extra tasks, such as providing support for Exam Boards, or if tutors need to borrow them for a few days when they may need a mobile computer.

## **Conclusion**

This project aimed to develop supplemental teaching videos for a Level 4 Computing module. The project was successful from two perspectives. First, a sizable number of the COMP1342 students did view the videos on a weekly basis and found the supplemental material to be helpful. Although this type of tutorial methodology was aimed more at students with visual learning styles, the tutorials were available to all students. It may be possible in the future to design other supplemental materials to meet the needs of students with other learning styles.

Besides benefiting the students in this module, the SAP student found the project valuable. They were able to gain valuable software skills on products that are used in the Computing industry, thus increasing their employability options. This project was an excellent opportunity to build their project portfolio when eventually looking for a position after

graduation. This type of project would be of benefit to future students wishing to gain the same type of experience.

### References:

Adobe (2014) *Adobe Captivate 7 Store*, [Available at:

<https://store2.adobe.com/cfusion/store/html/index.cfm?store=OLS->

[UK&event=displayProduct&categoryPath=%2FApplications%2FCaptivate](https://store2.adobe.com/cfusion/store/html/index.cfm?store=OLS-UK&event=displayProduct&categoryPath=%2FApplications%2FCaptivate) ], Date Accessed

8<sup>th</sup> March 2014.

Bolliger, D. & Supanakorn, S. (2011) Learning styles and student perceptions of the use of interactive online tutorials, *Journal of Educational Technology*, Vol. 42(3), pp. 470-481.

Camstudio (2014) *Camstudio* [Available at: <http://camstudio.org/>], Date Accessed 8<sup>th</sup> March 2014.

Cox, C. (2004) From Cameras to Camtasia: Steaming Media Without the Stress, *Internet Reference Services Quarterly*, Vol. 9(3-4), pp.193-200.

Miller, C. (2014) The Use of Novel Camtasia Videos to Improve Performance of At-Risk Students in Undergraduate Physiology Courses, *World Journal of Education*, Vol. 4(10), pp.22-34.

Olapiriyakul, K. & Scher, J. (2006) A guide to establishing hybrid learning courses: Employing information technology to create a new learning experience and a case study, *The Internet and Higher Education*, Vol. 9(4), pp. 287-301.

Selvester, P., Mulholland, R. & Wong, P. (2006) Camtasia: A Tool for Universal Design Learning, *College & University Media Review*, Spring/Summer Vol.12(2), pp. 9-17.

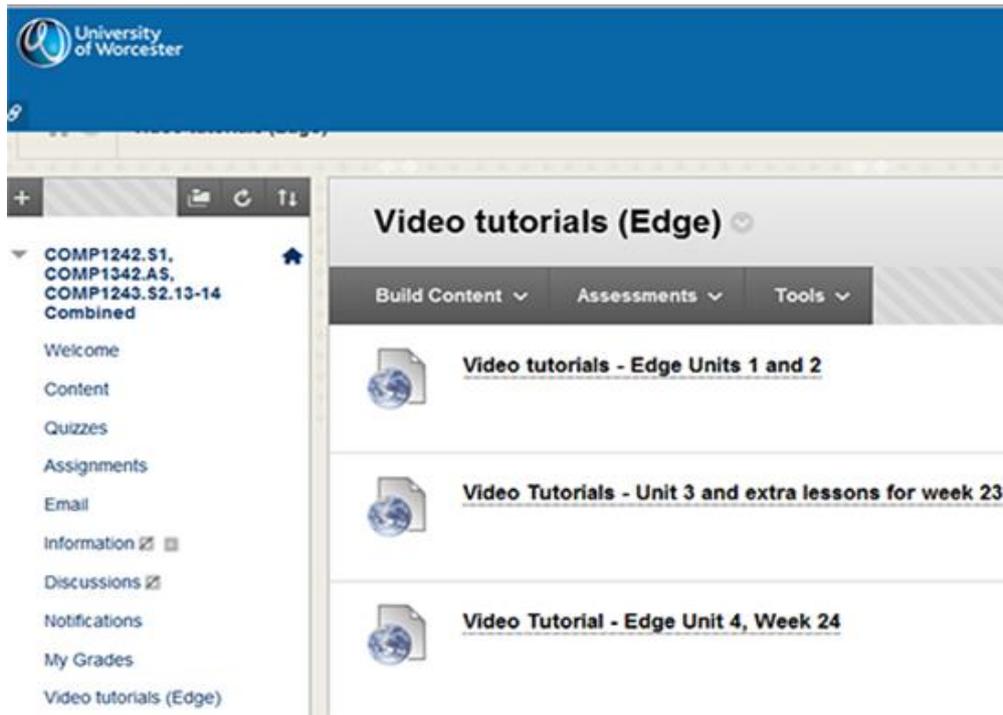
Smith, L. & Turner-Smith, E. (2007) Using Camtasia to develop and enhance online learning: tutorial presentation, *Journal of Computing Sciences in Colleges*, Vol. 22(5), pp.121-122.

Techsmith (2014). *Pricing Page* [Available at:

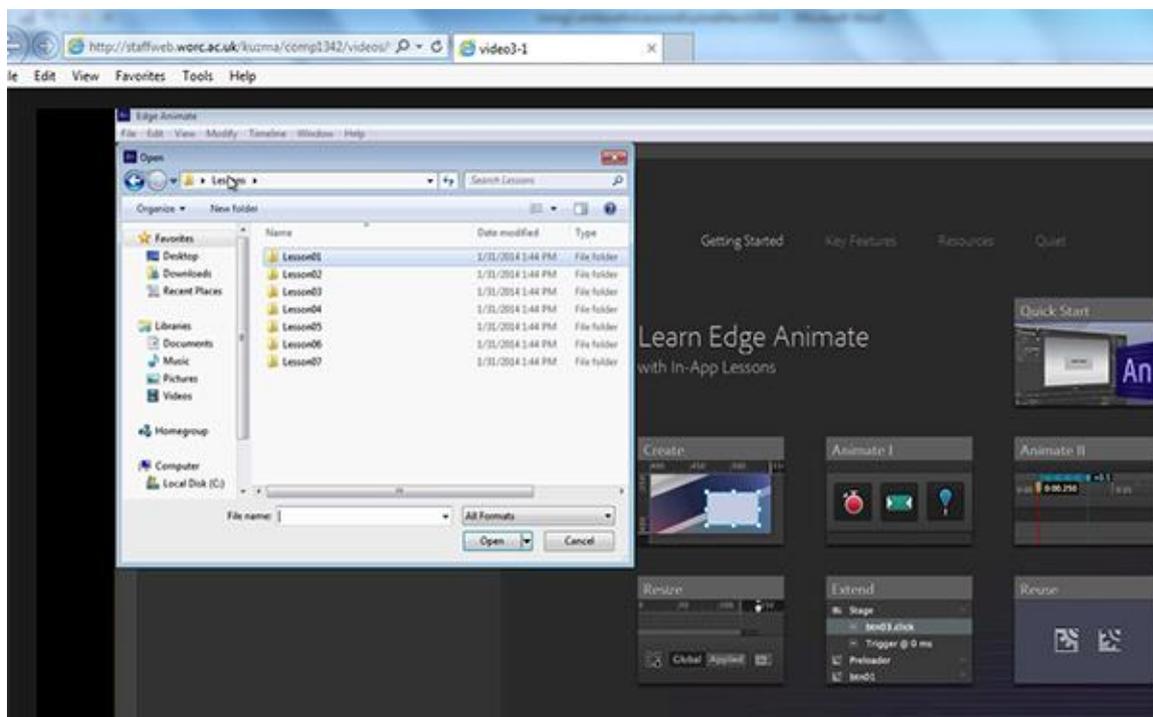
[http://shop.techsmith.com/store/techsmit/en\\_GB/home/ccRef.en\\_US](http://shop.techsmith.com/store/techsmit/en_GB/home/ccRef.en_US)] Date Accessed 8<sup>th</sup>

March 2014.

## Appendix 1: Links in COMP1342 Blackboard

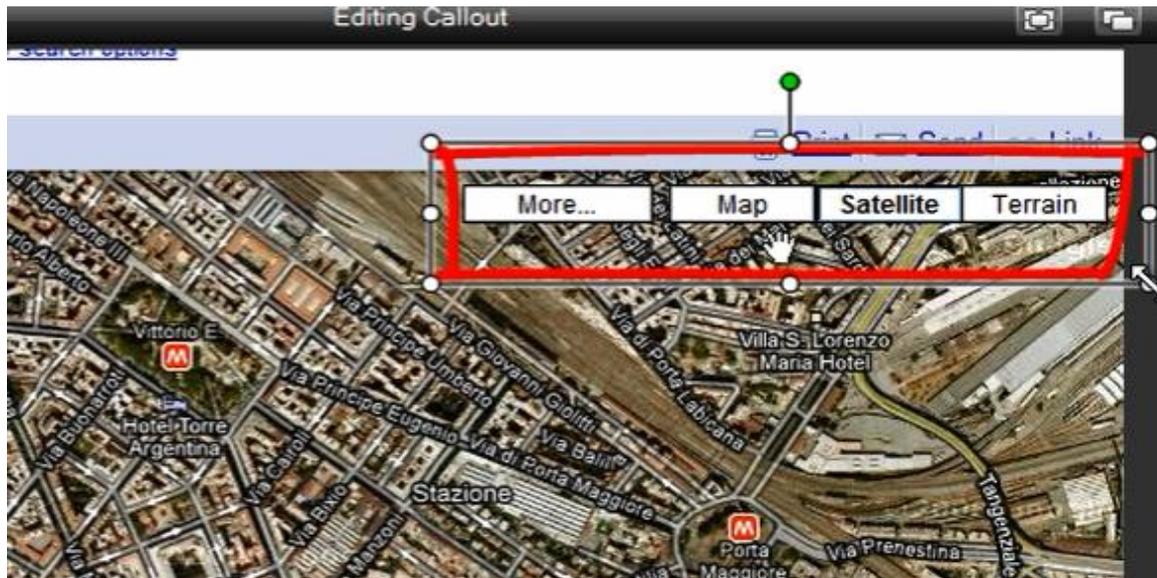


## Appendix 2: Screen Shot of Camtasia Lesson



<http://staffweb.worc.ac.uk/kuzma/comp1342/videos/week23/video3-1/index.html>

### Appendix 3: Camtasia Callouts



### Appendix 4: Glossary

1. Adobe Edge Animate – software from Adobe that is used to create computer animations. It is often used in Web design and Games industries.
2. Adobe Captivate – software from Adobe to create e-learning module content with interactivity. A competitor of TechSmith.
3. Camtasia - software from TechSmith to create e-learning module content with interactivity. A competitor of Adobe.
4. Camstudio - freeware screen recording software.
5. StaffWeb - the University of Worcester staff website where staff can upload video and web content.

### Biographies

**Joanne Kuzma** earned her PhD in Information Systems at Nova Southeastern University in Fort Lauderdale, Florida and has over 20 years of computer consulting background along with University teaching experience. Currently, she is a Senior Lecturer and Course Leader in Computing for the Worcester Business School at the University of Worcester. She specializes in e-business, multimedia, information systems, security and e-marketing.

**Nicholas A. Williams** is a full time Computing (Bsc) student at the University of Worcester with a keen interest in Frontend Development and Business Intelligence Reporting. He is currently on a third year placement at Clearview Business, a Worcester based software company.

# **Time to Shine: Improving the Student Experience in the Institute of Education Students as Academic Partners Project Report**

**Chrissie Aveyard and Kay Bushnell**

University of Worcester

(AVEC2\_09@uni.worc.ac.uk and BUSK1\_09@uni.worc.ac.uk)

**Keywords:** student charter, student experience, student as partners

## **Abstract**

This research examines the student experience within the Institute of Education (IoE), with the aim of strengthening the student experience across all IoE provision. Although the University of Worcester seeks to offer an outstanding educational experience to students, there is no specific published IoE vision for Learning, Teaching and Student Experience. Working jointly with IoE staff, two students from different IoE disciplines and levels conducted focus groups with students and Student Academic Representatives (StARs) from a range of fields and levels within IoE to establish existing strengths, and areas for improvement. Reflecting the Worcester Charter for Students segmentation of the student experience, this research focused on four areas; management and organisation, support for students, culture or staff interactions and teaching. Through utilising a constructive positive approach qualitative data has been gathered, which initially highlights consistency, communication, timetabling, varied pedagogies, and relevance as areas for strengthening the student experience. Thus, in attempting to research the student experience within the IoE, a shared strategy has been developed, which could enhance learning and teaching at the University of Worcester.

## **Introduction**

The purpose of Students as Academic Partners (SAPs) is to integrate students into the teaching and learning communities of departments, developing collaboration between students and staff while promoting ownership and pride in the institution. Although the University of Worcester seeks to offer an outstanding educational experience, there was no specific published Institution of Education (IoE) vision for Learning, Teaching and Student Experience. Therefore, this SAPs research project examined the student experience within the IoE, with the aim of strengthening the student experience across all IoE provision.

## **Methodology**

To achieve the above aim, the research attempted to identify the existing strengths and areas for improvement within the IoE with the aim of recommending actions for academic staff through consultation with students in order to strengthen the student experience. Although the student experience can be deemed to go beyond teaching and learning, definitions vary (Higher Education Funding Council, 2011). Consequently, for clarity, this research used the Worcester Charter for Students in defining the student experience, which emphasised four main areas of focus; management and organisation, support for students, culture or staff interactions, and teaching.

Research into the student experience was considered imperative as it not only influences learners' choices of university (Attwood, 2011), but is linked to degree completion and grade achievement (2003 BC College & Institute Student Outcomes, 2004); positive qualities that have been found to apply regardless of student, course and university attributes (2003 BC College & Institute Student Outcomes, 2004). Highlighting the need for an institution-based study, a national survey revealed that the student experience often varied according to the subject, with education falling significantly below average (Attwood, 2011). However, as institutions and their students have different student experience perceptions (The Higher Education Academy, 2013), establishment of a joint vision for the IoE was vital in fostering the positive attributes student experience can provide.

In order to gather qualitative data that is based on students' experiences and ascertain the IoE students' perceptions of student experience, existing strengths and areas for improvement, five focus groups were conducted with students and Student Academic Representatives (StARs) from a range of fields and levels within the IoE. Focus groups can be flexible and provide rich data, while encouraging participation with the research and are time-limited, benefitting busy students (Bloor et al., 2001; Matthews & Ross, 2010). The groups were formed of pre-existing classes of students and the research took place within the university, allowing good group dynamics and participant empowerment, through the participants' familiarity with each other and the environment (Matthews & Ross, 2010).

As lecturers acted as gatekeepers to potential participants, random purposive voluntary sampling was used in order to obtain a group of participants with the required attributes, knowledge and experiences (Denscombe, 2010; Thomas, 2009). All students in a class were invited to contribute to the research, but some students chose not to participate. Although purposive sampling cannot produce generalizable results, a purposive sample was necessary to acquire specific knowledge (Cohen et al., 2007) of the student experience in

the IoE. However, as purposive sampling can imitate representative sampling by including wide cross-sections of people (Denscombe, 2010), this sampling method can be deemed to generate generalizable results. Forty-seven students opted to participate in the research, and this sample was generally representative of the wider IoE population, although part-time students were underrepresented, with only one part-time participant. Participants were recruited from a variety of courses, with the majority being enrolled on a Primary Initial Teacher Education course. Although male students and mature students over 25 were underrepresented, the gender and age ratio of participants was representative of IoE students.

In order to identify themes within the raw data, the constant comparative method was used, which involves repeatedly examining and comparing the data (Thomas, 2009). Themes were recognised when factors contributed to the motivation of at least three participants in each group. These were subsequently coded, tabulated and summarised to generate our main findings (Figure 1), allowing correlations to be detected and producing an informative summarising interpretation (Hand et al., 2001).

<b>Factors to be improved</b>	<b>Frequency of factors raised</b>
Communication	4
Relevance	4
Consistency	3
Timetabling	2
Stimulating lectures	2
Feedback	2
Individual support (placements, assignments, hardships)	2

<b>Existing strengths</b>	<b>Frequency of factors raised</b>
Relationships with staff	3
Communication	2
Individual support	2

Discussions	2
-------------	---

**Figure 1: Themes identified from focus groups**

Although some contradictory data arose, reflecting the diversity of participants and student expectations, evidence-based conclusions could be drawn under each area of focus taken from the Worcester Charter for Students.

## **Findings and Recommendations**

### **Management and organisation**

StARs usually only meet during course meetings; however, StAR clinics are a dedicated meeting for all of the StARs on a course with a specific member of staff to chair the meeting and feedback to other staff. Although only one StAR clinic is currently running within the IoE, it is greatly appreciated by its participants and is considered to be an important element of improving the student experience.

*Recommended action:* StAR clinics with designated StAR staff to mediate and feedback.

### **Support for students**

Although individual support through tutorials and personal communications throughout IoE was considered good, more support appears necessary in understanding the relationship between lecture-content and assignment tasks.

*Recommended action:* Institute-specific study skills workshops on how to maximise the value of lectures and seminars, and the different expectations of university-based learning compared to previous educational experience, with anonymous feedback provided to lecturers.

### **Culture / Staff interactions**

Participants most frequently cited their relationships with staff as a positive aspect, yet communication and consistency of communication was most frequently raised as a factor to improve. It was also apparent that many student questions could be answered by their peers or students at higher levels and that students and lecturers should be aware of each other's individual pressures, constraints and expectations.

*Recommended actions:* Mandatory lectures to impart the communication expectations of both staff and students, and on-going online course-based inter-level general discussion, with guest access for optional cross-departmental modules, with anonymous feedback

provided to staff by designated independent moderators, such as administrators or students from another Institute.

### **Teaching**

Although many participants reported that good discussions take place during taught sessions, the relevance of teaching material and lectures with regard to their assignments, course and career goals was identified as an area that requires improvement.

*Recommended action:* Optional feedback forms to be completed by students regularly throughout each module to anonymously comment on the relevance of the module.

These recommendations have been developed to support the creation of a shared strategy to enhance student experience at the University of Worcester. This research has been used to inform the IoE's Strategy for Learning, Teaching and Student Experience 2013-2018.

### **Conclusion**

Regarding our personal experience of SAP, we felt that it built on our undergraduate experience and furthered our knowledge of the research process. We found working in partnership with staff, on a project that was personally relevant, rewarding and enjoyable, while the leading and active roles gave us ownership of our work. Furthermore, the project supported our links within the institution and wider university. In conclusion, we would recommend SAPs to other staff and students, as we believe that these multi-level projects can provide greater benefits than individualised research.

### **References**

2003 Key Student Outcome Indicators for BC Colleges and Institutes: Survey Results by Institution (2004). [Online] Available at:

[http://outcomes.bcstats.gov.bc.ca/Libraries/DACSO\\_KOI/2003keyoutcomes\\_pdf.pdf](http://outcomes.bcstats.gov.bc.ca/Libraries/DACSO_KOI/2003keyoutcomes_pdf.pdf)

[Accessed 1st July 2014]

Attwood, R. (2011) Times Higher Education Student Experience Survey, *Times Higher Education*, Thursday 17th February [Online] Available at:

<http://www.timeshighereducation.co.uk/415180.article> [Accessed 12th June 2013].

Bloor, M., Frankland, J., Thomas, M. & Robson, K. (2001) *Focus Groups in Social Research*, London: Sage.

Cohen, L., Manion, L. & Morrison, K. (2007) *Research Methods in Education*: 6th edition, [e-book], Abingdon: Routledge, Available at: <http://www.myilibrary.com/> [Accessed 12th June 2013].

Denscombe, M. (2010) *The Good Research Guide*: 4th edition, [e-book], Maidenhead: Open University Press. Available at: <http://www.myilibrary.com/> [Accessed 12th June 2013].

Hand, D., Mannila, H. & Smyth, P. (2001) *Principles of Data Mining*, Cambridge, MA: MIT Press.

Higher Education Funding Council (2011) *HEFCW's strategic approach to the student experience: 2010-11 to 2012-13*. [Online] Available at: [http://www.hefcw.ac.uk/documents/publications/circulars/circulars\\_2011/W11%2016HE%20Strategic%20approach%20to%20the%20student%20experience%202010\\_11%20to%202012\\_13.pdf](http://www.hefcw.ac.uk/documents/publications/circulars/circulars_2011/W11%2016HE%20Strategic%20approach%20to%20the%20student%20experience%202010_11%20to%202012_13.pdf) [Accessed 3rd June 2013].

Matthews, B. & Ross, L. (2010) *Research Methods: A Practical Guide for the Social Sciences*, Harlow: Pearson Education Limited.

The Higher Education Academy (2013) *The Student Experience of Higher Education: a social science perspective*. [Online] Available at: [http://www.heacademy.ac.uk/events/detail/2013/Staffs\\_student\\_experience\\_of\\_he-18June](http://www.heacademy.ac.uk/events/detail/2013/Staffs_student_experience_of_he-18June) [Accessed 1st June 2013].

Thomas, G. (2009) *How to do Your Research Project*, London: Sage.

University Guide (2013) *University guide 2014: league table for education*. [Online] Available at: <http://www.guardian.co.uk/education/table/2013/jun/04/university-guide-education> [Accessed 19th June 2013]

*Worcester Charter for Students*. [Online] Available at: <http://www.worcester.ac.uk/registryservices/documents/StudentCharter.pdf> [Accessed 1st July 2014]

## **Biographies**

**Christine Aveyard** is a mature student who completed her undergraduate degree in Education Studies at the University of Worcester in 2013. She is currently studying for a Primary PGCE at the University of Worcester and hopes to gain employment as a primary school teacher in the future.

**Kay Bushnell** completed her undergraduate degree in Education Studies with English Language at the University of Worcester in 2012. She is currently undertaking the MA Education at the University of Worcester, and the Diploma in Teaching in the Lifelong Learning Sector at the University of Warwick, and teaches literacy to adults with learning difficulties.