

# Centre for Learning Partners have and Learning (CETL)

A HEFCE Centre for Excellence in Teaching and Learning (CETL)





• • We seek and develop academic partnerships with those organisations that can enrich the student learning experience at this University. The organisations may be local or global, but they have to persuade us that, through collaboration, they can help us develop the vibrant learning community to which we aspire.

OR OF LEARNING AND TEACHING AND CETL DIRECTOR



In 2005, the Higher Education Funding Council for England (HEFCE) awarded Birmingham City University a Centre for Excellence in Teaching and Learning (CETL).

The award focused on an exploration of how the student experience could be improved through the development of learning partnerships between universities and the health and social care sector. Over the past five years, the CETL has evolved and has become embedded in the university through the Centre for Learning Partnerships (CLP). The CLP now seeks to develop wider relationships with colleges, universities and employers that can enrich student experiences at Birmingham City University. This booklet will explore some of the successes of the past five years and perhaps indicate the future for the Centre for Learning Partnerships.

#### This booklet will showcase our work around:

- Diversity of partnerships
- International partnerships
- Community partnerships
- Student partnerships
- Staff partnerships
- Employer partnerships
- Technology partnerships







## The CETL Director's Perspective

By the forging of new relationships with employers and local further education, the University is determined to create new and exciting opportunities for its students. New partnerships with the University of Pittsburgh, Copenhagen Business School and North West Missouri State University have been accompanied by the forging of new relationships with local further education colleges and schools. None of this would have been possible without the funding attributed to the CETL award from HEFCE.

"The CETL award was the largest and most significant project funding that this University had ever received. As a result, the prominence it afforded learning and teaching and the impetus this gave to learning and teaching developments cannot be overstated. Over the five year period of the CETL the focus has changed as it has switched from one of health care orientation to one that encompasses all subject areas.

However, the need for all CETL activities to demonstrate an improvement to the student experience has remained paramount.

"In recent years, the focus of the new partnerships has been on the theme of developing learning communities with advice and evidence from international universities being aligned to implementation and embedding within our own processes. The diverse experiences of partner organisations enables the University to identify those opportunities that can have the most impact upon students in Birmingham.

Work with international universities has substantially informed the development of the Student Academic Partners (SAP) Scheme which has seen the implementation of over 30 collaborative projects (students and staff) that seek to inform and co-create new curricula and student opportunities for the future.







Copenhagen Business School CASE COMPETITION

www.bcu.ac.uk

#### CENTRE FOR LEARNING PARTNERSHIPS



#### "International collaborations help to shape the learning community we can offer students when they attend the University."

PROFESSOR STUART BRAND DIRECTOR OF LEARNING AND TEACHING

## Diversity of Partnerships

In the five years of the CETL it has collaborated with a large number of people working for a great variety of organisations. The CETL would like to thank these organisations for their support and looks forward to continuing its collaboration in the future.

#### Bath Spa University

- Birmingham, Black Country and Solihull Lifelong Learning Network
- Birmingham and Solihull Mental Health NHS Foundation Trust
  Birmingham Children's Hospital NHS
- Foundation Trust
- Birmingham City Students' Union
- Birmingham East and North (BEN) Primary Care Trust
- Centre for Advancement of Inter-professional Education (CAIPE)
- City College, Coventry
- Copenhagen Business School
- Dudley College
- Dudley Primary Care Trust
- HEA Geography Earth and Environmental Sciences Subject Centre

- HEA Social Work and Social Policy Subject Centre
- Heart of England NHS Foundation Trust
- Higher Education Academy
- Inquiring Pedagogies (iPED) Research Network
- JISC
- Laerdal Medical Limited
- London Metropolitan University
- Middlesex University
- National Union of Students
- NHS West Midlands, Strategic Health Authority
- Northumbria University
- Northwest Missouri State University
- The Nursing and Midwifery Council
- Oxford Brookes University
- Quality Assurance Agency
- Regents College, Leicester
- Royal National Institute for the Blind (RNIB)
- Sandwell College
- Saxion University of Applied Sciences, Enschede, Netherlands

- Sheffield Hallam University
- Solihull College
- South Birmingham College
- South Birmingham Primary Care Trust
- Stourbridge College
- Sixth Form College, Solihull
- University College Birmingham
- University Hospital Birmingham NHS Foundation Trust
- University of Bedfordshire
- University of Birmingham
- University of Dundee
- University of Exeter
- University of Hertfordshire
- University of Huddersfield
- University of Hull
- University of Leicester
- University of Manchester
- University of Pittsburgh
- University of Plymouth
- University of Sheffield
- University of Warwick
- Walsall College



9

## International **Partnerships**

In particular, formal collaboration agreements have been signed with:

- Copenhagen Business School
- North West Missouri State University
- University of Dundee
- University of Pittsburgh

Many universities strive for innovation in education but find numerous barriers preventing the university as a whole, and individual staff within that university, from making much needed changes. To devise education that can keep pace with the modern world, the sharing of experiences across different organisations and cultures can offer solutions.

The University of Pittsburgh, School of Nursing collaboration centred on the improvement of the student learning experience through the embedding of simulation within the health care curriculum. This innovation has resulted in the University being viewed externally as one of the country's foremost proponents

of simulation in health care education.

This developing relationship has also led to the instigation of the first UK-US student exchange scheme for the University within the Faculty of Health and the development and delivery of staff development workshops in Pittsburgh. Future goals include the development of joint research bids and explorations of joint initiatives in e-learning and staff development. A journal article has been completed and will appear in the International Journal of Nursing Education Scholarship showcasing different aspects and perspectives of collaboration.



**66** The trip was a once in a lifetime experience that gave us the opportunity to not only learn about, but also experience first-hand, nursing and health care delivery within the UK. Communicating with nursing students in a different country showed us a new perspective from a different culture about the health care system. 🥊 🤊

> CAREN SELTZ UNIVERSITY OF PITTSBURGH NURSING STUDENT



The Learning Lab at Copenhagen Business School (CBS) has been cited by HEFCE and the QAA as being an exemplar for student engagement. Visits to CBS revealed a student engagement philosophy that was so engrained into the organisations that it was difficult to distinguish, in meetings, between students and staff. CBS provided direct inspiration for the development of the Student Academic Partners Scheme and for the wider work around the Learning Community. The two way relationship is exemplified by the fact that the University will be offering staff development workshops in Copenhagen in autumn 2010 in response to a workshop that CBS offered the University's Business School in May 2010.

#### North West Missouri State University

has been identified as one of the world leaders for student employment within universities. North West employs nearly a quarter of its students in a huge variety of roles across the university from estates to admissions to staffing senior managers' offices. Queries around the confidentiality of student information, the impact on student achievement and other such barriers to these types of development have all been addressed and the lessons are being shared.



The partnership approach to the in students and staff from North West Missouri, CBS and Birmingham City University coming together in summer that are possible when looking at student employment. The University's Learning and Teaching Committee were invited to a closing discussion and presentation at the end of the event and through this the partners hope to generate further momentum for student employment at the University.

The Medical school at Dundee University use of simulation in healthcare education. However, once again this development led to further work and the creation of joint Education Vacation Scholarship



development of shared solutions resulted 2010 to develop student employment case studies in this area. The stimulating three day event highlighted the great opportunities

has collaborated with the CETL around the

(EVS) Scheme. The scheme saw medical students from Dundee collaborating with nursing students from Birmingham City University in curriculum developments to improve the educational experience at both universities. The projects directly impacted the curriculum at both universities and the outcomes are currently being enjoyed by students and staff at both universities.











Birmingham City University is a strong regional university with effective links with local colleges and schools. In 2009 the Centre for Learning Partnerships was charged with reinvigorating the relationship with local further education colleges through an exploration of new forms of partnership arrangements.

Initially this resulted in the extensive development of progression agreements through the Birmingham, Black Country and Solihull Lifelong Learning Network (LLN) across health and social care and engineering and has recently moved onto creative media, art and design and business. Most recently the Students' Union at Birmingham City University and the CLP have together instigated an initiative to explore whether a coordinated approach from a University Students' Union and their equivalents in further education colleges can better prepare prospective students for progression into higher education and their future way of working.

Discussions with colleges had revealed that FE colleges had grown considerably in terms of student numbers over a relatively short period of time. However, the student representative infrastructure has not always grown in equal proportion. Birmingham City Students' Union and the CLP believed they could offer support to the colleges and seek to better prepare its future community of learners. The proposition was whether exposure to a variety of informal student based activities could better arm students with the confidence and ability to become fully functional members of a university learning community.





The engagement of a coordinated network of students' unions as a mechanism for creating a community of learners is innovative as it seeks to engage students through 'the messenger' as well as 'the message'.

Nine organisations have joined the initiative and early discussions have resulted in collaborative projects around the areas of student academic representation, student volunteering, student-led activities and societies and international students.

In summer 2010 the above colleges sent representatives to an exploratory meeting at the University which sought to investigate the project proposal and identify areas where collaboration could operate. A number of areas for collaborative working were identified. However, the priority need identified was the training and support of student course representatives at the colleges.

This need had been identified during earlier visits with each individual college and was highlighted as the key avenue for partnership working. This is now being explored through the LLN and it is hoped that the University's virtual town Shareville will provide a vehicle for this development.







## Partnerships with Students

Birmingham City University is focused on generating an integrated and effective learning community that fully involves staff and students in its academic and research development. This focus, through activity, has the potential to significantly impact upon institutional culture and the quality of the student learning experience.

A major part of this activity has seen the creation of the Student Academic Partners scheme which strives to co-create curriculum through this new partnership.

A new and deep partnership between the University and Birmingham City Students' Union has allowed us to take a collaborative approach to engaging staff and students in academic developments.

Birmingham City STUDENTS' UNI Launched in November 2009, the Student Academic Partnership (SAP) scheme is the flagship output of this new partnership. The scheme aims to integrate students into the teaching and pedagogic research communities of faculties as a way to develop collaboration between students and staff, generating a sense of ownership of programmes and a greater sense of being part of a learning community, whilst at the same time delivering outcomes which make a significant contribution to the enhancement of student learning experience. 17



The innovative nature of the collaborative work with the Students' Union has attracted external interest from the National Union of Students and the Higher Education Academy. In the summer of 2010 the University was invited to take part, amidst great competition, in the Higher Education Academy's EQUIP programme 2010–11. This prestigious programme is designed to help higher education institutions (HEIs) identify, understand and resolve key issues affecting the quality and effectiveness of the student learning experience. The intent is that this excellent practice will then inform the wider Further and Higher Education sector. In 2010, the Student Academic Partners Scheme funded this wide range of projects:

Performance, Media & English

## Birmingham Institute of Art & Design

Investigating how communication can be improved between teachers and students, on the BA English Literature programme.

Research focusing on teacher delivery methods, teacher resources, student approaches to learning and student motivation to inform the development of activities to improve communication.

Research into delivery of Personal Development Planning (PDP) on the School of Media MA suite.

Research utilising a variety of social media to explore the expectations, understanding, appropriateness, resources and professional context of PDP with students.

## The organisation and management of the production of screen printed books.

The employment of students to manage a student led book collective and prepare screen printed books for sale at nation artist book fairs.

Visual Arts negotiated study development of a professional practice resource.

Development of a resource to support students embarking on the negotiated study for the BA Visual Arts course.

## evelopment of a good practice guide to

Technology, Engineering & the

Environment

Development of a good practice resource on online survey tools for students and staff studying research design at the University.

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## oint development of laboratory teaching esources for Microelectronics.

The design and creation of a microprocessor development system and associated lab exercises for Microelectronics teaching across the faculty.

#### Evaluation of an online peer review tool.

Development and delivery of an evaluation of an online review tool used within the Digital Media Technology programme.

#### farket intelligence of the new suite f Environmental Masters courses.

Development of a strategy for engagement to support the collection of market intelligence to inform a new suite of courses.

#### The use of technology in the development of effective feedback strategies.

An investigation of alternative methods for engaging students with feedback including; audio, video, peer discussions and group feedback.



## Business School

## Health

#### Use of digital storytelling as a means of sharing the reflective experience of students.

Development of a library of digital stories capturing student experiences of University to be made available to peers to provide context for reflection.

## Re-develop online learning materials for Jewson foundation degree.

Development of online learning materials for practicing managers on the degree programme.

A post RoLEx evaluation of teaching enterprise skills: a student perspective on the first year integrative project.

The evaluation of the impact of a new course structure on the student experience of enterprise skills.

#### 'Take it from us': peer support for Speech and Language Therapy students.

Development of initiatives based on end of year student evaluations and engagement with student peers.

#### How has RoLEx affected the student learning experience on the Dip HE Nursing course?

Research into the impact of a change in course structure on the student learning experience in order to inform future course developments.

## Ecomap guides: the development of peer support of for new assessment processes.

Development of peer support for students experiencing the 'Ecomap' assessment process.

## The student journey into and through the new Public Sociology Route way.

Education, Law & Social

Sciences

Research into the student journey in the first year investigating how the experience shapes student engagement with teaching and learning.

## Research and evaluation of the Virtual Solicitors' Office.

Evaluation and development of the Virtual Solicitors Office to shape the tool for use with undergraduate students.

## To investigate the impact of different teaching methods on the PGCE PCET course.

Research into teaching approaches on the PGCE course and the implications for full time and part time students.

#### Library & Learning Resources

Reframing the past: Exploitation and development of BIAD Library and Learning resources historic collection.

The digitalisation of a large collection of historic material to improve the accessibility of the resources.

#### Academic Skills Centre

## Improving student awareness of study support.

Research investigating the accessibility of academic skills support at the University.

JON CURWIN AND EMMANUEL ADESEKO (Business School SAP project)

## THE AWARDS

The University is delighted that the Student Academic Partners scheme has been shortlisted for the Times Higher Education Awards 2010 in the category of Outstanding Support for Students. Staff and students are excited by the opportunities that the scheme offers and this is highlighted by the case studies highlighted here:

#### The Artists' Book Collective Screenprint Service Programme

#### Student partners:

Daisy Whitehouse and Sarah Lynch **Staff partner:** Chiu Kwong Man

Since November 2008, The Artists' Book Collective at BIAD has actively participated in artist book fairs across the country. Screenprint production has always played a prominent role within the collective, so it was keen to expand its experiences within this specific field of design. The Artists' Book Collective Screenprint Service Programme enables students to produce limited edition screenprinted books – enhancing their skills in both print production and marketing and gaining invaluable knowledge and experience.



The project's aim was to enhance the sense of ownership within the collective, by employing the most enabled of students to help organise and manage the production of screen printed limited edition books, and prepare those books for continued exposure and sale at national artist book fairs. Chiu Kwong professional expectations within the artist book communities, not just in the student partners, but in other students working closely with them. He was also delighted with the effect of the project on Sarah and Daisy's screen print practice.

"Without the SAP as an extra incentive, I am quite sure that both their visual work and their understanding of the wider professional context would not have had such a marked level of improvement."

The scheme has enabled Chiu to pass on full responsibility to Sarah and Daisy in representing and managing the collectives table for the Leeds Artists' Book Fair."This partnership scheme encouraged a sense of ownership and responsibility that had not previously been present," he explains.

Sarah and Daisy have found the scheme equally enjoyable. They particularly appreciated the chance to research and explore printing techniques, being able to give advice and solve problems in both their

Word is spreading fast at BIAD. After the resounding success of this project, staff partner, Chiu Kwong Man, has already been approached by students keen to set up new partnerships.

Man is full of praise for the scheme – and for his student partners."I felt I had adopted new colleagues, as opposed to students. Partners that could be relied upon to not only take charge of current practices, but also offer new ideas for future development," he says, enthusiastically.

For Chiu, the opportunity to manage and work intensely with an enthusiastic team on several self-directed micro projects was exciting and rewarding in several different ways. He was pleased to see an increased level of awareness about own and fellow students' work, and gaining confidence with the printing equipment. And like so many other student partners, they found the level of responsibility they were given genuinely rewarding.

"Working with my staff partner was great, he was certain that we would be treated as staff and not students, so joint decisions were made and we had a lot of free rein over how we conducted the project, i.e. the blog, promo posters and the book fairs. He was positive and constructive," says Daisy. "The project allowed for a much better relationship with our staff partner," she adds. However, Daisy is keen to see the SAP scheme more heavily promoted. "I found the promotion challenging as very few people were aware of the SAPS and to get the word out was tricky, posters and word of mouth only reach so far, I think that in the future bigger promotion of our project and the scheme as a whole would be beneficial."

Chiu's concern was time. "What was challenging, however, was not having an approved and allocated time schedule as a staff partner," he explains, "so in a way, I was extremely lucky to have had fallen upon two very reliable and trustworthy partners."

All in all, the project's effects have been remarkably far-reaching."Having the SAP project run concurrently around all other screen print activities created a much valued additional support mechanism," says Chiu. It wasn't just the partners involved directly in the project who benefitted from it - other staff and students found the SAP team's advice extremely helpful. This increased interest in turn paved the way for the hiring of specialist screen print/ illustration lecturers, which in turn has guaranteed the development of one of the curriculum modules. The project has also thrown up some refreshing new ideas, such as the possibilities of an artist screen print residency and apprenticeships for departing third years.

#### Find out more

If you'd like to learn more about the project, take a look at the enthusiastic blogs to which the team and other students contribute:

http://abc-screenprint.blogspot.com/ http://artistsbookcollective.blogspot.com/

DAISY AND SARAH'S SCREENPRINT





When the CETL began it identified a large number of new work streams that required new staff to develop them. Many junior staff were taken on and some have developed to become full-time members of academic staff at the University. Nick Gee is one such person and he now offers his perspective on his CETL experience.

My relationship with Birmingham City University began in 2004 when I was a student nurse in the Faculty of Health. As an active member of the student body and through my involvement with the Royal College of Nursing I had always been close to the heart of the student experience and been keen to be involved in the evolution of higher education from the student perspective.

This was realised during a collaborative away day in Buxton organised by the University's CETL. The working group was comprised of student nurses and academic staff from Birmingham City University and the universities of Huddersfield and Sheffield. Our research into the student experience from these different perspectives offered us a great insight into the way forward for student – institution collaboration and resulted in several conference papers being produced and presented both nationally and internationally.

In 2007, after qualifying, I secured a senior nursing position in a paediatric respite short breaks service, where my caseload of children with profound multiple learning disabilities and challenging behaviour formed my clinical practice. I was keen to maintain my links with the educational aspect of my profession and joined the University's CETL in 2007 as part-time Collaboration Projects Officer. It was through this role that I was able to embed and align the outcomes of our student consultations through liaison with major stakeholders in the learning experience and ensure transition into practice.

"Because of the invaluable experience that CETL gave me in terms of professional development I was in a very strong position to apply for other academic posts at the University."

This role grew through several projects establishing CETL and University partnerships with organisations such as the Centre for the Advancement of Interprofessional Education (CAIPE) and saw us launch the UK IPE student Network, which was the first of its kind in the country. These initiatives have enjoyed continued success and are now fully student led, with further national and international collaborations.

In 2008 I obtained a Visiting Lecturers contract with the University and was able to undertake a teaching commitment to further align the project work I was undertaking in the CETL, remaining close to the student body and appreciating new perspectives and challenges along the way. In December 2009 I secured the position of Senior Lecturer - Disability Tutor in the Faculty of Health. This full time appointment again puts me at the heart of the student experience. In this role I act as an academic advisor to both University and practice to ensure that disabled students studying in the faculty have their access needs met. My role in enabling students ensures the application of Reasonable Adjustments under the Disability Discrimination Act and the Equality Act, whilst maintaining high standards of achievement and ensuring fitness to practise. This role is again the first of its kind and I am pleased to be ensuring the disability agenda and the importance of the student experience is at the very core of our practice at the University.

I can pay personal testimony to the staff development role imparted by the CETL and the related need for collaborative working. Because of the invaluable experience that CETL gave me in terms of professional development I was in a very strong position to apply for other academic posts at the University.

The CETL's work with staff continues through the SAP scheme and the key combination of student and staff partnerships has been, and remains, the key to all future developments. 25

## Partnerships with Employers

One of the key drivers for the CETL was the establishment of effective relationships with employers, and in particular the NHS. Birmingham Children's Hospital NHS Foundation Trust (BCH) and University Hospital Birmingham NHS Foundation Trust were key strategic partners to the CETL.



Birmingham Children's Hospital NHS NHS Foundation Trust They both offered excellent direction and advice to the main CETL committees and also provided the main testing grounds for educational initiatives, many of which were NHS originated. As a result the CETL invested in facilities at the two Trusts in library and clinical skills facilities. The partners would argue that the CETL has created a greater understanding between the organisations and has to led to other joint developments. Certainly at BCH the CETL has seen an extended role and in the past year has undertaken three joint projects with the Trust to review educational provision. This is exactly what the CETL set out to achieve at the beginning of the initiative: a collaborative approach to improving educational delivery within and across university and NHS partners.

In addition, other commercial enterprises have engaged with the CETL. The most notable of these partnerships is with Laerdal Medical Ltd. The CETL's investment in simulation facilities to support health care education has placed the university at the forefront of simulation developments in the UK. This did not go unrecognised by Laerdal, who are the largest supplier of simulation equipment in the world. In addition, the partnership with the School of Nursing at the University of Pittsburgh which was already linked with Laerdal in the USA raised the significance of the University.

As a result of the negotiations with Laerdal, the University has now run two international simulation conferences, sponsored by Laerdal Medical, and has undertaken evaluative research projects on simulation equipment. The symbolism of the first conference was emphasised during welcoming speeches by David Tidmarsh, Vice Chancellor, and Tore Laerdal, President of Laerdal Medical. The delivery of joint training courses is expected in the near future and all of this work is now enshrined within a collaboration agreement between the two parties and we expect the relationship to strengthen and develop over the coming years.

Plans are already underway for further collaborations as in September 2010 the University hosts a meeting of European nurse educators interested in developing a supportive simulation focused network and in 2011 will host the third international simulation conference at the University, sponsored by Laerdal Medical.









CETL has enthusiastically embraced the use of new technologies throughout its life. At a basic level video-conferencing has been employed to support international collaborations, but it has also entered into some technology-driven projects that encompass a partnership theme. Two projects, T-SPARC and VERT, which really capture partnership working are now highlighted.



#### T-SPARC

A JISC funded project based at Birmingham City University which focuses upon 'Technology-Supported Processes for Agile and Responsive Curricula'. The project bid was made in response to a JISC call for projects under the heading of 'Institutional Approaches to Curriculum Design' and is now run through the University's Centre for the Enhancement of Learning and Teaching (CELT).

## Forming Partnerships

This technology focused project has catalysed partnerships with other organisations through the adoption of the CAMEL model (Collaborative Approaches to the Management of E-Learning). Key features of CAMEL meetings that this model seeks to develop are:

- Planning collaboratively
- Documenting before and after
- Focusing on things which matter
- Expertly facilitated
- Formally evaluated
- Strong emphasis on tacit knowledge and making this explicit

The CAMEL style of meetings has led to a number of strong partnerships emerging with other institutions in our design cluster. Institutions in this cluster regularly work in partnership with each other and collaborate both online (on documentation), and in person (at conferences, JISC events etc). The partners are:

- Birmingham City University
- Cardiff University
- City University London
- University of Cambridge
- University of Greenwich

As a direct result of these developments, members of the T-SPARC team have recently delivered presentations to partners around the effective use of Moodle and the Student Academic Partners scheme.

#### CENTRE FOR LEARNING PARTNERSHIPS





Employing *Technology*  T-SPARC uses a range of technologies to develop and facilitate partnerships in a broad range of contexts. Through the effective and targeted use of both hardware and software, the project team have been able to create and maintain a range of partnerships with stakeholders, both internally within the University, and also nationally in the HE sector as a whole.



#### Twitter

Used extensively to disseminate project activity to cluster members as well as other internal/external stakeholders. Using the #tag system on Twitter, we have found this site invaluable for daily, real-time communications with the sector and for developing and maintaining partnerships.

#### Netvibes

Used by all members within the cluster. Useful tool for collating a range of Internet based resources into one centralised repository. Useful for sharing information and getting updates on project progress from other institutions.

#### YouTube

The **T-SPARC** project has a YouTube channel to disseminate multimedia artefacts and to link to other YouTube sites with other stakeholders, developing the 'feel' of the cluster partnerships.

#### WordPress blog

The blog has been a resounding success for developing partnerships. The blog recently received its 400th 'hit' and regularly receives comments on blog postings from a range of stakeholders, the majority of which come from partnerships formed through the CAMEL events.





#### Cloudworks

A relatively new tool developed by JISC for sharing information on specific projects, organisations, institutions, groups etc. Users can add their 'profile' to a group to share information (e.g. pre-meetings). This allows partnerships to form before an event, and for collaborative work to take place outside of traditional constraints. Google Documents Encourages partnerships to form by facilitating online collaboration on production of documentation. In addition, a selection of audio/video equipment has been employed by the **T-SPARC** team to engage with a range of internal and external stakeholders and to facilitate the development of partnerships between faculties, support services, students and external stakeholders.



Flip video cameras Distributed into student/ stakeholder populations to research a variety of topics, the Flip cameras continue to produce a source of rich data that is allowing the **T-SPARC** team to develop new and exciting partnerships within the University.







Virtual Environment for Radiation Training (VERT)

> In the early stages of the CETL, one of its first bold steps was to provide supportive funding to enable the University to become a consortium partner with the Department of Computer Science at the University of Hull, which was developing a simulated radiotherapy training system using a virtual linear accelerator.



This simulation system takes a hybrid approach using an actual linac handset (hardware) in combination with a virtual environment (software) to visualise the movement of the equipment as controlled by the handset.

The Virtual Environment for Radiation Training (VERT) provides students with the opportunity to practice their psychomotor skills in a 'safe environment'. They can then enter the clinical environment with a basic understanding of treatment techniques and the confidence to move the equipment. This allows students to concentrate on the acquisition of more advanced technical skills and the development of a holistic approach towards patients when in the clinical environment.

As a result staff have been able to transform some of the modules on the BSc (Hons) Radiotherapy through enabling a visual approach to many academic modules that are currently taught in a largely theoretical way. This would allow immediate structured links to be made between theory and practice rather than depending upon students to apply theory at a later date whilst on clinical placement.



The course team also use the VERT to explain more complicated treatment techniques as there is not always the time to do this in the clinical environment and it can be disconcerting for the patient if lengthy explanations are carried out in their presence. Hull also developed an application for the VERT so that students could practice electron skin apposition techniques. This is a demanding technique that often causes students to become anxious when practicing on real patients as they are touching the patient with a large piece of equipment that requires very precise manipulation.

The collaboration has proven to be rewarding for both partners and has demonstrated real outputs through joint conference presentations and journal papers in Studies in Health Technology and Informatics, Clinical Oncology and Journal of Radiotherapy in Practice. In addition, the foresight of the partners and the evidence of worth they generated resulted in the Department of Health funding the deployment of VERT systems at all universities and NHS organisations in England.

Notes	
For further information on the projects outlined in this brochure please contact luke.millard@bcu.ac.uk	
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