

Students as Change Agents

Mick Healey

HE Consultant and Researcher

Emeritus Professor University of Gloucestershire; Adjunct Professor Macquarie University

mhealey@glos.ac.uk; www.mickhealey.co.uk

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This is work in progress and readers are invited to send me their own examples. The full and updated set of case studies and bibliography are available on my website (above) under resources.

Structure

A. Context and frameworks

B. Students as change agents: students as partners and leaders

1. Engaging students as pedagogical consultants, ambassadors and evaluators
2. Engaging students as co-designers of curriculum
3. Engaging students as SoTL practitioners
4. Engaging students as strategy developers and advisors

C. Some key references, resources, organisations and websites

A. Context and frameworks

"There is a subtle, but extremely important, difference between an institution that 'listens' to students and responds accordingly, and an institution that gives students the opportunity to explore areas that they believe to be significant, to recommend solutions and to bring about the required changes. The concept of 'listening to the student voice' – implicitly if not deliberately – supports the perspective of student as 'consumer', whereas '**students as change agents**' explicitly supports a view of the student as 'active collaborator' and 'co-producer', with the potential for transformation." (*Dunne in Foreword to Dunne and Zandstra, 2011, 4*).

"We have spent enough time condemning consumerism in education, and now we need to articulate the alternative. Student engagement is a great concept but it needs to be deployed to radical ends. Students as partners is not just a nice-to-have, I believe it has the potential to help bring about social and educational transformation, as long as we know what we are trying to do and we maintain a critical attitude about the ways the concept is adopted and used.

We say we want to celebrate and share best practice; that can no longer mean that which simply works well. Our practice needs to be underpinned by our values. An activity really should make the reality of education closer to our vision before we single it out as "best practice." (*Rachel Wenstone VP HE NUS, 2012*)

<http://www.nusconnect.org.uk/news/article/highereducation/Rachel-Wenstone-launches-a-Manifesto-for-Partnership/>

"My vision for the future is that it should be the norm, not the exception, that students are engaged as co-partners and co-designers in all university and department learning and teaching initiatives, strategies and practices." (Mick Healey ISSoTL12 keynote on 'Students as change agents')

"When students and academics co-design curricula, benefits include deeper student engagement in learning, increased staff enthusiasm for teaching, and curricula that meet students' needs" (*Bell et al. 2013, 499*).

Fig. 1: Dimensions of students as change agents

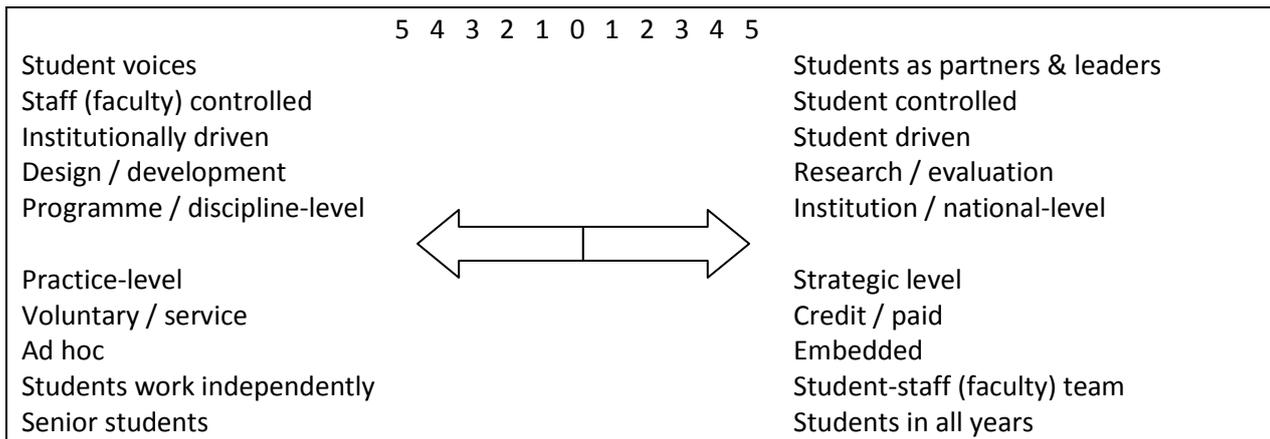
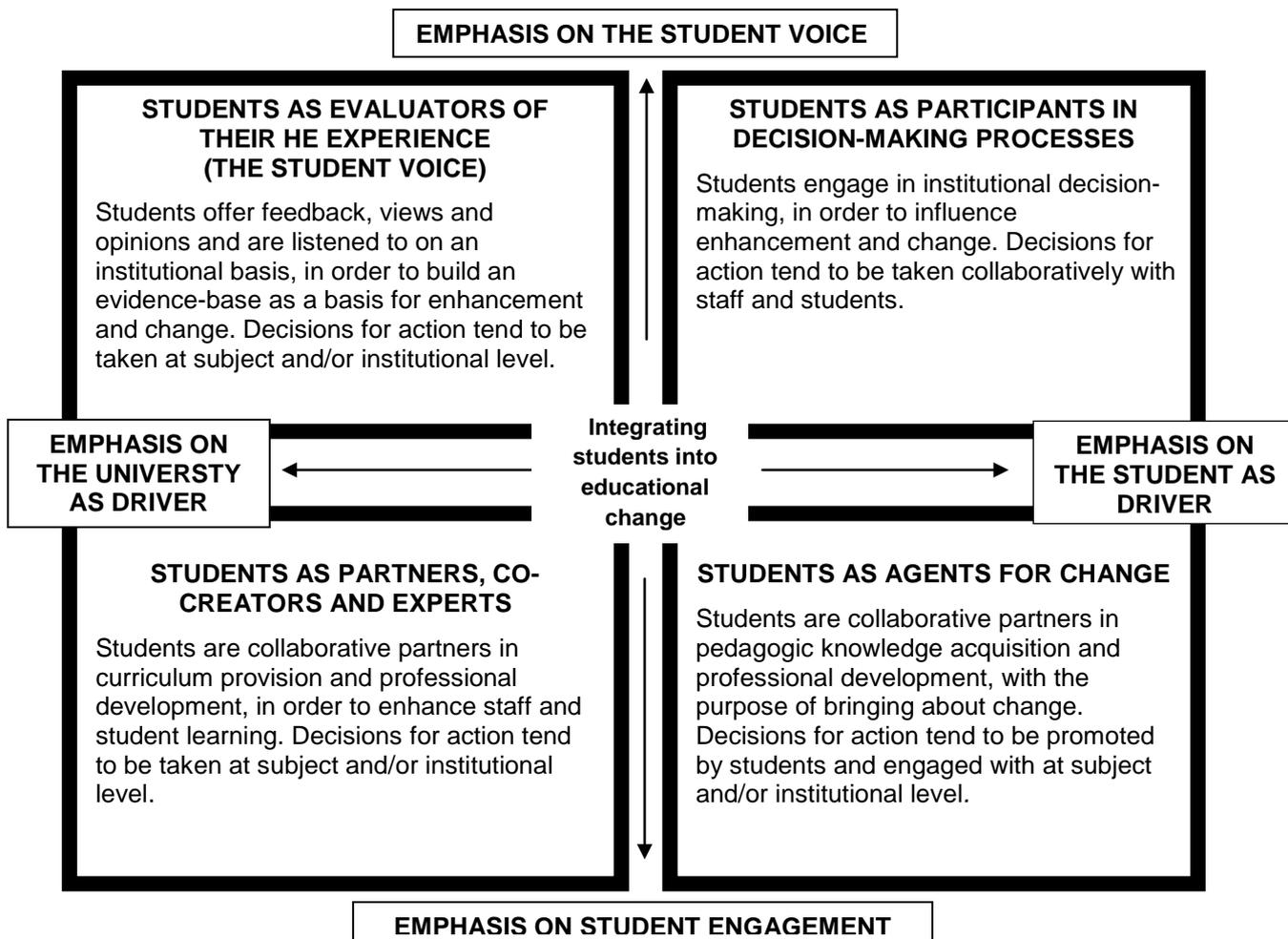
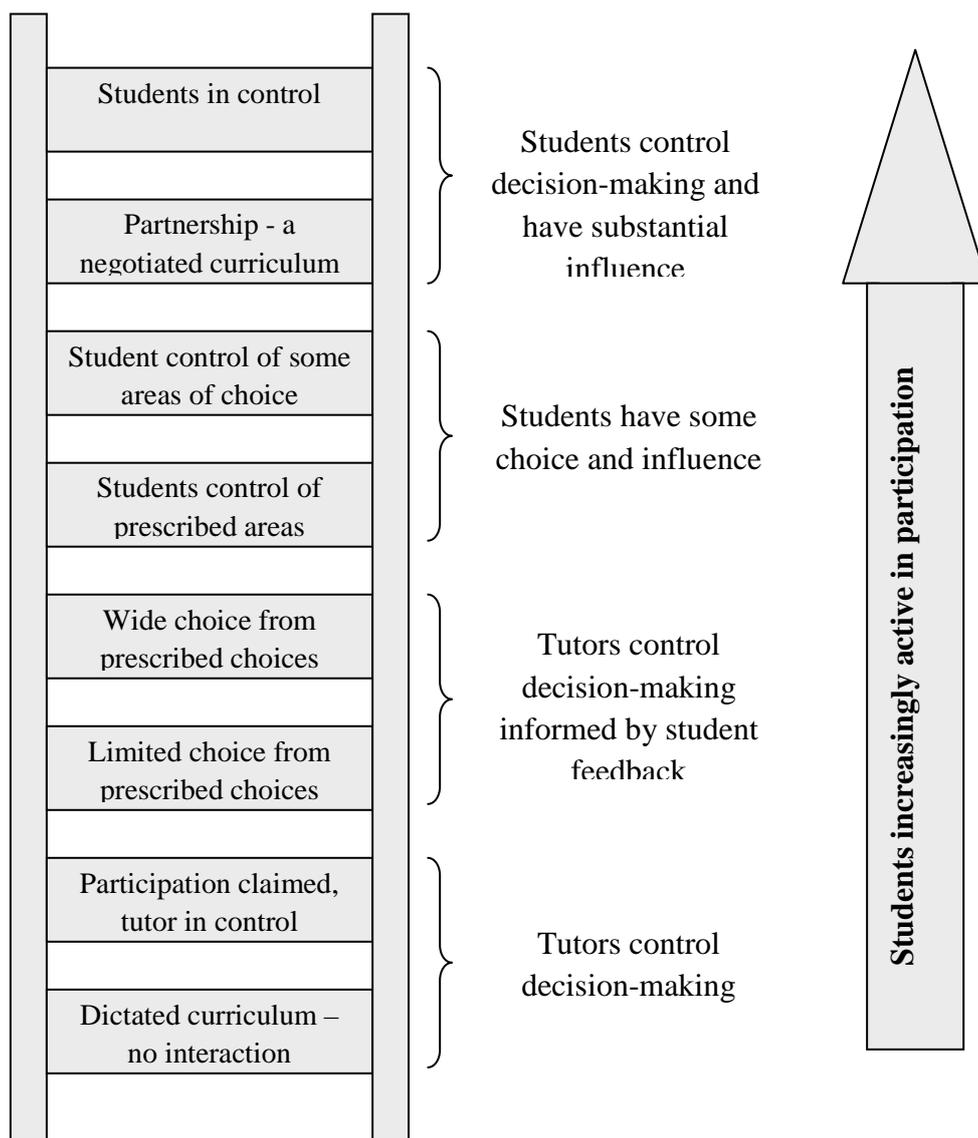


Fig. 2: A theoretical model for students as change agents



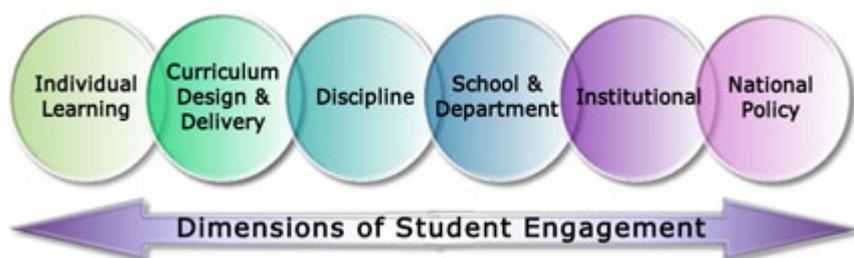
Source: Dunne and Zandstra (2011, 17)

Fig. 3: Ladder of student participation in curriculum design



Source: Bovill and Bulley (2011)

Fig. 4 Dimensions of student engagement



Source: Higher Education Academy (2010)

http://www.heacademy.ac.uk/resources/detail/studentengagement/Dimensions_student_engagement

B. Engaging students as change agents: students as partners and leaders

Many of the following case studies could fit under more than one heading.

1. Engaging students as pedagogical consultants, ambassadors and evaluators

1.1 Students act as pedagogical consultants at Bryn Mawr College, Pennsylvania, USA

Most models of professional development assume that faculty learning is the purview of faculty colleagues or teaching and learning centre staff. A program, called Students as Learners and Teachers (SaLT), at Bryn Mawr College challenges that assumption by inviting undergraduate students to serve as pedagogical consultants to faculty members. Between 2006 and 2012, 140 faculty participants and 70 student consultants have participated in 154 partnerships. Feedback from participants suggests that this approach affords faculty and students an unusual opportunity to co-construct a more informed model of faculty development, deepens the learning experiences of both faculty and students, and recasts the responsibility for those learning experiences as one that is shared by faculty and students.

Students are not enrolled in the courses for which they serve as consultants. Each student consultant has the following responsibilities: meet with the faculty member to establish why each is involved and what hopes both have for the collaboration, and to plan the semester's focus and meetings; visit one class session each week; take detailed observation notes on the pedagogical challenge(s) the faculty member has identified; survey or interview students in the class (if the faculty member wishes), either for mid-course feedback or at another point in the semester; meet weekly with the faculty member to discuss observation notes and other feedback and implications; participate in weekly meetings with one another and with the coordinator of SaLT; and visit one or more faculty seminars five times over the course of the semester. For full-semester partnerships, student consultants work approximately seven hours per week and receive \$900. For shorter partnerships, student consultants are paid by the hour.

Further information: Cook-Sather (2011); <http://www.brynmawr.edu/tli/>

1.2 Students are engaged as pedagogic consultants at the University of Lincoln, UK

The Students Consulting on Teaching (SCOT) project involved students and teachers working in partnership and taking shared responsibility in the enhancement of democratic pedagogies. Six student pedagogic consultants and a student co-ordinator were employed on an hourly basis, offering a student perspective on specific episodes of teaching and learning. By re-imagining the student–teacher nexus, challenging the power imbalance and moving 'from traditional accountability to shared responsibility' (Cook-Sather 2009: 231), it becomes possible to perceive a different way of working, one that genuinely enables student-driven quality, participation and democratic professional practice. The students undertook an explicit and mandatory short training programme. The activities in the scheme were designed to be teacher driven, with the interaction between the teacher and the student consultant remaining completely confidential. The feedback that teachers received was from an impartial student perspective as the student consultants were not, and had not been, members of that course. Ten staff participated and sometimes requested more than one consultation, resulting in over 15 consultations in a six month period. All of the team of student consultants were involved in undertaking consultancy tasks with teachers across the whole of the school.

Further information: Crawford (2012)

1.3 Student-staff partnership in inquiry-based educational development at Manchester and Sheffield Universities, UK

Two Centres of Excellence in Teaching and Learning, one in Manchester (Centre for Excellence in Enquiry-Based Learning – CEEBL) and one in Sheffield (Centre for Inquiry-based Learning in the Arts and Social Sciences – CILASS) employed students to work with staff on the development of IBL (Table 1).

Table 1 A comparison of the two student networks

CEEBL student intern programme	CILASS student ambassador network
Centre for Excellence in Enquiry-Based Learning, University of Manchester	Centre for Inquiry-based Learning in the Arts and Social Sciences, University of Sheffield
Ran from 2005–2010	Ran from 2006–2010
Developed out of the university's 'Students as Partners' model	Remit co-developed with first cohort of student ambassadors
Current students were recruited on an annual basis from a range of disciplines and degree levels with at least one student from each of the four faculties of the university (4–6 total per year)	CILASS ambassadors were recruited from the 26 departments that make up the Faculties of Arts and Social Sciences (up to 28 ambassadors interns per year)
Paid position	Paid position
Interns worked roughly five hours a week on a flexible basis	Each ambassador was budgeted to work for 60 hours over the academic year, roughly two hours per week on a flexible basis
Interns acted as co-consultants working with members of teaching staff in the development, delivery, evaluation and dissemination of IBL modules	Ambassadors worked with IBL staff 'champions' in their departments, in working groups, and with members of the CILASS core team
Interns also contributed to core CEEBL activities including research and evaluation	Ambassadors were involved in CILASS research and evaluation, including conference presentations and publications
Interns came together as a whole team for larger events such as workshops or conferences	Ambassadors worked in working groups on a number of activities, and as a whole network to organize an annual conference
Originally coordinated by a Sabbatical Officer, working closely with the Associate Director at CEEBL. In 2008, to increase consistency and support for the intern team, a full-time member of staff, the Student Engagement Officer, was appointed to manage the programme	Co-facilitated by a member of the CILASS core team and a student coordinator; a current student at the university who worked for 135 hours over the course of the year

Further information: Barnes *et al.* (2011, 21)

1.4 Students co-led a research project on inclusive practice and ran an appreciative inquiry faculty development session at University of Worcester, UK

A team of three academics and three students led a collaborative project using appreciative inquiry (AI) on what constitutes good inclusive practice in the Institute of Education (University of Worcester). The students collected data on the positive things about the experiences of the Institute from both year cohorts and disabled students, analysed it and presented it at a staff development day. The impact on staff has been particularly powerful because students collected and presented the findings and because AI is a strengths-based approach. Feedback from staff was overwhelmingly positive. For example, they reported AI was a motivator to further develop their strengths and to develop an appreciative tone in meetings. Experience over several projects at Worcester using AI is that there is particular power in hearing students report participatory research which conveys appreciation of work undertaken by academic staff. So far this seems to be a win, win, win situation; with students gaining from their experiences of researching and presenting their findings, educational developers achieving greater staff engagement, and, academic staff feeling empowered to drive their practice forward.

Further information: Chapman (2011); Snell *et al.* (2012)

1.6 Students consulting on teaching (SCoT) at Brigham Young University, USA

SCoTs are trained students interested in making a contribution to the Brigham Young University (BYU) learning experience. They have been taught to serve as excellent feedback resources to instructors, supplementing student evaluations and peer reviews. SCoTs, who come from different departments, can serve in any of the following roles:

1. *Recorder/Observer*. The SCOT records, in writing, what went on in the classroom and gives the record to the instructor.
2. *Faux Student*. The SCOT takes notes as if he or she were a student in the class and returns the notes to the instructor.
3. *Filmmaker*. The SCOT films the class and creates a DVD for the instructor. The instructor may invite the SCOT to watch and discuss the video.
4. *Interviewer*. The instructor leaves the classroom for fifteen minutes while the SCOT conducts an interview with the class. The SCOT asks the students to respond verbally and in writing to questions: What helps your learning? What hinders your learning? What suggestions do you have?
5. *Primed Student*. The SCOT meets with the professor prior to class to receive instructions on what to watch for (e.g., How often are students getting involved in the discussion? Which activities are most engaging?)
6. *Student Consultant*. The instructor asks the SCOT for feedback and suggestions about classroom activities or particular areas of interest.
7. *Other*. The SCOT can assist with classroom research, reflective teaching, action research, etc.

Further information: <http://ctl.byu.edu/services/students-consulting-teaching-scot>

1.7 Students act as Ambassadors for Learning & Teaching (SALT) at University of Sheffield, UK

The Student Ambassadors for Learning & Teaching (SALT) scheme aims to influence, improve and develop how students learn and how they are taught at a departmental, faculty and university level. Information, resources and ideas are shared amongst faculty teams creating an institutional overview of Learning & Teaching development which can have a university-wide impact. One SALT is appointed from every academic department each year. They work in Faculty- or institutional-level teams on projects which address high priority learning & teaching issues. The themes of their projects are determined by the University's Learning & Teaching Strategy, but it is up to the students to decide how they want to address the topic. This means that, as a team, they design, plan, organise and deliver their own projects, with support and guidance from academic and professional services staff along the way. The students are paid for 50-80 hrs work during the academic year.

Examples of past projects include:

- An academic peer mentoring scheme for dual honours students in Arts & Humanities;
- An inter-professional learning event for students in the Faculty of Medicine, Dentistry & Health to promote multi-disciplinary working;
- An academic transitions website for Engineering students with hints, tips and guides for before they come to university, while they're studying and preparing for after;
- A staff-student symposium for Social Sciences, where students and staff came together to debate issues such as employability and share learning & teaching good practice;
- Peer-to-peer advice sessions for Science students, giving information on module choice, research placements and post-graduate study.

Further information: www.sheffield.ac.uk/lets/student/salt

1.8 Students work with librarians to construct annotated bibliographies and make recommendations on enhancing the library collections at Alverno College, Milwaukee, US

As part of the 'Gender in the Early Modern World' course students produced an annotated bibliography on specific topics within the broad period of women in the early modern world and were encouraged to go beyond the geography of Europe. The class visited the library several times during the semester to find information, explore the print collections; several students arranged individual consultations with reference librarians. A key part of the assessment asked students to write a formal memo to the library director detailing their evaluation of the library's collection in their chosen subject area. The memo required them to summarize their findings and include three purchase recommendations. Library administration and interested librarians attended the final class session where students shared their work. After reviewing the recommendations, a number of books were ordered for the general

and reference collections. The experience has led other subject librarians to suggest a similar type of assessment in their liaison areas.

Further information: Duerr and Eastberg (2012)

1.9 Students engaged in evaluating the curriculum at the University of Sydney, Australia

In 2012, in a postgraduate unit of study called *Critical Thinking in Business* with 560 students enrolled, about 70% of the students were from non-English speaking backgrounds and were grappling with the language and with the concept of critical thinking. Professor Carson drew on her background in deliberative democracy to create an opportunity for the students to give feedback on the unit, and to model a different way to collectively decide in large groups. Building on a summary of mid-semester student feedback, a World Café was conducted in each of the 20 tutorial groups. Students engaged in an iterative conversation about what they wanted to change about the unit of study, both in the current semester and the next one. At the end of the tutorial, students were asked to reach agreement about the two most effective suggestions: one for this semester, one for next semester. A representative from each tutorial group then attended a meeting where the students created a final list of suggested changes. After an hour, the unit coordinator came into the meeting, with the guarantee that she would implement whatever changes the group proposed (with the proviso that the changes needed to be consistent with the university's policies). The unit coordinator heard what the students wanted, asked a few questions and the students offered additional comments. The agreed changes were reported back to all students in tutorials and in the lecture. Students commented about how the World Café helped them to appreciate multiple perspectives, and how the technique could be used as a decision making tool in the workplace. Tutors also commented that the World Café was one of the highlights of the semester.

Further information: Bell *et al.* (2013)

2. Engaging students as co-designers of curriculum

2.1 Students act as co-creators of course design at Elon University, North Carolina, USA

Since 2005, faculty, students, and academic development staff at Elon University have experimented with a variety of approaches to partnering in 'course design teams' (CDT) that co-create, or re-create, a course syllabus. Each team's process varies, but typically a CDT includes one or two faculty, between two and six undergraduate students, and one academic developer. Faculty members initiate the redesign process, inviting the students and developer to co-construct a team. Students usually apply to participate in a CDT, motivated by a desire to contribute to a course they have taken or that is important to the curriculum in their disciplinary home. Once the CDT is assembled, the CDT uses a 'backward design' approach, first developing course goals and then building pedagogical strategies and learning assessments on the foundation of those goals. Time is the most important element in the success of a CDT. Successful teams usually meet weekly for two or three months, providing ample opportunities to both accomplish the CDT's practical purpose of redesigning the course and, perhaps more importantly, to develop a true partnership that welcomes student voices. Students often doubt that they will be taken seriously in the process, and they also need time to develop the language and the confidence to express pedagogical ideas clearly. Many CDTs experience a liminal moment when everyone present recognizes that a fundamental boundary has been crossed, either by a faculty member ceding significant authority for the course design or by students claiming power in the process.

Further information: Bovill *et al.* (2011); Delpish *et al.* (2010); Mihans *et al.* (2008)

2.2 Student partners helped develop a new institutional curriculum at Olin College, USA

Olin College is an innovative liberal science college established by a foundation to radically transform engineering education. Students were engaged from the beginning in co-designing the curriculum, which is built around hands-on engineering and design projects. This project-based teaching begins in a student's first year and culminates in two senior 'capstone' projects. To establish the initial curriculum at Olin, Olin College decided it would be beneficial to invite a group of students to help brainstorm and test concepts. In some respects these students were considered partners in the development of portions of the curriculum and the student life program. In the spring of 2001, 30

students were recruited. These students were involved in a unique academic program consisting of development and testing of components of the curriculum. Their program was organized into six modules of four to five weeks each, including a four week trip to France to investigate international aspects of the campus of Georgia Tech Lorraine at Metz. Each of the modules was used to test an aspect of the curriculum. The student partners received non degree credit for the year. The first freshman class of 75 students entered in the fall of 2002. The class included the 30 student partners who then spent a total of five years to complete their BSc Degree. According to Wikipedia "Olin's Curriculum expires every five years, and must undergo an internal curriculum review. The goal of these reviews is to ensure that the college maintains a culture of change and continuous improvement, and constantly working to reinvent itself."

Further information: Kearns *et al.* (2004); http://en.wikipedia.org/wiki/Franklin_W._Olin_College_of_Engineering

2.3 Students are full members of department curriculum teams in national initiative in the UK

In 2009 the Geography, Earth and Environmental Sciences (GEES) Subject Centre piloted a year long initiative to support four GEES departments plan changes to their curricula. All but one team had one or two student members. The main feature was a 48 hour retreat where teams were supported by discipline-based experts in educational development. Roughly half the time was spent working on their own projects, while the other half was spent working with other teams and in plenary activities encouraging divergent and creative thinking and prioritizing of ideas. Teams that comprise a 'diagonal slice' across departments, with faculty, at different levels of seniority and functions, and students, can be very effective in breaking down status and level differences that can impede change. Students are key, providing creativity and new perspectives, and are less bound by departmental contexts. The groups were full of praise of the important contribution they made to their team's thinking:

"It was essential to our thinking. Having the students with us has been immensely helpful, and frankly they have played as full a part as any other team member and have been just amazing."

The approach was based on the 'change academies' which have been run for several years by the HE Academy where they support institutional teams developing teaching and learning initiatives. Some institutions have run internal academies where departmental teams work on related topics.

Further information: Healey *et al.*, 2010; 2013; Flint and Oakley (2009)

http://www.heacademy.ac.uk/resources/detail/change/change_academy

2.4 Students undertake educational development projects as academic partners with staff at Birmingham City University, UK

Launched in 2010, this new partnership between the University and Birmingham City Students' Union aims to integrate students into the teaching and pedagogic research communities of the University to enhance the learning experience. Staff and students are invited to propose educational development projects in which students can work in an academic employment setting in a paid post at the University, on an equal footing with their staff partner. Students negotiate their own roles with staff and are paid for up to 125 hours of work. Each project is designed to develop a specific aspect of learning and teaching practice. Typically, these may result in new learning resources, developments in curriculum design or the evaluation of innovations and changes that have already been made. It's key to the scheme that students are employed as partners not assistants, co-creators not passive recipients of the learning experience. Some projects are initiated and led by students. The Students as Academic Partners (SAP) scheme is part of a wider University initiative to create a greater sense of learning community at the University in which students and staff view it as the norm, not the exception, that they are engaged in academic discussion about the nature and delivery of their courses. In the first year 23 projects involving 35 students were funded across the University in all subject areas; this increased to 47 projects and 120 students the following year, and 65 students engaged in 200 projects in 2012.

Further information: Birmingham City Students' Union (2010); <http://www2.bcu.ac.uk/celt/forming-learning-partnerships/sap>

2.5 Students and faculty work in teaching teams to advance learning in chemistry, science and mathematics at the University of Michigan, USA

Beginning in the early 1990s research and teaching have been integrated in chemistry at Michigan by focussing on the development of students interested in future academic careers through engaging them in teaching teams as well as research teams. Undergraduates, graduate students, and post-doctoral associates work alongside faculty on SoTL projects concerned with course design and assessment. This means faculty thinking about instructional design that will not only identify students for their potential as researchers (such as with discovery-based laboratories), but also for their potential as teachers. The model is based on the way research groups in the sciences develop future scientists. Faculty partner with instructors-in-training on their teaching ideas in the same way they partner with their researchers-in-training on their research ideas. Now when chemistry faculty think about doing instructional development, they think about partnering with students in order to get that work done. Moreover their experience is that when faced with questions such as “How do we handle this for doing teaching projects?” then the best answer is usually “Let’s take a look at what we already do in research and create an analogy.” To extend the model the IDEA (Instructional Development and Educational Assessment) Institute ran from 2007-12 with the mission to bring together faculty and students from science, math and education to design, implement and assess new teaching methods and materials to advance learning in science and mathematics from middle school to graduate school.

Further information: Coppola (2007); <http://www.lsa.umich.edu/ideainstitute/>

2.6 Students are engaged in co-design of assessments at University of Derby, UK

Following guidance on basic assessment principles, students on a public sector management module at Masters level with 20 participants, largely middle managers, were asked to create, negotiate and agree the module assessment brief and to tailor the standard university marking criteria. They voted on whether they wanted group or individual assessment. They were also involved in some peer-marking and giving feedback to each other. An action research project explored the responses to the intervention, from students and teachers’ perspectives. Findings were thematically analysed and ‘member checked’ with student focus groups. Most of the participants were in favour of being empowered to be involved in choice of the topic for assessment, which appropriately was ‘choice and voice’. The negotiation took about 4 hrs, about 10% of the module, but as the process was closely related to the topic the students were experiencing aspects of the process first hand. This case study illustrates that engaging students in assessment design, increases the level of understanding of assessment principles and processes, and raise their motivation and results. One of the students subsequently won £750K of Arts Council funding using models learned from the programme.

Further information: Dexter and Prince (2007a, b, c); Dexter (2012)

2.7 Programme co-ordinators redesigned the first year geography curriculum in collaboration with students at University College Dublin, Ireland

The programme enrolls approximately 400 students each year. The co-ordinators advertised for four third-year students to apply for the job of co-designing the curriculum with existing academic staff. These students were paid to design a new virtual learning environment based around case studies covering important themes for first-year geography, such as migration and the coffee trade. They then produced written, audio and video resources for the virtual learning environment that first-year students could interact with and use to support their learning. These case studies prompted discussion among small groups of students online and in class. The third-year students then collaborated with the programme co-ordinators to identify examples of good student work that could be used as the basis for teaching sessions. In this way, the current students’ work directly influenced and contributed to the curriculum.

Further information: Bovill *et al.* (2011)

2.8 Students negotiated the content of modules in an undergraduate programme in environmental justice at Queen Margaret University, Edinburgh, Scotland

Approximately 16 students who have some experience as community activists enter the course in order to learn ways to enhance their capabilities as activists within their own community. A curriculum framework is designed by academic staff; for example, they plan that there will be a science module and a law module. However, the content of the modules will be dependent on what the students need to learn to become more informed active citizens, for example, legislation and science relating to toxic waste dumping. Students and academic staff developed their negotiation skills through discussion, compromise and agreement about curriculum decisions. These processes helped students to realise that they were being taken seriously and that their participation was meaningful rather than tokenistic.

Further information: Bovill *et al.* (2011)

2.9 Medical students act as educational partners in the development of online resources at the University of Bristol, UK

This initiative involves an extension of the SSC (Student Selected Component) programme which students undertake as an open module within the undergraduate medical curriculum. Since 2003, this programme has offered the opportunity to undertake the development of e-learning materials on a clinical topic of their choice as another option within the SSC, with the intention that these are made available to other students within their peer group and those who will follow in later years. Students identify an area of need, based on existing educational resources, their own experience and from research with their peers and tutors. E-learning materials can be in any media or designs, using tools chosen and frequently learnt from scratch by the students. Typically, the e-SSCs will involve 20 to 25 students per year. As part of the assessment for this component, students write a reflective account of the project and the process of development. An analysis of a sample of these reports (25 from 2007/2008) has shown that through this initiative, students develop a range of skills (literature searching, developing a personal inquiry, IT skills, project management, collaborative team working) and different approaches to identifying and resolving problems. The analysis of reflective accounts also showed that ideas about educational theory and design principles were developing over time as one cohort builds upon the experience of those who have gone before.

Further information: Timmis *et al.* (2010); Williams *et al.* (2011)

2.10 Medical and health science students are engaged in a curriculum development project at the University of Southampton, UK

A group of medical students at Southampton University initiated a 'Global Health Education Network' (GHEN). One of the network objectives is to influence the curriculum of health and social work programmes, which members feel ought to address global health more explicitly. Another is to enable greater scope for work placements abroad; medical, midwifery and some allied health students are able to access such placements although many hurdles exist and students need to be persistent. Underpinning the global health initiative is a clear moral standpoint; as citizens of the world, we have a duty to understand the global challenges ahead. In response, the Vice Chancellor and other senior executive staff offered them the chance to work collaboratively with staff and local health practitioners on a new interdisciplinary module – Global Health – which is being offered as part of the University's Curriculum Innovation Programme. Twelve students were involved in designing the Global Health module with academics and employers, having generated interest by holding network meetings. They ensured the student perspective was integral to the development, contributing a unique perspective on what students might offer communities as well as what they might need to learn and develop. They ensured the module established the link between socio-political issues and health, wherever health care takes place, unlike the traditional medical definition of global health. Most importantly their contribution ensured that the values which motivated them and their peers were articulated and embodied in both the content and the delivery of the module. The time they spent was their own, with no payment or academic credit. When offered remuneration they refused. All are active in the Global Health Education Network and share responsibilities amongst the group so that no single individual takes on too much. The module development team benefited greatly by being reminded why motivated students become interested in education -

they understand its power to change and influence future generations. Through discussions and presentations the students and staff learned together and came to share an agenda, of which the new module is only one aspect.

Further information: Wintrup (2010); <http://www.southampton.ac.uk/cip/>

2.12 Students undertake paid internships as agents of change or educational researchers in biosciences at the University of Leeds, UK

The Faculty of Biological Sciences, University of Leeds has recently begun to run two programmes of non-laboratory based internships for first and second year students. The first, badged as “*Students as agents of change*” is where students work in groups to develop a resource to enhance the curriculum; it can be something they have identified themselves as being needed within their programme or a project initiated by a member of staff. The second scheme is where the intern contributes (individually) to an educational research project. Examples of ongoing projects include podcasting of research seminars for student/staff use; improvements to educational environment; collation and evaluation of Open Educational Resources for teachers/students. Start-up funding for these internships was obtained from the University of Leeds Academic Development Fund and the Leeds for Life Foundation. These internships are extremely popular, with 63 applications for 18 internships in September 2011. A second tranche occurred in January 2012. Students undertaking *Students as agents of change* projects agree the number of hours required to complete their project with their supervisor and are paid in installments when they meet defined objectives/milestones. Educational research interns are paid, in two installments, for 75 hours work. For both schemes, academic support and advice is provided, as required, throughout the internship, a true collaborative partnership between the intern and supervisor to meet the agreed outcomes. Students are required to blog their initial aspirations, reflect on progress and the skills gained throughout the internship and provide an end of internship case study. The Faculty has incorporated the resources into its teaching and its public engagement activities and has committed to the continued funding of the scheme. There is an opportunity for students who are stimulated by these experiences to undertake a dissertation in educational development in the biosciences in their final year.

Further information: Lewis (2011); Lewis and Morris (2012);

<http://insight.glos.ac.uk/tli/activities/ntf/creativehops/examples/Pages/ExamplesofCreativeHonoursprojectsfromScience,Technology,EngineeringandMathematics.aspx>

2.13 The role of students in the Digital Literacies (DL) in transition project at Greenwich University, UK

The aim of the Digital Literacies in Transition project is to develop a holistic model of curriculum development that strategically embeds digital literacy attributes at key points of transition within a diverse student population to enhance their life chances as graduates. To achieve this we are using a cross-institution interdisciplinary, student-led research group; termed IRG. These are funded studentships, piloted in year one and expanded in year two. Students involved in the IRG will act as both ‘young researchers’ and also agents of change, by engaging with core stakeholders (including employers, alumni, students, students’ union and staff) through a process that will enhance their own digital practice and ripple outwards back towards their schools and forwards into adding value for employers. Furthermore, this group will work with the data collected and networks formed to develop Open Educational Resources (OERs) to support both staff and students in digital literacy development. A student intern, drawing from his own experience and currency as a recent graduate, supports this group. As students move through their degree and start to develop their professional identity we need to support the digital tools and attributes to prepare them for life beyond university. To achieve this we are developing student-owned eMagazines that will act as a ‘hub’ for bring together professional, academic and discipline based activities whilst developing an online community. Through an ethos of shared ownership, whereby each eMagazine has a student editorial team supported by an academic mentor, we hope to expose students and staff to emerging and understanding approaches to DL development, contextualised to their discipline as well as traversing discipline boundaries.

Further information: <http://www.DLinHE.com>

2.14 Students co-develop and co-deliver a suite of successful learning courses at University of Ballarat, Australia

At the University of Ballarat a suite of "Student Lead Learning Programs" called "Succeed @ UB" have been co-developed and co-delivered with students.

- UBReady is a crash course in skills development. The online teaching materials were developed by students over the summer break and the face-to-face component is co-delivered by staff and students. Last semester 150 students attended and 10 student leaders assisted.
- The mentor program assists with transition to university life. Last semester 110 student leaders worked with 1000-1500 students.
- The PASS program assists students studying in courses with traditionally high failure rates. There are 40 PASS leaders.

All three programs are overseen by one staff member. She has six interns reporting to her (ie. student leaders employed 8 hours per week for 40 weeks). The Interns are currently working on some "quick and dirty" videos and resources to teach some basic transition and study skills.

Further information: <http://www.ballarat.edu.au/staff/learning-and-teaching@ub/clipp/succeed@ub>

2.15 Students co-design strategies to build inquiry-learning scenarios based on an intensive use of ICT at University of Barcelona, Spain

Design2Learn involves teachers, students and experts in instructional design in a co-design process to generate scenarios for inquiry learning. The purpose of the project is to study the application of a model based on inquiry pedagogy to generate learning scenarios in universities that can be adapted to different training contexts and student profiles. To do this, the elements that configure those contexts and profiles will be identified, such as the area of knowledge, the academic level, and students' competence in ICT use for learning purposes.

Further information: Begoña Gros Salvat (bgros@ub.edu)

2.16 Students as online interprofessional peer facilitators at Coventry University and the University of Warwick, UK

The interprofessional learning pathway (IPLP) in the Faculty of Health and Life Sciences at Coventry University is an ambitious initiative bringing together students from fourteen health and social care professions, including medical students from Warwick Medical School, to learn with, from and about one another. Between 2005 and 2008 students worked in mixed online groups facilitated by academic staff. In 2008 a project was established to replace a small number of academic facilitators with final year student facilitators. The role involved two four-week periods of facilitation (covering the Year 1 and 2 IPLP) of groups of approximately 15 students following completion of a training course. The students were paid for their input. The scheme has expanded year on year and is now funded by the academic departments. To give an idea of scale, in 2011/12 the year 1 cohort of approximately 1,200 students was allocated to 75 online groups and two thirds of these groups were facilitated by final year students. Feedback from Year 1 and 2 students is extremely positive: the peer facilitators appear to be as effective as academic staff in promoting discussion but also offer added value to student learning through a diffusion of status; they are enthusiastic and are able to empathise; they create an atmosphere of trust and support, and challenge thinking. The peer facilitators frequently inspire their junior colleagues to volunteer long before they reach year 3 to become facilitators. In addition to being effective in promoting interprofessional learning the facilitators experience significant personal and professional gain from their role.

Further information: Clouder, Krumins & Davies (2010); Clouder *et al.* (2012); Project report

http://www.celecoventry.co.uk/?page_id=389

2.17 Engaging students through empowering them to co-create the curriculum at University of Newcastle, UK

Undergraduates studying multiple subjects face particular challenges to establishing a student identity and a sense of belonging. Combined Honours at Newcastle University had the lowest rate of student satisfaction in the University in 2008. To address this issue a holistic approach to student engagement was taken initially by asking the students what their issues were and what they suggested the solutions were in solving these issues. A key issue was the inability of many Combined Honours students to do a dissertation or a project combining their subjects, as the subjects they studied did not allow this. In response an Independent Studies module was co-designed with student representatives. Assessment on the Independent Studies module follows a path from formative to more summative;

with a balance between assessing the output and the process, assessing the latter through a culminating reflective interview. Authenticity in topic and output are encouraged by connection to the professional world beyond HE with wide scope and format choice. Peer assessment was introduced, which the students now appreciate after some initial reluctance. Support for students is delivered through workshops; with the students choosing the topics and supervision, but there are also peer groups where collaboration is encouraged. Subsequently three further modules have been co-created and designed, focused on developing 'graduateness'. Student engagement is much higher, all round.

Further information: Colin Bryson (colin.bryson@newcastle.ac.uk)

2.18 Students contribute to course design through T-SPARC an ICT infrastructure which supports dialogue at Birmingham City University (BCU), UK

T-SPARC is a JISC funded project based at BCU which is focused upon 'Technology-Supported Processes for Agile and Responsive Curricula'. The aim of T-SPARC is to deliver an information and communication technology (ICT) infrastructure that will facilitate greater levels of dialogue between stakeholders (ie staff, students, employers etc) in curriculum design; and the development of technology to support enhanced discourse between stakeholders as part of the curriculum design process. The T-SPARC team have sought to engage with stakeholders from across the University and have made use of some mini-pilot schemes using multimedia techniques to help facilitate the capture of stakeholder feedback to inform course design. The T-SPARC team view students as meaningful co-contributors to the design process and have sought their active participation in curriculum design practice including through the institution's Student Academic Partners (SAP) scheme (see case study 2.4). For example, students were engaged alongside academics to interview stakeholders and capture focus group discussions using a range of audio and video technologies. It is an intended outcome of the project that student representatives will also have a role in the approval of programmes designed through the new processes; it will be their role to offer a view as to whether student engagement activities have informed sufficiently the programme submitted for approval.

Further information: <http://jiscdesignstudio.pbworks.com/w/page/36560187/T-SPARC%20Project>;

<http://blogt.bcu.ac.uk/tsparc/>;

<http://www.jisc.ac.uk/media/documents/programmes/elearning/Digilifelong/Case%20study%203%20-%20Engaging%20stakeholders%20in%20curriculum%20design.pdf>

2.19 Bioscience students run a shadow module which develops resources for use in the main module at Cardiff University, UK

Staff at Cardiff are piloting the concept of the 'Shadow Module', a student-led parallel to the academic-led module. In this format, the Shadow Module Leader is a student responsible for organising student-led workshops utilising collaborative learning to design study resources. These collaboratively produced resources are then made available for current and future student cohorts, and could potentially also be shared externally. Students also identify and curate other free learning resources available on the internet. These collaborative sessions are supported by the use of interactive and collaborative IT tools of various kinds, to support a process of computer-supported collaborative learning. The main benefit was to increase student engagement and encourage collaborative learning. However, the level of participation observed in the pilot was generally low. Suggestions are made on how to change the way the shadow module operated in the pilot to increase participation.

Further information: Rutherford and Scott (2012)

2.20 Using participatory research and action (PRA) to initiate change to a curriculum

Traditional student feedback mechanisms have been criticised for being teacher-centred in design and, in particular, for their absence of transparent follow-up actions. In contrast, this study describes the process and the evaluation of a participatory research and action (PRA) approach used in an undergraduate physiotherapy degree. This approach aimed to give students a stronger voice in order to identify the issues they felt were most important and to involve them in the subsequent actions to change or influence their curriculum. Using group consensus, key areas were identified by the students using a variety of PRA techniques, solutions were recommended and some actions were

implemented. Both students and staff maintained that the process had gone some way to empowering students and had begun a ripple effect in relation to student involvement in ongoing curriculum design and debate.

Further information: O'Neill and McMahon (2012)

2.22 Students as partners to produce digital learning materials and evaluate mobile learning approaches in biomedical sciences at University of Leeds, UK

As part of a HE Academy collaborative grant funded project, staff partnered with interns and undergraduate dissertation students at Leeds University to create and evaluate interactive learning materials for a laboratory training module in biomedical sciences. An intern and three dissertation students created interactive multimedia eBooks for the module 'Experimental techniques in neuroscience', and configured tablet devices with a wide range of freely available learning related apps. Students taking the module had access to these materials and apps on the tablet devices, for a four-week period. There were two strands to the project. In the first, learning materials were created to support laboratory work in the module. Videos were created to highlight techniques and to demonstrate equipment. These videos, along with other learning materials, were incorporated into multimedia interactive eBooks, designed using iBooks Author, and provided to students on the iPads. The second strand looked at the students' use of apps on the iPad and investigated changes in study behaviour throughout the project. The project students used structured interviews, questionnaires and data from the tablet devices to collect data on usage of the materials and apps, and to evaluate the learning materials. The learning materials created will be made available as Open Educational Resources. Our experience has found that:

- Students can be successful partners to create digital material and evaluate mobile learning approaches.
- Students in research intense universities can make positive contributions to pedagogic experimental design due to critical evaluation skills
- Students know each other's demands and can pitch resources at the right level
- Students can help enormously where they have the IT skills
- Both structured and flexible working arrangements with students can work

Further information: Hayley Atkinson (H.Atkinson@leeds.ac.uk); http://www.slideshare.net/slideshow/embed_code/24335340

2.23 Students as change agents of the science curriculum at Dublin Institute of Technology (DIT), Ireland

Incorporating students in curriculum design and reform actively promotes and integrates the "student as producer" philosophy in a tangible way for both students and staff (Neary and Winn, 2009). Such an approach was implemented on a pilot scale using two first year science laboratory modules and two final year 'change agents' at DIT. The final year students choose to take part in this study as it constituted their final year project. They were assessed (by thesis, poster presentation and oral defence) and this accounted for 15 ECTS towards their overall degree. The final year students were tasked as 'change agents' of the curriculum to enhance peer learning and peer assisted learning among the first years. To achieve these objectives the first 'change agent' created several reusable learning objects (RLO) to promote pre-laboratory preparation for first year students and formed the basis of a pre-lab peer-based discussion. The subjects of the RLOs were the threshold concepts (calculations, measurements and chemical reaction purification) identified by student questionnaire and lecturer experience (Cousin, 2006). The second 'change agent' converted a traditional laboratory into a problem based learning laboratory to promote a more student centred discovery learning experience for the first year students. The first year students learnt from each other through specific and structured individual and group activities facilitated by the 'change agent'. Both of the final year students analysed and synthesised several multimodal sources on their relevant subject content. This process involved brainstorming, storyboarding, creating, implementing and evaluating the changes. Many steps in this process were repeated several times.

Further information: Cousin (2006); Neary and Winn (2009); and correspondence with Dr. Barry Ryan (barry.ryan@dit.ie)

3. Engaging students as SoTL practitioners

3.1 The Undergraduate Learning and Teaching Research Internship Scheme (ULTRIS) introduces undergraduate students to authentic research outside their chosen discipline at the University of Western Australia

By focusing their research on a teaching and learning issue of identified priority for the University, students are able to make significant contributions to the understanding of the problem and provide insights to inform future changes in policy and practice. Beyond the benefits to the institution and the individual students, this model of undergraduate research heralds an opportunity for research into teaching and learning to gain acceptance and interest amongst a new and previously uninvolved cohort of investigators. The second year interns are allocated a supervisor and attend an intensive training period (basic research methods) at the commencement and throughout the semester long program. Each student selects a research question from an umbrella teaching and learning topic of strategic importance to the University. In 2009 the focus of research was on staff-student interaction outside the classroom; this was followed by the first year experience, sustainability and internationalisation. The students develop their own research questions and subsequent research design, collect and analyse data, write an academic paper and report their findings both within the university community and at an external teaching and learning conference. ULTRIS is being adapted for the new BPhil program at UWA, with 42 new 1st year students exploring sustainable education during the program in 2012.

Further information: Partridge and Sandover (2010); Sandover *et al.* (2012a)

3.2 Building a network for undergraduates researching into teaching and learning: Connecting students across continents

The Matariki Undergraduate Research Network (MURN) connects undergraduate researchers investigating teaching and learning topics in four universities spread across four countries: University of Western Australia; University of Otago, NZ; Durham University, UK; and Queens University, Canada. The universities are part of the Matariki network and in each institution 6-12 undergraduates are offered internships to explore extra-curricular teaching and learning research projects focused on a common topic (internationalisation in 2012 and 2013). The students start at the same time in June and share an online classroom using web technology to engage in synchronous and asynchronous learning. They are trained locally and globally in educational research methods (with some synchronous sessions) and are supervised locally as they undertake their research. The preparatory workshops are delivered to all students either in a synchronised process via online delivery or by staff in the respective universities. A timeline of activities and events throughout the six month project is used to ensure that students in all universities are experiencing the same program at the same time and are able to meet online to discuss developments, progress, challenges and achievements. The students network on a regular basis to share their learning journeys and research findings. This initiative has grown out the Undergraduate Learning and Teaching Research Internship Scheme (ULTRIS), which has been trialled and evaluated over two years at The University of Western Australia.

Further information: Sandover *et al.* (2012b)

3.3 Students are engaged as partners in shaping and leading their own educational experiences through their 'students as change agents' initiative at the University of Exeter, UK

The key concept is that students themselves take responsibility for bringing about change, based on their own research on aspects of learning and teaching. The approach enables students to be actively engaged with the processes of change, often taking on a leadership role. They are engaged deeply with the institution and their subject areas, and the focus and direction is, to a greater extent, decided by students. The most important aspect is the focus on research, and building change on evidence-based foundations. Students from across the university have contributed to this initiative, carrying out a series of research projects on their learning and teaching environment, selecting concerns raised through student-staff liaison committees, and providing recommendations and solutions to improve their experience. A small amount of funding is available from the University's learning and teaching budget to support this initiative. Students work as apprentice researchers; their research methods included focus groups, informal interviews and questionnaire surveys. Outcomes are presented at a student-staff conference, which results in institutional engagement with key research findings. More than 30 small projects had been

undertaken by 2011, though overall, many hundreds of students have participated in the various projects. Student research has driven organisational change, contributed to student engagement in shifts of policy and practice within the University, and supported students' graduate skills in the areas of research, project management and presentation of outcomes, leadership and understanding organisational development. For example, student projects in the Business School on the benefits students have gained from implementation of technologies in the classroom have contributed significantly to streamed video being now far more widespread, and 4000 voting handsets being distributed to undergraduate and Master's students.

Further information: Kay *et al.* (2010); Dunne & Zandstra (2011); Sandover *et al.* (2012a); Dunne & Owen (2012)

3.5 Engaging student voices in institutional assessment and inquiry at North Carolina A&T, USA

The Wabash-Provost Scholars Program was initially developed as a way to "dig deeper" into Wabash National Study results through student-based focus groups. The Program trains undergraduate students to conduct focus group sessions with their peers, obtain and analyze qualitative and quantitative data, develop written summary reports, and lead scholarly presentations on their work and experiences. Wabash-Provost Scholars directly contribute to the knowledge base regarding the student learning environment at NC A&T State University, while developing valuable research and presentation skills. Comprised of students from a wide variety of majors, the program illustrates how 'high impact practices', such as undergraduate research experiences can be made available to *all* students, regardless of discipline, while also providing valuable service to the university. The students work alongside faculty and administrators in guided campus inquiry. Since 2007, a total of 49 Scholars have been trained. Scholars earn service hours for their work, which can be used to satisfy NC A&T State University service hour graduation requirements. The Wabash-Provost Scholars regularly develop written reports and make presentations on their institutional assessment activities.

Further information: Hornsby and Simkin (2011); <http://www.ncat.edu/~atl/wabash-provost-scholars/>

3.6 Students are co-inquirers in SoTL at Western Washington University, USA

Students at Western Washington University (WWU) work alongside faculty, administrators, and staff from across the University, as well as several alumni and community members in the Teaching-Learning Academy (TLA). It provides a structure for integrating the student voice into institutional initiatives for enhancing learning. Each year the TLA participants talk together in bi-weekly dialogue groups to develop a BIG question on teaching and learning to study for the year. Typically, the Fall Quarter is entirely devoted to developing the BIG question. Next, often beginning in the Winter quarter, we survey ourselves to see what we think, and mine our collective knowledge on the BIG question. Then, we invite others into the study. Next, we collectively analyze the results of our study and then the Spring quarter is typically devoted to developing and enacting action projects based on our new understandings. Students participate in the TLA in a number of different ways. Most students enroll in one of several courses and participate in the TLA as part of their coursework, including through Communication 322, Communication 339, and other courses as well. Additionally, many students participate on a volunteer basis.

Further information: <http://library.wwu.edu/tla>

3.8 Engaging undergraduates in research on how students learn through the New England Consortium on Assessment and Student Learning, USA

The New England Consortium on Assessment and Student Learning (NECASL) is comprised of seven selective liberal arts colleges in New England (Bates College, Bowdoin College, Colby College, Middlebury College, Smith College, Trinity College, and Wellesley College). Since 2005 NECASL has been involved in an innovative assessment project exploring how students learn and how they make important decisions about their academic programs. Students are involved at every stage of this project--from developing interview schedules to administering them, from coding the interview data to analyzing it. At six of the seven colleges, students (sophomores, juniors, and seniors) are acting as interviewers for this project. The students who have joined the collaborative project have also spoken convincingly of how their involvement in the project has deepened their reflection on and insights into their college experience. In seeking to discuss this model of collaborative assessment with external audiences, faculty, staff and students have given presentations on the benefits of engaging students as interviewers in a project of this sort, challenges relating to managing multi-institutional studies, and the value and benefits of comparative, qualitative research on student

learning. The principal focus has been two-fold: a panel study of the Class of 2010 and a parallel set of cohort surveys of their peers.

Further information: <http://www.wellesley.edu/NECASL/index.html>

3.9 Engaging undergraduate students in pedagogic research projects at Northampton University, UK

URB@N stands for 'Undergraduate Research Bursaries at Northampton'. It is an innovative scheme developed by the university where undergraduate students are selected to work as paid researchers on a pedagogic research project alongside an academic supervisor. It was piloted on a small scale in 2009, and has been growing annually since then. URB@N enables undergraduate students to be funded to work with academics as 'novice researchers' on pedagogic projects. Each project has a named academic leader who acts as supervisor. Rather than being discipline-focussed, research projects are centred on learning and teaching and are explored through student voices. Academic staff members from schools across the institution and partner colleges, are encouraged to propose research questions which have the potential to benefit the department, school and/or institution and which will ultimately impact positively on the student experience. Under the guidance of the academic supervisor, students who are successfully selected for the scheme are involved in the design, data collection, analysis and dissemination of the research. On successful completion of the project, students receive a tax-free bursary payment of £500. Some examples of the topic areas investigated in previous projects have included:

- Student experience of transition into university
- Student use of assessment feedback
- Issues surrounding seminar participation
- Student engagement with employability
- Student use of technology enhanced learning
- Inclusivity in the curriculum
- The learning needs of international students

Further information: <http://www.northampton.ac.uk/urban>

3.10 Students act as co-researchers investigating curriculum transformation at University of Warwick, UK

The Reinvention Centre assembled a collaborative research team of undergraduate, postgraduate, postdoctoral and academic researchers to investigate a pilot project on curriculum transformation called the Graduate Pledge. The project, undertaken jointly with Kings College, identifies five key 'graduate capabilities', which all graduating students should have had the opportunity to develop within their curriculum of study. These graduate capabilities include experience of research-led learning environment, global knowledge, interdisciplinarity, community engagement (nationally or internationally) and academic literacy. The research team carried out documentary, observational and focus group research around the provision (and claims made regarding the provision) of these five graduate capability areas across various curriculum at the University of Warwick. The central involvement of undergraduate researchers ensured that the research was firmly grounded in authentic experience and represented an 'engaged experience of learning' for the students involved.

Further information: Taylor and Wilding (2009)

3.11 Students act as project partners at the University of Wales, Newport, UK

In 2012 the Centre for Excellence in Learning and Teaching (CELT) at Newport introduced one-year grants which focus on developing professional practice with staff and student working collaboratively as project partners to devise and refine learning, teaching curriculum design and delivery initiatives. There are two kinds of grant:

- CELT Teaching Innovation Grants provide funding for staff-led projects with a student work-experience bursary. This assures the student perspective is represented as well as providing an opportunity for students to impact on and gain real-life experience of innovative learning, teaching and curriculum design and development.
- CELT Learning Innovation Grants are student-led projects with a staff partner in the team. The funding provides up to 100 hours of work-experience for students with the staff partner link assuring that all developments are appropriately aligned to current developments.

These initiatives encourage collaborative working involving staff and students, enables greater numbers of staff and students to be involved in learning, teaching and curriculum innovation, stimulates action research and provides work-experience opportunities for students to influence the holistic student learning experience.

Further Information: <http://celt.newport.ac.uk>

3.13 Student-Staff Collaborative Enquiry in Learning and Teaching at University of Hertfordshire, UK

- *In the first year of the project (2009-10)* a team of 6 students, identified as 'student researchers' and 3 members of staff in the Faculty of Humanities, Law and Education undertook an enquiry into an aspect of student learning (students' use of assignment feedback). Findings were disseminated by a report and on-line resources for students and staff.
- *The second year of the project (2010-11)* focused on: 1) using findings from the first year of the project to enhance practice by creating led sessions for all first year students on learning and feedback, and developing a video showing a student using feedback <http://www.youtube.com/watch?v=0HbbCNlr-z4> and 2) 12 student researchers working with staff looking at strategies for supporting writing at all levels and creating resources to support this area.
- *In the third year of the project (2011-12)* additional funding was provided by the HEA. Each School in the Faculty developed enquiries into learning and teaching on specific modules. The 11 student researchers had fortnightly coaching and mentoring meetings with staff members in relation to their enquiries. They also developed an employability record for documenting learning through the project. Findings have been shared internally and externally, resources are being developed and we have made links with two universities using similar approaches.
- *The next stage of the project* is to engage Schools in developing enquiry based modules and to include student researchers in the development and evaluation of these modules. The title 'student researcher' is now embedded into University award systems for learning and teaching grants and for recognition of students' contribution to the University.

Further information: <http://ited.edublogs.org/people/student-researchers/>; Dr Joy Jarvis, Associate Dean (Learning, Teaching and Employability) j.jarvis@herts.ac.uk

3.14 Using students as researchers to enhance the student experience at Sheffield Hallam University, UK

In December 2011, colleagues within Sheffield Hallam University were asked whether or not they had a research question in mind that will help to improve the student experience. They were asked to prepare proposals on how to improve their module, course, or area, which could do with some help in exploring e-learning, innovative assessment methods or any activity that can enhance student engagement. The *Students as Researchers Project @ SHU* provides small amounts of funding for staff to help employ a student to conduct a research project on any aspect of the student experience, but centred on specific themes:

- Technology enhanced learning/e-learning (e.g. use of blogs; podcasting)
- The overall course experience
- Assessment and feedback (e.g. group work assessment; audio feedback).

Proposals were peer-reviewed, and then staff were contacted to put together a job description. This job description was posted within the student careers department and career online resource. Student researchers were selected in a competitive basis, short-listed and interviewed. An allocation of 100-hours for each appointed student researcher was budgeted. This excludes other expenses such as transcriptions costs, equipment, conference attendance, etc. Students were employed on a casual basis on an hourly rate of £8.00/hr. The student researchers are supported in their endeavours by research staff within Quality Enhancement. In terms of output, the student researchers are expected to write-up of a final project report, which is prepared for submission to our peer-reviewed *Student Experience and Engagement Journal*, and to present their work at the institutional-wide Learning, Teaching and Assessment Annual Conference. The overarching aim of this overall project is to promote greater student engagement and thereby improve the student experience.

Further information: <https://blogs.shu.ac.uk/see/students-as-researchers-shu/>;
<https://blogs.shu.ac.uk/see/students-as-researchers-shu/2012-projects/>

3.15 Students act as co-researchers into feedback and assessment for students with technology (FASTECH) at Bath Spa University and University of Winchester, UK

Student Fellows from 15 programmes across both institutions act as change agents by encouraging student engagement, assisting with the collection and analysis of data, inspiring the team to ensure we meet students' needs, suggesting innovative ways of working, and liaising with programme leaders and other senior members of staff. The FASTECH project investigates how technology affects staff and students' experiences of assessment and feedback processes at the programme level, barriers and solutions to institutional embedding of effective practice, and successful change management approaches when introducing technology to address pedagogical issues. The FASTECH team has introduced the Student Fellows to the underpinning pedagogical principles of effective assessment and feedback and offered internal training opportunities in persuasive communication, research methods, and data analysis. Student Fellows will also have the opportunity to contribute to formal and informal dissemination activities such as blog posts, conference presentations, and peer-reviewed publications.

Further information: www.fastech.ac.uk

3.17 Undergraduate interns as staff developers at University of Glasgow, UK

In 2007, seven undergraduate interns at the University of Glasgow were given the opportunity to develop enquiry-based materials for courses that they are taking. Taken from a variety of backgrounds, in terms of subject area and level of study, the interns spent four weeks investigating enquiry-based learning supported by a Teaching and Learning Centre facilitator, before moving on to work with a subject-based staff mentor for the following academic year, of which I was one. Each of the interns worked on a course that they also attended as a student, and developed, with the staff mentor, at least one enquiry-based intervention. In addition to the educational development, the interns were also invited to take part in several conferences, and present their work in their own right.

Further information: Tierney (2012)

3.18 Engaging students in action research to enhance teaching and learning practice and policy at University of Newcastle, UK

Students who do not normally get involved in the university community were engaged by permitting development of *their own ideas*, via undertaking research to enhance aspects of learning and teaching issues, broadly conceived. We wanted to encourage action research, as the outcomes of the projects are aimed at enacting positive change to practice and policy. We recruited students from one degree initially. Two projects were supported: Project A explored the possibility of creating a language course that had a specific focus on medical vocabulary. Project B looked into creating a suite of tools to help students understand and create 'Social CVs' and utilise online self-promotion tools. The students gained internship funding which helped them keep focused and committed. They were supported by a staff supervisor throughout the project. The research phase was a valuable lesson for both students in the real-life benefits of research informed practice. Working on a more business-like project helped to reinforce the importance of rigorous research in all areas of work – whether study or business. In the implementation phase the students were operating outside their normal comfort zones; they were having to network and market their projects to attract 'investors' to help them realise the full potential of their plans; this particularly encouraged a lot of personal development. This was a useful pilot whilst noting that only a small proportion of students are likely to undertake such projects on this basis.

Further information: Grace Barker (grace.barker@newcastle.ac.uk) and Colin Bryson (colin.bryson@newcastle.ac.uk)

3.19 Engaging students in researching research support and developing web resources at University of Newcastle, UK

Students identified good practice across a large faculty in undergraduate dissertation and research modules, and then shared the models of student support identified widely through a web resource that all students may draw on to assist them in such modules. All second year students were offered the opportunity to be part of the Research

Project. Four students were selected and paid £200 for this. A member of staff supervised the project and interns but always ensured that the students were the ones who informed the shape of the project. The students worked in pairs to identify all the relevant modules, send out initial email contact and then arrange face-to-face interviews with those staff who were willing. This was a major task for most of them as they had never been involved in this type of more social research before. They also spoke with student representatives in each subject to gather more student views. An emergent component from the student intern input was their desire to create a set of quality standards for research module student support with both 'essential' elements and 'good practice' elements. This will be progressed through our quality mechanisms. As intended too, development of resources for a website to assist students in dealing with dissertation issues has identified a wide variety of engaging practices – from playing a funny flash game to ways of finding a research topic.

Further information: Grace Barker (grace.barker@newcastle.ac.uk) and Colin Bryson (colin.bryson@newcastle.ac.uk)

3.20 Students involved in international collaborative writing groups through ISSoTL

During 2012-13 the International Society for the Scholarship of Teaching and Learning (ISSoTL) organised an international collaborative writing group (ICWG) initiative. Seventy people from 13 countries took part. Each of the nine groups included at least one student member. Nine scholarships were provided to subsidize the costs of student members. The year-long process started with each group preparing a 2000 word summary of the specific topic they wished to explore. This was placed on-line and each participant was asked to comment on at least two other outlines. The groups met for a two day workshop prior to the start of ISSoTL12 in Hamilton, Canada. There the groups worked on their paper and met with the other groups to share ideas, discuss topics of common interest and to receive feedback on their work. The groups then had almost three months to submit their completed article to *Teaching and Learning Inquiry* (ISSoTL's journal) for international peer review. All eight articles which were ready for submission were accepted after revision and appeared in a special issue of the journal (v1.2).

Further information: Healey *et al.* (2013)

4. Engaging students as strategy developers and advisors

4.1 Students engaged in designing the institutional learning and teaching strategy at University of Gloucestershire, UK

The University of Gloucestershire engaged students in both the process and product of strategy development over an eight month process of strategy development, consultation, revision and launch. The intention was to ensure students' active engagement in strategy development as well as their active learning through their course of study. It commenced with a period of research into learner empowerment conducted by a network we coordinated of eight special interest groups (SIGs) consisting of staff and students, and one group consisting solely of students. When the draft strategy had been developed, based on the work of the eight SIGs, another group of students, comprising members of the student union executive, led by the Student Union President, were asked to comment on draft questions which would contribute to a student online consultation. The questions had been prepared initially by members of staff. However, as the Student Union President explained "Quite honestly the students wouldn't have a clue what you were talking about if you asked them like that." With this in mind they rewrote the consultation questions.

Almost 300 students contributed to the strategy through a well publicised online consultation which sought their views on draft principles and proposals related to learning teaching and assessment. In developing the strategy, students engaged purposefully in the sometimes heated discussions at the University Teaching Learning and Assessment Committee; they also contributed to discussion at Academic Board and the University's governing Council when the strategy was submitted for approval. At the Council meeting students were keen to emphasise that their contribution to the strategy's development had been genuine and significant; they described with some passion the value they placed in being engaged in the development of the strategy and its proposals to actively engage students in the learning process. When finally and formally launched at an event in the University in December 2007, the new Learning, Teaching and Assessment Strategy was introduced jointly by the Vice-Chancellor

and the President of the Student Union. Two students went on to interview Professor Lewis Elton, the guest at the launch, in front of the delegates.

Further information: Healey *et al.* (2010)

4.2 Students inform the curriculum through participation in revalidation at Ulster, UK

At Ulster, the Students' Union and the Staff Development Unit have been working together to develop a model of students becoming co-creators through participation in the five-year cycle of revalidation. Students from each subject area are brought together to discuss their learning experience to date. Whilst this is important, the main focus of the session with the students is to encourage and support them to suggest enhancements to the course delivery. Through workshop activities they explore the areas which are most important to students during their journey through higher education and how course teams could improve these. The groups are guided to provide practical solutions to these and work through how their ideal learning experience could be implemented in reality. The workshops are currently facilitated by Students' Union representatives; however they are being developed to allow students themselves to lead these within their own courses.

Further information: Honan and Curran (2012)

4.3 Black and minority ethnic (BME) students advise senior managers at Kingston University, UK

The Academic Development Student Advisory Panel (ADSAP) was established in 2011 at Kingston University to advise senior managers within the Academic Development Centre (ADC) on strategies to understand and improve the experience of BME students. Approximately 8 – 10 students are involved with membership altering at the end of the academic year. The work is unpaid.

Since its inception ADSAP has engaged in a number of areas including:

- Advising the senior manager responsible for the development and implementation of the university's Review of the Academic Framework
- Participating in a study tour to one of the university's partner institutions in the US (University of North Carolina at Charlotte) to learn about and exchange views and experiences on: BME student attainment in higher education; academic mentoring for ethnic minorities; student engagement; and student societies
- Advising the staff team responsible for developing and implementing a new university wide pre-entry summer school scheme aimed at widening participation cohorts;
- Advising the staff team responsible for development and implementation of a new university wide first year academic mentoring scheme
- Providing ten hours of talking head footage (HD quality) of student perceptions and advice for staff and students on: staff-student relationships; transition into first year; final year and post graduate programmes; assessment and feedback; plagiarism; and academic skills centres.

The students have given joint conference presentations and engaged in formal meetings with members of university senior staff including Vice Chancellor, Deputy Vice Chancellor and Chair of Governors.

Further information: Michael Hill (R.Hill@kingston.ac.uk)

4.4 A national centre, sparqs, supports students engage in QA and QE, Scotland

sparqs is a service funded by the Scottish Funding Council to assist and support students, students' associations and institutions to improve the effectiveness and engagement in quality assurance and enhancement in institutions across Scotland. sparqs was created in 2003 to support the greater engagement of students in the management of quality assurance and enhancement in Scotland's Colleges and Higher Education Institutions. The service is the responsibility of a consortium of partners consisting of NUS (National Union of Students) Scotland, Universities Scotland, Scotland's Colleges, Quality Assurance Agency in Scotland, Higher Education Academy, and Education Scotland (formerly HMIE). As part of their activities they deliver training sessions and supporting resources for a variety of Student representatives to enable their effective engagement within quality processes and for staff on how they can involve students.

Further information: <http://www.sparqs.ac.uk/>

4.5 Students engaged in developing a learning and teaching strategy at Cardiff University, UK

In developing an institutional learning and teaching strategy the University and the Students' Union worked together to organise a student focus group to find out what students thought about the current learning experience at Cardiff University. Once a draft strategy had been written it was taken to Academic Council, a Students' Union committee with an undergraduate and postgraduate representative from every school, to discuss and make comments. After this consultation a further draft was written, which was then circulated through University committees and senior University management.

Further information: Potter (2012)

4.6 Students pitch ideas on improving the student experience to the VC and other senior staff at ANU, Australia

As part of a VC's course on Leadership and Influence in a Complex World students work in groups to develop ideas for improving the student experience at ANU. The exercise, which counts for 20% of the course mark, begins with developing individual 500 word proposal which are peer reviewed. Following discussions groups of 3-5 students with similar ideas are formed. A few weeks later each group has to submit a 500-word briefing prior to making a 5 minute pitch of the merits and practicalities of their idea to a panel consisting of the VC and other senior staff. The group will then be asked questions by the panel – anyone at random in the group can be asked a question.

Further information: <http://vc-courses.anu.edu.au/assessment/leadership-and-influence/group-task>

4.7 3M national student fellowships, Canada

For many years, 3M Canada has funded scholarships and awards for undergraduates in universities and college across Canada and in 2011, 3M added a student fellowship using the long-standing 3M National Teaching Fellowship for university professors as a model. The 3M National Student Fellowship honours up to ten students who have demonstrated outstanding leadership in their lives and at their college or university. These students embrace a vision of quality education that enhances their academic experience and beyond.

Each cohort member will:

- Receive an award of \$5,000 to be spent at their discretion.
- Join the others at the June STLHE Conference where they will also participate in a 3M National Student Fellowship retreat.
- Receive a contribution toward the cost of conference travel and accommodations.
- Develop a cross-Canadian collaborative project to enhance teaching and learning at the post-secondary level.

Further information: <http://www.stlhe.ca/awards/3m-national-student-fellowship/>

4.8 Students led a project about how SMEs and HEIs can interact more effectively at University of Warwick, UK

Four undergraduate students led by Nicholas Tipple on behalf of the Institute of Advanced Teaching and Learning undertook an HE Academy (STEM) funded research project investigating how small to medium-sized enterprises (SMEs) could interact with higher education institutions (HEIs) more effectively. The students focused on gathering opinions from students and local SMEs, and they provided fresh recommendations that HEIs could employ immediately. The project outcomes were a report that was disseminated around HEIs (electronically and in hard copies), a networking barbeque for students that attracted 30 local SMEs and business leaders, and a small grant for a student society to run another event. The local science park was also inspired to continue to interact with entrepreneurial students on a regular basis. This research project engaged students in novel research and factored in the opinions of the wider student body; it engaged local SMEs in a completely new way, and provided evidence-based recommendations. Students functioned, in a performative sense, as part of an experiential learning project, as ambassadors and pedagogical consultants both to other students and to local businesses.

Further information: http://www.heacademy.ac.uk/assets/documents/stem-conference/gees/Nicholas_Tipple_et_al.pdf

C. Some key references, resources, organisations and websites

Researching, Advancing and Inspiring Student Engagement (RAISE) is a network of academics, practitioners, advisors and student representatives drawn from the Higher Education Sector who are working and/or interested in researching and promoting student engagement <http://raise-network.ning.com/>.

Students as Co-inquirers is a special interest group of the International Society for the Scholarship of Teaching and Learning (ISSoTL). Contact Co-Facilitator: Carmen Werder at Western Washington University Carmen.Werder@wwu.edu

HE Academy Students as partners <http://www.heacademy.ac.uk/students-as-partners>

Students as change agents: a selected bibliography (compiled by Healey M, 2013) – includes references cited in case studies above <http://www.mickhealey.co.uk/resources>

JISC Curriculum Design and Delivery programmes in engaging students as partners in the designing and delivering curriculum change
<http://jiscdesignstudio.pbworks.com/w/page/31087422/Students%20as%20Change%20Agents>

Student Learning and Teaching Network <http://studentlandtnetwork.ning.com/>

Birmingham City University Student Academic Partners <http://www.bcu.ac.uk/about-us/celt/student-engagement/student-partnerships>

Teaching and Learning Together in Higher Education a peer-reviewed, interdisciplinary journal that serves as a forum for the reflective work of college faculty and students working together to explore and enact effective classroom practice. Published by Bryn Mawr College, US.

(2012) **Council on Undergraduate Research Quarterly 33(1) Fall Special Issue: Students as change agents**

QAA Students as partners podcast with Phil Levy (HEA) 2013

<http://www.qaa.ac.uk/Publications/Podcasts/Pages/philippa-levy-students-partners.aspx>

sparqs www.sparqs.ac.uk

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Cook-Sather A, Bovill, C and Felten, P (in press) *Engaging students as partners in learning and teaching: A guide for faculty*. *New Directions for Teaching and Learning*. San Francisco: Jossey-Bass

Dunne, E and Owen, D (2013) *The student engagement handbook: Practice in higher education*. Bingley: Emerald

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Little, S (ed) (2011) *Staff-student partnerships in higher education* London: Continuum

National Union of Students (2012) *A manifesto for partnership* London: NUS

<http://www.nusconnect.org.uk/resourcehandler/0a02e2e5-197e-4bd3-b7ed-e8ceff3dc0e4/>

Nygaard, C, Brand, S, Bartholomew, P and Millard, L (2013) *Student Engagement - Identity, Motivation and Community*. Faringdon: Libri

Wenstone, R. (2012) Rachel Wenstone launches a manifesto for partnership. Available from:

<http://www.nusconnect.org.uk/news/article/highereducation/Rachel-Wenstone-launches-a-Manifesto-for-Partnership/>

Werder, C and Otis, M M (2010) (eds) *Engaging student voices in the study of teaching and learning*. Virginia: Stylus