Green Academy 2 Change Programme
Case Study University of East Anglia
Future Skills Initiative

Introduction

"The Future Skills Initiative is the next step in UEA's strategy to ensure that sustainability becomes more deeply embedded in the educational experience of our students via the development of key skills and capacities. Our students are the next generation of senior managers, decision-makers, employers and agents of change in organisations of all kinds and the Future Skills Initiative will help to ensure that they are able to contribute in a positive way to practice and thinking around sustainability issues".

Adam Longcroft (Academic Director of Taught Programmes)

UEA has long been a leader in the field of environmental research and training and since 2009 has been implementing a systematic approach to sustainable environmental management on campus. In order to move beyond these estates-focussed activities and fulfil both corporate plan and environmental policy commitments, work on Education for Sustainable Development (ESD) started in 2011. Funded through a teaching fellowship, a well-positioned core group investigated how best to understand, develop and implement ESD practice across all academic disciplines. The Higher Education Green Academy Change Programme provided the ideal framework to progress this highly committed initiative and enabled us to develop a more strategic approach. What emerged is a well grounded **Future Skills Initiative**: a student-staff collaboration to deepen employability skills. The focus on future skills (competencies and attributes) has allowed us to clarify the vague nature of ESD/SD terminology and make it relevant to students and those managing and delivering learning and teaching across campus; one which has wider sector application.

The Future Skills Initiative has two broad aims:

1. **Articulate the relationship between our academic disciplines and emerging sustainability concepts to inform teaching, learning and research -** to capture constructively the varied – even contradictory - ways in which our academic departments understand and teach about sustainability-related values and topics.

2. **Link sustainability pedagogy, research, and practice (estates and operations) to improve student experience and employability -** to draw together the practical and theoretical ways in which the campus community engages in this area to create a richer student experience, and graduating attributes, informed by contemporary concerns and pedagogical approaches.

Aspects of the student learning experience the initiative sought to enhance

Enhancing the student learning experience is fundamental to the Future Skills approach. This is being achieved through implementation of a collaborative model of academic practice which promotes staff-student discussion for the development of ESD along with deepening employability and leadership skills.

Students are valued as active participants in the development of curriculum and to this end both the Student Union Academic Officer and the Environment Officer are members of the core team, together with three student interns employed through the project. The learning experience for other students engaged in the project has been enhanced through a number of highly successful multi-disciplinary student - staff workshops and through discussions and articulation of future skills within their schools and departments, stimulated by the development of discipline specific pages for the Future Skills handbook (see below).

The broader student experience will be consolidated through the implementation and mainstreaming of the ideas generated from these and future discussions on co-creation of the curriculum, encouraging student input towards the development of actual curriculum design, teaching and learning, in order to maximise relevance and to promote shared experiences of discovery between faculty and students. New pedagogical approaches discussed that help students deal with complexity and acknowledge the failings of existing teaching and learning models of how the world (of non-sustainability) works include:

- Experiential learning across disciplinary boundaires into the relms of "chaos" where new forms of knowledge and understanding are created that will help to equip students to deal with uncertainty whilst being flexible and self-aware.
- 'Futures' modules, which allow students to imagine the future of their chosen discipline in the context of shifting practices and outlooks over sustainability transitions. These endeavours are not meant to be either flights of fancy or rigorous modelling, but provide a way of pausing and reconsidering; viewing possible outcomes through different lenses and imagining alternative societal values and behaviours.
- Engaging to a greater extent with communities in order to encourage students' self-confidence in acting as agents of change and to use academics' expertise to research local problems (that could be called 'live' projects).
- The 'step-back' moment: creating a space for students to pause and think about the future, in a variety of learning combinations, instead of continual learning where they may get carried along with the tide. This can encourage reflection about the trajectory that they are taking, and how this can be improved.
- Recognition and valuing "failure", by considering forms of assessment that enable students to create truly innovative pieces of work that may or may not be immediately viable in the real world, thereby encouraging entrepreneurial skills
- Game-ification activities to develop the qualities and behaviours that embody a future-skilled graduate, such as active listening skills, the ability to contextualise, skills in resolving conflict, and attributes like courage, open-mindedness and humility.

Approaches and activities developed

The Future Skills approach looks at pedagogy and content – what we teach and how we teach and how this is integrated in the students' learning experience. The wider experience is also important in developing a campus wide ethos where sustainable thinking and living is the norm. An ethos which embraces students, academics and non-academic staff. Moving forward in a spirit of learning together. A focus on flexibility allows processes to develop in line with the rapidly changing landscape of ESD.

This is being implemented through university-wide collaboration which brings together the employability agenda and international guidance in ESD with the New Academic Model and supports other UEA priorities i.e. competition, efficiency, internationalisation, student experience, student involvement in running the university, and equality and diversity.

We have been fortunate in our timing with UEA's 50th anniversary, a new Learning and Teaching Strategy, the development of a student 'passport' recognising the university record of graduating students. All of this provides ESD with direct relevance for employability and for enabling sustainability skills to be embedded into decision making at all levels - translating into top down and bottom up action.

Key deliverables have been to:
- Develop connections between academic theory and operational practice that will nurture our core values of citizenship, creativity social justice and interdisciplinarity which are central to a sustainability approach
- Undertake an Initial Review of existing curriculum provision and pedagogy
- Harness student demand for practical skills by enabling participatory, discovery-based and interdisciplinary learning to address real world problems
- Articulate the employability aspects of the sustainability agenda as a unique selling point
- Work with Learning and Teaching Committee to integrate ESD/Futures thinking in new Learning and Teaching Strategy
- Develop local community and business partnerships
- Establish a process to support academic staff to develop their learning and teaching methods to incorporate Future Skills content and experiences
- Include sustainability in existing activities, where possible, in order to improve efficient use of our resources

One of the main vehicles for achieving these deliverables has been the development of the UK's first collaborative student-staff handbook, tentatively entitled 'HOW TO GET SUSTAINABILITY SKILLS INTO YOUR DEGREE PROGRAMME'. Drafted by UEA students and academics supported by a number of cross campus workshops and reviewed at a national workshop supported by the HEA, the Handbook has been designed in a spirit of pedagogical inquiry to explore in an accessible, concentrated form how to prepare graduates for employment in a fairer and more sustainable world. It explores what is to be learned in each discipline (i.e. content) as well as how it is to be learned (i.e. process) as well as the forms of assessment most relevant to meaningful graduate knowledge, skills and attributes. The handbook is an iterative and continually additive process; a catalyst to working collaboratively, rather than a policy document.

It has facilitated significant progress across all disciplines. This process has been invaluable in mapping existing activity and enagaging staff and students. Using a simple template schools are mapping and beginning to articulate future skills within their disciplines which has prompted the realisation that a significant

portion of what is needed is already being implemented and significant value can be added through explicitly articulating and developing future skills in a collaborative way.

Development of the Handbook has been facilitated through constructive engagement with the learning and teaching strategy, key individuals across schools and faculties, and buy in with careers programmes on leadership, skills training and employability.

HEA funded thematic workshop UEA 28th Feb 2014

A significant outcome has been discourse on the development of an "edge of chaos" component for courses or modules, in order to promote multidisciplinary ways of looking at problems. This idea involves viewing a real-world problem from a number of different perspectives and encouraging practical thinking whilst maintaining freedom of thought. Enabling participants to try out all manner of new ideas and learning approaches and to tackle "solution-focussed solutions" not just "problem focussed problem analyses". Such activities exemplify the type of experiential learning that will help to equip students to deal with uncertainty whilst being flexible and self-aware.

Resources
Future Skills Handbook – when available
Future Skills matrix
Future leaders literature review

Impact

By framing the approach in terms of Future Skills, which can deepen employability, the impact of the Initiative in engaging staff and students has been significant. Table 1. summarises the key impacts of the project.

The handbook process has been extremely successful in capturing this engagement and driving implementation - albeit at different rates and with various approaches within each school. Collaborative development and flexibility have been the two key factors in achieving this. The mapping of existing activity was initially an unintended consequence of the questions posed in the handbook templates, as staff provided detail on how they currently deliver the Future Skills they identified. As a living process the handbook is contunially learning and evolving, capturing the new ways in learning and teaching being explored across UEA.

The resulting interest and action has been much deeper and wider than we had anticipated. The process is now moving very quickly and formal campus wide structures are being considered to maintain a coordinated approach and harness the growing engagement.

Table 1. Project Evaluation (from impact evaluation plan)

Evaluation Criteria	Outcomes
Impact on attitudes towards ESD within the UEA community	Increased awareness of ESD skills and competencies within the UEA academic community, illustrated through e.g. development of handbook templates by staff and students from every discipline, 125 colleagues directly engaged in the project, 5 cross-campus, multidisciplinary workshops delivered with more planned
Impact on employability, student experience and staff satisfaction	Examples of how ESD is impacting on these agendas e.g. student internships, student 'passport, development of edge of chaos workshops, development of a partnership with Anglian Water. Note: Staff satisfaction is a difficult concept to measure and therefore requires further consideration
Impact on institutional strategy, planning and operation	High level of priority placed on ESD competencies/skills within strategy, planning and delivery e.g. integration into the Learning and Teaching Strategy. ESD ethos incorporated into operational practice e.g. induction
Embedding sustainability in curriculum and pedagogy (ways of learning *for* rather than *about* sustainability)	Understanding of existing good practice and sharing of experiences through development of handbook templates and workshops supported by Future Skills core team
Impact on students to support change	Evidence of increased student involvement in decision making at all levels e.g. student workshops to develop handbook content, student-led development of edge of chaos workshops
Impact of the Green Academy Change Programme	Foundations established in order to ensure project objectives develop beyond GA project timeline e.g. teaching fellowship funding received for interns and staff to complete the handbook

Lessons learned

- Link to other priorities and demonstrate how these can be met through Future Skills to develop high-level collaborators
- Use fresh language to overcome misconceptions or narrow definitions of 'sustainability'

Next steps

Sustaining the change dynamic:
- **Involve more faculty -** work with supporters across schools to build alliances and create systemic change
- **Widen stakeholder participation -** including an audience beyond the faculty to include more students, alumni, employers and the local community.
- **Implement the Learning and Teaching strategy -** design Future Skills into programmes as they evolve. We want every graduate to be able to articulate SD within the context of their discipline and apply it in practice with the Future Skills Initiative establishing the key indicators for successful graduation of all students
- **Further integration -** integrate Future Skills into employability programmes e.g. 'passport' and gather support to embed Future Skills in the next Corporate Plan

- **Co-creation of the curriculum –** aided by the handbook, develop greater student ownership of and innovation in course content, structure and assessments, increasing motivation, involvement and enthusiasm, e.g.
  - Develop "on the edge of chaos" content allowing freedom of thought and contributions from other disciplinary approaches
  - Emphasise a creative change agenda rather than raw sustainability
  - Excite innovation, many discipline viewpoints, new ways of measuring and collecting knowledge and data (including smart phones as data recorders over changing states of surroundings)
  - Encourage game playing and fun approaches

Main challenges:
- Keep future skills identifiable within other pressures
- Engage empoyers and professional bodies
- Publishing the handbook presents both opportunities and challenges. It provides an ideal model for discussion of ESD matters but may be challenging to deliver keep up to date. An electronic open-source document may be the best option to promote accessibility.
- Articulate the employability aspects of Future Skills for the Student 'passport' - refining the skills and attributes and defining how these will be demonstrated/assessed
- Manage the transition between current expectations and future possibilities - some students just want to be taught and are fearful about being co-creators
- School leavers need to be prepared to feed into the curriculum when they get to university; this may need a cultural shift

Key messages
- Take a strategic approach in order to see the opportunities and build on high level support
- Maintain space and time to sustain momentum, providing support backed up by resources (re-directing or re-allocating resources if necessary)
- Use a variety of methods to communicate, including extensive one-on-one discussions
- The people who challenge and ask questions may be the most supportive in the end
- Create opportunities for the sharing of ideas
- Creat constructive allainces with other HEA campuses