



Scotland's Colleges Sustainable Development Education Survey

A report for the Scottish Funding Council

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Executive Summary

In the summer of 2008 the Scottish Further Education Unit (SFEU) carried out a survey to investigate the extent and nature of Sustainable Development Education (SDE) in Scotland's colleges. The key findings were as follows:

1. 32 of the 43 Colleges invited to take part in the survey responded – a very high response rate of 75 per cent.
2. Clear progress has been made in relation to Sustainable Development Education in Scotland's colleges since the 2006 (Forster) baseline survey.
3. This survey indicates that this progress is likely to be sustained across the sector.
4. Over 90% of respondents now reference Sustainable Development Education within their strategic plans and most colleges are delivering elements of Sustainable Development Education within the curriculum.
5. A number of colleges clearly suggest themselves as Sustainable Development Champions.
6. Institutions all approached the delivery of Sustainable Development Education in a slightly different way, there being no general route to progress.
7. The existence of individual Sustainable Development Champions within institutions appears to be integral to colleges making progress towards embedding SDE into the curriculum.

1. Background

1.1 The Project: Sustainable Development Education

The Scottish Funding Council (SFC) has financed a national initiative to develop approaches to embed sustainable development into the Scottish college curriculum. The project is managed by Scotland's Colleges (formerly called the Scottish Further Education Unit – SFEU) and includes three other strategic partners: SFC; SQA (Scottish Qualifications Authority) and the Environmental Association of Universities and Colleges (EAUC) (<http://www.eauc.org.uk/home>). The context for the work was the guidance letter from the Scottish Executive to the Scottish Funding Council of January 2005 and the principles, values and practices of sustainable development stated in the UN Decade of Education for Sustainable Development objectives.

The curriculum delivered in Scotland's colleges already possesses a strong sustainable development underpinning thread and it is the purpose of the project to: identify these underpinning elements; highlight best practice and to promote sustainable alternatives to accepted custom and practice. The principal aims and objectives of the project are summarised in the statement and five 'Cs' below:

To enable Scotland's colleges to deliver the knowledge, understanding, skills and values for its learners, communities and partners to live sustainable lives:

- *clarify* – to use existing initiatives to build understanding of SDE
- *co-operation/collaboration* – to share experiences and materials
- *communities of practice* – to provide support to practitioners throughout the sector
- *creativity* – to find and support new opportunities
- *celebrate* – to acknowledge and celebrate the work already taking place.

1.2 The UN Decade for Education for Sustainable Development (DESD)

According to the United Nations Educational Scientific and Cultural Organisation (UNESCO):

There can be few more pressing and critical goals for the future of humankind than to ensure steady improvement in the quality of life for this and future generations, in a way that respects our common heritage – the planet we live on.

As people we seek positive change for ourselves, our children and grandchildren; we must do it in ways that respect the right of all to do so. To do this we must learn constantly – about ourselves, our potential, our limitations, our relationships, our society, our environment, our world. Education for sustainable development is a life-wide and lifelong endeavour which challenges individuals, institutions and societies to view tomorrow as a day that belongs to all of us, or it will not belong to anyone.

DESD began in 2004 and in response to this, in 2006, the Scottish Executive published *Learning for Our Future: Scotland's First Action Plan for the Decade of Education for Sustainable Development*¹. The policy, subsequently also adopted by the new Scottish Government, summarises the principles of education for sustainable development as 'an approach that not only delivers knowledge and understanding but also enables learners to act on this information to change their behaviour. The importance of values is central to this: people are more likely to change their behaviour if they value the benefits that a more sustainable way of living might bring'. *Learning for Our Future* continues to form the basis of the Scottish Government's Sustainable Development Education Policy.

1.3 The Forster report (2006)²

This report was commissioned by SFC between October 2005 and February 2006 to establish a sustainable literacy baseline by providing information on the extent to which sustainable development was incorporated into the curricula of colleges and HEIs in Scotland and to identify the policies and practices used to achieve this.

¹ Available from URL: <http://www.scotland.gov.uk/Publications/2006/07/25143907/0>

² Available from URL: http://www.sfc.ac.uk/publications/JFA%20Final%20Report_sustainability.pdf

Forster's principal findings were:

1. There is little documented commitment to sustainability within colleges and universities at a strategic level.
2. Many institutions seem in principle to be willing to adopt a more sustainable direction, but, demonstrate little willingness to make it a priority, particularly in universities.
3. There are some institutions that have genuinely embraced sustainability and built it into their culture.
4. Where sustainability is fully embraced, colleges and universities have established relationships with and involve employers, the community and students and the approach they take is linked to the management of its estate and its curriculum.
5. There are many examples of teaching that embed sustainability which may be categorised as:
 - programmes within which sustainability is fully embedded into the subject matter; such as civil engineering, architecture, some construction courses;
 - specialised sustainability modules and programmes – largely optional and generic;
 - generic embedding through core skills, citizenship, etc.;
6. Much of the provision seems to depend largely on the enthusiasm and knowledge of individual members of staff rather than institutional commitment (Forster, 2006, p. 3).

2. Sustainable Development Education: a definition and principles

Defining Sustainable Development Education

There are many definitions of sustainable development and sustainable development education in use both nationally and internationally. In 2007/08 the Sustainable Development Education (SDE) Network³ sought to synthesise these diverse definitions into one that had resonance with the Scottish Sustainable Development (SD) and education communities. Over twenty definitions from international organisations, NGOs, governments and education organisations were gathered and collated for this activity. The proposed definition was circulated within the SD and education communities during 2008 and refined in light of comments and feedback received:

Sustainable Development Education is the process of acquiring the knowledge, skills and attitudes needed to build local and global societies that are just, equitable and living within the environmental limits of our planet, both now and in the future.

A sustainable society is one that at local and global level is fair, equitable and living within the environmental limits of our planet both now and in the future. 'Sustainable development' is the term given to the process of developing global society to move from where it is now to a state of sustainability.

³ www.sdenetwork.org

Undertaking sustainable development and achieving sustainability requires the development of new knowledge, skills and attitudes. The process of acquiring the knowledge, skills and attitudes needed is known as Sustainable Development Education.

Key knowledge in Sustainable Development Education (SDE)

The key knowledge and understanding that sustainability requires and that SDE seeks to cultivate is focused around six principles that were created to encapsulate the 27 principles agreed at the UN Environment and Development Conference held in Rio de Janeiro in 1992:

- the interdependent nature of our society and life on our planet
- the limited carrying capacity of our planet
- the value of biological, social and cultural diversity in maintaining the well-being of our planet and our society
- the essential role of rights and responsibilities in a sustainable society
- the essential role of equity and justice in a sustainable society
- the presence of uncertainty and the need for precaution in making decisions about our planet and our society.

Key skills in SDE

The members of the SDE and IDEAS (International Development Education Association Scotland) networks suggest that the key skills that sustainability requires and SDE seeks to cultivate are:

- the skills to understand the relationships between different issues, appreciate how they are connected and, as a result, make decisions and solve problems in a joined-up way
- the skills to enable groups to make collective decisions and work co-operatively together even though all members of the group may not hold the same views and power may not be distributed evenly among the group
- the skills to think critically about problems, issues and situations to enable individuals and groups to move beyond thinking about how can we make the systems and products we have less unsustainable, to thinking about the kind of systems and products we need to achieve sustainability.

Key attitudes in SDE

The key attitudes that sustainability requires and SDE seeks to cultivate are:

- the confidence to take action and the confidence that these actions will make a positive difference
- the appreciation that we are all part of society and that our individual behaviours must be balanced by our responsibilities as members of that society
- the attitude that humanity is part of the natural world, that we depend on it for our wellbeing and that we must respect its limits and live in harmony with it
- an attitude of respect for the biological, social and cultural differences and diversity that are a fundamental part of our world
- an attitude for caring for yourself, for other people, for other living things and for our planet.

The synthesised definition (see p. 4) was used as the benchmark in this study. It is acknowledged that this is not, nor could it ever be, a definitive definition of SDE. It is also expected that as SDE becomes more widely understood this definition will evolve. However as this definition was developed by, and appears to have resonance with, those working on sustainable development and education in Scotland, it is useful as a means of facilitating common understanding for all parties involved in this project:

3. The scope of the survey

This survey was undertaken in order to investigate the extent and nature of SDE delivery within Scotland's 43 colleges and to measure progress since the recommendations and findings of the 2006 Forster Report. Thirty two responses were received.

The scope of the survey was limited to Scotland's colleges – a sector that shares a common curriculum centrally devised at SQA. A partner project, also SFC funded, has been instigated with the Higher Education Academy to survey SDE in the Higher Education sector.

Where good and innovative practice has been identified from the survey responses, follow-up visits are planned by HMIE and these will provide an evidence base from which a HMIE Aspect Report on Sustainable Development Education will be produced.

4. Methodology

A survey questionnaire was designed drawing on the formats of similar studies and building on the data gathered by Forster in 2006. The draft was then circulated to John Forster Associates and Scotland's College's Sustainable Development Education Steering Group for comment. Their comments and revisions were taken into consideration and the revised questionnaire was then transferred into Zoomerang – an online survey tool – along with a short introduction and the definition of SDE detailed in Section 2. The survey was distributed to the Principals of Scotland's 43 colleges and remained open for around 12 weeks during which time periodic reminders were sent by SFEU and colleges were also encouraged to respond by the Scottish Funding Council.

The survey questions covered four broad areas: curriculum analysis, the approaches used to implement SDE across the sector, further development of SDE in the sector and good practice across the sector.

5. Results and discussion

Almost three quarters of Scotland's colleges responded to the online survey – a high response rate and a significant increase on the original [Forster] baseline survey respondents. There is evidence of an increased willingness on the part of the college sector to engage with the sustainable development agenda and the progress that is being made in addressing sustainable development in the curriculum.

Sustainable Development Education was specifically referenced in the strategic plans of 91 per cent of participating colleges, in the mission statements of 9 per cent of colleges and in the learning and teaching strategies of 27 per cent of colleges (question 16). This indicates the extent to which SDE has been embraced by the college sector in Scotland. As further evidence of this, 75 per cent of colleges responding indicated that they would be willing to sign up to the Scottish Principal's Climate Change commitment (question 17) representing 24 colleges.

The responses to question 1 indicated that six colleges had carried out an evaluation – curriculum audit – of the extent to which sustainable development is currently being addressed. Although this figure might seem small, it is encouraging that the issue is being considered at all. Wider promotion of the Curriculum Audit tool developed by SQA could be a means of supporting more colleges to undertake curriculum evaluation of SDE.

When colleges were asked to indicate the extent to which they were delivering SDE, responses followed a normal distribution with the majority of respondents showing some activity. Three colleges indicated that SDE was fully integrated and explicitly reflected in virtually all programmes – however, the extent of supporting evidence for this needs further investigation in order to establish that this is the true situation in the classroom. That there were positive responses at all to this question is highly encouraging and demonstrates a willingness to move the SDE agenda forward. Only four colleges reported no coverage or limited coverage of SDE across the curriculum. Overall, responses were similar to the 2006 survey in that embedding SDE into curricula seems to depend on the enthusiasm of individual members of staff; nonetheless activity has clearly increased substantially relative to the 2006 baseline.

Question 4 asked respondents to identify the percentage of courses that contained elements relating to SDE. Responses varied from 2 per cent to 100 per cent with the majority falling between 30 per cent and 100 per cent. This strongly suggests that SDE is referenced somewhere in the majority of courses across Scotland's colleges and that the majority of learners in Scotland's colleges gain some understanding of sustainability issues.

Respondents had more difficulty in answering question 5 when asked to identify the approximate number of modules and units delivered that contained elements relating to SDE. The reason for this was that the focus was on embedding sustainability on a macro [curricular] level rather than a micro [module or unit]. Several respondents expressed the desire to embed SDE across the whole student experience referencing citizenship, employability, the community and a fair and equitable society, not delivered in individual, bolt-on, sustainability modules and units. There was also a strong feeling from respondents that embedding SDE into individual modules and units fell to SQA rather than to individual institutions.

Question 8 asked respondents to identify the range of methods used to deliver SDE within the colleges. The responses below indicate that colleges and staff are employing a variety of approaches to deliver SDE particularly when promoting citizenship:

Citizenship (84%)	Student Induction (50%)
Project Work (78%)	Lesson Planning (47%)
Healthy eating, local produce, Fairtrade (72%)	Volunteering (44%)
Employability (72%)	Formative Assessment (44%)
Campus Sustainability (62%)	Individual SDE units and modules (41%)
Local investigations (62%)	Sustainable procurement (41%)
Community Engagement (59%)	Personal development plans (38%)
Core Skills (53%)	Sustainable Learning Spaces (28%)
National Programmes and Courses (53%)	

When respondents were then asked to expand on their responses to question 9, several areas of possible good practice can be identified. This practice will be investigated further in order to identify individuals and institutions currently championing the SD agenda in Scotland, to capture this practice on a more formal level and to disseminate this information to other institutions in the sector.

Respondents were asked what they thought the most effective vehicles for SDE delivery would be in question 10 and their responses largely mirrored those of the previous section. Again it is evident that colleges in this survey have not identified a common method for SDE delivery in the classroom although project work, investigations and community engagement are generally regarded as effective vehicles. It was notable that national programmes and courses and individual stand-alone units or modules did not appear to be regarded as being particularly effective delivery vehicles. There appears to be an expectation that SQA will embed the principles of SDE into the curriculum at source during course and unit validation and this will then be passed on to delivering centres. It seems likely that where a unit or course programme has an explicit SD content, eg. renewable energy, land-base, construction, then the SD component will be industry-led and might comprise what is termed 'environmental education' as opposed to SDE.

Question 11 asked respondents about plans for further incorporation of SDE into the curriculum and the majority of respondents indicated that they will continue to carry the agenda forward through a variety of approaches (as described previously). Many colleges have already created firm plans for this and have assigned specific responsibilities for SDE to a member of their senior management team. Citizenship was again referenced as an area for potential development and curriculum review was planned at a number of institutions.

The cost implications of these plans were discussed in question 12. There was general agreement that the costs of embedding SDE within the curriculum would not be high and some institutions cited that cost savings linked to the agenda might be possible. Key costs were seen as being staff development and training, institutional upgrading to more sustainable learning environments and some increased costs in relation to sustainable procurement. Several institutions had secured or were in the process of securing additional funding to deliver the SDE agenda.

The key barriers to SDE implementation (question 13) were seen to be time, space in the curriculum, and money: time to deliver to an excellent standard, time and money to train staff and upgrade the college resource and space to fit SDE alongside existing priorities. A number of respondents suggested that SQA courses and units require some revision to make them more contemporary and useful in embedding SDE, but this issue may resolve itself in time, provided SQA takes appropriate action during periodic review and re-validation of courses. Respondents identified the existence of a sustainability champion in each college as being integral to the success of raising awareness and the profile of SDE among staff and learners.

Question 14, which tapped into the idea of raising awareness and the key opportunities available, elicited a wide range of responses. No two colleges identified exactly the same expectations for SDE implementation. The key opportunities that were reported for taking SDE forward included: Corporate Social Responsibility; fulfilling employer expectations; consultancy potential; enterprise and entrepreneurship; development of positive behaviours and citizenship; progress towards implementation of environmental management systems and greater staff/student engagement. Overall, colleges have a positive mindset for implementing SDE and the responses suggest that the importance of the underpinning principles of the UN Decade for Education for Sustainable Development (the principles of which are introduced in section 1.2) and greater general awareness of green issues means that SDE will continue to have an important place in daily college life.

Respondents were asked to identify good practice in relation to the integration of SDE, involving student activity, in their college. Almost all colleges participating in the survey suggested practice that they considered to be exemplary. Volunteering, community projects and projects involving waste reduction and recycling were most commonly cited. Scotland's Colleges SDE project will be following up these examples and also examples of good practice which is known to be present in two colleges that did not participate in the survey, to produce case study material for publication in collaboration with HMIE and the Learning Skills Council for general dissemination to the sector.

6. Conclusions

The survey responses strongly suggest that progress has been made since Forster's baseline findings in 2006. Sustainable Development Education is now firmly on the agenda of Scotland's colleges and activity in this area has increased: the responses further suggest that activity will continue to increase as the value of SDE is better understood and more widely embedded across every aspect of college life. Ninety-one per cent of the colleges that responded referenced SDE in their strategic plans and most were delivering elements of SDE at some level within the curriculum. A number of colleges can also be identified as 'champions' of the sustainable development agenda and have assigned responsibility for SDE at senior management team level and have started to build the capacity to deliver across the whole institution/curriculum. At present there is no single appropriate "curriculum response" but many colleges have found the presence of Sustainable Development Champions, whether appointed or voluntary, helpful in moving the agenda forward.

The evidence of the survey points to progress in terms of courses and policies however it is not clear from the results the extent to which the teaching activities described above have been effective in delivering the key skills and attitudes in SDE outlined in Section 2 nor indeed in bringing about behavioural change towards a more sustainable way of living in the student body. Ultimately the success or otherwise of the Scotland's Colleges SDE Project will be judged by the impact of our activities on individual people/learners. More research is now required to develop the appropriate performance indicators and quantify the extent to which a shift towards more sustainable behaviours is taking place.

The SFEU SDE Curriculum Project will take forward the findings of the survey to explore and disseminate the good practice identified across the college sector. There is still a need to raise awareness of the meaning of sustainable development education within the sector and clearly issues relating to the need for staff development and training will need to be addressed. Support will continue to be given to our partner organisations, particularly SQA, in order to embed the principles of sustainable development into qualifications at source and we will engage with other key players – SQA, EAUC, LSC (Learning and Skills Council) and HMle – in order to generate the resources needed to deliver a truly national programme of activity.

7. References

1. Scottish Executive (2006). *Learning for Our Future: Scotland's First Action Plan for the Decade of Education for Sustainable Development*. Available from URL: <http://www.scotland.gov.uk/Publications/2006/07/25143907/0>
2. John Forster Associates (2006). *Sustainable literacy: Embedding sustainability into the curriculum of Scotland's universities and colleges*. Available from URL: http://www.sfc.ac.uk/publications/JFA%20Final%20Report_sustainability.pdf
3. The Sustainable Development Education (SDE) Network is the Scottish network for those working in Sustainable Development Education and the related fields of and the related fields of environmental, development, citizenship, global and outdoor education. More details can be found at www.sdenetwork.org

8. Acknowledgements

My thanks are due to: John Forster for his help and support in developing the questionnaire; Morag Watson and June Thomas of the Sustainable Development Education Network for providing the definition of sustainable development education used in the study; Linda Bond, Scotland's Colleges Webmaster, for delivering and co-ordinating the online survey; Suzanne Ebel for her assistance in editing the final report, and; John McCann, Depute Chief Executive, Scotland's Colleges for carrying out the final editing.

9. Appendix 1: Zoomerang Survey

This is the template of the survey that was distributed to the 43 colleges in Scotland.

Sustainable Development Education (SDE)



SFEU have been funded to conduct a Sustainable Development Education Project with the aim: To enable Scotland's colleges to deliver the knowledge, understanding, skills and values for its learners, communities and partners to live sustainable lives. This survey is intended to identify the good work that is already going on in Scotland's Colleges in the field of SDE (Sustainable Development Education) and to celebrate and build on this. It may seem at first that your institution is not active in this area but I'm sure that once you dig down you will discover a wealth of good practice. The questionnaire would best be completed by curriculum leaders or teams and the information collated by a single individual onto the completed form. Many thanks for agreeing to assist us in this project. If you need further assistance in completing this survey please e-mail john.salter@sfeu.ac.uk



Sustainable Development Education (SDE)



Curriculum Analysis

- 1 Has your institution carried out an evaluation of the extent to which SDE is embedded in curriculum delivery?

YES NO

Comments:

- 2 Please indicate the extent to which you would say that SDE is being taught within your institution (select one option):

- Fully integrated and explicitly reflected in virtually all programmes
 - A degree of integration in approximately half the programmes
 - Some reflection in a minority of programmes
 - No coverage or profile very patchy
-

- 3 Expand briefly on the rationale behind your response above:

- 4 Please identify the approximate percentage of **courses** that contain elements relating to SDE:




-
- 5 Please identify the approximate percentage of **modules or units delivered** that contain elements relating to SDE:



-
- 6 Is your approach to SDE focused (select one option):

- within particular subject areas?
- fully across the curriculum?

-
- 7 Expand briefly on the rationale behind your approach as indicated by your response above:



8 It is likely that there is/will be a range of different methods for the delivery of SDE within what can loosely be considered the College "Curriculum". What vehicles do you use to deliver SDE? (select all that apply)

- Citizenship
- Formative Assessment
- Lesson Planning
- Using Core Skills
- Project Work
- Curriculum for Excellence
- Guidance
- Employability
- Local Investigations
- Student Induction
- Personal Development Plans
- Community Engagement
- National Programmes and Courses
- Individual Stand-alone SDE Units or Modules
- Volunteering
- Through Campus Sustainability Measures/Environmental Policy
- Through Sustainable Learning Spaces e.g. learning spaces designed for SDE
- Through Sustainable Procurement (course materials, etc)
- Through Healthy Eating, Local Produce, Fairtrade
- Other, (please specify)

9 Please expand on your selections above:

10 Consider the list above. Please rate what you consider to be the most effective vehicles and the least effective on a scale of 1-5 (1 = most effective; 5 = least effective)

	1 Most effective	2	3	4	5 Least effective
Citizenship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formative Assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lesson Planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using Core Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum for Excellence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guidance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local Investigations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Induction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal Development Plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Community Engagement

1 2 3 4 5

National Programmes and Courses

1 2 3 4 5

Individual Stand-alone SDE Units or Modules

1 2 3 4 5

Volunteering

1 2 3 4 5

Through Campus Sustainability Measures

1 2 3 4 5

Through Sustainable Learning Spaces e.g. learning spaces designed for SED

1 2 3 4 5

Through Sustainable Procurement (course materials, etc)

1 2 3 4 5

Through Healthy Eating, Organic Produce, Local Produce, Fairtrade

1 2 3 4 5

-
- 11 What are your plans for further incorporation of SDE principles into the curriculum, including existing and new programmes/modules and revalidation?

-
- 12 What are the cost implications of these plans?

13 What are the key barriers to taking SDE forward in the curriculum in your institution?

14 What are the key opportunities for taking SDE forward in the curriculum in your institution?

15 Please identify some examples of good practice, involving student activity, within your institution in relation to integrating SDE within the curriculum.

16 Please indicate if SDE is explicitly referenced in the following of your institution's documents (select all that apply):

- Strategic Plan
- Mission Statement
- Learning and Teaching Strategy

17 Will your institution be signing up to make a Climate Change Commitment in response to Scotland's Climate Change legislation?

If so, please give details:

18 If you would like to arrange a free SDE development visit please type your contact details below:

19 Please select which college you work for: