



Supporting education for a more sustainable world.

# Practice, Barriers and Enablers in ESD and EE: A Review of the Research



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A Report for SEEd

(a Council for Environmental Education initiative)

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# Practice, barriers and enablers in ESD and EE: a review of the research

## **A report for Sustainability and Environmental Education**

SEEd is a CEE (Council for Environmental Education) project with the primary objective of enabling more of the education sector to engage with Education for Sustainable Development and environmental education.

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## Executive summary

**The task:** This is a summary of desk-based research into ESD and EE (and the global dimension where relevant) looking at past teacher surveys and research: what they tell us about current practice, barriers to, and enablers for, sustainable schools. It also considers good practice in research with teachers and schools, gaps in existing research and recommendations for further research.

The report focuses on schools and teachers in England, but some evidence from the devolved administrations has been included as, although the administrations have different approaches to ESD, teachers' needs, enablers and barriers as expressed in the surveys have much in common.

**Sources:** The report contains information from internet searches and research that the author was personally aware of and additional research suggested by the Teachers' Needs Advisory Panel.

## Key findings

### **1.0 Current context for ESD in schools**

This is a time of change in schools with a number of educational initiatives that could have impact on the ability and willingness of schools to engage with sustainability.

### **2.0 What existing information is available about teachers' practice and needs?**

Key documents are summarised.

### **3.0 What has emerged about school practice?**

Schools which have embedded sustainability report a range of positive outcomes. However, research suggests that the majority of schools have limited knowledge of sustainability, work on sustainability tends to be piecemeal and uncoordinated, and its impact tends to be short-lived and limited to small groups of pupils.

#### **3.1 Key aspects of practice in schools successfully engaged with sustainability include:**

##### **3.1.1 A whole school approach**

- 3.1.2 Outward looking
- 3.1.3 Active involvement of students in decision-making and practice
- 3.1.4 A broad understanding of sustainability

### **3.2 Coverage of doorways themes**

Although schools said they considered all the ‘doorways’ from the Sustainable Schools Framework important, many schools have not yet incorporated them. The percentages of schools that say they are working on the different doorways varies between surveys, but this could be partly down to the phraseology of questions. The global dimension and local well-being were found to be least in place in all the surveys which included them.

### **4.0 Barriers to Sustainable Schools**

These included:

- 4.0.1 Time and money:** This was almost universal. A few of the studies dug down to find out what time was needed for. Time for planning, re-writing schemes of work, staff development and researching resources emerged as significant.
- 4.0.2 Lack of priority given to sustainability:** Schools said that they concentrated on statutory priorities and there were no real drivers from DfES or Ofsted, in fact, they were seen as major barriers. However, schools which were successfully incorporating sustainability found it a motivating vehicle for delivering the National Curriculum and Every Child Matters, leading to high levels of attainment. Schools felt they needed permission from the DCSF but, as Jackson (2007) notes, ‘the permission is there but the message is not getting out’.
- 4.0.3 A knowledge gap:** partially due to the lack of time and priority.
- 4.0.4 Lack of training:** noted in ITT and CPD.
- 4.0.5 Overlapping initiatives:** A plethora of information and events relating to sustainable schools and perceived competition between them are seen as overwhelming and confusing.
- 4.0.6 School buildings and estate management:** Despite the Framework addressing a perceived lack of consistency between teaching and estate management practice, limitations of school buildings are still seen as a barrier to sustainability.
- 4.0.7 Lack of evidence of impact:** The link to raising standards is not recognised and is under-researched.

## **5.0 Enablers for Sustainable Schools**

These included:

- 5.0.1 Time to create a shared vision:** as a whole school community.
- 5.0.2 A joined-up approach:** clearly linking initiatives, supported by senior management, subject associations, and national policy. However, there is a tension between external drivers and targets and an open, creative approach.
- 5.0.3 Distributed leadership:** both to share the load and to increase participation.
- 5.0.4 Formalisation:** embedding sustainability in policies, curriculum, budgets and staffing.
- 5.0.5 Local authority support:** identified as crucial but currently very variable.
- 5.0.6 External partnerships:** with local businesses and community, NGOs, and internationally.
- 5.0.7 Student participation and leadership:** student involvement not only enables, but also can drive, the sustainability agenda.
- 5.0.8 Training:** on addressing values, developing an outward orientation and pedagogical principles relevant to educating for sustainability, as well as to increase the knowledge base.
- 5.0.9 Active citizenship:** clear links with the sustainability agenda.

## **6.0 Which organisations have schools worked with?**

Considerable support for Sustainable Schools is provided by outside organisations and often shapes the agenda (though the plethora can be confusing - see above). Schools have utilised resources, initiatives and active support from a large number of local, national and international environmental and development groups. The research suggests that support for individual schools from outside organisations can increase understanding and improve the depth and quality of work. Most schools were involved with award schemes, finding the frameworks and targets helpful, however these can also limit the work attempted.

## **7.0 Effective research with teachers**

This is a summary of what was revealed by the research reports regarding approaches which have provided useful information and insights, and any problems arising. In particular, the limitations of self-completed questionnaires have been noted and the need to dig down to find the underlying reasons and real needs behind teachers' initial responses and perceptions, which can only be explored through focus groups or interviews.

## **8.0 Gaps in available information**

### **8.1 The impact of the Sustainable Schools Framework.** This has several aspects:

- whether it has increased the number of schools engaging with education for sustainability
- its impact on attainment
- its impact on learning: is it increasing understanding of sustainability?

It may be too early and beyond the scope of the proposed research to explore the last two points, but it will be important to bear in mind whether fulfilling the ‘needs’ identified will deepen understanding and develop values that may lead to a more sustainable future, or just encourage limited behaviour change.

### **8.2 Research into schools who are not yet educating for sustainability**

Most of the detailed research is into best practice. Surveys have been wider, but probably tend to be completed by those already interested.

### **8.3 The lower involvement of secondary schools**

Are there factors in addition to the ‘Key aspects of practice ...’ identified in 3.1 which differentiate the few secondary schools which successfully engage with sustainability?

## **9.0 Recommendations for future research**

- Initial contact is advised with organisations which have recent experience of researching teachers needs relevant to sustainability and/ or implementing strategies to engage schools with sustainability.
- Telephone interviews or focus groups are recommended as most likely to provide useful information, either alone or as follow-ups to a survey.
- Possible issues/ questions for research are suggested.

## 1.0 Current context for ESD in schools in England

Securing the Future (HMG 2005), the UK Government's updated Sustainable Development Strategy stated that 'Sustainable development principles must lie at the core of the education system, such that schools, colleges and universities become showcases of sustainable development among the communities that they serve.' This echoes an emphasis internationally, with 2005-2014 being designated by UNESCO as the 'Decade for Education for Sustainable Development', though the term 'Education for Sustainable Development' (ESD) has been dropped in government policy documents for schools in England in favour of 'Sustainable Schools'.

The Department for Schools, Children and Families (DCSF, formerly DfES) produced its own sustainable development action plan (recently updated for 2008-10, DCSF nd a). To help schools achieve their role in the strategy, a Sustainable Schools Framework (DCSF nd b) was produced, stating what government would like schools in England to be achieving by 2020 to contribute to the UK's sustainable development strategy. The Framework is non-statutory and the DfES stated that 'the best way is for schools to define their own plan based on their individual circumstances and level of confidence with the issues.' (DfES 2006c p15)

The DCSF designated the academic year 2006/7 as a Year of Action on Sustainable Development for schools, largely based on the Framework. Action during the year included the development of a website <http://www.teachernet.gov.uk/sustainableschools>, a series of resources, and the funding of regional sustainable schools networks.

Other recent education initiatives are also likely to have an impact on how the recommendations in the Strategy are taken forward. Sustainable development is seen as 'a powerful means of delivering [the] outcomes' of 'Every Child Matters', the government's agenda for children's well-being (DfES 2006c). The new Secondary National Curriculum has an emphasis on greater flexibility, less prescribed content, and cross curricular dimensions, including 'the global dimension and sustainable development' (in addition to the pre-existing formal links with sustainable development in four statutory subjects: citizenship, design technology, geography and science) which should provide greater opportunities for education for sustainability.

In this report, Sustainable Schools is used when referring to the DCSF Framework, while ESD is used as a more generic term.

## 2.0 What existing information is available about teachers' ESD practice and needs?

### Key documents:

DfES (2006a, b, c) *Sustainable Schools for pupils, communities and the environment*

The Sustainable Schools National Framework was put out for consultation (DfES 2006a and b) and over 870 responses were received. The raw data is not available: the author was told in a phone call to the DCSF that all the responses are to be found in the government response to the consultation (DfES 2006c) and the sustainable development action plan (DCSF nd) and are not available elsewhere. Information gleaned from these sources has been included in this report, but a fuller picture of teachers' needs, practices, or barriers would inevitably have been given by the data analysis.

Ofsted (2008) *Schools and sustainability: A climate for change?*

Inspectors visited 25 primary and 16 secondary schools in 35 local authorities in England during 2006-7 to assess the extent to which the schools taught about sustainability, and progress towards meeting the expectations of the National framework for sustainable schools. The research included a representative sample of schools (large and small, rural and urban).

Jackson L (2007) *Leading sustainable schools*, National College for School Leadership (NCSL)

This research also takes the Framework into account. Its focus is the current state of sustainable development in schools and the skills and qualities required by school leaders to move the agenda forward, looking predominantly at the 'green' dimensions of schools. It was the most wide-ranging research, being carried out by literature review, focus groups and case studies drawn from schools actively engaged with sustainable development education, plus a more representative quantitative survey of school leaders and business managers. 1,739 questionnaires were returned representing more than 10% of the sample. The report states that 'this is a largely un-researched area of school practice. Whilst a number of schools have been working in ways which would be identified as comprising a sustainable or green school, research has focused on short-term outcomes and has tended to be anecdotal. There has been little evaluation of staff or leadership practices which enable successful sustainable development in schools.' (P8)

Ofsted (2003) *Taking the first step forward ... towards an education for sustainable development: Good practice in primary and secondary schools*

This Ofsted report pre-dates the Framework and is structured around on the 7 key concepts for ESD identified by QCA at that time. 14 primary, 2 middle and 10 secondary schools, selected as likely to exemplify good practice in the promotion of ESD, were visited by HMI for this research. Their findings about the characteristics of good practice in ESD are still relevant. This research did not look at barriers.

Cheadle C, Symons G and Pitt J (2004) *Education for Sustainable Development: A needs analysis of teachers in Citizenship, Geography, Science, Design and Technology and School Managers*, GA/DfES (unpublished)

This is the only research study among those found that looked specifically at teachers' needs, though it predates the Framework. Its purpose was 'to gain greater insight into how ESD is perceived in schools, the difficulties teachers find in incorporating ESD in their subject classrooms/schools and the ways in which ESD may be supported in the classroom and in their schools'. It was managed by the Geographical Association (GA) on behalf of the DfES and was submitted to the appropriate parliamentary committee. It was carried out through 6 focus groups in different curriculum subjects and regions. Participants were recruited through the researchers' networks, not necessarily from schools with a particular interest in ESD.

Anderson B (2008) *Supporting Sustainable Schools in the South East*, Government Office for the South East (GOSE)

The main focus of this report was a self-evaluation of local authority support for Sustainable Schools. GOSE also sent out a voluntary 'sustainable schools survey' to all SE Sustainable Schools Network members to forward to their schools, to gauge the level of school activity and the level of perceived support, and to identify training needs and possible barriers. Although not all schools would have received it, 245 completed surveys were received, 6% of all schools in the SE.

EES-SW (2007) *A Global Dimension: Change your school for good*.

This report is the outcome of in-depth research into 14 primary, middle, secondary and special schools in the south-west of England identified as having strong commitment to the global dimension. Methodology included interviews, analysis of school documents and questionnaires. The report provides a snapshot of what schools with a strong global dimension look like, how they got there and what the impact has been on staff, pupils and their communities. Its findings strongly echo those of the research studies into successful ESD schools.

BMRB Social Research (2000) *Sustainable Development Education Surveys*, Sustainable Development Education Panel

This survey focused on the provision of, and attitudes towards, sustainable development education. Phone interviews were carried out in 751 schools with the teacher most responsible for the provision of ESD. This is the oldest of the research looked at, but its comprehensive findings supplement more recent information.

ESTYN (2006) *Establishing a position statement for education for sustainable development and global citizenship in Wales*

This report is specific to Wales which uses a framework of key concepts for ESD and global citizenship (ESDGC), different from the framework used in England, but many of its findings are likely to be transferable. It was carried out through a questionnaire and interviews with sample schools. It focuses on the extent, methods and quality of ESDGC teaching and learning in schools and colleges in Wales and the systems, structures and ways of working that support ESDGC and its potential future development, and led to a strategy for action (DELLS 2006)

Murphy C and Fawcett L (2006) *Environmental Education Survey: Final Report*, Queen's University Belfast and Environment and Heritage Service

This report mapped environmental education provision in Northern Ireland, to identify unnecessary duplication and gaps in provision. EE was defined for the purposes of this project as encompassing EE and ESD. The research focused on external provision: visits to sites of environmental interest and talks and workshops on EE themes provided by an external speaker or facilitator. It included problems encountered in accessing EE, needs within the school sector and users perceptions about current provision. Questionnaires were sent to all schools and all providers in Northern Ireland, with a 46% response from schools.

Hren B, et al (eds.) (2004) *One School at a Time: A Decade of Learning for Sustainability*, WWF-UK

This publication contains 33 case studies of schools engaged with WWF on an action research process to embed learning for sustainability. The case studies are analysed according to 'key elements of learning for sustainability' which emerged from the process.

EcoLocal (2007) *Annual Sutton Schools Environmental Survey 2006/7*, Sutton LEA

This survey gives a snapshot of what was happening in one local authority. Its focus was 'green' issues. Surveys were sent to 63 Sutton schools of which 48 (76%) responded, with a higher response from primary schools (83% against 62% of secondary).

A number of other documents have been referred to where relevant: see References for details.

Although surveys have been carried out with schools which are not yet engaged with sustainability, most of the in-depth research through focus groups and case studies has concentrated on exemplars of good practice (with the exception of Ofsted 2008) and therefore reveals little about the barriers which prevent engagement by others.

### 3.0 What has emerged about school practice?

Those schools which have embedded sustainability report a range of positive outcomes: ‘schools are using sustainability to deliver the National Curriculum in ways that are relevant and real to the students, leading to high levels of attainment or value-added progress’ (Jackson 2007 p9). ‘Schools engaged with sustainability have found it a motivator, creating enthusiasm and interest’ (*ibid.* p32). Ofsted (2008) noted that once schools were aware of sustainability ‘Many found that it provided a useful vehicle for organising and coordinating aspects of Every Child Matters’. (p28) Inspectors found that ‘In the best lessons [on sustainability], teachers used a range of imaginative activities so that pupils could work individually and in groups on identifying, discussing and solving practical problems and could develop and test out their views on complex ethical issues. The pupils responded well to such opportunities, drawing on the knowledge, understanding and skills acquired outside as well as within school.’ (*ibid.* p4)

However, the research evidence suggests that there is a big difference in practice between those schools identified as actively engaged with sustainability and the majority of schools for whom it is not a high priority. Virtually all the respondents to the NCSL survey said they considered the sustainable schools strategy to be important, but Jackson highlights the mismatch between what schools are saying about the importance of sustainability and what they say they are actually doing about it. (Jackson 2007 p48)

Ofsted (2008) found that of the cross-section of schools it visited, most ‘had limited knowledge of sustainability or of related initiatives. Work on sustainability tended to be piecemeal and uncoordinated, often confined to extra-curricular activities and special events rather than being an integral part of the curriculum. Therefore, its impact tended to be short-lived and limited to small groups of pupils.’ (p4) Despite the required inclusion of sustainable development in four statutory subjects at secondary level, Ofsted found that in practice coverage was very limited, eg. ‘Considering issues relating to sustainable development should be at the heart of geography teaching but this was rarely the case in the schools visited’ (*ibid.* p10). Ofsted noted that better progress was being made in primary than in secondary schools, where cross-curricular links and a whole school approach were enabled by planning which crossed subject boundaries (*ibid.*)

The Estyn survey revealed that in Wales, although all schools were undertaking ‘some work that is concerned with ESDGC’ (Education for Sustainable Development and Global Citizenship), and work is ‘of better quality and more developed in primary schools’, ‘about ¾

of schools give little coherent and consistent attention to it and it has a central and well-organised place in the life and work of less than 1/10 of the total.’ (2006 p10)

However, the GOSE survey found that 40% of responding schools have some kind of sustainability or environmental action plan (Anderson 2008 p68). This is a higher percentage than the reports above would suggest, which may indicate that the situation is changing in some regions, though Anderson notes that many of those returning the survey may have chosen to do so because they were already interested in the agenda.

### 3.1 Key issues about practice in schools which are successfully engaged with sustainability have emerged across the research:

#### **3.1.1 A whole school approach to sustainability which is embedded in school policies and curriculum**

DfES stated ‘Our belief, backed up by the experience of practitioners and expert organisations is that a whole school approach to sustainable development is the best way to achieve results’ (2006c p 18). Ofsted (2003) noted that this is a key feature of the work of the most successful schools: ‘A greater understanding of key concepts and the development of positive attitudes and values towards sustainability are reinforced when subject coordinators include ESD in their schemes of work, when it is included in documentation and the school development plan, when appropriate teaching and learning strategies are developed and when a member of staff has responsibility for coordinating ESD and it features in staff development programme.’ (Ofsted 2003 p6) WWF research with schools also highlighted the importance of school culture and ethos, exemplified by a whole school approach which includes all stakeholders and the inclusion of Learning for Sustainability in ‘plans and policies that articulate its mission and describe the way it operates’ (Hren 2004 p14).

NCSL research ‘found successful sustainable school leaders place sustainability at the heart of their school, providing an ethos which pervades all aspects of the school and its external relationships’. (Jackson 2007 p8) Jackson also noted that ‘Distributed leadership seems to be the model best fitted to fostering sustainability in schools, with different aspects of sustainable development being led by different members of the school community.’ (*ibid.* p9)

Conversely, Ofsted (2003) noted that ‘where ESD is stimulated only by specific initiatives, it tends not to involve all pupils and is often not sustained’. (p6) Ofsted’s recent research found

that even when the teaching in individual lessons on sustainability-related issues was good or outstanding, ‘the lack of a coordinated whole-school approach and insufficient opportunities for pupils to reinforce and develop what they had learned reduced the impact’. (Ofsted 2008 p4)

### **3.1.2 Outward looking: involved with local-global community and a range of initiatives**

Ofsted (2003) found that the most successful ESD schools made ‘Effective use of the community as a learning resource by fostering links with individuals and groups in the neighbourhood. In particular, encouraging pupils and their families to play a part in their local community, developing citizenship through action and using the wider school environment to provide interesting and stimulating contexts for personal development and pupil engagement.’ (p5)

WWF school case studies include many examples ‘of community links giving context, expertise and motivation to curriculum work and others demonstrating how schools can contribute to improving quality of life in the local community’ (Hren 204 p 24). The London Sustainable Schools case studies also demonstrate a high level of involvement with outside organisations (from local businesses to international NGOs) and participation in a wide range of initiatives and award schemes (Global Action Plan 2007).

EES-SW (2007) note that a feature common to the schools taking part in their study, which were chosen for having a strong global dimension, ‘is an outward-looking and inclusive attitude, drawing in the wider community’, including parents, governors, support staff, other local schools, community groups, arts organisations and charities.

The NCSL focus group and case study research found that ‘Successful sustainable schools are involved in many activities beyond the core curriculum, such as Healthy Schools, Global Dimension, Eco-schools, Growing Schools. Leaders of these schools see their role as expanding the school experience beyond the school and embracing the wider world’ (Jackson 2007 p8). Jackson also mentions relationships with local community and businesses, involvement in national and international initiatives and international school links as characteristics of ‘sustainable’ schools. She notes that: ‘This contrasts with the responses to the survey [of more representative schools] where most schools consider local well being as one of the lower priorities and this is more marked in secondary schools.’ (*ibid.* p45)

This links with the findings of the NFER research into active citizenship: ‘Despite the existence of supportive student attitudes and legislative frameworks the evidence from the survey data and case-study schools suggests that the potential for citizenship education, as an active practice, to take place is only partially being realised at present’. Opportunities and experiences of active citizenship were largely confined to the school context; were opportunities to ‘take part’ rather than to effect real change by engaging with the decision-making process; only involved certain groups of students rather than all students; and didn’t link to wider contexts and communities beyond school. (Ireland 2006 p3)

### **3.1.3 Student participation in decision-making**

Ofsted (2003) noted among the factors strongly characterising the work of the schools most successfully embracing ESD, ‘Giving pupils both individual and collective responsibility in looking after and improving their learning environment. Most schools which promote ESD effectively have an active school council or eco-committee.’ And ‘The active involvement of pupils in initiatives that promote sustainability – for example, to conserve energy, recycle materials and improve the whole school environment, including the school grounds.’ (*ibid.*) In their 2008 report, Ofsted again noted that among the small number of schools which placed considerable emphasis on sustainable development, ‘pupils took an active part in improving the sustainability of the school and the wider community’ (p5) The report highlights a secondary school in which each tutor group spent a week as eco-monitors, ensuring that ‘everybody - not just a select group of enthusiasts - played a part in improving the school’s sustainability’ (*ibid.* p11)

NCSL also noted ‘the strong pupil voice and involvement of pupils in decision-making that we found in many of the case study schools’ (Jackson 2007 p8), stating ‘The development of student participation through formal structures such as school councils, or less formally, fosters a sense of collaboration and shared vision. It also builds skills for active citizenship and a greater enthusiasm for learning’. (*ibid.* p47)

Meaningful participation in decision-making about school life and involvement in community-based decisions and actions also featured in most of the case studies of schools working with WWF to embed sustainability (Hren 2004). In schools with a strong global dimension, featured in the EES-SW study (2007), pupils were also ‘active citizens’, making decisions, taking action and leading initiatives, and ‘involved in practices that promote sustainable development, such as energy conservation, recycling and improvement of the school environment.’

#### **3.1.4 A broad understanding of sustainability**

NCSL (Jackson 2007) reports that successful sustainable school leaders 'see sustainability as a broad agenda, including environmental, social, economic and governance aspects of their schools'. Ofsted (2008) noted that in moving towards becoming sustainable schools, several primary schools used the theme of healthy eating 'to enrich the curriculum and develop thinking in a range of subjects. Pupils were involved in making decisions about catering, in growing their own food and in discussing the implications of fair trade'. (p4) Ofsted inspectors also found primary and secondary schools in which 'pupils drew on knowledge gained in science and geography lessons to contribute to decisions about how to make their schools more energy efficient and to learn about sustainable lifestyles'. (*ibid.*)

Ofsted found that 'The most effective lessons had a consistent focus on engaging the pupils and ensuring that they understood why they were studying the topic and its relevance to their own lives. Lessons were framed around key questions with pupils researching the answers, often in groups. They were given opportunities to discuss, make decisions, solve problems, listen to and assess alternative points of view and to arrive at their own conclusions. In this way, they were able to tackle complex moral and ethical issues, such as equality and justice, interdependence and the needs and wants of future generations. Pupils said that they enjoyed these lessons and were 'able to learn better' because they were personally involved, could express their own views and could listen to those of fellow pupils, 'not just those of the teacher'.' (*ibid.* p13)

However, the research suggests that in a majority of schools sustainability is seen as a mainly environmental agenda:

Cheadle et al (2004) found that ESD was not a familiar term in many schools: there was a lack of clarity about what it is, how it should be taught and who is responsible for it. It was thought to apply almost exclusively to the environmental aspects: the economic and social dimensions were less well appreciated. Estyn also noted that 'Teachers and advisers do not have a clear and consistent understanding of the definition, purpose and benefits of ESDGC.' (2006 p10)

In a survey of geography student teachers, Corney (2007 ) found that 'substantial numbers recognised the centrality of environmental (72%), economic (53%) and social (31%) factors - but just 15% highlighted all three.'

Surprisingly, the earlier survey for the Sustainable Development Education Panel found a high coverage of all three aspects of sustainability, although the greatest emphasis was on environmental issues, particularly in primary schools: 'Environmental issues are taught by almost every school, across all levels and sectors. Other sustainable development topics are less frequently taught - Global development and social equity are taught by eight out of ten schools, with economic prosperity being covered by half.' (BMRB 2000).

Ipsos MORI research on behalf of the DEA (2008) found that only 42% of pupils in middle and secondary schools realised that what they do in their daily lives affects people in other countries. The DEA suggests that this 'makes it difficult to move forward on important issues such as sustainable development (e.g. my transport choices are affected by global economic policies and in turn affect the climate of people who live far away)'. (Young and Shah, 2008)

DCSF acknowledges that we cannot know exactly what solutions will deliver a just and sustainable world, so the role of schools is 'to enable pupils to think critically about the situation and increase their capacity to solve the problems they will encounter in their lifetimes', recommending participation, systems thinking and action learning (DCSF 2008 p 8). This is supported by the experiences of the schools featured in the WWF case studies (Hren 2004) and the case studies recently gathered by the author (DEA 2008) in which thinking skills featured across all age groups as a crucial part of educating for a just and sustainable world.

These schools are perhaps beginning to move towards the deeper levels of learning which Sterling suggests are an essential part of 'sustainable education': 'First order change and learning takes place within accepted boundaries; it is adaptive learning that leaves basic values unexamined and unchanged. ... By contrast second order change and learning involves critically reflective learning, when we examine the assumptions that influence first-order thinking. This is sometimes called 'learning about learning' or 'thinking about thinking'. At a deeper level still, when third order learning happens we are able to see things differently. It is creative, and involves a deep awareness of alternative worldviews and ways of doing things.' (Sterling 2001 p15).

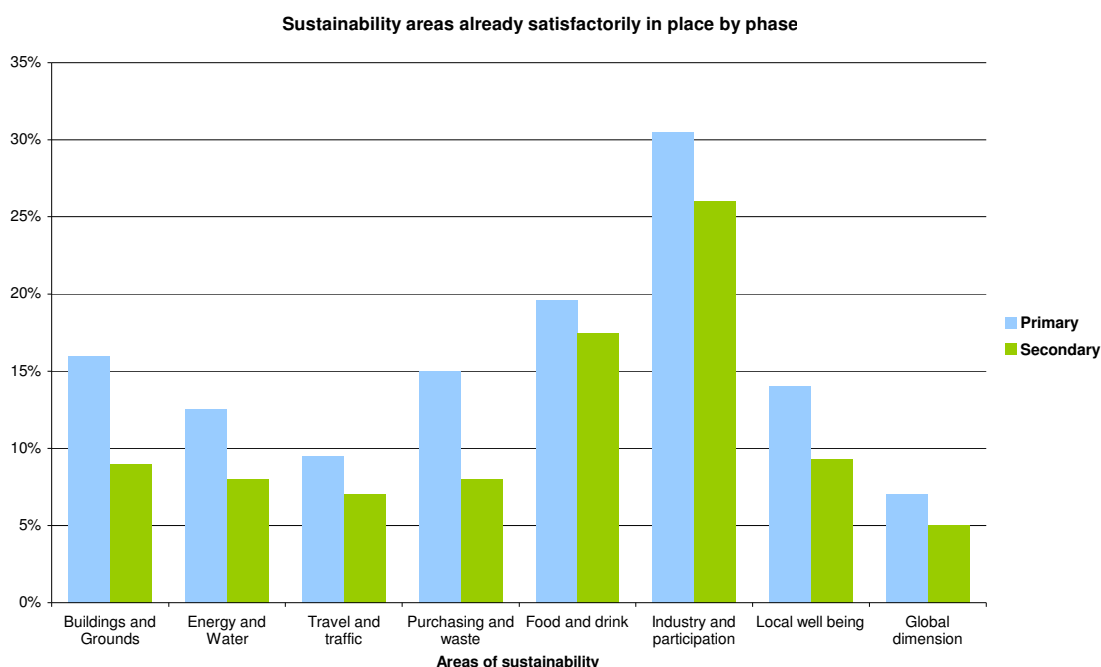
NOTE: Further details about characteristics of sustainable schools from the QCA and NCSL research can be found in Appendices 1 and 2

### 3.2 Coverage of themes from the Framework

GOSE found that 73% of schools returning their survey said they had heard of Sustainable Schools, 36% said they were ‘working towards becoming a Sustainable School’ and an additional 27% said they had ‘just started’ (Anderson 2008 p67).

The NCSL survey found that ‘all eight doorway themes from the sustainable schools framework were felt to be relevant to sustainability. Energy and water was rated most important [approx 80%], global dimension was the least [approx 40%]. ... the two most outwards looking themes, global dimension and local well-being, are both generally lower scoring than the others. This resonates with the perception in the literature review of schools tending to be inward looking and separated from their local contexts’ (Jackson 2006 p35).

However, ‘Despite being identified as the most important factors when thinking about making schools more sustainable, energy and water, buildings and grounds and purchasing and waste were deemed to be ‘already satisfactorily in place’ by less than 15% of establishments. Inclusion and participation had the highest score on this question, global dimension and travel and traffic were the lowest scoring. Across the board secondary schools rated all the areas as less ‘in place’ than the primary schools. (Jackson 2007 p37)



(ibid.)

The GOSE survey found that the doorways the majority of schools are incorporating into their curriculum (and have received most support for) are: Food and Drink 71%; Travel and Traffic 61%; and School Grounds 60% (Anderson 2008 p49). The doorways found to be least incorporated in the GOSE survey (*ibid.* p68) were Local Well-being (26%), Buildings (separated from school grounds) (28%) followed by Inclusion and Participation (41%) and Global Perspective (43%).

The lower incorporation of the more outward looking themes of global dimension and local well-being identified by both the NCSL and the GOSE (though at different degrees) is significant and possibly encouraged by the structure of the Framework: as DEA stated in their response to the consultation (unpublished) 'the global dimension is not just one aspect, it is the context for everything.' Ofsted (2008) noted that even in geography 'the study of a distant locality frequently ignored the global dimension' because teachers did not make links with themes such as mutual dependence, climate change, diversity and the needs and rights of future generations clear or explore them in depth. (p25) However, Ofsted found that 'The cross-curricular approach in primary schools meant that they tended to be more successful than secondary schools in enabling pupils to explore issues from different viewpoints and to focus on the global implications of what they were learning'. (*ibid.* p5) It will be interesting to see whether the new duty on schools to promote community cohesion, which is to be inspected from September 2008, will have any impact on coverage of the local wellbeing doorway.

The major discrepancy between the NCSL and GOSE findings are in the travel and traffic doorway, which rates low in the first and high in the second. The latter would be more to be expected, given that school travel plans are widespread. The DCSF states when reviewing targets for school travel plans, 'We met March 2006 target and exceeded the March 2007 target of 55%, or 13,750 schools with approved travel plans in place. By March 2008 we expect 70%, or 17,500 schools to have an approved school plan in place'. (DCSF nd p22) However, Ofsted (2008) found that although most of the schools in their research had travel plans, 'these were rarely implemented consistently' (p4) and 'pupils were often unaware that they existed. .... Schools which made a lasting difference ensured the message was continually reinforced, not just through poster campaigns or assemblies, but also through engaging pupils in the classroom'. (*ibid.* p19) Ofsted also noted that although most pupils were aware of recycling, it was 'more often as a result of what they experienced at home rather than at school. They were less aware of minimising and re-using waste'. (*ibid.* p4)

The difference in findings when GOSE separated out buildings from school grounds is also significant, with a majority of schools saying they worked on school grounds and few having a focus on school buildings. It is also notable that in the section of the Ofsted report (2008) which focuses on buildings and grounds, all the examples of effective practice concern school grounds.

The Sutton schools annual survey (EcoLocal, 2007) found that 96% of responding schools recycle, with increases year on year, largely due to increases in the means to recycle being provided externally. 90% carry out recycling awareness raising activities, 40% compost, 60% purchase some recycled products, 81% have a designated nature area, 98% use school grounds for curriculum work (a 10% rise on the previous year) and 60% grow food but only 2 schools (secondary) sell fair trade products. 33% had an energy efficiency project, 48% had an environmental or sustainable development project (up from 33% the previous year), 73% had environmental displays and 48% had an environment club. 71% (34 schools) had school travel plans (up from 45).

Estyn found that 'work on promoting healthy living is extensive and recycling and energy-saving initiatives are widespread.' (2006 p10)

BMRT (2000) also asked schools about the activities they undertook 'which related to sustainable development issues... the most common action was to 'take energy of resource saving measures' such as switching off lights. Nine out of ten schools said they did this regularly or sometimes. State primary schools were especially likely to develop their school grounds (77%) compared to about two thirds of the other schools. Despite 'developing links with the local community' being the least widespread action, still two thirds of all schools regularly or sometimes do it.' (SDEP 2000)

Again, these findings are far more positive than the findings in the NCSL research (Jackson 2007) but this could reflect a difference in the questions, with BMRT asking which actions were taken by the school 'regularly or sometimes' while Jackson asked which aspects of sustainability 'are already satisfactorily in place'.

The Ofsted inspections (2008) which investigated practice in the doorways in detail noted differences in the ways the doorways were addressed which had significant differences in outcome, eg. many pupils were aware of the need to eat healthily but chose not to, but where pupils were given the opportunity to discuss the school's catering or grow their own food, this 'appeared to increase pupils' levels of commitment'. (p16)

## 4.0 What do teachers perceive as barriers?

Jackson (2007) noted that the perceived barriers to more widespread take-up of ESD approaches were common to the focus groups (drawn from schools actively engaged with ESD) and the survey (drawn from a more representative sample of schools).

**4.0.1 Time and money** are quoted as the biggest barriers in many of the studies (Cheadle 2004, Jackson 2007, Anderson 2008, BMRB 2000, DFID 2003), though these apply to any change. A few of the studies dug down to find out what the respondents felt time was needed for. 'Time and space are needed to support the long term thinking required to build successful approaches to ESD' (Cheadle 2004). 'The most important [barrier] is lack of time to develop the planning and staff development' (Jackson 2007 p50). A number of the 'additional comments' (unpublished) received in response to the GOSE survey (2008) link time and initiative overload, as the following heartfelt comment exemplifies: 'With current pressure from a multitude of initiatives – when would there be time?! Teachers are already massively overloaded!!' DEA notes that planning time tends to focus on considering progress towards targets and suggests that although this is important, it 'should not crowd out wider space for reflection on overall practice and what they are trying to achieve through their teaching'. (Young and Shah, 2008) The student teachers interviewed by Corney felt that in the schools they worked in 'no-one was willing to re-write schemes of work to integrate ESD, so it slipped off the agenda' (2007 p12) – again presumably a time factor.

Reasons that money is perceived as a barrier are not specified in any of the survey reports, though among the 'additional comments' (unpublished) in response to the GOSE survey (2008) a teacher suggested that money was needed for physical environmental improvements such as creating wildlife areas and purchasing compost bins. However, as Jackson notes, 'addressing sustainability of the school campus, including its use of energy and water and the procurement of resources, schools can actually produce real budget savings' (2007 p10).

**4.0.2 Lack of priority given to sustainability** was seen as an issue by many respondents and this may explain the lack of time and money schools feel able to invest in it. The National Curriculum and government are often seen to be setting different priorities. The GA research found that 'ESD appears to have a low priority in the curriculum and in schools. Schools concentrate their efforts on aspects of school life that are statutory and seen to be priorities such as literacy, numeracy and exam grades' and 'ESD cannot flourish in an over-prescribed and over-full curriculum. Testing and attainment drive the curriculum and there is

a preoccupation with targets and results. The curriculum is fragmented, with no coordination or curricular planning for ESD' (Cheadle 2004).

At a Government Office for London event, teachers identified as a barrier 'no real drivers from DfES or Ofsted' (GOL 2007). A head teacher suggested in an email to SEEd (2008 unpublished) that 'it is difficult to see how to make sure that sustainability issues become an entitlement for every student and every member of staff in every school without some form of overt compulsion'. Ofsted themselves noted that 'schools were unaware that Ofsted was interested in assessing how schools were promoting and encouraging pupils to lead sustainable lifestyles'. (Ofsted 2008 p27) The head teacher of one school inspected as part of Ofsted's research into schools and sustainability said 'we were delighted to receive notice of this inspection because we thought no one cared about all the energy and effort that staff give to education for sustainable development'. (*ibid.* p28)

NCSL found that 'the perceived rigidity of the formal education structure, including SATS and Ofsted is seen as a major barrier, as well as the number of initiatives for schools. An open and creative curriculum is necessary for sustainability to become a reality; however there is a tension between this and a desire for regulation and accountability' (Jackson 2007 p34). Responding to the Environmental Audit Committee, English Nature suggested that without Ofsted inspection ESD 'will continue to be a fringe activity' (EAC 2003 para. 79) and Ofsted said that 'not one cross-cutting theme has ever been successful' (*ibid.* para. 70). The Environmental Audit Committee suggested that 'Without clear ownership, a cross-cutting theme such as sustainability ... can easily be lost' (*ibid.* para. 70). Estyn also noted conflicting curriculum priorities and inadequate prioritisation as barriers, highlighting 'the need to rationalise strategic priorities in curriculum planning in order to help schools and colleges to address Welsh Assembly Government initiatives' (Estyn 2006).

'However', Jackson notes, 'schools which are successfully working through a sustainability approach and ethos, use this as a vehicle for delivering the National Curriculum in ways that are relevant and real to the students, leading to high levels of attainment or value-added progress. They also focus on their sustainability work as a strength of the school and highlight this at Ofsted inspections, frequently being commended for this work and its impact across all aspects of the school). Some people's barriers are other people's enablers' (Jackson 2007 P50).

DfES echoes this, stating: 'Evidence from the United States shows that using the environment as an 'integrating context' for learning boosts literacy and numeracy standards, while

developing critical thinking skills and reducing behaviour problems (NEETF 2000). This is attributed to the increased enthusiasm for learning produced by teaching that is grounded in real issues, people and places.’ (DfES 2006a)

Despite recent initiatives, Jackson found ‘a lack of awareness amongst schools that this is a major DCSF strategy so it is being lost in the plethora of other concerns they have to address.’ (Jackson 2007 p50) ‘Participants at the Leading Practice seminar spoke of needing permission from DfES to do this – the permission is there but the message is not getting out’ (*ibid.* p51). Ofsted (2008) also found ‘limited awareness of national and local government policies for [sustainable development]’ (p5). This is surprising, given that in the GOSE survey (Anderson 2008 p67) 73% of the schools returning their survey had heard of sustainable schools and average monthly figures for the Sustainable Schools web service indicate the site has 30,000+ visitors a month with 10,000+ unique visitors. (DCSF 2008 p22)

Lack of support from local authorities, senior management and Initial Teacher Training (ITT) are also seen to reflect low priority: ‘The lack of apparent priority for sustainable development within many Local Authorities and therefore the lack of support for the Sustainable Schools strategy was cited as a significant barrier to taking this work forward’ (Jackson 2007 p10). ‘The overall impression is that most local authorities do not have a coordinated approach to support [for sustainable schools] and are not linking to other key areas of support such as Extended Schools’ (Anderson 2008 p19) ‘Low priority for ESD is reflected in lack of senior management support, lack of coordination, lack of professional development and the absence of ESD in most Initial Teacher Training’ (Cheadle 2004 p40).

**4.0.3 A knowledge gap** around sustainability concepts has also been identified as a barrier (Jackson 2007 p50). Lack of knowledge and resources were identified by the GA focus groups, but the teachers acknowledged that this was probably more about lack of time to research available resources. ‘Once teachers and curriculum managers are convinced of the educational gains to be had from ESD, school resources can often be found and awareness raised of available support. However, the policy setting also has to be favourable for this to happen’ (Cheadle 2004). Estyn respondents also noted ‘a lack of information on good practice, including access to straightforward ideas that are easy to understand’ (Estyn 2006). David Lambert, Chief Executive of the Geographical Association, told the Environmental Audit Committee (2005) ‘It really is not appropriate, I think, to put material on a website and hope that somehow it will have an impact across the system. Sustainable development itself is quite a complicated idea, it is also contested. If you are going to work with that in your

subject, you have to converse and have a dialogue about how your subject contributes and where it can take you'. (para. 78)

Student geography teachers in Corney's survey found that among experienced teachers, 'some teachers believed that 'sustainable development is too difficult to grasp, especially by (younger) pupils'; some teachers were 'uncomfortable teaching about controversial issues, especially to lower ability classes', some were reluctant to engage in discussion, debates and role plays and some were reluctant to develop investigative work outside the classroom related to local issues. (Corney 2007 p12)

**4.0.4 Lack of training in ESD**, both in ITT and CPD was identified by participants in the GA focus groups (Cheadle 2004) and Ofsted noted that 'opportunities for professional development are limited.' (Ofsted 2003). The majority of respondents to the GOSE survey believed that they needed additional training, mainly on the Energy and Water, Purchasing and Waste, School Grounds, and Global Dimension doorways (Anderson 2008 p50), though encouragingly the focus areas most identified were whole school improvement (56%), curriculum development (40%) creating community links (38%), and engaging pupils (37%) (*ibid.* p73). There is no mention of sustainability in the national priorities for CPD 2007-2010 identified by the Training and Development Agency for Schools (TDA 2006), although there may be some opportunities under 'subject knowledge' (which the TDA states has been marginalised over the last few years (p3)) and under 'supporting curriculum change'. The Environmental Audit Committee (2005) suggested that lack of training and experience (as well as fear of litigation and an overcrowded curriculum) have contributed to the decline of out of classroom learning, an important aspect of ESD.

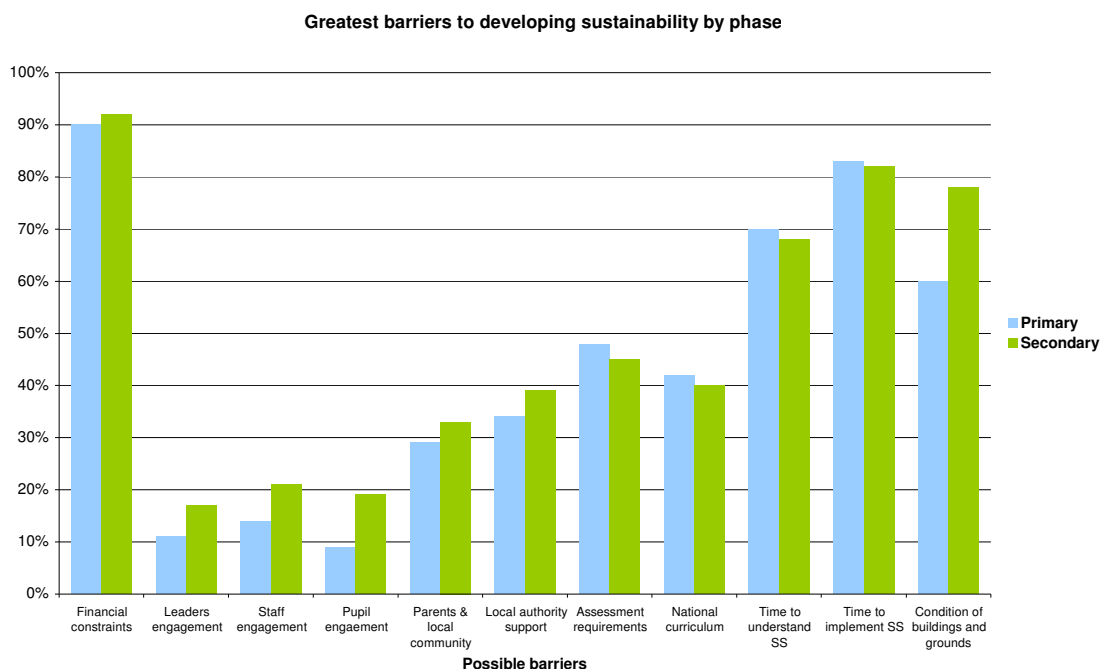
**4.0.5 Overlapping initiatives.** Finding appropriate support amongst many organisations and initiatives was sometimes seen as a barrier. The Estyn survey noted 'perceived competition between non-government organisations and between different initiatives' (*ibid.*). A school in the GAP report (2007) stated that: 'The plethora of information and events focusing on making schools sustainable can be overwhelming for staff and cause confusion. The different plans, initiatives, ideas and bodies out there can make it all become a bit bogged down and frustrating'. The Environmental Audit Committee (2003) also notes the 'vast range of ESD initiatives and resources for schools to draw upon' (including, according to RSPB, 17 different schools packages on 'improving your school grounds for wildlife') and suggests these initiatives 'need to be effectively co-ordinated and targeted so that schools are not deluged with an unfocussed and bewildering array of ESD activity' (para. 59).

NESPSS (2006) suggested that: 'non-government organisations (NGOs) working in the ESD field are only too keen to engage schools but are rarely linked in to school or LEA development priorities. NGOs do not always understand the priorities and constraints operating within schools and LEAs. As a result their approaches to Local Authorities and schools are too often frustrated and unsuccessful'. (NESPSS 2006) The DCSF has received feedback from schools suggesting confusion about all the awards on offer and how they fit with the eight doorways in the Framework and ECM (Critchley 2008 p18). As a result, ENCAMS are mapping the connections on behalf of the DCSF, due out summer 2008 (*ibid.*)

**4.0.6 School buildings and estate management** were noted as barriers in several of the research documents: 'Schools do not operate in a way that gives serious consideration to sustainable development (e.g. in buildings, food, planning for the future in general). This weakens the impact of any knowledge that pupils may have about sustainable lifestyles. Pupils are not exposed to ESD in a practical way. (Cheadle 2004). This lack of consistency has been addressed by the Framework, but limitations of their school buildings was identified as a barrier by many GOSE survey respondents (Anderson 2008 p50). An online poll conducted by BCSE (2007) about how the school environment affects teaching, learning and behaviour found that 87% of the 530 teachers in England who responded said school environments influenced pupils' behaviour. 59% said they were not able to adjust their physical environment to accommodate the different ways they taught classes. Teachers wanted to be able to move furniture around so pupils could work in groups, for example. This would impact on the more active approaches required by ESD.

**4.0.7 Lack of evidence of impact** is cited in several reports as a factor impeding development of sustainable schools: 'The benefits and impacts of sustainability on school improvement, such as improved pupil behaviour, achievement and self-esteem are currently under researched, with little long-term evidence available' (Jackson 2007 p10). Ofsted noted that 'the link to raising standards is not recognised' (Ofsted 2003). Teachers at a Government Office for London event (GOL 2007) noted that 'the S3 document [sustainability self-assessment] is not workable and there is no real incentive to do it'.

#### 4.0.8 Summary of barriers



NCSL survey (Jackson 2007)

Findings by DFID (2003) about barriers to the global dimension are remarkably similar: lack of time; unaware of the support available; an overload of education policy initiatives which are felt to be prioritised over the GD; confusion how Enabling Effective Support strategy relates to initiatives on citizenship and sustainable development; anxiety about dealing with potentially controversial issues and a lack of confidence with dealing with unfamiliar material and ideas.

In contrast, the GOSE survey found that as many schools thought that there were no barriers to becoming a sustainable school as thought there were barriers. One teacher quoted in the report stated, 'The only barriers are our imagination, commitment and drive - but they are in good supply' (Anderson 2008 p49)

The situation nationally is currently evolving rapidly, with a more enabling education policy framework and increases in support for schools wishing to engage with sustainability. Therefore many of the barriers and concerns raised by teachers in previous surveys have been or are being addressed. However, awareness of this has yet to reach the majority of schools.

## 5.0 Enablers for Sustainable Schools

These inevitably tend to be the flip-side of the factors seen as barriers.

### 5.0.1 Time to create a shared vision

‘The core need for developing sustainability in schools is to build the expertise of staff by providing time for coming together to create shared visions and practice (Jackson 2007 p34). Estyn (2006) also noted that ‘schools with a firmer understanding of ESDGC have usually spent a lot of time discussing the topic and training staff’.

Research conducted for EES-SW (2007) into 14 schools with a strong global dimension concluded that ‘The typical timescale from starting work on a school’s global dimension to achieving the level of success identified here is 5-7 years. During this time, the school requires continued and coherent support from a wide range of external services to acquire knowledge, develop skills and maintain interest and, therefore, momentum’.

### 5.0.2 A joined-up approach

Many of the schools interviewed by Global Action Plan acknowledged the strategic benefits of joining up their approaches to initiatives such as ECM, Healthy Schools, Eco Schools, science and technology status or school travel plans, and that ‘looking at the school from a sustainability perspective enabled them to meet so many of the goals they were trying to achieve’ (GAP 2007). GOSE identified mapping how the sustainable schools agenda links to ECM outcomes and other programmes as a high priority and work on it has already begun (Anderson 2008 p53).

Teachers participating in the NCSL research felt that ‘behaviours and approaches seen to support sustainability ... may not fit with a narrow understanding of current educational norms.’ (Jackson 2007 p50). Therefore, ‘A crucial element in enabling change is support, be it from inside the school ie. senior management, or externally through the local authority or nationally through policies’ (*ibid.* p34).

Cheadle 2004 noted that ‘local solutions will require overarching guidance and stimulus, for teachers on the ground cannot always see the possibilities for curriculum development, nor have the theoretical resources to hand that will guide sound development.’ She suggests that subject associations could become better at promoting ESD explicitly on websites, in resources and at conferences.

However, 'The focus groups [in the NCSL study] concluded that there is a tension between seeking external, regulatory drivers such as inspection and assessment which would raise the priority of taking sustainability seriously in schools, against the need for this to be an open, deregulated, creative approach.' (Jackson 2007 p50)

### **5.0.3 Distributed leadership**

The NCSL research found that 'Nearly all heads that have developed [ESD] extensively see their model of leadership as distributed leadership' (Jackson 2007 p34). This helps to overcome the time and knowledge barriers as different aspects of sustainability may be led by different members of the school community. It also encourages buy-in from a range of stakeholders as students, non-teaching staff and members of the local community as well as teachers are enabled to initiate, lead and participate, helping to embed sustainability more deeply across the whole school community.

### **5.0.4 Formalisation**

Jackson (*ibid.*) noted the importance of using formal school structures (eg. policies, budgets, communications strategies, the appointment of a co-coordinator) to give sustainability status and to ensure its continuation and progression. Integration of sustainable development into school development plans, with targets, resources and training is recommended by Cheadle (2004) and Ofsted (2008). A key person given time and resources to manage and coordinate sustainable development (or EE in the case of Northern Ireland) is recommended by Cheadle (2004), Ofsted (2008) and the Northern Ireland survey (Murphy and Fawcett 2006). EES-SW (2007) notes that the global dimension is most likely to be incorporated into the ethos of the school when a designated member of staff is allocated resources (time or money) to develop it and regular audits ascertain how it is being implemented, with adjustments to schemes of work being made accordingly.

Curriculum development, both in and between subjects is highlighted as important by NCSL (Jackson 2007) and WWF (Hren 2004). The GA findings recommended a more thematic approach to teaching, the importance of progression, and building ESD more explicitly into curriculum units (Cheadle 2004).

### **5.0.5 Local authority support**

This was identified as crucial, but currently lacking, by much of the research. Jackson suggests that LA capacity must be built as 'currently it only happens where a few passionate individuals who already have this capacity are in place.' (Jackson 2007 p50)

The GOSE (Anderson 2008 p51) found that ‘the majority of schools signifying they needed additional support indicated this should be from local authorities’, but that the extent of support for sustainable schools varies between authorities, with some having already developed strategies and others ‘only now beginning to consider the possibility of doing this’, although most offered support in some way, eg. through promoting Eco Schools (*ibid.* p11).

Estyn found that ‘Half the LEAs investigated in the survey bring clusters of schools together for ESDGC topics and activities. The schools that are involved see this as a beneficial development and value the contacts this brings with other schools, including those that serve different age groups.’ (2006 p15)

The GA research noted that ‘Links with Local Education Authorities and the community, which emphasise practical initiatives such as recycling ... can provide a ‘hands on’ approach to sustainable living. (Cheadle 2004)

BMRB (2000) found that schools with established links with their local authority concerning sustainable development issues were noticeably more likely to engage with SD issues (eg. 73% with link developing school grounds against 53% without link; 41% having carried out environmental audits against 27% with no link). They also found that schools which have a sustainable development-related link to the LA are more likely than average to address and make links between the global, social and economic aspects of sustainability, in addition to the environmental.

Yorkshire and Humberside ESD Forum Management Group (2006) noted that that there are a wealth of SD practitioners in LAs but there are practical difficulties in connecting them to education audiences and suggested that as well as LEA ESD strategies, DfES [now DCSF] needs to help define LEA ESD roles and responsibilities.

However, the North East Strategic Partnership for Sustainable Schools (NESPSS) found that ‘External support to schools is not always confined to one Local Authority but work on a sub-regional or regional basis’. They suggest that a regional strategic partnership would enable agencies collectively to provide a more comprehensive and coherent structure for supporting schools, and that a regional ESD framework could ‘draw together fragmented provision, overcome some of the problems associated with short-term educational projects and improve continuity and progression’. (NESPSS 2006)

Ofsted (2003) also highlighted the importance of a well-developed support network involving local authorities and NGOs in providing support across a wide range of projects.

The GOSE report on current local authority activity in the South East regarding sustainable schools (Anderson 2008) gives a clear picture of what is happening in one region, further details of which are outside the brief of this report.

#### **5.0.6 External partnerships**

As well as with local authorities, Jackson notes that partnerships can be with NGOs, other schools, within the local community and internationally (Jackson 2007). NESPSS (2006) suggests that 'The potential for unlocking [NGO] resources in this field are under-emphasised'. Y&H ESD Forum Management Group (2006) notes that NGOs are key players in the development of regional ESD programmes and that a DfES lead is needed to define the framework for strategic NGO inputs to schools and colleges.

Reed & Morgan (2007) confirm that '...if school leadership is to take on the challenge of championing environmental sustainability in anything more than a token way, then it needs to be more available to connect to the environment, the community and the bio-region of which it is a part of and to draw its inspiration from them in framing its education goals. This is the basis of greater "outward-lookingness" that is likely to be a key quality of community and leading sustainable schools and is what is meant by working with context in the organisational literature.'

BMRB (2000) found that 'Nine in ten state schools agreed that links with the community and businesses would help to develop education for sustainable development.' Y&H ESD Forum Management Group (2006) recommended that education audiences need to be connected to sustainable development innovation in local businesses, saying that business SD case studies abound in the region.

However, it is important to note that according to Reed & Morgan (2007), 'Values in a sustainable school are drawn from the needs of the outside context as well as from the inside imperatives. This begins to suggest that the mission of a sustainable school is designed in relation to what it can offer to the community not just what it can draw on.'

### **5.0.7 Student participation and leadership**

Teachers in the GA research noted impetus from children as a key solution to raising the profile of ESD (Cheadle 2004). Ofsted research (2003 and 2008) highlighted the value of involving students in decision-making and improvements to the school estate. School case studies gathered by NCSL (awaiting publication) emphasised that once involved, pupils drove the sustainability agenda.

See 3.1.3 above for details and further examples.

### **5.0.8 Training**

Teachers responding to the GOSE survey (Anderson 2008 p50) suggested they needed training on specific doorways (see 4.0.4 above). However, Jackson highlights the need for leadership training which includes ‘aspects such as addressing values and developing an outward orientation’. She notes that as well as a knowledge base, ‘Sustainability also contributes to the pedagogical principles of participation, decision making, problem-solving and learning in real contexts. Professional development about these needs to be holistic, including the intellectual, emotional, spiritual and practical aspects.’ (Jackson 2007 p10)

Cheadle (2004) states that ‘The need is for extended, practical, hands-on, workshop type training which teachers can embed into their own practice. Opportunities for accrediting such professional practice (at Diploma or Masters level) should be sought and encouraged.’ Educators surveyed in the Yorkshire and Humber ESD strategy review (Y&H ESD Forum Management Group 2006) indicated that interactive workshops run by respected independent ESD practitioners are important for successful dissemination of good practice.

Schools working with WWF noted that the value of training was not only to increase confidence but also to signal the priority the school was placing on sustainability. They also found that involving non-teaching staff and governors in training enabled sustainability to become embedded in all aspects of school life (Hren 2004).

Teachers at a GOL event (2007) suggested that useful support would be provided through pilot projects to create benchmarks of good practice; clear and comprehensive statistics on the current status of schools in terms of sustainability; and localised, user-friendly guidance for schools within a local authority.

It must be noted, however, that opportunities for CPD are constrained by a number of factors, and unless sustainability is identified as a priority in the school development plan, teachers may not be free to take up training opportunities, even if they have identified a need for them.

#### **5.0.9 Active citizenship**

Recommendations to encourage active citizenship (Ireland E et al, 2006) are relevant to sustainable schools. They include making more explicit the links between the promotion of active citizenship and wider agendas, notably ECM; linking schools with key community partners and organisations to provide more 'joined up' experiences for young people; enabling real engagement for young people with decision-making processes; providing training and resources for teachers to improve understanding and increase confidence in delivery through more active learning/teaching approaches; improving the quality of school buildings and facilities. To this could be added highlighting the links between sustainable schools and active citizenship.

## 6.0 Which organisations have schools worked with/ are they aware of?

There was evidence in the research that considerable support was provided by outside organisations and that this was valued by the schools and often drove the direction schools took in developing ESD.

BMRB Social Research (2000) found that: ‘Six in ten schools regularly bought materials from or had active regular involvement with environmental voluntary groups (eg. RSPB, FoE). Eight in ten are involved with Overseas Aid Groups (eg. Oxfam, Comic Relief)’, however, ‘It is likely that Comic Relief had a large influence on this result as it took place only six weeks before the interviewing’. They also found that 39% of state primary schools and 46% of secondary schools had links with the local authority concerning SD issues. (*ibid.*)

Schools in the Government Office for London case studies (Global Action Plan 2007) cite as triggers for their involvement contacts with Global Action Plan, Thames Water, an LA school travel plan adviser, Envision, Comic Relief, Oxfam and the Variety Club and had also worked with local businesses and community groups. These schools had participated in a range of local and national environmental awards, particularly Eco Schools and the London School Environment Awards.

The GA focus groups (Cheadle 2004) identified that ‘NGOs and ‘events’ are very helpful to those who seek them out’ and that ‘there are many external resources that can be mobilised. Teachers in the focus groups mentioned local authority initiatives (e.g. around Agenda 21, recycling, walking buses) and regional initiatives such as DfID’s ‘Enabling Effective Support Strategy’. They also mentioned good resources from Save the Children, Oxfam, Friends of the Earth, Action Aid, Water Aid, Learning Through Landscapes, local development education centres, local recycling centres, Women’s Environmental Network, Walk to School Week, Comic Relief, Sports Relief, UNICEF ‘Day for Change’. They found Growing Schools helpful, because it comes with funding, training and a whole school approach, including staff, pupils and parents. Design Technology teachers mentioned Oxfam’s Cool Planet, ITDG’s STEP and Young Foresight Technology Project.

As well as providing resources, Cheadle noted that ‘there were a number of positive ways in which outside organisations had made an impact in terms of the way in which ESD was constructively perceived’. She gave two examples: a school which had received support from WWF in developing ESD, where ‘there was a clear and explicit ESD thread through most

subjects and most teachers were interested, aware and actively promoted ESD in their school'; and Design Technology teachers, 'many of whom had had experience with sustainability issues largely through Intermediate Technology Development Group (ITDG), so their understanding of ESD was fairly good and ...[they] had used many useful and relevant resources as well as receiving personal support and training from ITDG personnel'. (*ibid.*)

School case studies researched for the DEA (2008) revealed that local development education centres (DECs) are drivers of initiatives relevant to Sustainable Schools, both for individual schools and for regional groups, often providing training and monitoring and evaluation as well as other support. Evidence from this research suggests that DEC involvement can have considerable impact on understanding of sustainability and the depth and quality of work.

Estyn (2006) found that 'schools usually obtain useful guidance and support from: the Welsh Network of Healthy School Schemes; the Eco-Schools Award Scheme and similar environmental schemes; Development Education Centres; and international school linking schemes'. They noted that 'Most schools are involved with one or more award schemes relevant or related to ESDGC and these are often the main driver and vehicles for giving attention to it', with Eco-Schools being the most widely-used award scheme. They found that: 'schools find it useful to have a framework that provides a structure for their work and helps them to set targets for making further improvements. Most schemes emphasise the need for development of the whole-school ethos and of links with the community'. However, Estyn noted some problems with award schemes. Schools said they were confused by: 'the number of different award schemes; the lack of co-ordination between them and other initiatives; and the schemes' different quality indicators and requirements'. Estyn also found that 'In some cases, the award schemes result in schools carrying out only the actions that are needed to achieve the award rather than on developing the ethos of the school and the capacity of learners.' (*ibid.*)

Ofsted (2008) found that a number of the schools they visited had applied for environmental awards such as Eco Schools, which had often had a positive impact including raising awareness, changing attitudes and behaviour, and practical improvements such as energy conservation. However, they note that 'Despite the wide range of activities available, only a small minority of the schools visited made a clear attempt to coordinate and integrate them into the mainstream curriculum, to ensure progression in developing knowledge, skills and understanding'. (p12) Young and Shah (2008) share these concerns, stating that award schemes relating to global learning 'can be a good stepping stone for schools. However, we

are concerned that they can lead to a 'tick box' approach which is largely about simple messages and behaviour change where activity is not integrated in the core work and ethos of schools'. (p33)

The practical impact local organisations can have is demonstrated by the finding that textile recycling in Sutton schools increased by 44% in one year due to the provision of textile recycling bins to schools participating in EcoLocal's Recycling Champions project. (EcoLocal 2007)

## 7.0 Effective research with teachers

The following is a summary of what has been revealed by the research reports studied about the kinds of approaches and questions which seem to have provided useful information and insights, along with any problems noted. Where available, questionnaires are attached in the appendices.

Jackson (2007) noted that: 'This is a difficult area to research by self-completed questionnaires as the variable nature of the interpretation of sustainability and related issues allows for different understandings and responses if questions are not clearly expressed. Anderson (2008 p49) suggests that schools choosing to complete surveys may do so because they have an interest in the agenda, indicating that they may not be a representative sample.

In the NCSL questionnaire (Appendix 3), the 'tick box' questions were answered, but the more open ended questions, which should have been more revealing (Q9. What one thing do you think would have a major influence on your ability to deliver the best sustainable schools strategy you would like for your school? and Q10. Do you have any other comments you would like to make?) were only completed by a small percentage of respondents (Jackson 2006 p44). NCSL used focus groups and detailed case studies to provide more insight (though these only involved schools already engaged with sustainability).

Cheadle (2004) noted that in the GA research, 'The principal aim was to establish what kind of support could be given to teachers in the classroom to embrace ESD themes. This cannot be done by large-scale survey, but was achieved through the use of small focus groups.' The questions focused on what kind of help teachers say they need; what obstacles to progress teachers perceive exist, and what teachers perceive to be the main switch points, which would cause the obstacles to disappear. Individual, pair and group activities were used and supplementary questions (Appendix 7) were used to delve below the initial responses (eg. a number of teachers cited lack of resources as a barrier, but when others listed a large number of sources of relevant and often free resources, they re-defined the problem as lack of time to research available resources).

A Study of Suitable Methods for Raising Response Rates in School Surveys (Sturgis et al 2006) noted a downward trend in school response rates in England. They found that: 'schools feel 'over-surveyed', believe that educational research is poorly coordinated, is often of no relevance or benefit to pupils, and requires scarce time and resources'. 'Head teachers referred to 'the sheer volume of requests they receive from a wide array of sources, including

government, universities, market research organisations, and professional teaching associations, to name just the primary sources.’ (p43) Perceived potential benefits to the school and students was cited as a key factor to encourage participation and Sturgis suggests that the direct benefits need to be communicated up-front.

It is likely that teachers and schools already committed to sustainability will be more inclined to recognise benefits from participating in research, but the current gaps in evidence are from those not yet involved, who may be harder to persuade to give the time to either surveys or focus groups.

Payments for supply cover were seen to be helpful (*ibid.*) but the author’s personal experience of conducting focus groups for the GA/DfES survey (Cheadle 2004) was that supply cover was not always easily available and a direct payment to teachers to participate in the focus group outside school hours increased uptake.

In research for a number of organisations, the author has found telephone interviews by appointment to be an effective way of gathering useful information from teachers, who often prefer a brief ‘chat’ than to fill in anything written. It can be a useful way of reaching a more random selection of teachers and can be very revealing, but only if appropriate supplementary questions are asked. A telephone questionnaire without more probing supplementary questions as appropriate will have similar limitations to a written questionnaire (see Murphy 2006)

A final point about closed survey questions: very careful thought needs to be given to the choices of answer offered, as this inevitably shapes not only the responses given, but the future perceptions of respondents, eg. the questionnaires in the Appendices vary in the emphasis given to environmental and global dimensions, and environmental management issues compared to curriculum issues. Other examples from the research reports of questions shaping responses include:

- Murphy and Fawcett (2006) asked providers of EE services whether they provide support on sustainable development or sustainable lifestyles. The schools surveyed were given options that focused entirely on more traditional EE topics.
- The GOL survey found teachers requesting training in specific doorways (Anderson 2008 p50). Jackson highlights the need for leadership training which includes ‘aspects such as addressing values and developing an outward orientation’ (Jackson

2007 p10), which was not an option in the GOL survey and may be too complex to include in a survey.

- The findings in the SD Education Panel survey (BMRT 2000) about sustainable development-related activities undertaken by schools (eg. developing school grounds) are far more positive than the findings in the NCSL research about the equivalent doorways (Jackson 2006). This could reflect a difference in the questions, with BMRT asking which actions were taken by the school 'regularly or sometimes' while Jackson asked which aspects of sustainability 'are already satisfactorily in place'.
- A knowledge gap and lack of resources were identified as barriers by the GA focus groups, but once this was more deeply explored (Cheadle 2004) teachers acknowledged that this was about lack of time and different priorities which stopped them from researching available resources.

These examples demonstrate that questionnaires tend to be blunt instruments which may over-simplify teachers' needs. It will be important for the SEEd research to dig down to find the underlying reasons and real needs behind teachers' initial responses and perceptions.

A teacher responding to the DfES sustainable schools consultation said, 'We didn't realise we were doing sustainable development until somebody told us. We were just trying to meet the needs of our children.' (DfES 2006c p18). Although it is reassuring for schools to know that many aspects of ESD may already be in place, without an awareness of the bigger picture, it is unlikely that they can provide the 'comprehensive, whole-school approach to these [sustainability related] activities which reinforces the sustainable message', that Ofsted identified as enabling successful learning (Ofsted 2003 p9). This concern is reinforced by Ofsted's recent research (2008) which found that not identifying input as ESD 'did not necessarily detract from the quality of pupils' experiences but it did mean that there was a danger of the learning being uncoordinated and lacking progression.' (p15) The report goes on to say that under these circumstances 'pupils did not necessarily make the links to their own behaviour. They might adopt some practices but reject others as inconvenient because they did not fully understand what it meant to lead a sustainable lifestyle'. (*ibid.*)

NOTE: Examples of surveys reviewed for this report can be found in Appendices 3-9

## 8.0 Gaps in available information

Several significant gaps have emerged:

### 8.1 Impact of the National Framework for Sustainable Schools

Potential support and encouragement for a sustainability focus in schools is increasing with the Framework and Strategy, the regional support networks, and changes in curriculum emphasis. Current discussions about a reduction in testing may also have an impact. There is as yet little information on the impact of these initiatives, eg. most of the available research cites lack of DCSF support as a barrier, which will hopefully change as information and support around the Framework reaches schools.

There are several aspects to the impact of the Framework:

- **Take-up of Sustainable Schools:** has the framework encouraged more schools to incorporate education for sustainability? A baseline survey has been carried out in the South East (Anderson 2008) and Anderson recommends that local authorities in the South East should use the same schools survey on a periodic basis to show whether engagement with sustainable schools and local authority support is increasing (*ibid.* p51). If this recommendation is taken up by GOSE, it will be one for SEEd to watch. There may be opportunities in the proposed SEEd research to find out the proportion of new schools that have taken on educating for sustainability since the publication of the framework.
- **Impact of Sustainable Schools on attainment.** Anderson (2008 p52) notes that there are clear gaps in ‘how to measure whether Sustainable Schools is raising pupil achievement and the development and exploration of skills and professions relating to sustainable schools.’ The Ofsted longitudinal study, which is tracking school progress through ESD, due out next year, may contribute to understanding of the impact on pupil attainment. Anderson (*ibid.* p56) recommends that GOSE considers how to develop an assessment method to measure the contribution Sustainable Schools makes to school improvement, but this is currently a medium/low priority.
- **Impact of Sustainable Schools on learning:** is the Framework increasing understanding of sustainability? Is it encouraging first, second or third order learning, eg. solely informed behaviours such as switching off lights, or internalised learning, building capacity to think critically, exploring basic values and alternative

worldviews that will lead to deep change towards a more sustainable way of living? (Sterling 2001; Crompton 2008; Vare 2007) (See 'A broad understanding of sustainability', 3.1.4.) As Young and Shah (2008) say, 'Education is not just about inculcating values and behaviours - it is about developing empowerment and critical learning. In the long run we will only move towards sustainability if we develop our capacity to think, challenge and change ourselves and the world around us.' (p32)

Evidence suggests that the schools working most successfully to date on educating for sustainability have a very broad understanding of the concept (see 3.1.4). It will be important to explore whether schools embarking on a sustainability journey in response to the Framework have a similar or different view of, and approach to, sustainability to those inspired by Agenda 21 or who based their work on the earlier '7 concepts of ESD'. The research evidence that the global dimension and local-well being doorways are as yet the least developed (Jackson 2006) suggests that the more 'instrumental' aspects of the Framework are those which are being most readily adopted by schools.

The author attended two workshops led by primary school heads at a Sustainable Schools Conference in 2008. One saw the doorways as aspects of the sustainability journey they had been on for 20 years; the other described how her school had decided to 'cover' the doorways by giving one to each class to present through a display. Which of these models proves most popular will have great impact on educating for sustainability.

With the Framework and other relevant initiatives being relatively new it may be too early to accurately assess impacts. However, it would be useful to find out how widespread awareness and implementation of the Framework is and the impact it has had so far. It will also be important to bear in mind the kind of long-term educational outcomes that SEEd would wish to encourage and to look beyond teachers' immediate needs, eg. for support with individual doorways.

## **8.2 Research into schools which are not yet educating for sustainability**

Most of the recent detailed research is of best practice. The surveys have cast a wider net, but even they are likely to have received a higher level of response from teachers who already

have an interest in the field. There is, therefore, little evidence of what would draw in schools that are not already involved or interested (though the impact of Ofsted's sustainability inspections on awareness, enthusiasm and future action is interesting to note – see Ofsted 2008 pp27-28). This would be a useful area to investigate, however it is likely to be the hardest group to persuade to spend time contributing to the research. Telephone interviews with named teachers may be the most effective way of reaching this group.

### **8.3 The lower involvement of secondary schools**

This was noted in some of the research (eg. Ofsted 2008), and while many of the factors which make it easier for primary schools than secondary schools to engage with whole school initiatives are known, it is also evident that some secondary schools do successfully engage with sustainability. There seems to have been little research into factors that differentiate the few 'sustainable' secondary schools from the others. Is it the same key aspects of practice that have been identified in all schools successfully engaging with sustainability, or is it something more? (eg. Jackson, 2007, mentions scale). This could be a very fruitful avenue for future research.

## 9.0 Recommendations for teacher needs survey

Before research is embarked upon, telephone interviews should take place with the following:

- Leaders of all the regional sustainable schools networks, who are likely to have recent and locally relevant experience about teachers' needs and strategies that have proved more or less successful in engaging schools with sustainability.
- Enabling Effective Support regional coordinators, who are further down the road and may have useful advice about strategies they have found successful in overcoming similar barriers to promoting the global dimension.
- NCSL/ WWF for recommendations about approaches and questions which they found most effective, and issues which emerged from their recent research as requiring further research or deeper exploration.
- The Institute of Education (Wendy Parmley) regarding questions and approaches they are finding most revealing in their current research into the global dimension in schools, as they consulted quite widely on the design of their research.

A survey alone is unlikely to uncover the real issues behind teachers' perceptions about sustainable schools. There is a need to explore the gap between teachers' perceived needs and barriers and what underlies these perceptions. As Jackson states, 'Understanding and overcoming the reasons for [school leaders'] apparent incapacity to act on their sense of importance around this agenda is an area for further research.' (2007 p43). Possible approaches would be telephone interviews, focus groups, or a survey followed up by telephone interviews or focus groups.

### 9.1 Possible areas for research

These are issues that have emerged in the course of the desk research, but they are as yet not arranged in any form of hierarchy and there is likely to be too much here for a single piece of research to answer. A more specific focus remains for the advisory panel to decide.

- Levels of awareness of the National Framework for Sustainable Schools and available support materials
- Impacts of the National Framework (take-up and educational outcomes, positive and negative, eg. whether the doorways are seen as ways to begin a journey towards broader sustainability or destinations to be reached)

- Impacts of the new Secondary National Curriculum on opportunities for education for sustainability (current or anticipated)
- Schools' experiences of regional sustainable schools networks (have they had contact, what have they found helpful/less helpful)
- Whether schools have a school improvement plan that incorporates sustainability
- Whether schools include sustainability as a characteristic of their school in their Ofsted Self-Evaluation Form
- How might awareness of the Framework and available support for sustainable schools best be raised? (what sources of information do teachers use?)
- Is sustainability explicit in their curriculum subject? (POS and exams)
- What was the motivation for schools which have incorporated sustainability?
- Developmental stages – what initiatives etc. do schools move through on their way to incorporating sustainability?
- Impact of ITT – do NQTs feel more confident incorporating ESD into their teaching?
- What would encourage/ enable teachers to take up CPD for sustainable schools?
- How could the knowledge-gap best be addressed (eg. Might developing community links which gave access to appropriate 'experts' and information be more effective than training?)
- How could schools be encouraged give the global dimension and local well-being a higher priority? (eg. to view them as contexts for the other doorways)
- How can the imbalance between the environmental and the social and economic aspects of sustainability be addressed?

The existing research suggests that supporting schools in broader aspects of school practice might open up opportunities for sustainable schools, eg. helping schools:

- to build stronger links with the wider community and local businesses
- to develop more participative teaching/learning approaches
- to develop more participative decision-making structures
- to develop more distributed leadership
- to build a shared vision/ethos.

What opportunities might there be to develop these aspects of practice?

## List of Appendices

Appendices available on request.

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