Cross-curricular teaching and learning 2: A short research review

Courses and subjects that fail to reinvent themselves in the face of new circumstances are liable to decline or disappear. (Kirk et al, 1997)

School subject communities are neither harmonious nor homogeneous and members do not necessarily share particular values, subject definitions and interests. (Jephcote & Davies 2007, p.210)

The diverse memberships of school subject communities create conditions conducive to contest, conflict and tension, both within a subject and between it and other subjects where we need to understand the effects of interaction across a series of boundaries between subject subcultures. (Cooper 1983, p.208)

The main task here is to define the principles and purposes for cross-curricular teaching and learning. To do this effectively, it will be important to consider and learn from a range of broader research that has been undertaken.

Research Review 1: Evidence from recent research within the United

Commissioned by the QCDA, the Centre for the Use of Research and Evidence in Education (CUREE) has been analysing the impact of recent curriculum changes in the United Kingdom’s schools. Their map of research evidence (2009a) presents some interesting evidence that will help us to develop our principles and purposes for cross-curricular teaching and learning. The key findings from their systematic review identified cross-curricular pedagogies as one aspect of
teachers’ practice that was facilitated or hindered by a range of issues. These were:

- The effectiveness of learning that is ‘context based’ (dealing with ideas and phenomena in real or simulated practical situations);
- The importance of connecting the curriculum with young people’s experiences of home and community and the related, but also distinctive theme of parental involvement in children’s learning in the home;
- The impact on pupil motivation and learning of structured dialogue in group work and of collaborative learning;
- The need to create opportunities to identify and build on pupils’ existing conceptual understandings;
- The need to remove rigidity in the approach to the curriculum – to allow time and space for conceptual development, to encourage integration of cross-curricular learning;
- The need for excellence and professional development in subject knowledge – without which teachers would be unable to seize opportunities for curriculum innovation, particularly in relation to context-based learning. (CIDREE 2009a)

Each of these issues is explored further in their review of individual studies (CUREE 2009b). The first point to note is that cross-curricular approaches proved to be effective when they were either ‘context based’ (i.e. centred around a particular theme/dimension) or connected the school-based curriculum with young people’s experiences more widely (e.g. in the home and the community). Secondly, the positive impact of this type of approach on pupils was noted in terms of their motivation, discursive language and potential to collaborate with each other. More negatively, the damaging lack of consideration to how this new approach would build on pupils’ existing ‘conceptual understanding’ was noted. Turning this
around, it will be important that new innovation in curriculum planning and development is constructively linked to pupils’ current range of experiences and understanding (their ‘folk pedagogy’ in Bruner’s terms (Bruner 1996)). Thirdly, and at the level of curriculum design, these types of approaches were facilitated by flexibility in curriculum design, by allowing ‘time and space’ for development. Finally, and perhaps most important for our ongoing discussion, the need for excellence in teachers’ subject knowledge is prioritised. The research suggests that this is a vital precursor for curriculum innovation.

Research Review 2: Evidence from the European context

The Consortium of Institutions for Development and Research in Education in Europe (CIDREE) produced an interesting European Union wide report into cross-curricular themes in education (CIDREE 2005). Although this report deals primarily with the introduction of cross-curricular themes (e.g. personal, social and health education, citizenship education, etc), it does identify a range of factors that influence the success or failure of a cross-curricular theme (either as a stand alone component within a curriculum or embedded within existing subjects). The research surveyed 27 countries through a range of methods. This research identified a range of key problems in the implementation of cross-curricular approaches.

Firstly, the most common pressure on the successful introduction of cross-curricular approaches to curriculum planning was due to the pressure on school timetables and the overloading of the curriculum itself. As we saw in Chapter 1, these are common problems in the recent history of educational reform in the United Kingdom. The report emphasises that the role of the teacher is paramount in the successful implementation of cross-curricular approaches. But:

Many teachers report a lack of self-confidence with respect to cross-curricular themes (Saunders et al 1995) or they feel
themselves ill prepared in addressing these themes (Van Looy, 2002; Arnot & Wilkins cited in Kerr, 1999; Kerr, 2000; Inspectie van het Onderwijs, 2001). This inadequacy relates to both the lack of content knowledge and to the inability to employ a range of teaching and learning approaches appropriate to the theme (Kerr, 2000). (CIDREE 2005, p.8)

In order to combat teachers’ lack of experience or competence with cross-curricular themes or approaches, the report emphasises that teacher development was reported as the ‘top priority’ for schools in improving their provision. But, this was not easy either:

However, even when teachers take part in in-service training relating to aspects of, for example personal, social and health education (PSHE), the impact of this training appears to be limited because teachers have insufficient time to put their training experiences into practice (OFSTED, 2001). (CIDREE 2005, p.9)

The report considers some of the reasons for these problems and identifies that, in contrast to traditional subjects, some of these themes lack academic traditions, research and development base’ (ibid). In terms of developing an appropriate pedagogy for cross-curricular teaching the report has some interesting comments from a range of European perspectives:

Research on the process evaluation of the introduction of cross-curricular themes shows that successful introduction requires the usage of active teaching methods which, according to many teachers, is difficult to realise (Stevens cited in Somers, 2001). … Furthermore, it seems that teachers often insist on the dominance of subject principles in structuring pupils’ learning. This makes teaching the themes through including them in subjects very difficult. (CIDREE 2005, p.9)

As a specific example of this, the report identifies an issue
related to language:

Particularly, the rules of use of ‘talk’ in different contexts seem to be one of the key problems (Whitty et al 1994a). Buck & Inman (1993) advocate a form of learning which enables pupils to acquire knowledge through content which is both challenging and relevant and through learning processes which are active and experiential. (CIDREE 2005, p.9)

The extent to which teachers are able to co-operate and collaborate within a school was another important factor in stimulating cross-curricular activities:

There is a lot of evidence that co-operation between teachers and the involvement of all teachers of the same school are important conditions for successfully implementing cross-curricular themes (Van Looy 2002; Estyn 2002). However, this consultative structure is not always present in secondary schools (Inspectie van het Onderwijs 2001) or there is a lack of communication culture (Somers, 2001). Furthermore, members of the school community who are asked to coordinate cross-curricular work in schools, often find it difficult to motivate colleagues and do not have the same influence on their colleagues as school directors usually have (Somers, 2001). (CIDREE 2005, p.10)

The nature and structure of educational resources were next to come under scrutiny. Here, the report criticises resources for a lack of advice about managing collaborative projects and a lack of coherence in the structure and approach:

Hargreaves (1991) states that the task to create coherence within the cross-curricular themes is being largely left to the teachers. This can be explained by the fact that some guidance documents provide insufficient advice as to how teachers might make these links. Moreover, guidance documents seem sometimes to intensify the difficulties since there is no coherence of approach across the different themes (Beck,
Here, the importance of an appropriate assessment methodology is raised:

Students feel that if an aspect of learning is not assessed, it implies that it is of low importance and low relevance to their lives (Walker, 2002). The pre-survey report for European Conference on the implementation of cross-curricular themes reveals that five countries mention the lack of evaluation as an aspect that undermines the status of the themes (Maes, et al. 2001). … The findings of this report clearly point to the importance of having identifiable evaluation systems to provide appropriate recognition and realization rules for work relating to cross-curricular themes. (CIDREE 2005, p.10)

More briefly, the report is able to identify some positive features for the implementation of a cross-curricular approach. These are that cross-curricular approaches should:

- Demand that pupils pull together appropriate knowledge from a range of subjects and relate it to everyday life;
- Be characterised by an objective and open-minded approach to controversial issues with attention for the quality and quantity of evidence;
- Use concepts as the intellectual building blocks and as essential aids to the categorisation, organisation and analysis of knowledge and experiences;
- Use participatory and experiential teaching and learning styles;
- Deal explicitly with questions and issues that enable pupils to explore fundamental aspects of our lives.

In relation to how schools can be managed effectively to achieve these aims, the report concludes by stating that they are characterised by:

- Having a vision and goals which are well described and with which all participants are familiar with it;
Aiming at both cognitive and personal and social development of their pupils;
Making decisions in a participative way;
Possessing a strong ability to self-assess and innovate.